

PATIO DOORS INSTALLATION GUIDE

These instructions cover general installation conditions. Improper installation could affect your doors' operation and warranty. Deviations from these instructions should be worked out prior to installation with a building professional.

Check local building codes for recommended installation instructions for locations and conditions that are not typical.

General Notes

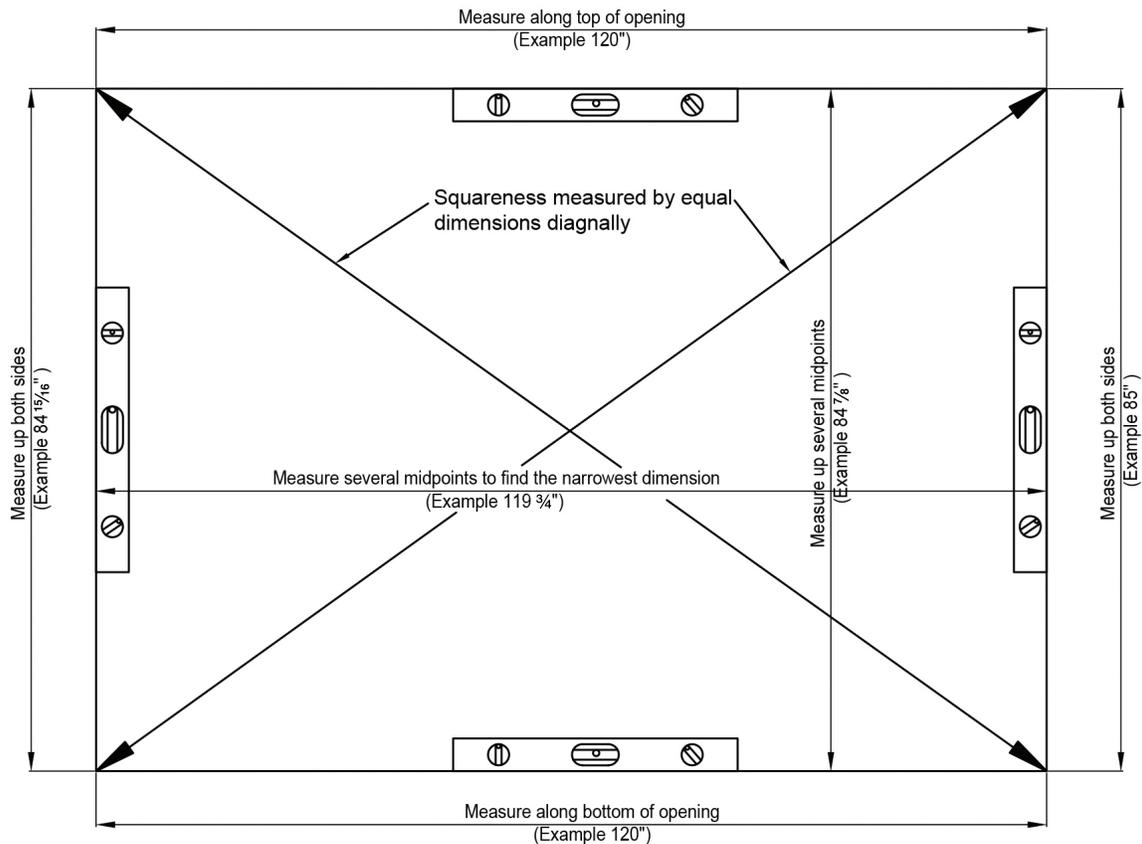
1. Check contract documents and shop drawings. Understand and clarify any field verify notes and approvals of drawings and products to be familiar with the project. Installation instructions are intended to be a reasonable guideline for installation of the product as based on testing and common conditions. Conditions on a project may vary, and deviations or special instructions should be defined in the shop drawings. Shop drawings should take precedence and define project-specific product installation.
2. All materials need to be inventoried to be certain everything required for installation is accounted for.
3. Materials need to be installed plumb, level, and true.
4. Work from project-defined bench marks like center column lines, finished floors, or mullion spacing as defined by the architectural drawings and/or the general contractor.
5. All sealants need to be compatible with all materials. The glazing contractor and/or general contractor are responsible for supplying sealants and submitting any sealant compatibility and performance documentation.
6. Isolation of dissimilar materials like aluminum and uncured concrete should be prepared for. Use a heavy bituminous paint or zinc chromate coating or approved equal to isolate incompatible materials.
7. Protection and cleaning of materials are the responsibility of the glazing and general contractors. (Reference AAMA documentation, for care and maintenance.)
8. Measure the width of the opening at the top, middle, and bottom of the opening and use the architect, contractor, and customer for the door products used on the project. Boyd Aluminum is only a material supplier.
9. Boyd Aluminum is the material supplier of the door and window product as defined in the drawings and contract documents. Only fasteners and accessories within the system are supplied. Sealants and fastener locations to the surrounding conditions should be defined on the shop drawings and are normally the responsibility of the glazing contractor.
10. Due to changing product parameters and evolving product lines, Boyd Aluminum reserves the right to change detailing and documentation without notification.

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Step 1. Measure the opening (see *Figure A*).

- Measure the width of the opening at the top, middle, and bottom of the opening and use the smallest length measured to calculate your frame width.
- Then, measure the height of the opening along several places on the length of the opening and use the smallest height to calculate your frame height.
- Make sure to allow extra clearance for shimming and sealant for building tolerances and movement per project requirements.

Figure A



NOTE: Frame size will be $\frac{1}{2}$ " smaller than the smallest dimension both horizontal and vertical. For proper operation and weeping, doors must be installed plumb, level, and square.

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Step 2. Assemble knocked down (KD) frame (see *Figure B*).

- Layout the frame and clean it for sealant application. Sealant is critical, and it must be tooled to ensure no pinholes or openings.
- Butter the frame edges with sealant.
- Fasten horizontals to verticals with #10 × 1¼ PHL PH SMS. It is helpful to use wax on the screws to assist with screw installation. Don't torque screws too tight and risk snapping them off.
- Seal the exterior corners of frame (see *Figure C*).
- Seal the interior frame and aesthetically clean it. Seal all openings.

Figure B

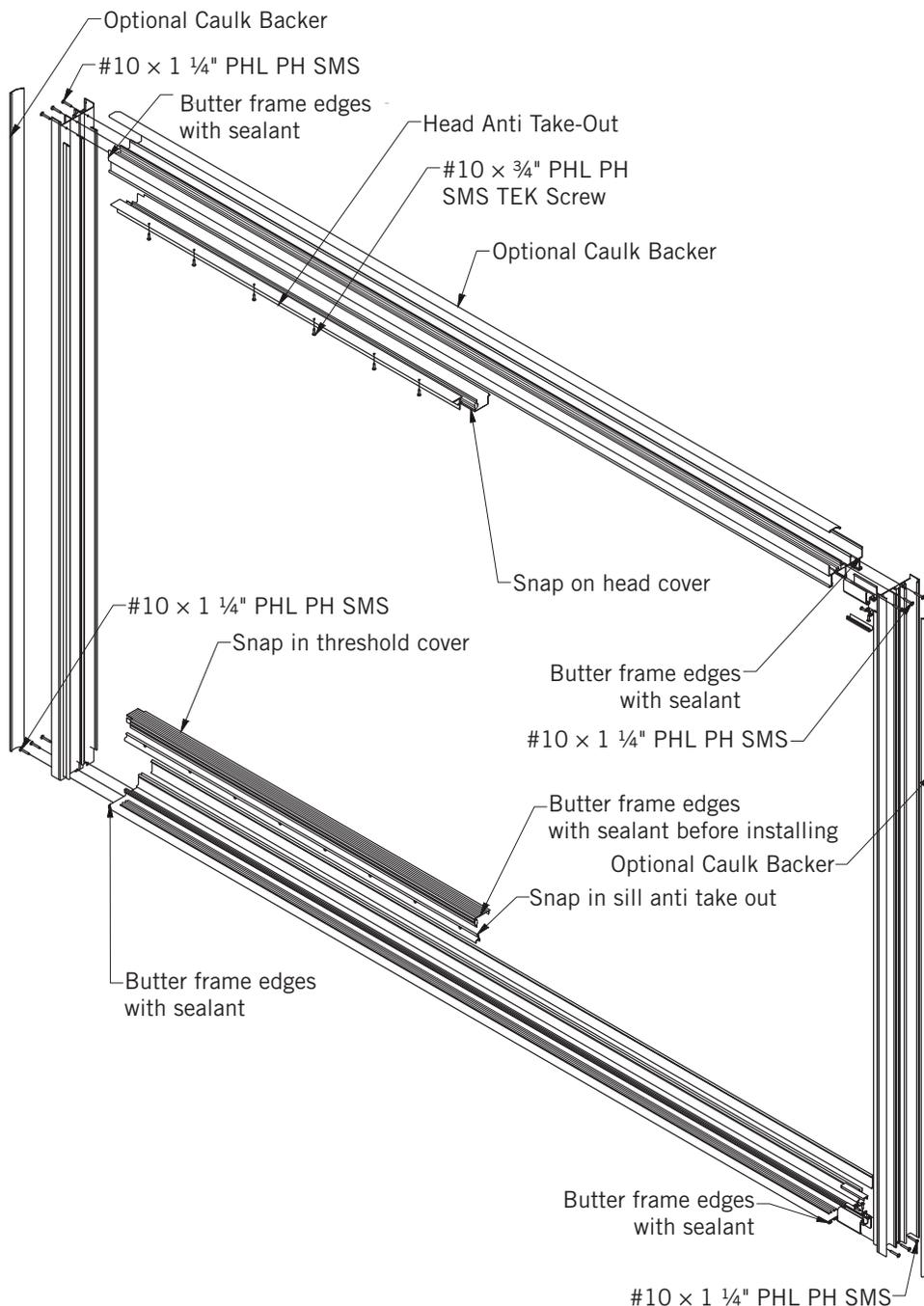
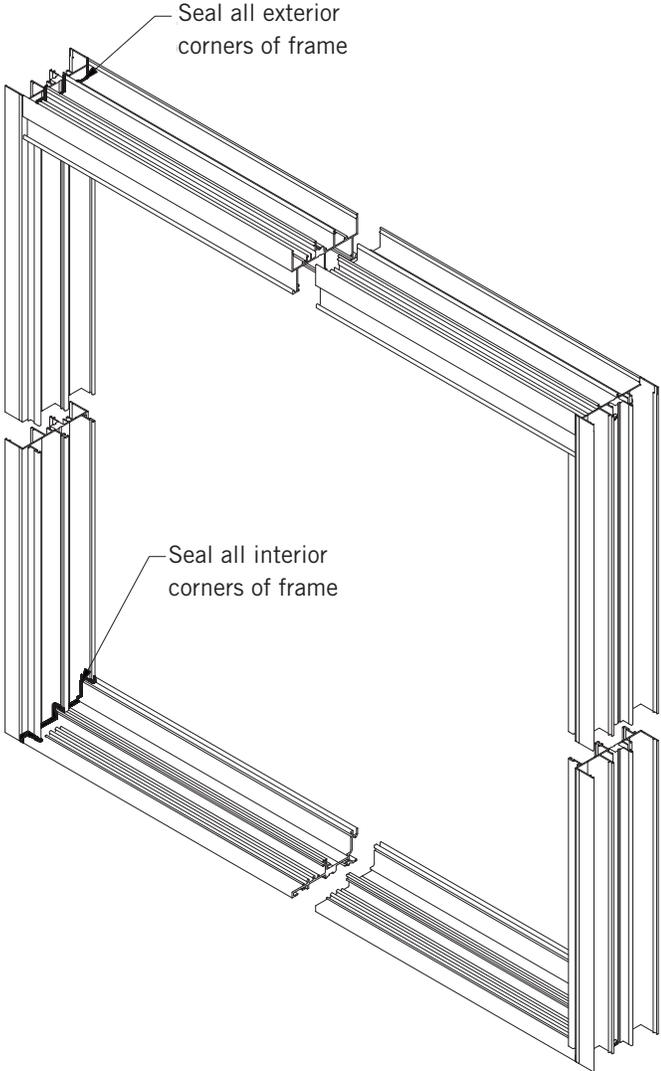


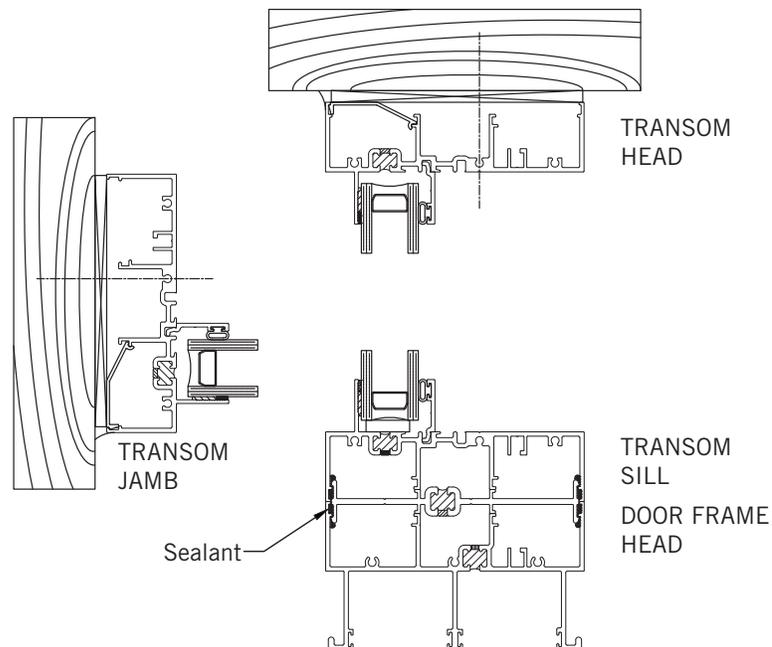
Figure C



Step 3. Installation of transom (when transom is used) (see *Figure D*).

- Include prior frame installation, step 2.
- Apply sealant to the interior of the door frame track as shown, inside and out.
- Insert frame connecting “I”-shaped mullion as shown in *Figure D*.
- Apply sealant to the transom adjacent track and stack it onto the door frame.
- Sealant should ooze out of the joint. Tool and wipe clean.
- Use wood blocking to protect the frames and tracks while holding the frame sections together with “C” clamps while erecting the frame (see *Figure D*).
- Fasten through the frame as shown.

Figure D



Step 4. Erect the frame (see *Figure F*).

- Shim the frame into the opening, ensuring the jambs are level and the sill is plumb and level. Shim the sill at anchor locations and where needed to ensure a level and solid sill. Next, finish shimming the jambs at anchor locations. After the jambs are secure, measure and check the level to make sure the center of the frame is the same height as the jambs. Be careful when anchoring the head that you do not pull the head up out of level, and shim if necessary.
- Frame anchor locations will be similar to *Figure E*.
- Install the anchor cover.
- Seal the perimeter of the frame to the opening.

Figure E

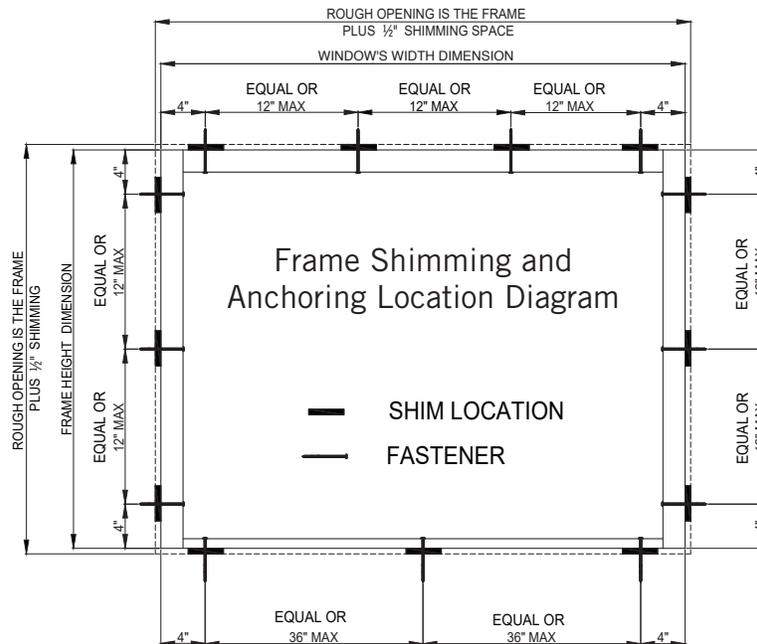
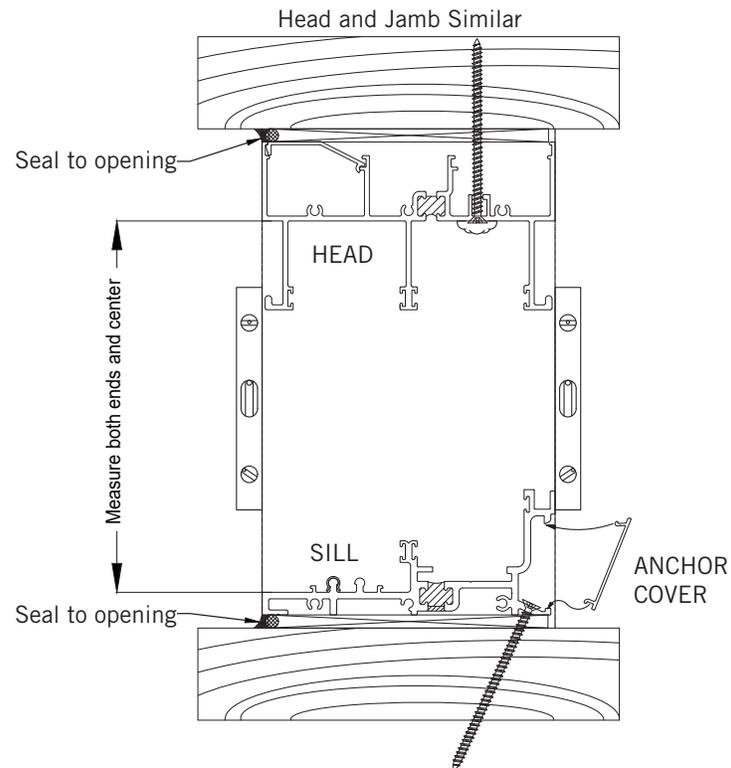


Figure F

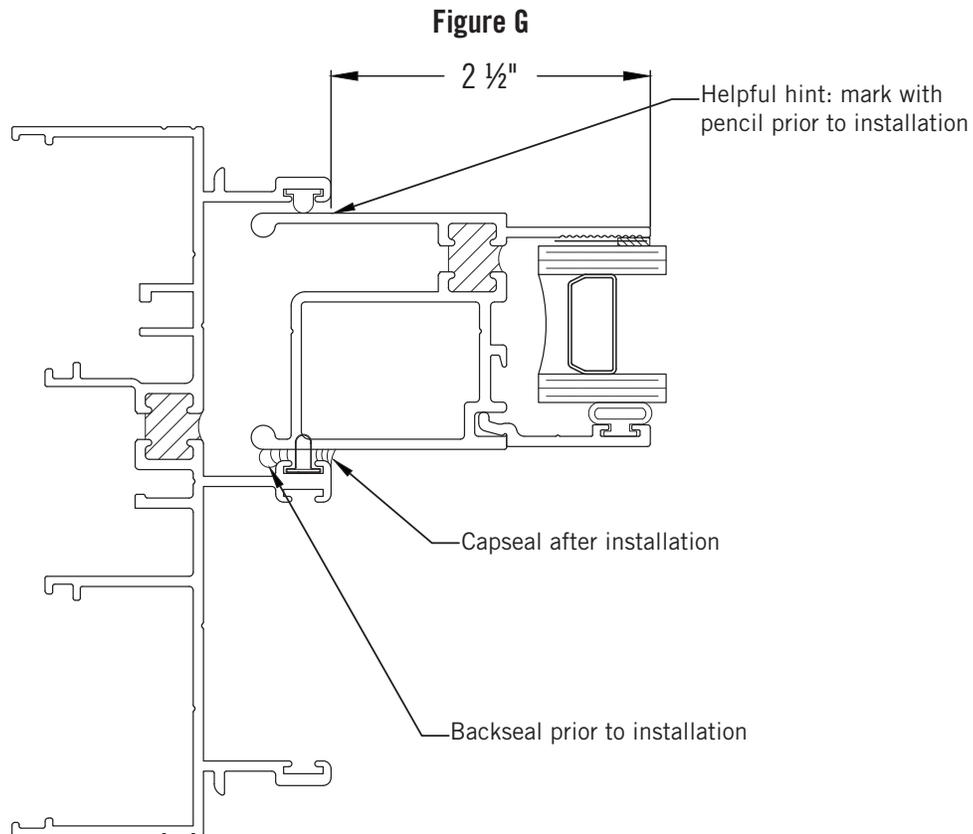


Note:

Engineering or code department decisions on spacing will supersede these spacings and may be needed for tall buildings or high wind load locations.

Step 5. Fixed panel installation:

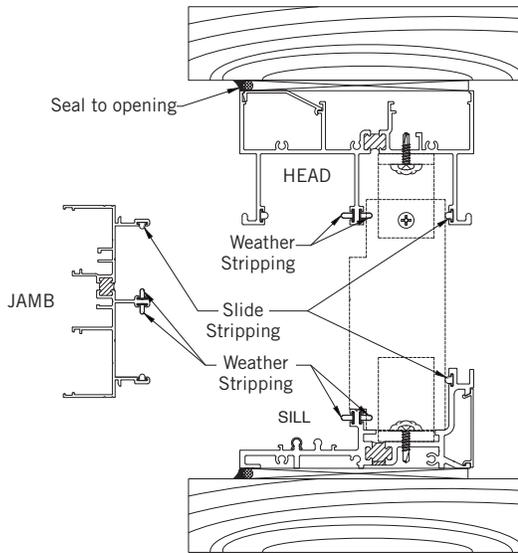
- Check the panels to make sure they are clean and that none of the seals show signs of damage from shipping. Repair any damages and broken seals.
- Mark a 2½" reveal from the jamb track on the track of the head and the sill. This is the location of where to install the fixed panel (see *Figure G*).
- Find the L2" × 2" × ¼" fixed panel anchors and the #10 × ¾" PHL PH TEK fasteners.



Step 6. Setting the fixed panel (sealant is critical when setting this panel):

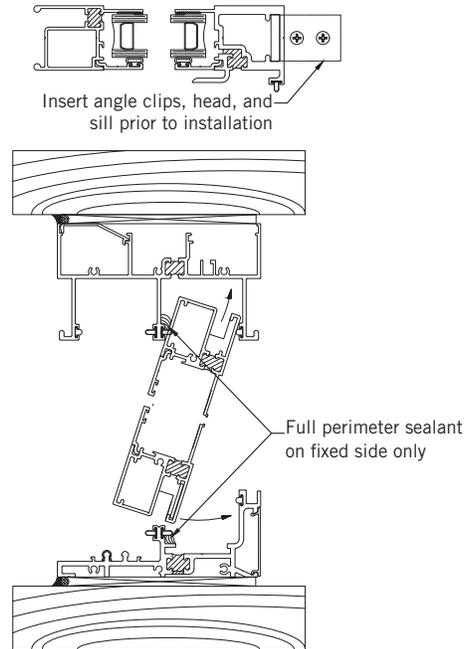
- Check the frame's weather stripping, it should only be located where the fixed panel will set (see *Figure H*).
- Be careful when sliding fixed panel into place (see *Figure I*).
- A critical seal is located at the meeting rail base and head (see *Figure J*).

Figure H



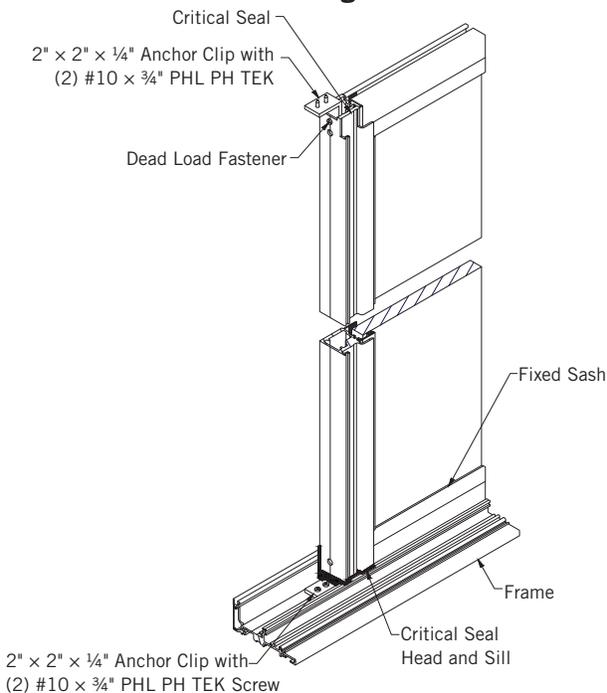
FRAME WEATHER STRIPPING
@ FIXED PANEL SIDE

Figure I



Install and backseal fixed

Figure J

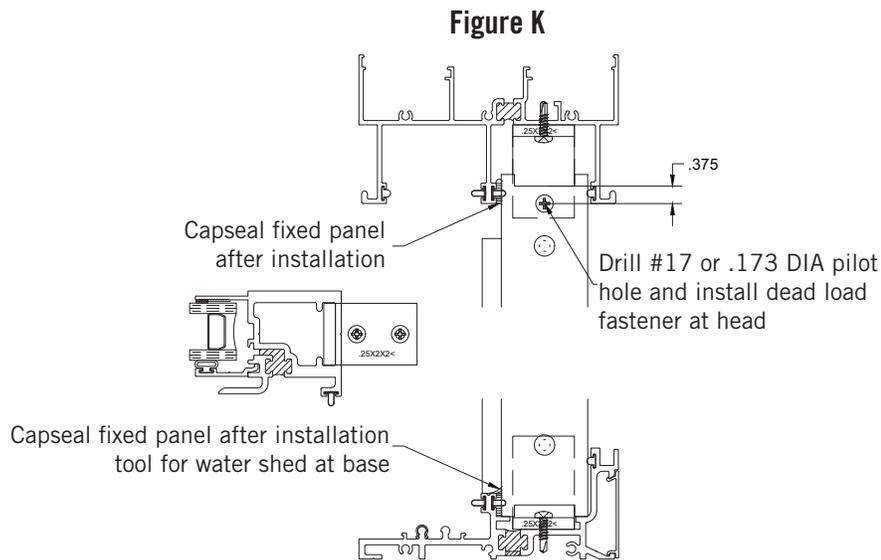


Step 7. Screw down the sill clip at the fixed panel, maintaining the 2½" reveal (see *Figures K & L*).

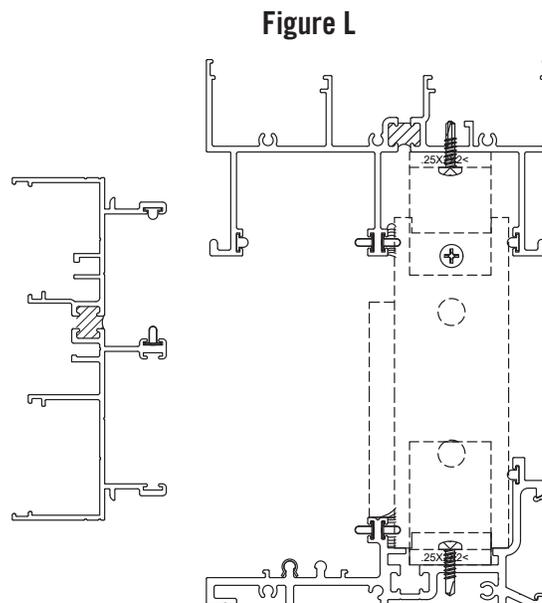
Step 8. Screw the clip to the frame at the head, maintaining the 2½" reveal (see *Figures K & L*).

- The top clip has a dead-load fastener, and is different from the sill clip.
- Measure the jamb opening match center of the door opening dimension and run the dead-load fastener screw into the meeting rail to plum the center opening dimension. It may be necessary to remove shims and re-shim the head.

Step 9. Cap seal the fixed panel:



Install panel clips and capseal perimeter of fixed panel



Step 10. Install the “X” (operable panel) head cover:

- Check the weather stripping at the head. None should be in the way at the interior head track (see *Figure M*).
- Back seal the center track across the head and down the panel and jamb about 1³/₈" down (see *Figure M*).
- Butter the ends and the sealant track on the head cover and snap into place (see *Figure M*).
- The ends are critical sealant areas. Marry the weather stripping ends with silicone sealant.
- Aesthetically clean excess sealant, as not to break any seals, and smooth any joints.

Figure M

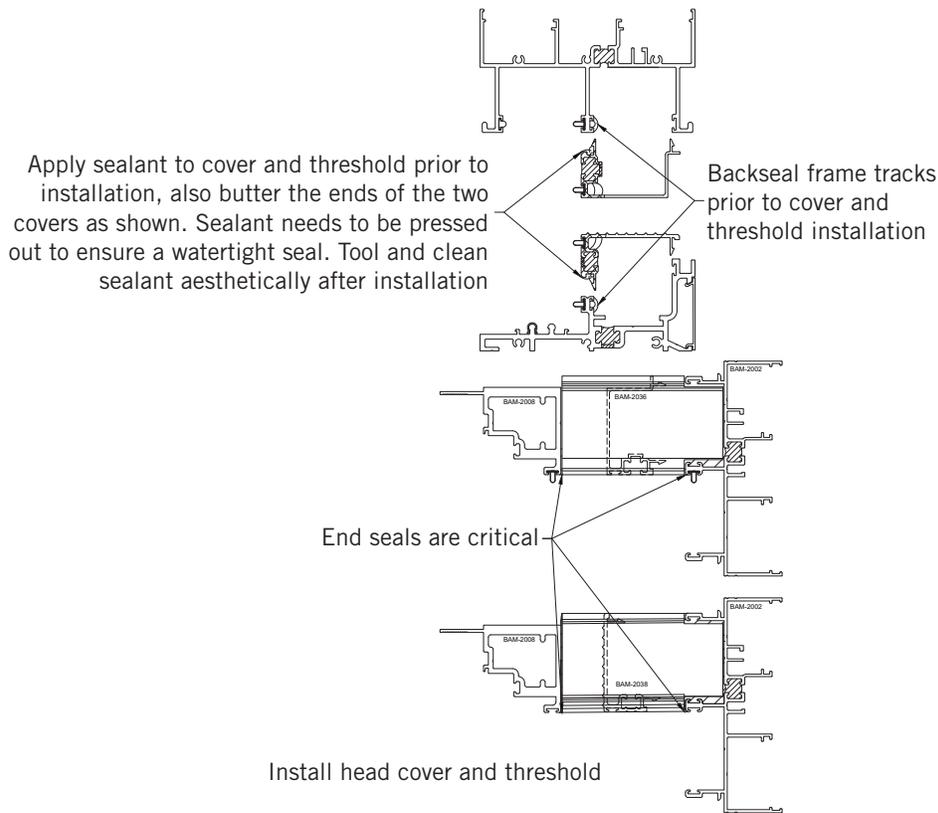
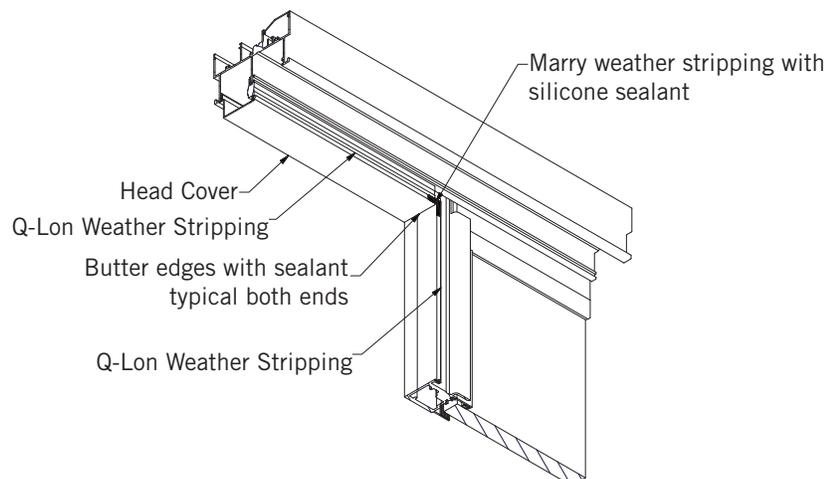


Figure N



Step 11. Install the "X" (operable panel) threshold:

- Check the weather stripping on the interior side sill track. None should be in the way (see *Figure K*).
- Back seal the center track across the panel and the jamb about $1\frac{5}{8}$ " up (see *Figure M*).
- Butter the ends and the sealant track on the threshold cover and snap into place (see *Figures O & P*).
- Aesthetically clean excess sealant, as not to break any seals, and smooth any joints.

Figure O

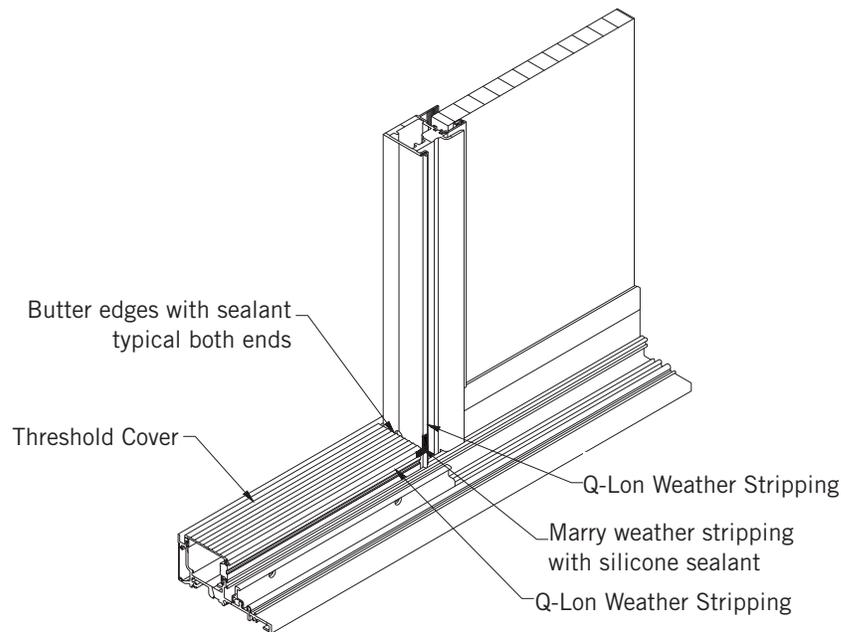
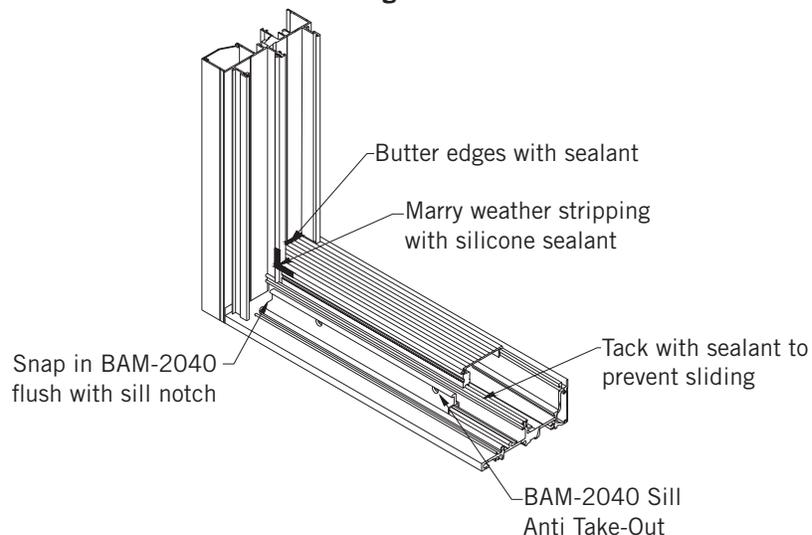


Figure P



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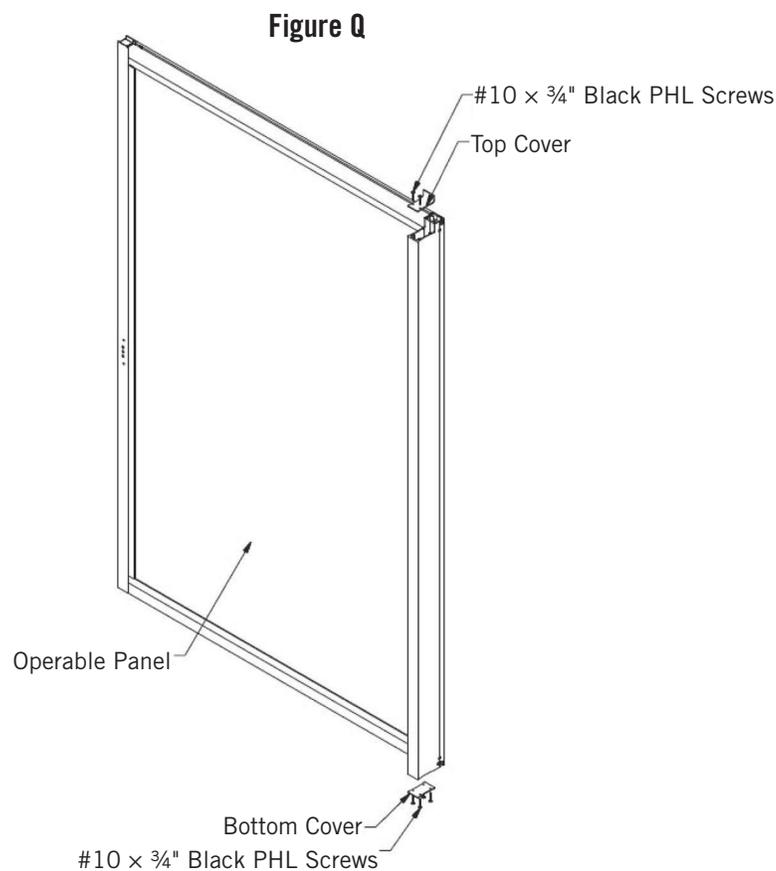
Step 12. Check the sealants and inspect to insure the frame and fixed panel are sealed tight.

- The fixed panel sealant, interior track cover, and threshold sealant are critical.
- Protect and allow sealant in the frame to skim over and cure prior the exterior sash installation.

Step 13. Install the "X" (Operable panel).

- Snap the BAM-2040 sill dam into position by placing the track notch at the jamb (see *Figure P*). You may find it helpful to tack with sealant to prevent sliding.

Step 14. Install the interlock covers on the operable panel (see *Figure Q*).



Step 15. Install the operable panel (see *Figure R*).

- Adjust the rollers just high enough to operate freely through the clear adjustment holes at each end (see *Figure S*).

Figure R

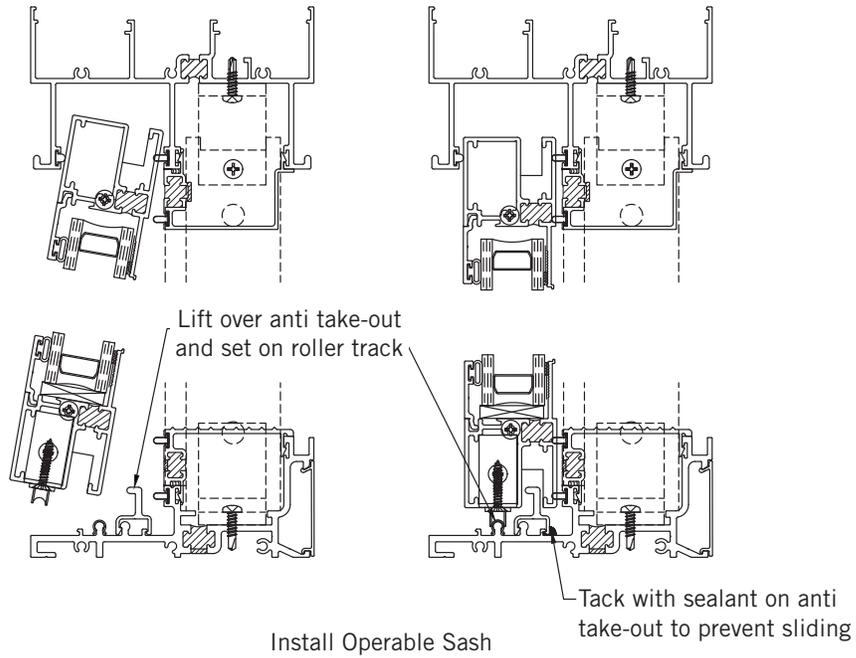
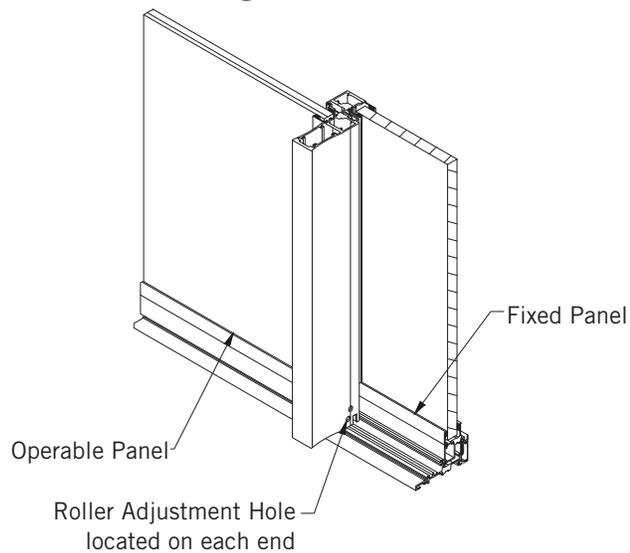


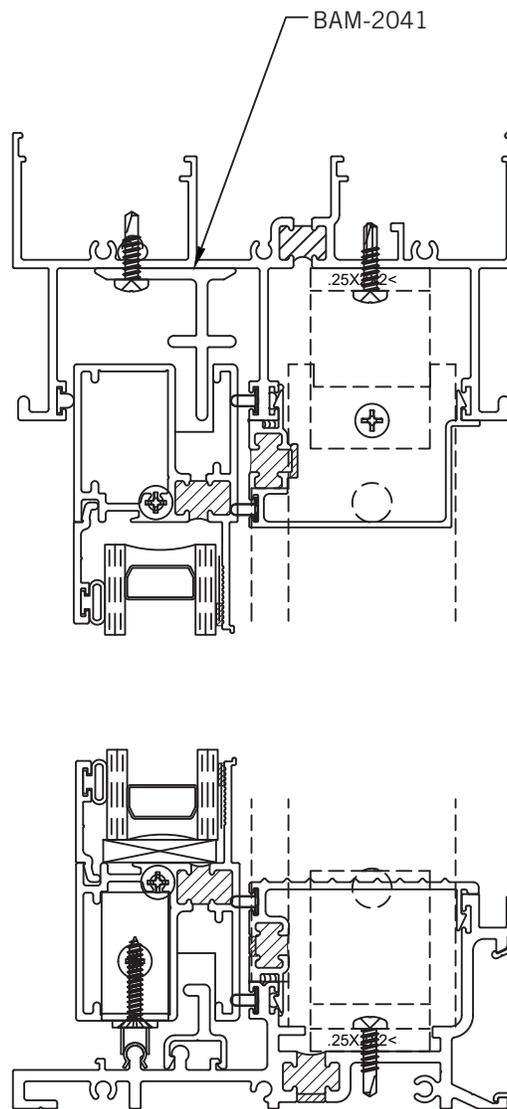
Figure S



Step 16. Install the anti-takeout stop at the head.

- Slide the operable panel to the extreme on the fixed side. Caution: No stops are installed yet.
- Button the BAM-2041 stop up into the head, placing it to where the end does not pass the fixed light glazing leg. Tack it in place with one or two fasteners (see *Figure T*).
- Operate to confirm operation and check to see that the end is just inside the meeting rail interlocker. If you have problems buttoning it in, it may be trimmed slightly.

Figure T



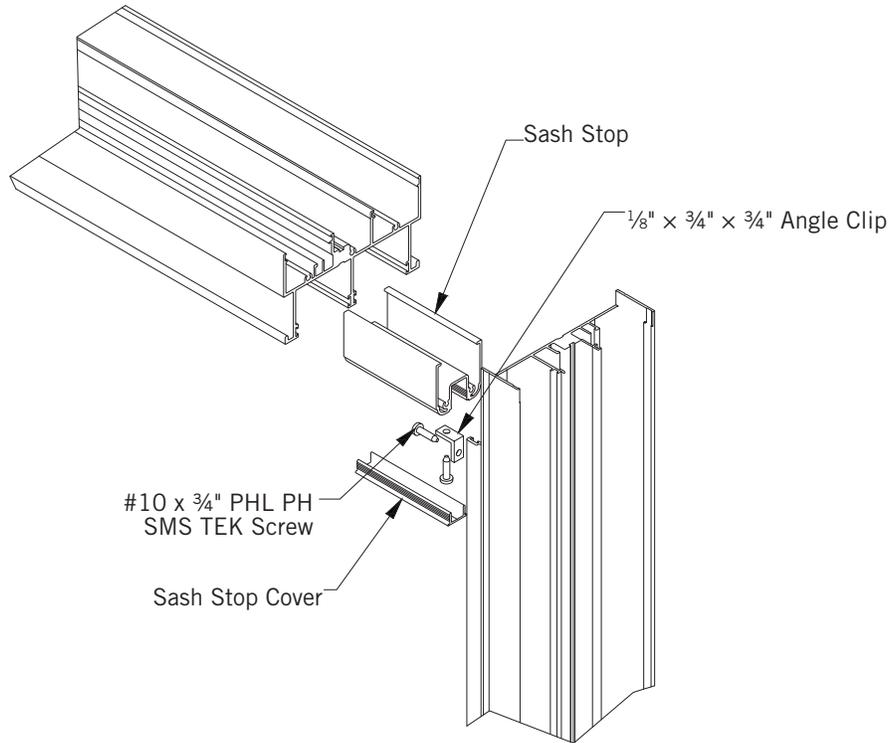
Install BAM-2041 Anti Take-Out Clip

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Step 17. Install stops: Screw and seal to the jambs. Snap cover on the head and sill (see *Figure U*).

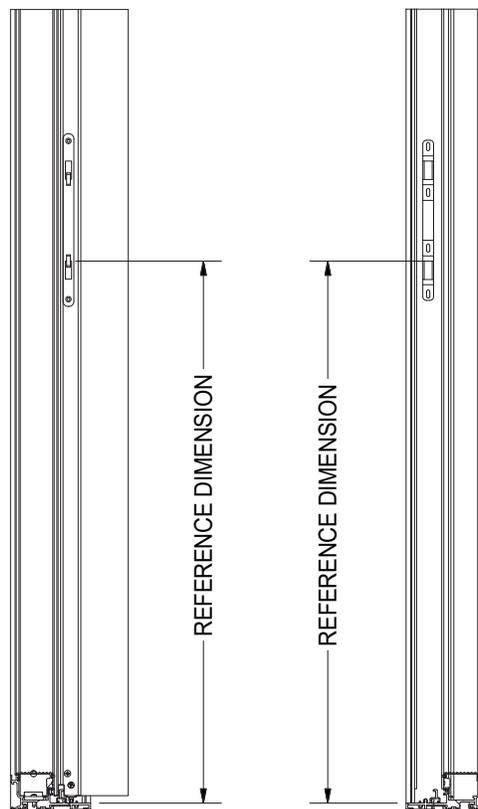
Figure U



Step 18. Install hardware:

- The sash is prepared for hardware from the factory.
- Install per hardware installation instructions.
- Adjust the sash completely before keeper installation. Measure from the sill to the hardware hook (see *Figure V*).
- Install the keeper per the hardware instructions.
- Maintain, clean, and lube the weather stripping with a tire lube or aluma lube to be sure it slides properly.
- Align the tips of the keeper vertically. Measure from the sill to the top of the notch of the lower hook location on the lock. Use this measurement to the top of the mating cut out notch in the keeper (see *Figure V*).
- Adjust the keeper as necessary.

Figure V



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Step 19. Install screen:

- Fasten the screen stop adaptor – (BAM-2023) and snap stop cover – (BAM-2023) to the jamb on the operable side (see *Figure W*).
- Load the screen panel by lifting it over the sill and hanging it on the head roller track (see *Figure X*).
- Attach the anti take-out clip – (BAM-2028) under the roller (see *Figure Y*).
- Fasten the keeper and align it as shown in *Figure Z*.

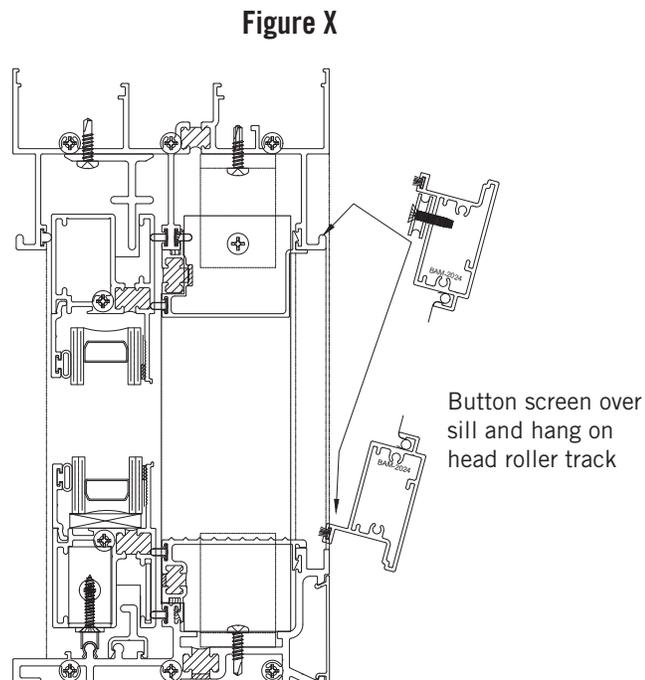
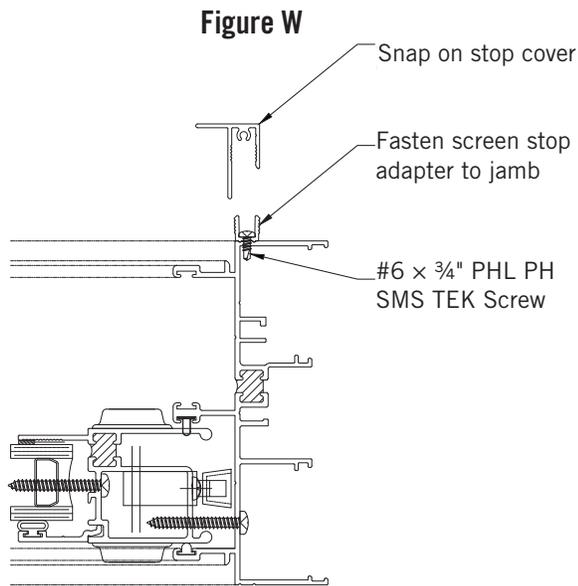


Figure Y

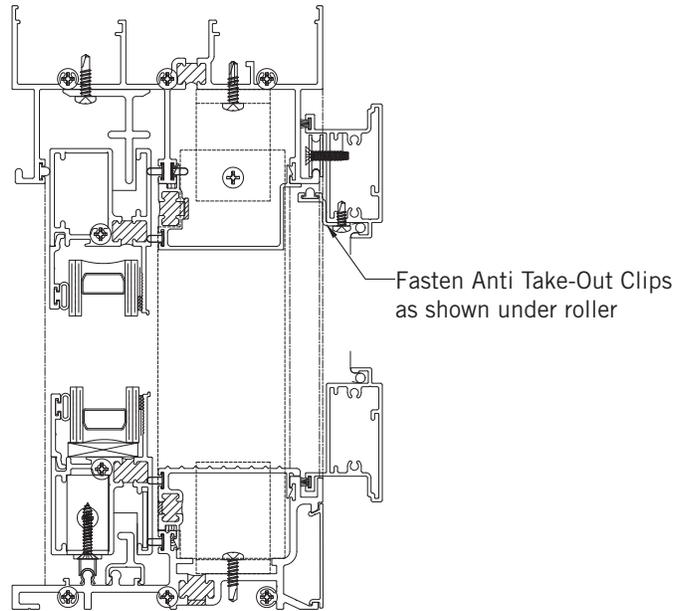
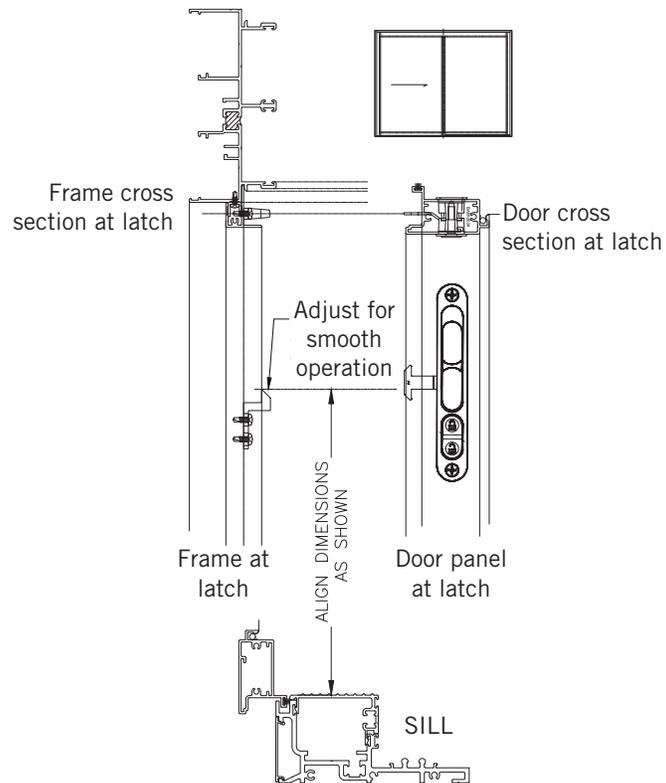


Figure Z



Windows, Patio Doors, Storefront Doors,
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