



Loewen

47 SERIES MULTI-SLIDE DOOR INSTALLATION GUIDE

IMPORTANT NOTICES & INFORMATION

The building envelope must be correctly prepared with weather resistant barriers – that meet local and state codes. All frame and sill surfaces must be correctly prepared for air, water, and structural integrity by the builder or contractor before attempting installation. In order to meet warranty requirements, all systems are required to be installed by a certified installer.

- Read these instructions in their entirety prior to installing windows. Contact Loewen at 1.800.563.9367 for clarification.
- Loewen is not responsible for site measurements nor the structural and architectural requirements for the installation.
- Building design, construction methods, building materials and site conditions unique to your project may require methods different from these instructions.
- Choosing the appropriate method is the responsibility of you, your architect, or your construction professional.
- Confirm with sealant/foam/barrier manufacturers that all materials used are compatible with one another.
- Remove shipping blocks and related staples prior to installation.
- All drawings are shown not to scale.
- To ensure accuracy, make sure you have the latest approved shop drawings and assembly and installation guides.
- Any local, regional or national building code requirements supersede these instructions.
- Safety is top priority for Loewen. Use proper work procedures and protective equipment.

Notes on Building Envelopes

Improper design and/or non-conforming application of building envelope materials has been demonstrated to cause premature building envelope failure. Even with premium materials, shortcuts and errors in the final installation can impact budgets, time frames, building life span, and increase legal liabilities.

As one of the elements that bisect the interior/exterior plane, window and door integrations are a critical element of the building envelope as a whole. Poor installations can carry significant liability, due to building envelope failure.

Finishing Requirements

Metal Clad:

- Interior - within 14 days of delivery.
- All door panels - Interior - immediately upon delivery.

Non-clad:

- Exterior - immediately upon delivery.
- Interior - within 14 days of delivery.
- All door panels - Interior and Exterior - immediately upon delivery.

Factory primed:

- Exterior - within 14 days of delivery.
- Interior - within 14 days of delivery.
- All door panels - Interior and Exterior - immediately upon delivery.

See Loewen warranty and finishing guidelines at www.loewen.com

WEATHER PLANE OF WINDOW AND DOOR PRODUCTS

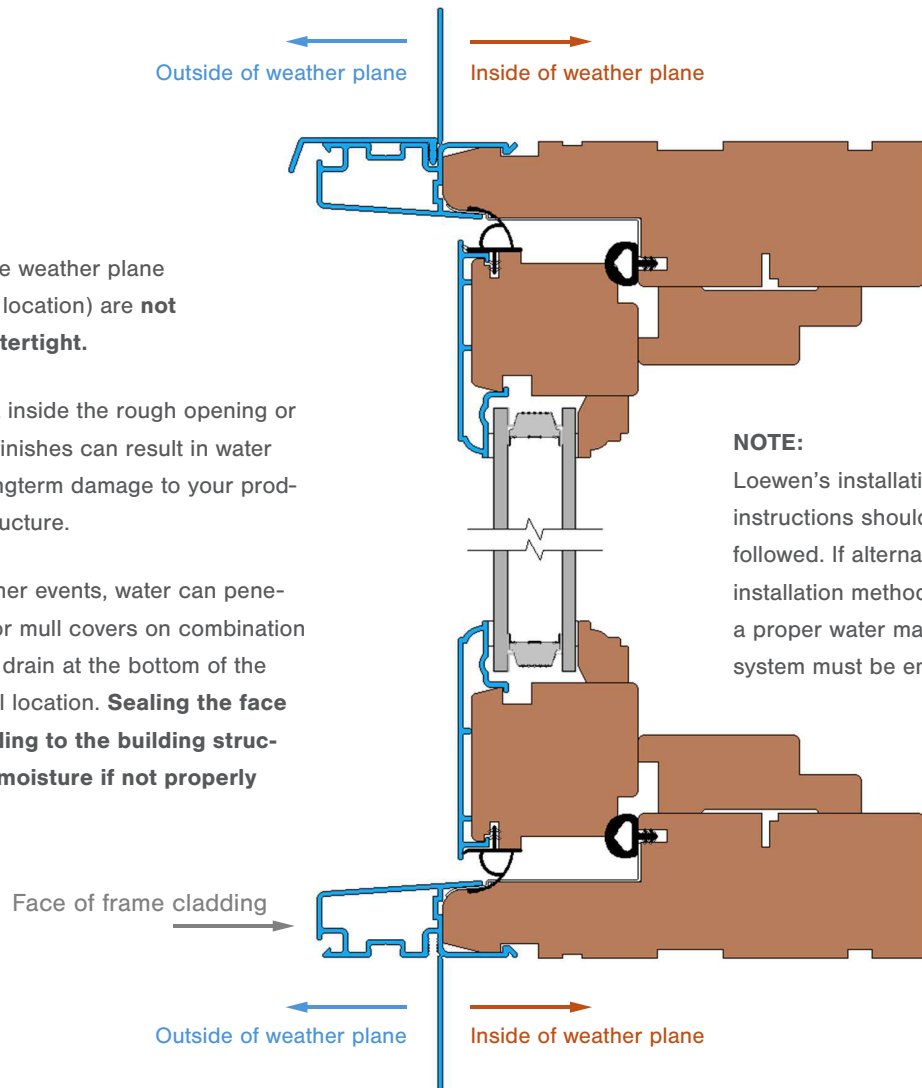
Fixed casement shown – detail common to all flanged products

CAUTION:

Areas outside of the weather plane (outside the flange location) are **not intended to be watertight**.

Capturing this area inside the rough opening or within the exterior finishes can result in water penetration and longterm damage to your products or building structure.

During heavy weather events, water can penetrate behind exterior mull covers on combination units and needs to drain at the bottom of the frame-to-frame mull location. **Sealing the face of the frame cladding to the building structure will trap this moisture if not properly managed.**



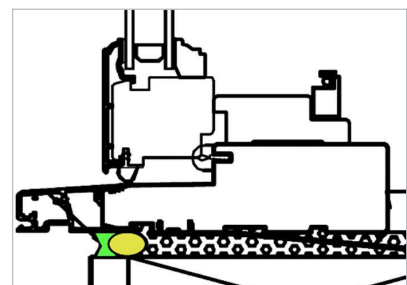
NOTE:

Loewen's installation instructions should be followed. If alternate installation methods are used, a proper water management system must be employed.

NOTE:

For products being installed **without a flange**, using backer rod with sealant applied in the same position as the removed flange is required to maintain the integrity of the weather plane.

Loewen's installation instructions include details to manage incidental moisture within the rough opening. If using an alternate installation method, provisions for managing incidental moisture must be made.



47 SERIES MULTI-SLIDE DOOR FRAME ASSEMBLY & INSTALLATION INSTRUCTIONS

Supplemental Installation Instructions

These instructions contain important installation, finishing and homeowner information. Please keep them with the door until the homeowner removes them.

Loewen recommends reviewing the entire instruction and familiarize yourself with this procedure prior to installation. This supplement demonstrates how to prepare the Rough Opening, assemble the MS Frames and install the full product. Including the required structural Anchor Screws at the Sill, Head and Jambs.

Important: Always practice safety! Wear the appropriate eye, ear and hand protection, especially when working with power tools.

Tools Required

- #2 & #3 Roberston Bit
- GRK 'Topstar' Crown Bit



Catalogue

Section 1: Rough Opening Preparation

Section 2: Frame Assembly

Section 3: Frame Installation

Section 4: Anchor Screw Installation

- 4.1 - Sill Anchor Installation
- 4.2 - Jamb Anchor Installation
- 4.3 - Head Anchor Installation

Section 5: Panel Installation

- 5.1 - Roller Adjustment
- 5.2 - Structural Rail Installation

Section 6: Frame Cover Installation

- 6.1 - Head Cover installation
- 6.2 - Exterior Jamb Cover installation
- 6.3 - Interior Jamb Cover installation

Section 7: Complete Frame Installation

ROUGH OPENING PREPARATION

Items required from the Installation Kit



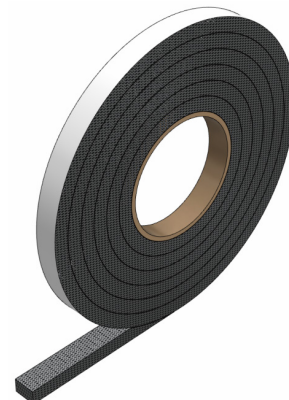
Drainage Shim (1-3 Tracks)



Drainage Shim Extensions (4 + Tracks)



Reticulated Foam Tape (Exterior R.O.)



Foam Tape (Interior R.O.)

Sill Pan

- Install Sill Pan in Rough Opening, either flexible or rigid. (Fig 1.)
- Ensure panning extends upward at least 6" on the Jambs, $\frac{1}{2}$ " above the unfinished floor on the interior and downward 2" on the exterior.
- Ensure all joints in the panning system are sealed with a sealant that is chemically compatible with the panning material.

 Ensure the pan surface does not slope toward the interior of the opening

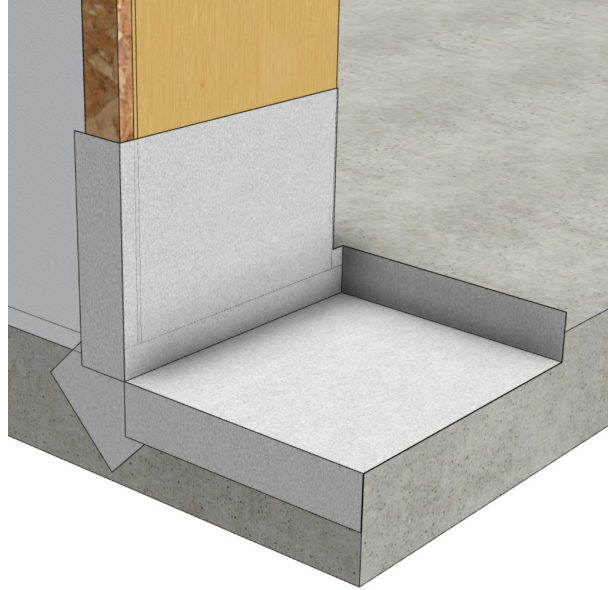


Fig 1

- Adhere the solid foam tape from the Installation Kit to the bottom of the sill pan, place it against the interior vertical lip of the sill pan. Run the tape across the entire length of the R.O. ensuring it is tucked tightly into the corners. (Fig 2.)

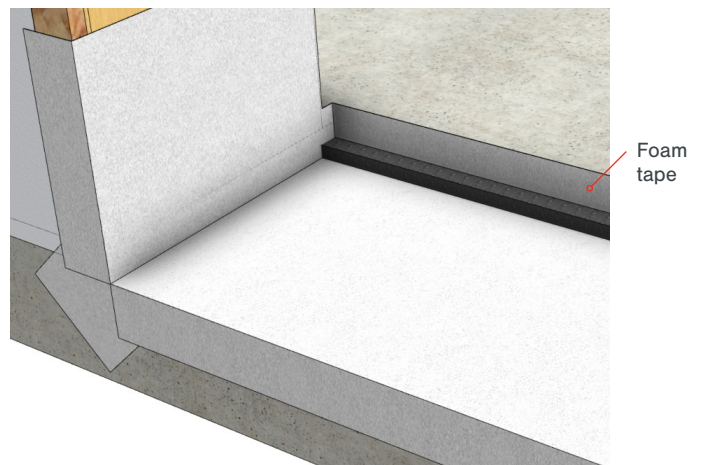


Fig 2

Drainage Shims

- Place the Sill Assembly on the floor just inside the Rough Opening. Center the sill laterally in the R.O. with an approximate gap of 1/2" between the edge of the R.O. and the ends of the Sill. (Fig 3.)

⚠ If the gap at either side of the sill is larger than 1/2" the R.O. may need to be adjusted to ensure adequate wood embedment for the flange fasteners.



Fig 3

- Place the Drainage Shims provided in the Installation Kit, onto the sill pan against the foam tape at the back of the rough opening. (Fig 4 & 5)
- Place one shim at each end of the R.O. inset 1/2" from the edge. (Fig 4.)
- Place additional shims at each transverse drain location as shown in Fig 5.

⚠ Ensure that the drainage shim is oriented and aligns with the transverse drain as shown in Fig 5. The transverse drain should be draining onto the sloped portion of the drainage shims.

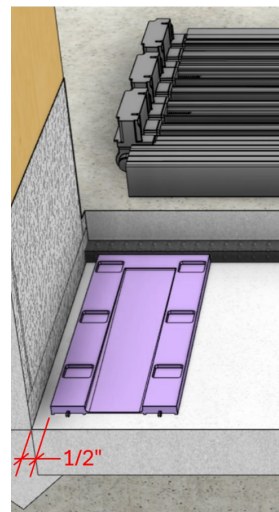


Fig 4

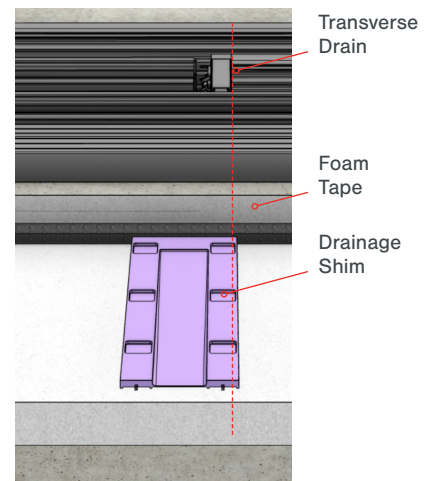


Fig 5

- At this point, your rough opening should have one shim at each end and one shim at each transverse drain, see Figure 6 for an example of an XXO sill configuration.



Fig 6

- Fasten the shims into the rough opening to ensure they stay in place throughout the installation process.
- Drill pilot holes through two of the recessed pockets in the shims and into the rough opening (fig 7). Try to place the screws towards the sides of the shims while ensuring the screw heads fit fully into the recessed pockets.
- Inject sealant into the drilled hole.
- Fasten the shims using concrete screws with a min length of 1 1/4", (fig 8). Use a 1 1/4" wood screw for subfloor installations.

NOTE: These are non-structural screws, type and size are not critical beyond holding the shims in place for installation.

- Inject sealant into the holes prior to the installation of the fasteners (Fig. 9 & 10).
- With the two outer shims and the Transverse Drain shims fastened into the R.O. place the remaining shims between those already fastened down. Spacing between all shims should be no more than 12" on center.
- Ensure that the shims are butted against the foam tape and repeat the drilling and fastening procedures from the last few steps for all the shims.

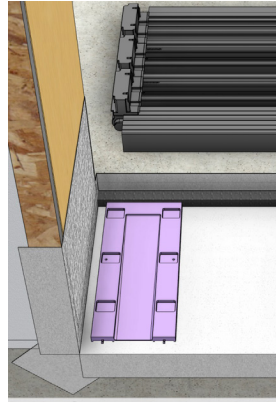
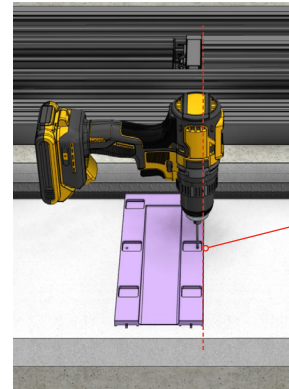


Fig 7



Drill in line with the Transverse Drain.

Fig 8

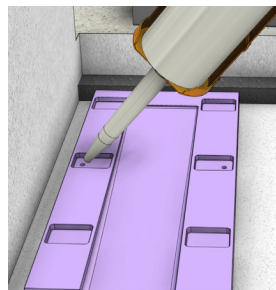


Fig 9

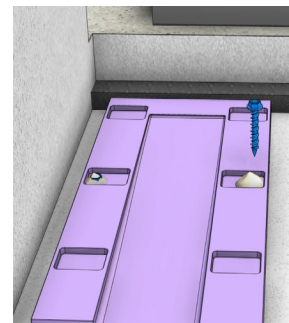


Fig 10

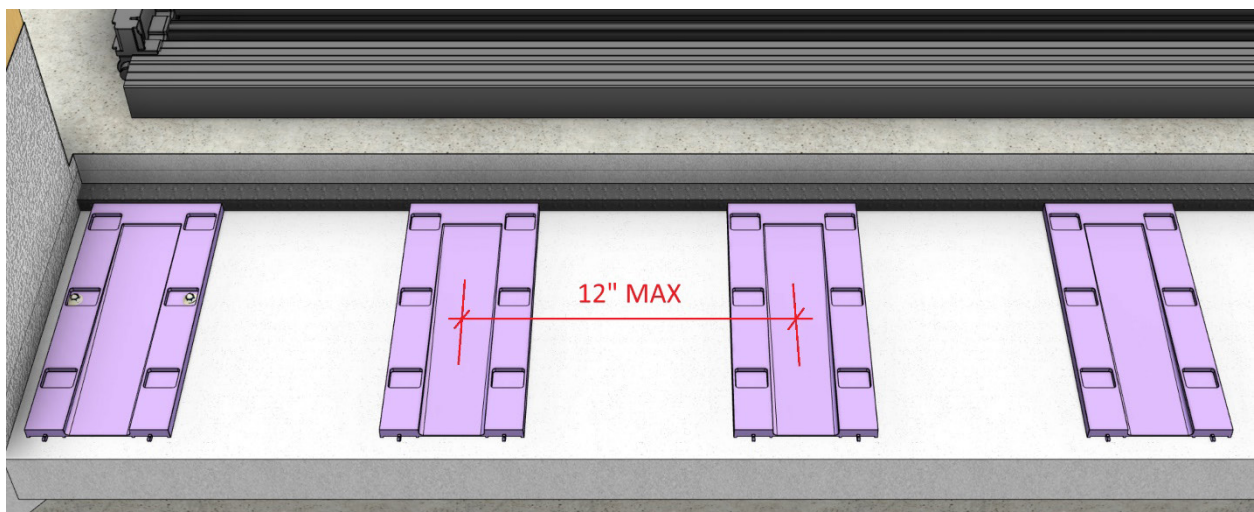


Fig 11

- With all the shims fastened down, install the reticulated foam directly in front of the shims.
- Run the reticulated foam tape across the entire length of the rough opening, ensuring they are both tucked firmly into the corners
- Peel the paper backing from the reticulated foam and stick it directly onto the sill pan as shown in Figures 12 and 13.

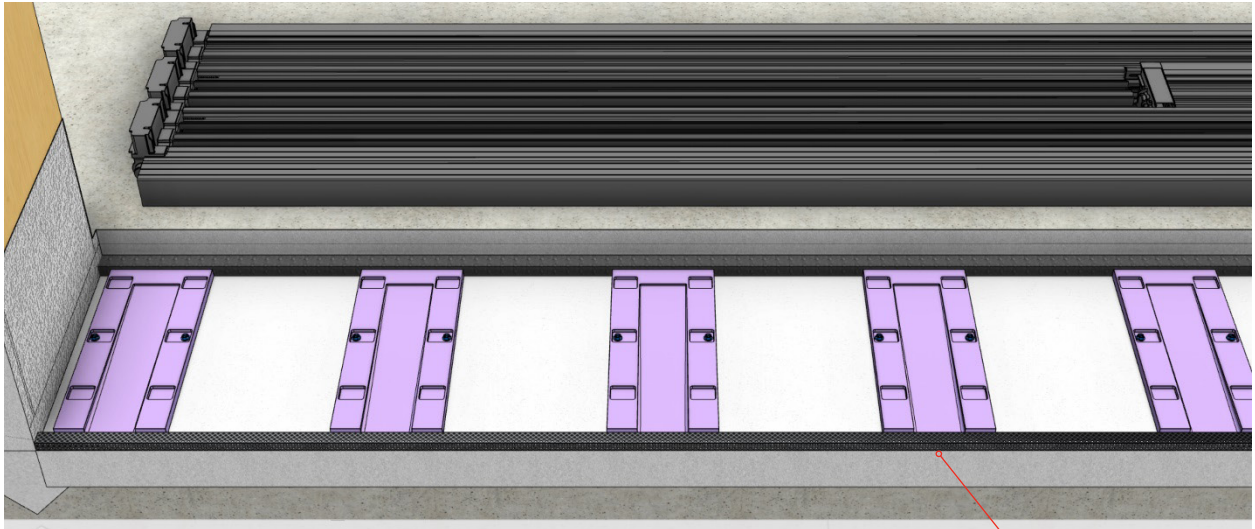


Fig 12

Reticulated Foam Tape

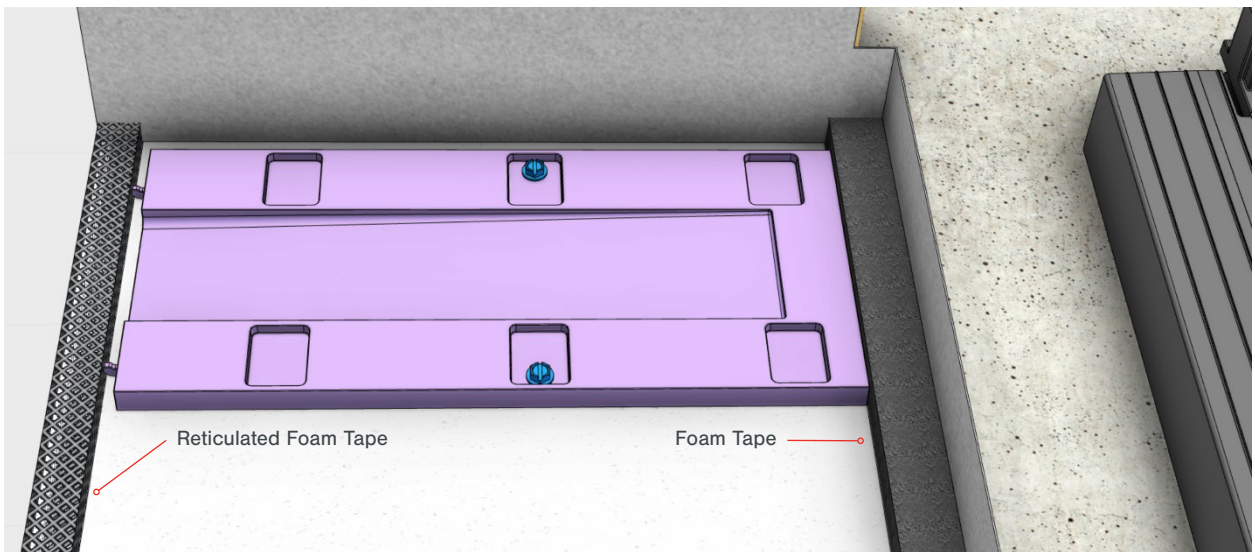


Fig 13

Reticulated Foam Tape

Foam Tape

Marking for Sill anchors

- With the Sill sitting just inside the R.O. mark the locations of the recessed pockets of the drainage shims on the Interior unfinished floor, see Fig 14.
- Try to align the marks on the opposite side of the recessed pockets that contain the fastener used to hold down the shim (Fig. 14)

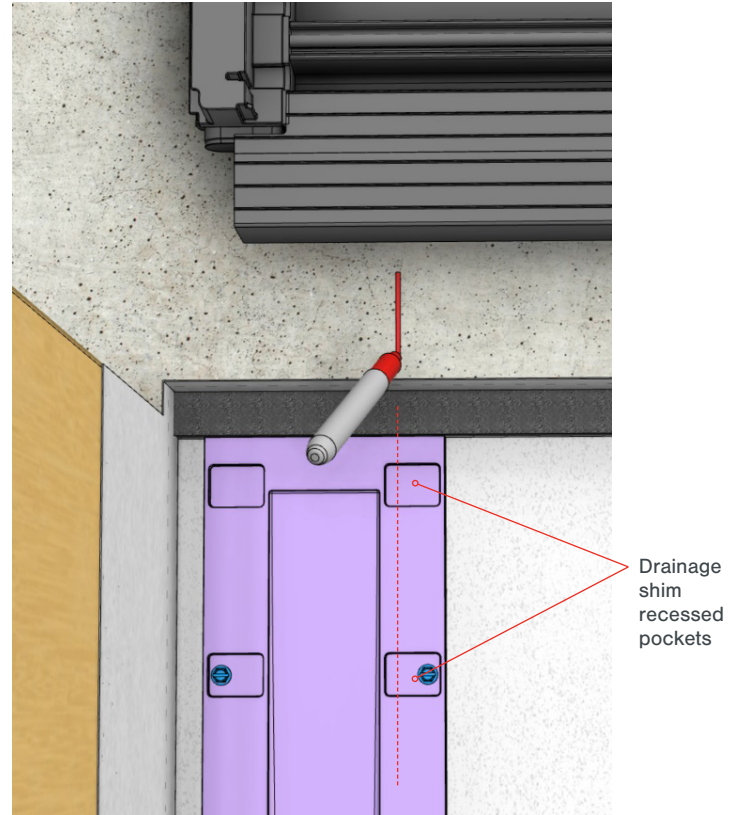


Fig 14

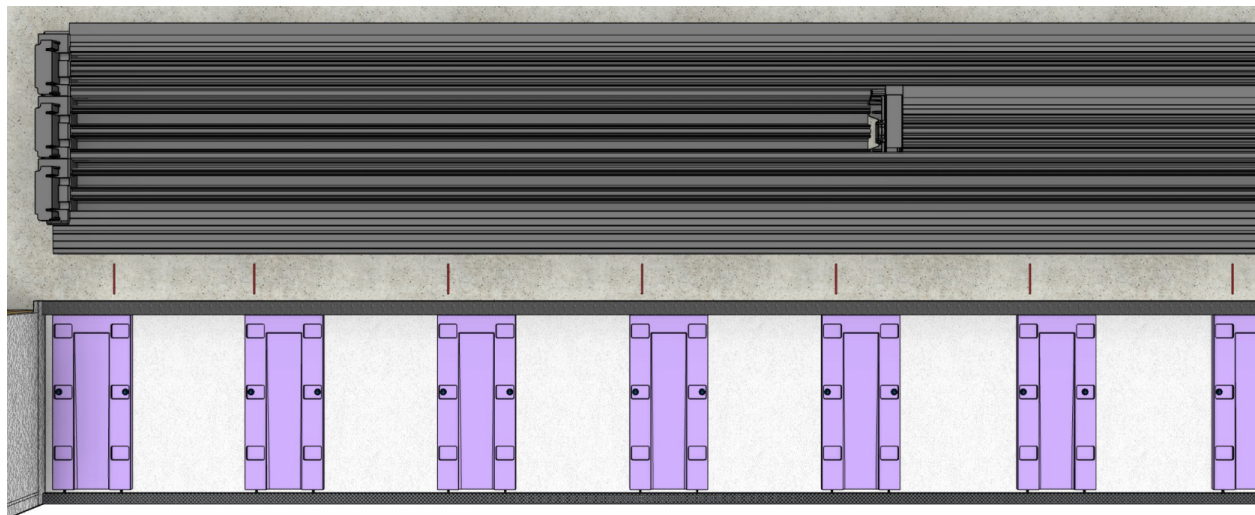


Fig 15

- Ensure that all the drainage shims are all level to one another across the entire Rough Opening, left to right. Use a laser level and a speed square or carpenters' square and check each shim for level (Fig. 16).
- Loosen the drainage shim fasteners and place shims under both sides of drains that require adjustment. Tighten fasteners once shims are in place and re-check for level.

⚠ Any shims placed under the drainage shims should be run the full length of the drainage shims to ensure that all tracks of the sill will be fully supported.

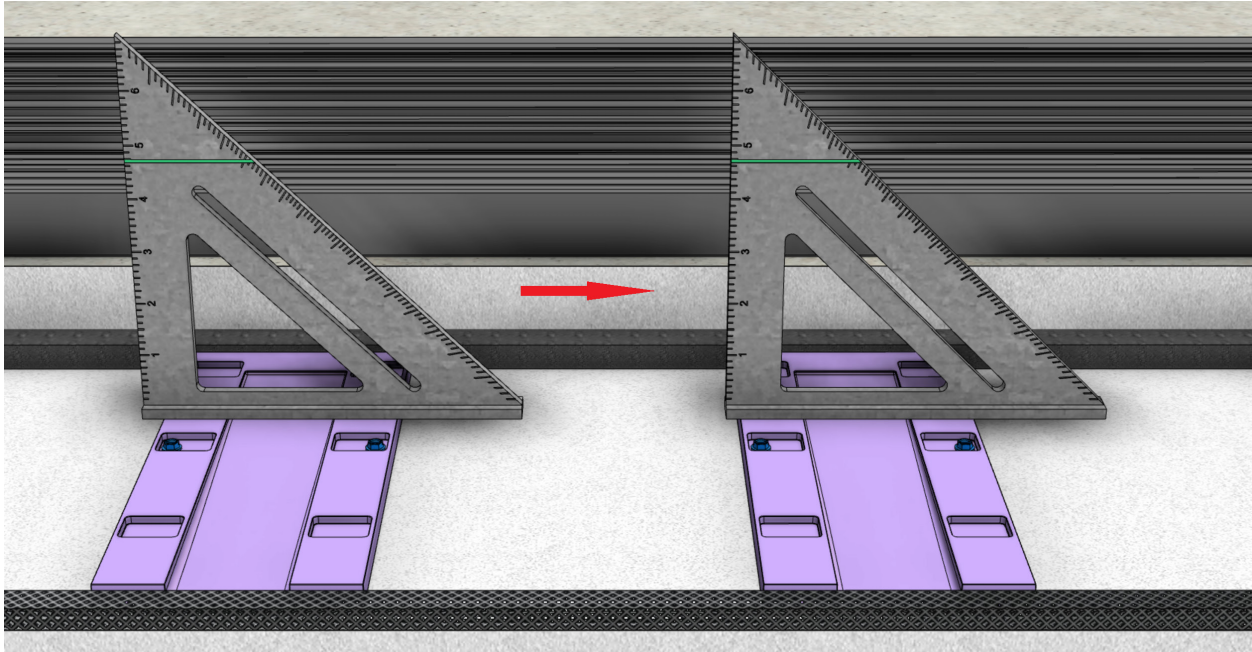


Fig 16

- Check the level of each drainage shim to ensure it is level interior to exterior (Fig. 17).
- Shim as required to achieve level.

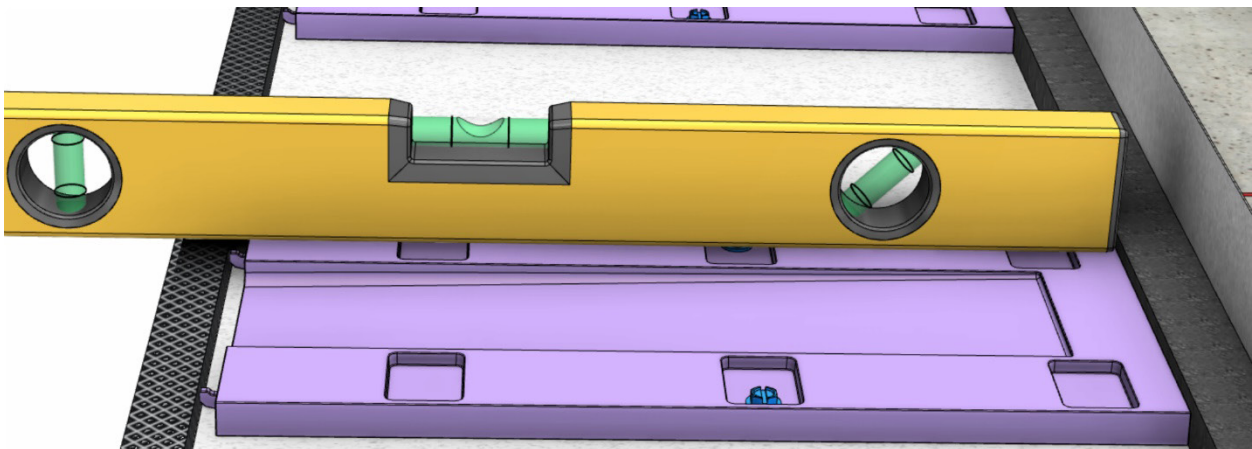


Fig 17

Shim modification / Assembly

- The base shim size fits a 3-track door without modification, if your door has 2 tracks you will need to cut down the shims as shown in Fig. S1.
- Follow the shim installation steps as outlined above after your shim has been cut down.
- If your door has more than 3 tracks you will find shim extensions in your installation kit.
- The shim extensions snap fit together to allow you to create a full-length drainable shim system for your door, regardless of the number of tracks your door may have.
- Apply a thin bead of silicone sealant to the back of the shim extension (Fig. S2)
- Snap fit the shim extension to the primary shim as shown below, continue to snap as many shim extensions together as needed.

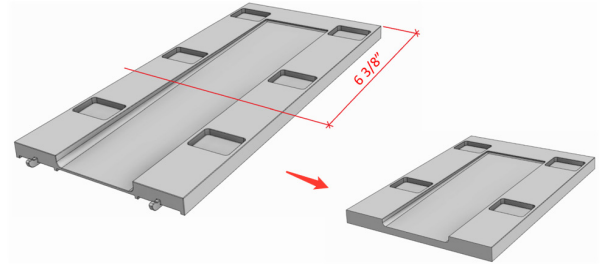


Fig S1

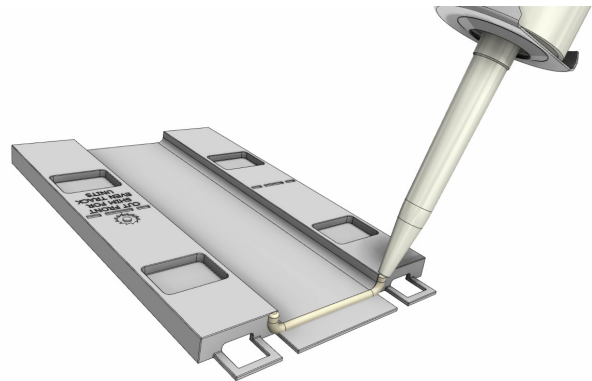


Fig S2

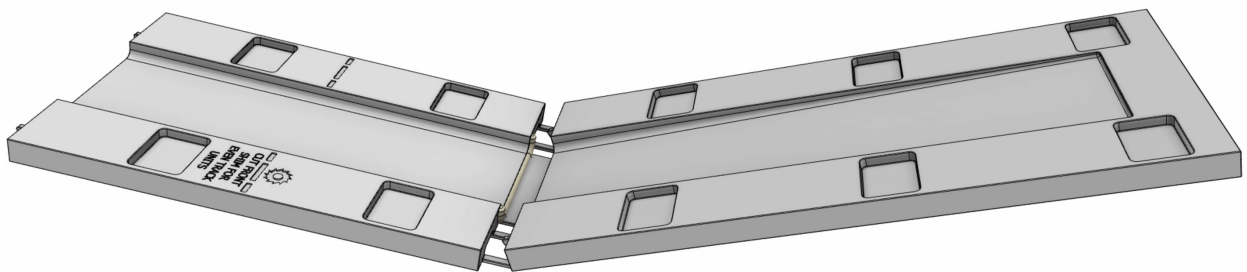


Fig S3

- Insert the hook shaped tabs on the front of the shims into the notches on the back of the extensions (Fig. S4).
- Clean off any excess sealant at the joint between the shims once snap fit together (Fig. S5).

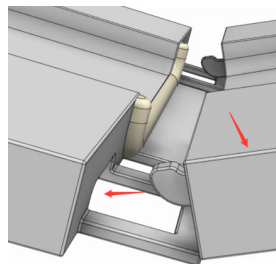


Fig S4

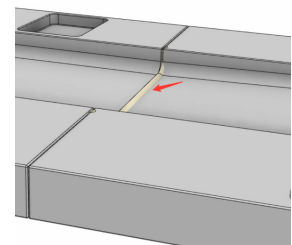


Fig S5

- Shim assemblies do not need to be cut down for odd track systems, (3, 5, 7, etc.). But the front shim extension will need to be cut for even track systems, (4, 6, 8 etc.).
- Using a chop saw, cut only the front shim extension along the perforated line marked on top of the shims.
- Fig, S7 shows the cut line of a 6-track system;
Note that only the front shim gets cut.



Fig S6

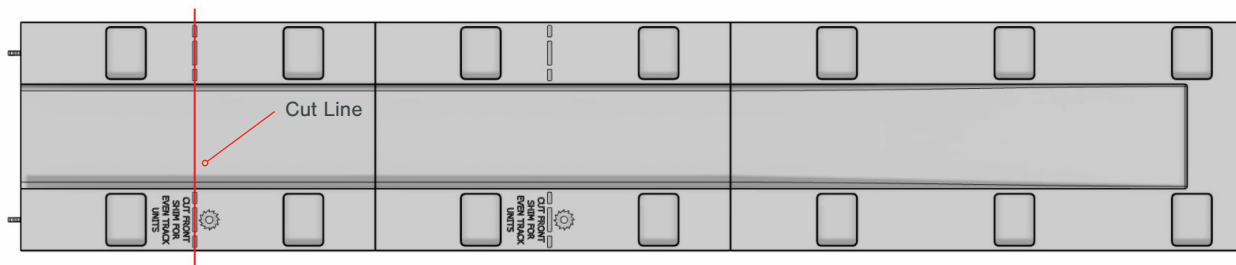
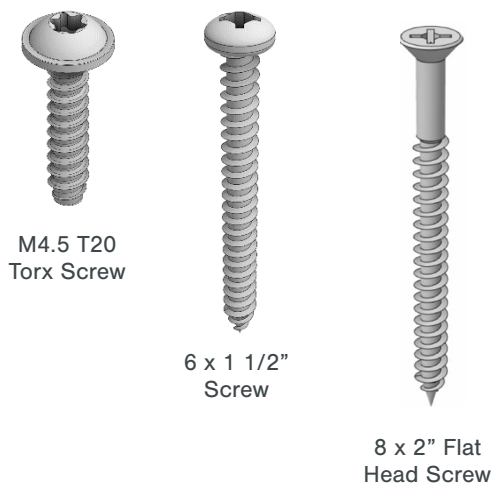


Fig S7

- Follow the steps above describing how to install and fasten the shims into the rough opening, (Fig 3 to Fig 17).
- ⚠ Shim extensions will need to be fastened to the rough opening following the same methods used to fasten the primary shims.

MULTI-SLIDE FRAME ASSEMBLY

Items required from the Installation Kit



Frame Assembly

Step 1

- Lay out the Sill, both Jambs, and the Head assemblies on a flush and level surface just outside the R.O. Ensure the sill is closest component to the R.O. so the unit can be lifted into place with minimal movement once the frame is assembled.
- Consider carefully the orientation of the components to ensure adequate clearances for lifting the frame once assembled.

Step 2

- Rotate the Sill and one of the Jambs to rest on their exterior faces (Fig 16.)
- Slide the Jamb assembly onto the Sill Keys and fasten through the Jamb using the M4.5 T20 Torx screws provided.
- Fasten the Frame Cladding to the Sill Nosing using the #8 x 2" Flathead screw provided (Fig 16.)
- Repeat the same process fastening the opposite Jamb to the Sill.

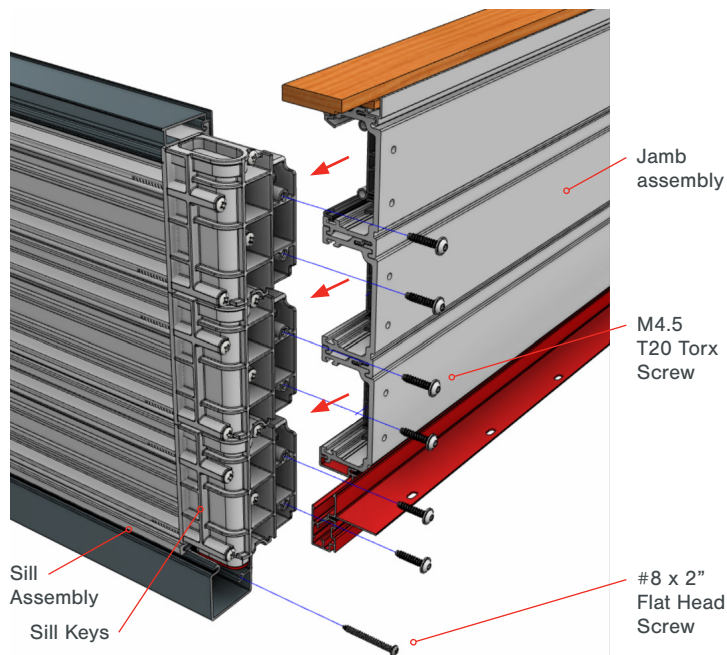


Fig 16

NOTE: The Sill Keys will come factory installed into the Sill assembly.

Step 3

- Rotate the Head assembly in the same orientation as the Jambs, resting on the exterior face.
- Slide the head onto the Jambs, fitting the Head Keys into the jamb channels.
- Use a rubber mallet to tap the Head cladding and Jamb cladding together at the point where the cladding key starts to engage the Jamb cladding.
- Ensure the Head is fit tightly to the Jambs then fasten through the Jambs into the Head Keys using the M4.5 T20 Torx screws provided (Fig 17.)
- NOTE: The Head Keys will come factory installed into the Head assembly.

⚠ Take note of the Jamb weatherstrip bulbs at the head during assembly and make sure they do not get pinched behind the Head keys.

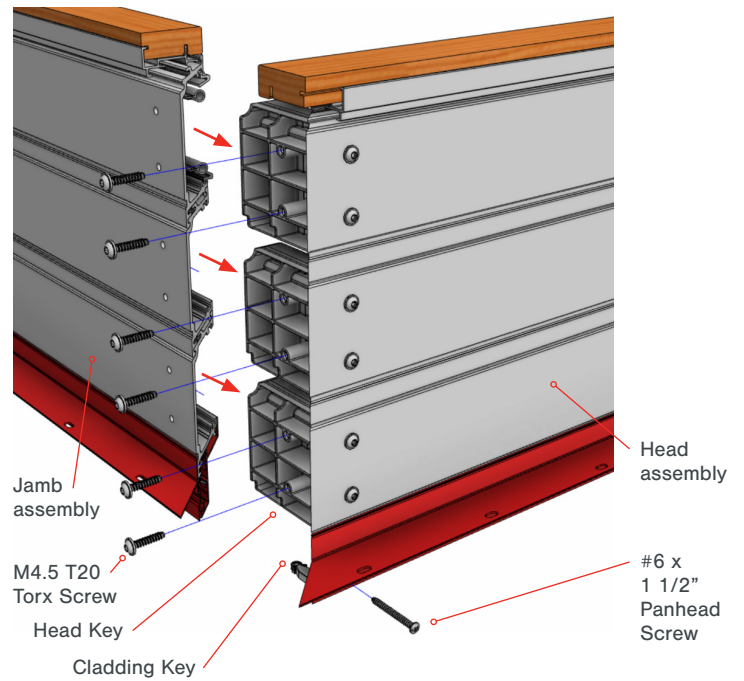


Fig 17

FRAME INSTALLATION

Step 1 – Prepare Rough Opening for Frame installation

- Lay the assembled frame face down on the exterior of the rough opening with the sill adjacent to the rough opening (Fig 18).

 Ensure the frame is laying on cardboard or another non-abrasive barrier to avoid damaging or scratching the cladding.

- With the frame laying next to the Rough opening, identify the Drainage Shims that the Transverse Drains will be sitting directly on top of (Fig. 19).

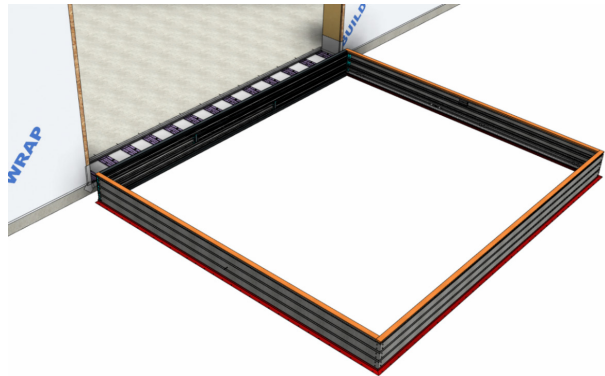


Fig 18

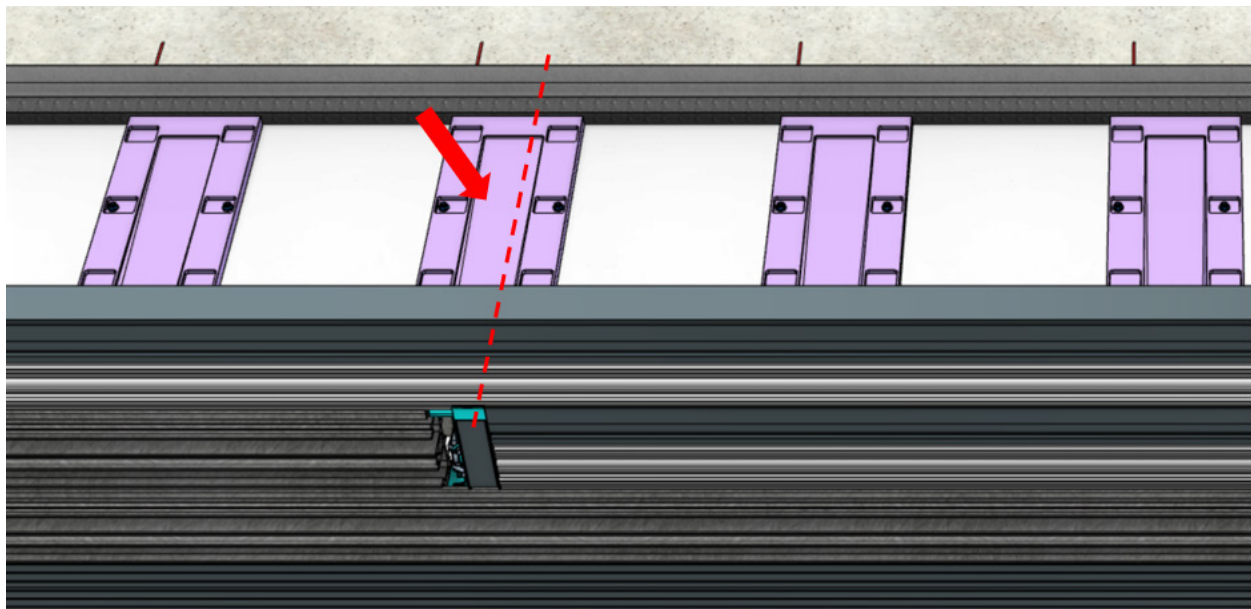


Fig 19

- Fill all the recessed pockets in these shims with a high quality silicone sealant. (Fig. 20)
- Lay down a generous bead of the same Silicone sealant in a U shaped pattern on top of the drainage shims as shown in Figure 20.
- Repeat these steps for the drainage shims at each end of the rough opening (Fig 21).
- Continue to seal all the recessed pockets in the remaining drainage shims that were used to fasten the shims down.
- Ensure that the screw heads are completely covered with sealant. (Fig. 21)
- Place a generous bead of silicone sealant on top of the interior Foam Tape and against the vertical wall of the Sill Pan (Fig. 22).

 Ensure the bead runs the entire length of the rough opening in a continuous bead without gapping.

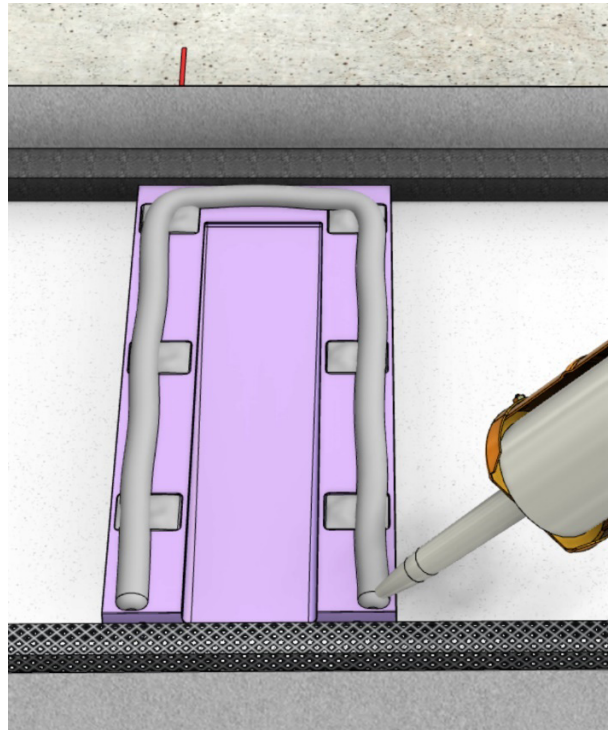


Fig 20

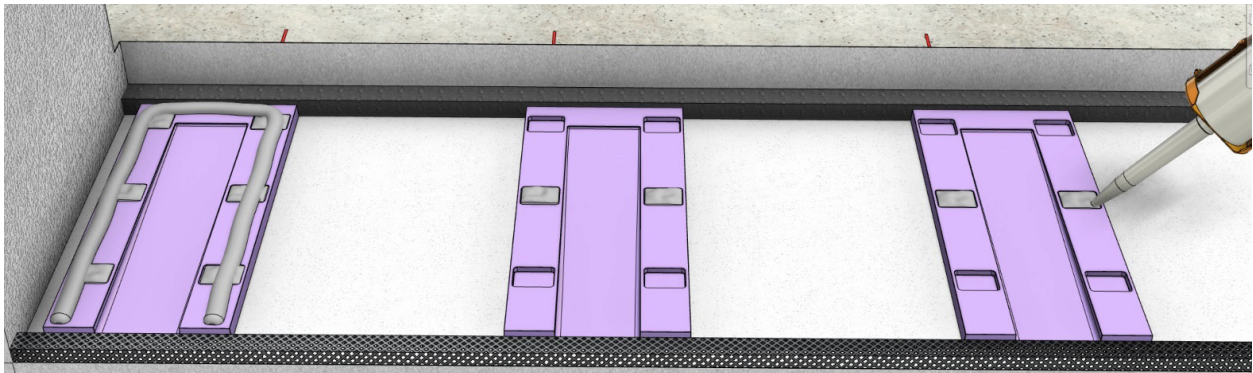


Fig 21

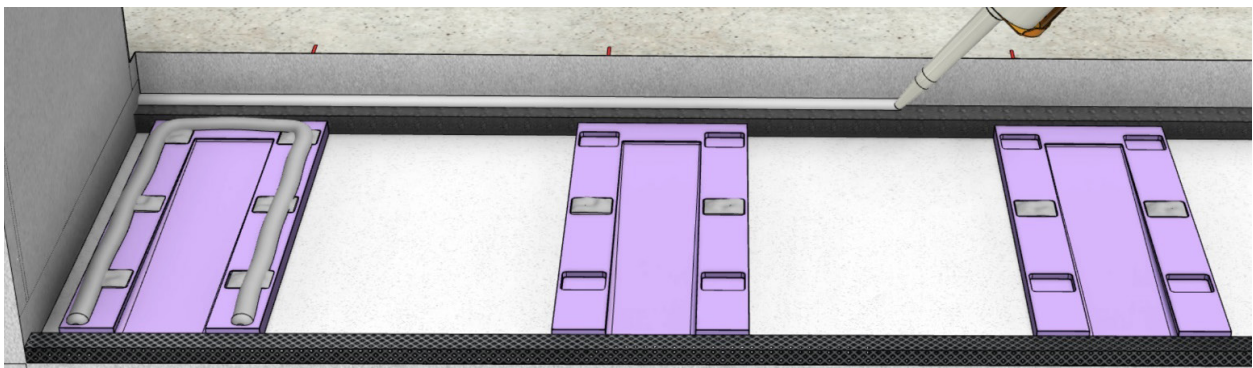


Fig 22

- With the rough opening full prepared, return to the frame laying face down on the exterior of the wall.
- Place a continuous bead of silicone sealant on the back of the nailing flange as shown in figure 23.
- Make sure to place a bead across the joint of the Jamb & Head cladding as shown. (Fig 23)
- For pocketing units that come with a flange, apply this sealant pattern to the flange on the head and lock jamb.

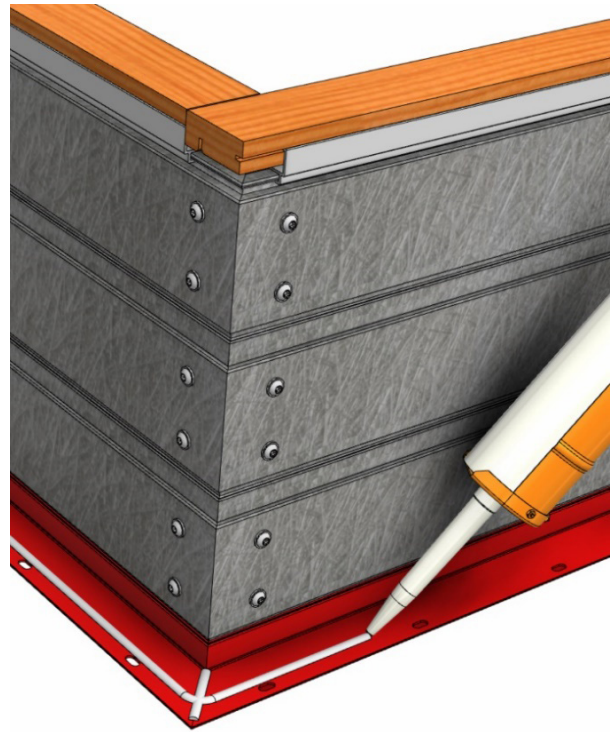


Fig 23

Step 2 – Frame Installation (Stacking / Bi-Parting)

- Lift the frame into the Rough Opening.
- Ensure the frame is pushed against the exterior wall.
- Center the Sill in the R.O. and place a single fastener through the flange on each side of the unit near the sill to keep the set position.
- Tack the unit in place through the nailing flange close to the center of the Head.
- Use the Story Pole provided to ensure the center of the head is at the correct height relative to the sill.
- Ensure the jambs are vertical and plumb in the rough opening. Place shims behind the jambs as required.

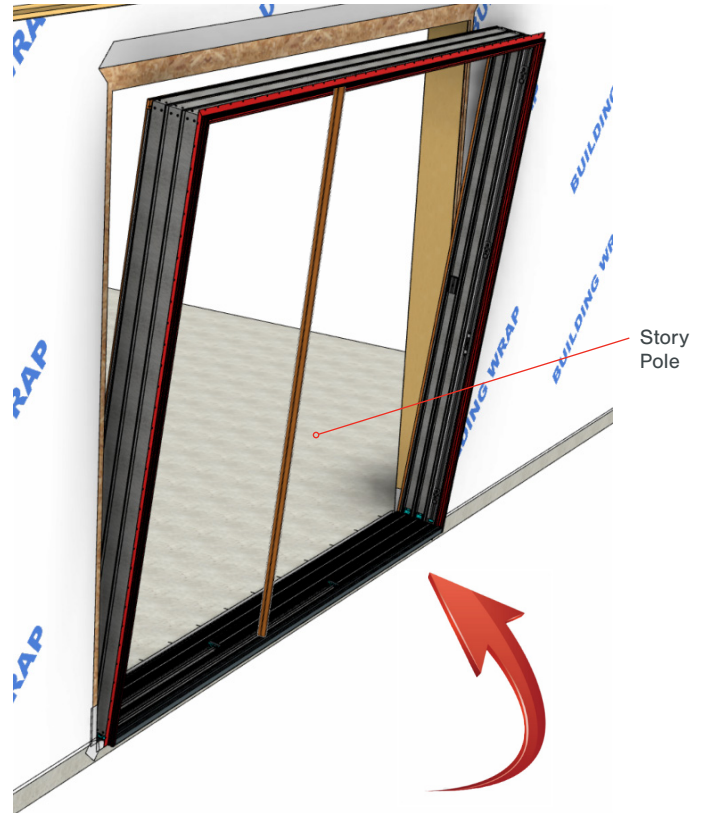


Fig 24

- Square the frame in the rough opening measuring diagonally across the unit from the lower corner of the Sill on one side to the top corner of the Head on the opposing side (Fig. 25).
- Fasten the frame to the wall through the nailing flange once it is square, level and plumb in the rough opening. Use 6d roofing nails, or wood screws, with a min embedment of 1 1/2".

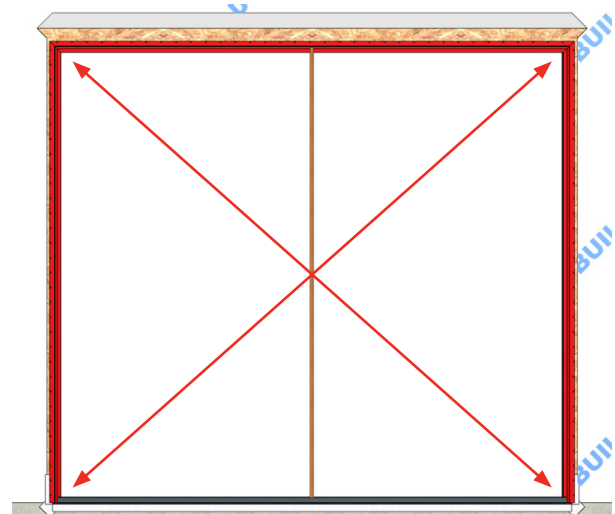


Fig 25

Pocketing Frame Installation (Skip to page 26 if you are not installing a pocketing door)

- Stand the frame up next to the rough opening with the story pole in place (Fig. PKT 2).
- ⚠ Ensure the frame is standing securely without risk of falling over
- Attach the Pocket Frame Cladding to the frame cladding at the head using the corner key and # 6 1/2" panhead screw provided (Fig. PKT 3).
- Fasten the Pocket Frame Cladding to the sill nosing using the #8 x 2 1/2" Flathead screw provided. (note, this is a distinctive #8 screw with a # 7 head).
- Tilt the door into the rough opening.
- Follow standard installation and squaring steps from Fig. 24 – 25, page 22.

⚠ NOTE: Pocketing units with nailing flange has be installed from the exterior, pocketing units without flange can be installed from the interior or exterior.

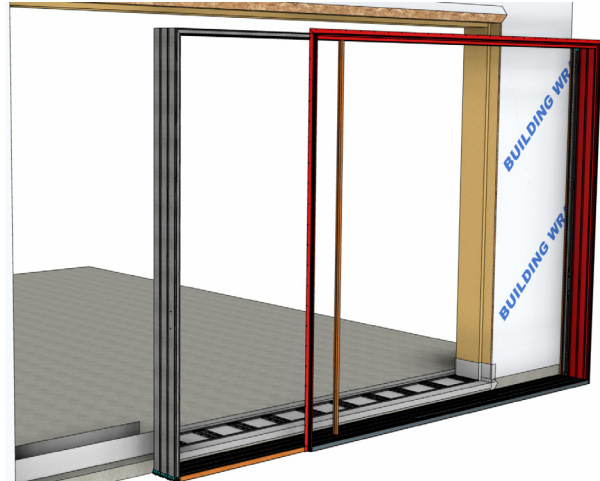
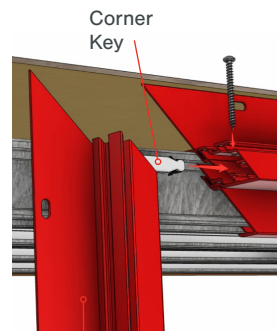


Fig PKT 2



Pocket
Frame
Cladding

Fig PKT 3



Fig PKT 4

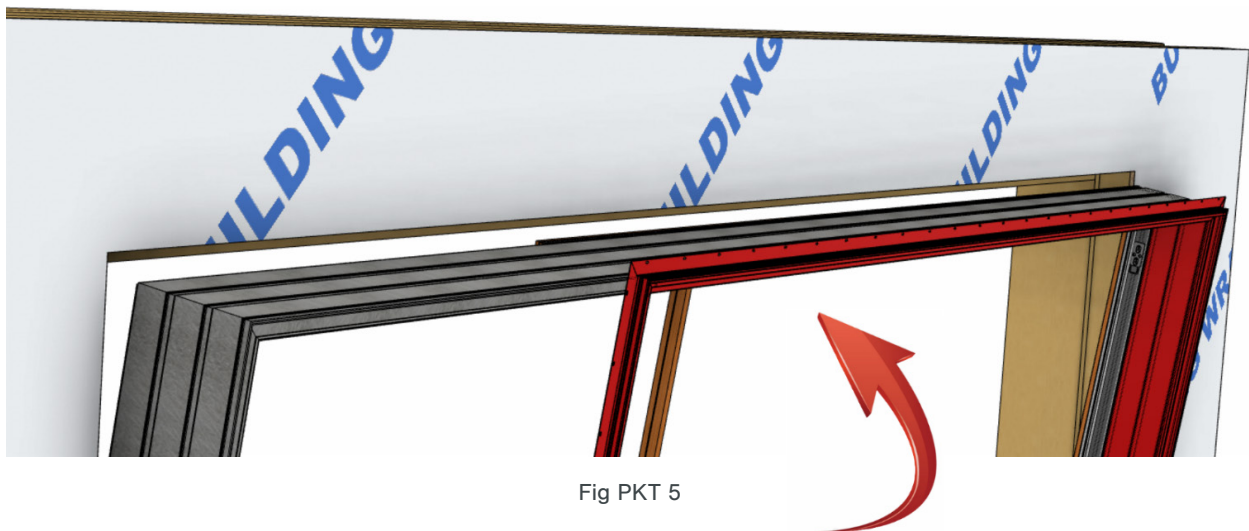


Fig PKT 5

- Apply a continuous bead of silicone to the exterior of the flange on the pocket frame cladding (Fig. PKT 6).

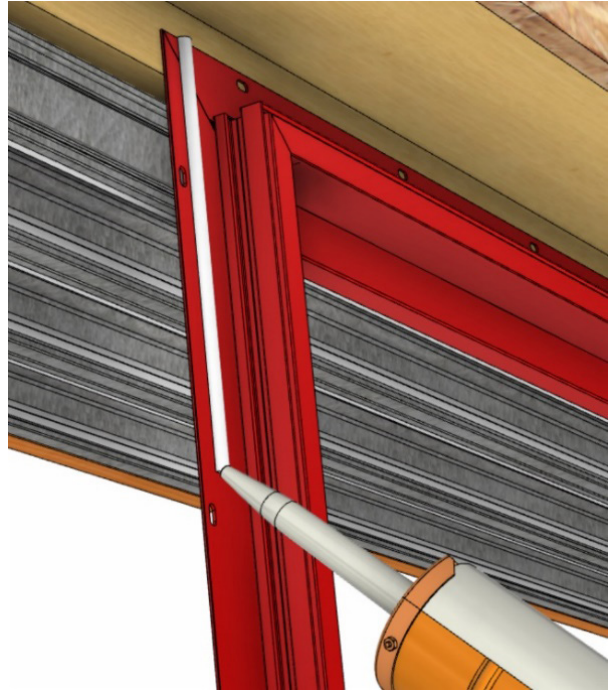


Fig PKT 6

- Install the exterior pocket wall (Fig PKT 7).
- Fasten the pocket wall to the rough opening using standard framing methods.
- Fasten the interior of the flange to the back of the exterior pocket wall.

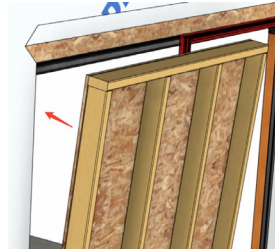


Fig PKT 7

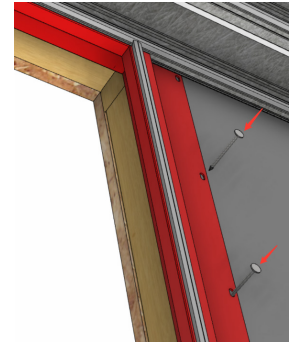
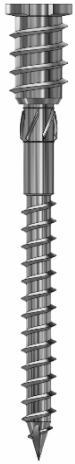


Fig PKT 8

FRAME ANCHOR INSTALLATION

Items required from the Installation Kit



Jamb
Jack



4.1 - Sill Anchor Installation

- Using a pry bar, lift and remove the line of weatherstripping that is just inside the steel track. (Fig. 26 and Fig. 27)

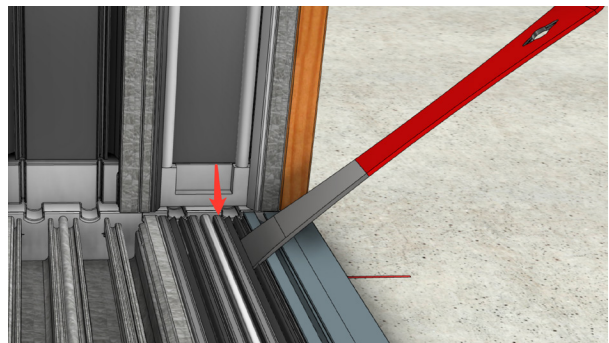


Fig 26

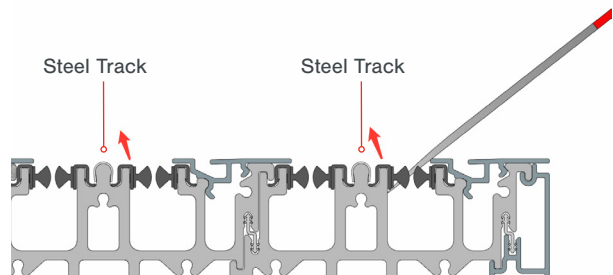


Fig 27

- Remove the weatherstripping and place it on the sill next to the track it was removed from.
- Repeat this step for each track in your door system.
- With the weatherstripping removed, place a square on top of the sill and align it with the lines on the floor (Fig 27).
- Drill a 3/16" hole in the sill channel on the interior side of the roller track see, figures 27 and 28.
- Drill holes along the entire length of the sill in the interior and exterior tracks aligned with the markings on the floor. See figures 28 to 30.
- A three-track sill will have one 'Intermediate Track' (see Fig. 29). A four-track sill will have two intermediate tracks, a five-track system will have three, etc.
- Mark and drill holes in the intermediate tracks, those between the inner and outer most tracks, using the same marking and drilling methods described in the above steps.

 Mark and drill only the areas between the transverse drains on the intermediate tracks, as shown in figure 30.



Fig 27

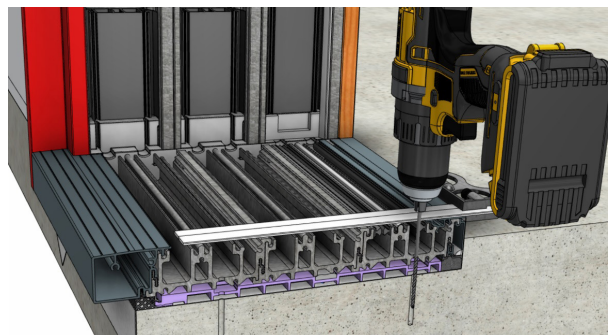


Fig 28

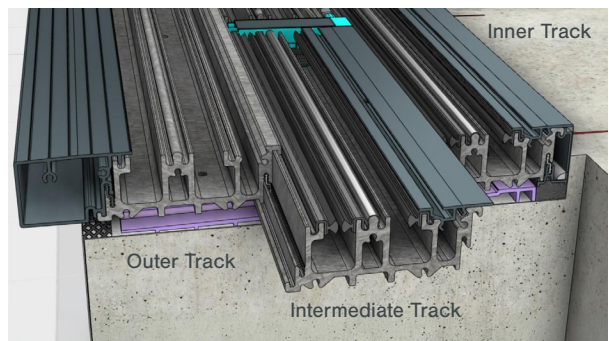


Fig 29



Fig 30

- Clear dust and debris from all sill channels at this point using a shop vac or compressed air.
- Inject silicone sealant into each hole drilled in the sill tracks. (Fig 30)

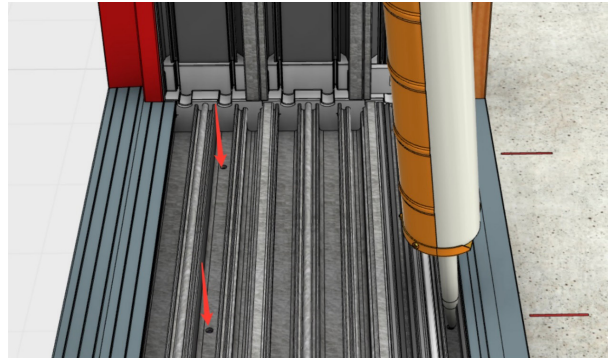


Fig 30

- Fasten the sill through each hole using a minimum of a 2" fastener suited for installation conditions. (Fig. 31)
- Use 3/16 x 2 1/4" Hex Head concrete screws for concrete installations (supplied by others).

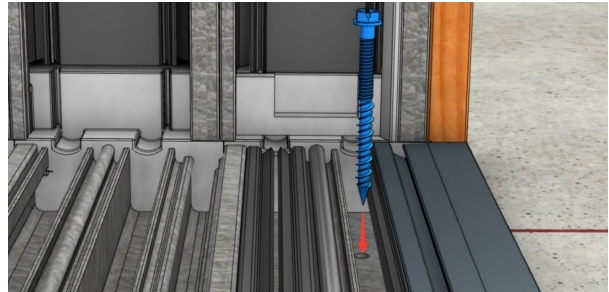


Fig 31

- Replace all the linear weatherstripping on the sill that was removed for drilling and fastening the sill down. (Fig. 32)
- Start by butting the weatherstrip up against the jambs, then press in place onto the vertical wall in the sill as shown in figure 32.
- Continue applying the weatherstripping along the sill, press down firmly to ensure full engagement of the weatherstrip clip onto the sill.

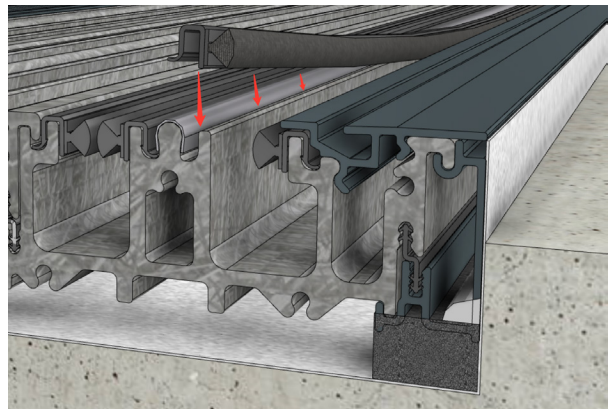


Fig 32

- To aid in the application of the weatherstrip, index the back leg of the rigid base into the kerf and then twist the part into place as you go along the sill.



- Remove the tape found on top of the transverse drains of the intermediate panels (Fig 33).
- Hold the transverse drain door in place while removing the tape, or place the door back onto the transverse drain if it comes out of place (Fig. 33a)
- Ensure that both legs of the drain lids are resting on the hooks of the transverse drain, and that the lids sit aligned with the drain openings as shown in Fig. 34
- Install the sill covers found in the Installation Kit.
 - Remove all the sill covers from the installation kit, lay them out next to the sill to identify the location of the different length parts.

⚠ Install the covers, beginning with the innermost cover and moving outward.

- Lay the cover onto the sill and index the front of the cover to the sill as pictured in Figure 35.
- Tap down on the back of the cover using a wood block and mallet.
- Continue the installation of all remaining sill covers, moving outward from the interior.
- NOTE: The interior track does not require a cover.
- When installing the exterior cover, ensure the front of the cover is tucked under the Sill Nosing as shown in figure 36.
- Tap the cover forward from the back using a wood block and a mallet (Fig. 37). Tap the cover forward until the gap between the sill cover and sill nosing is virtually closed.

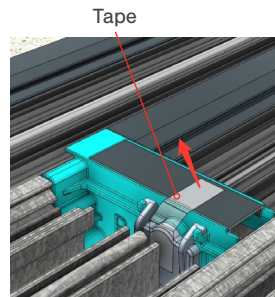


Fig 33

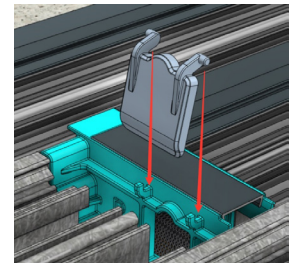


Fig 33a

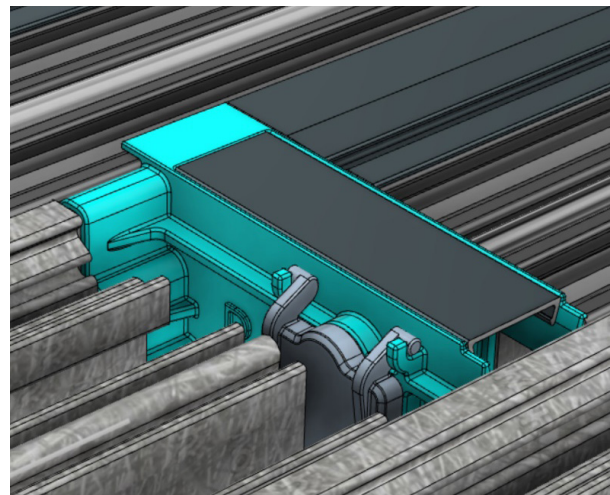


Fig 34

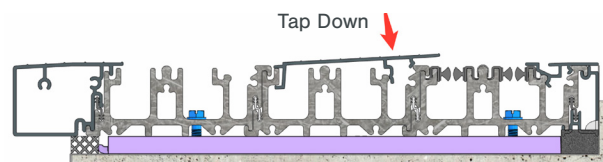


Fig 35

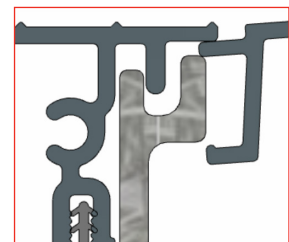


Fig 36

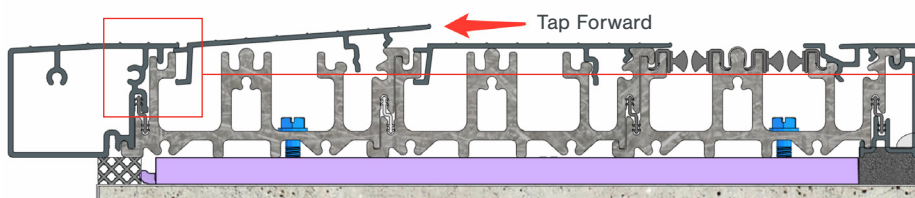


Fig 37

- Tap down on the back of the cover using a wood block and a mallet
- If your door comes with a Raised Drain Cover (Sill Riser), it will have to be sealed at both ends against the jambs as shown in Fig. 38.

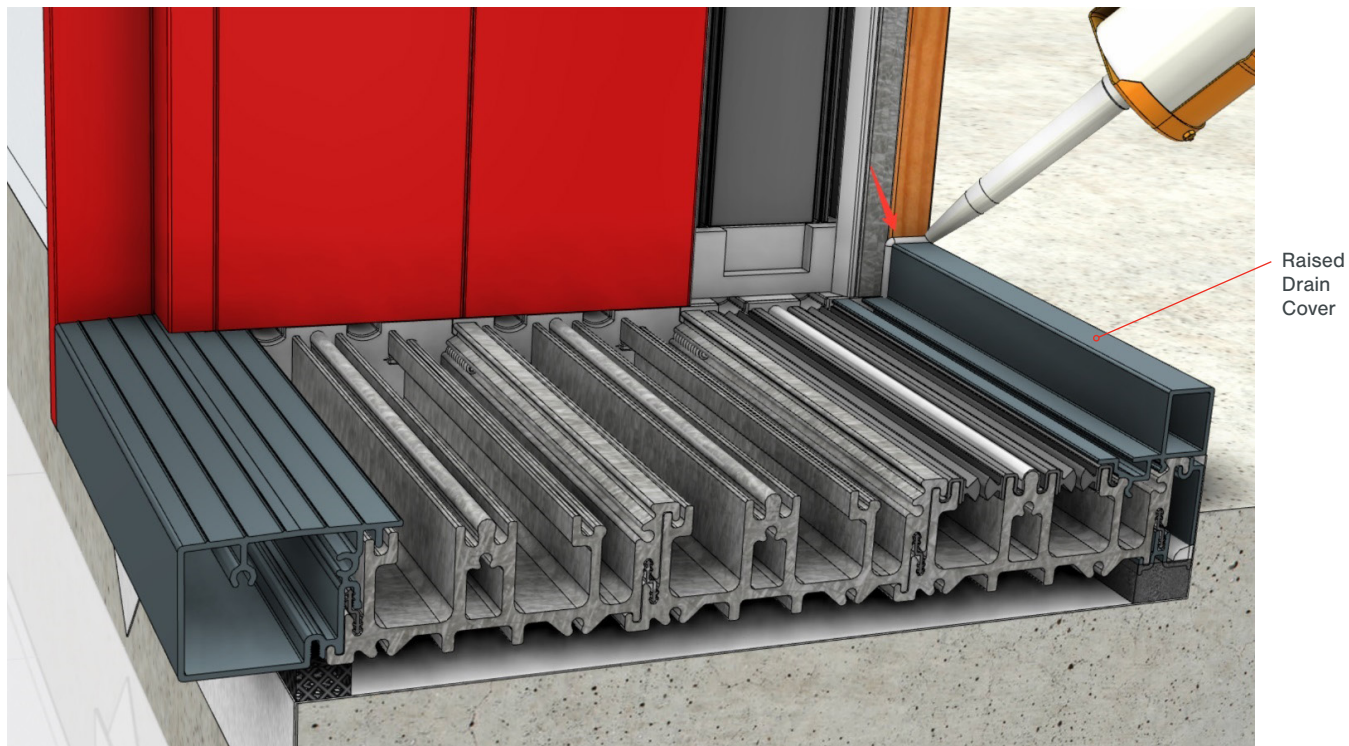
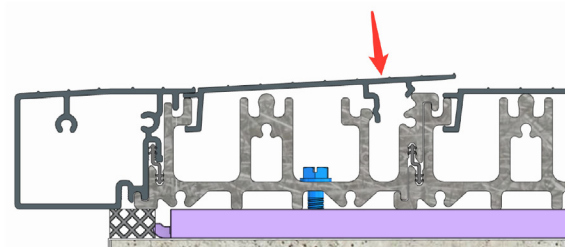


Fig 38

4.2 - Jamb Anchor Installation

- Locate the 4" insert pieces in your jambs with a hole drilled through it, these are the receivers for the Jamb Jacks.
- The quantity of Jamb Jacks required will depend on the height of your door, and the number of tracks in your jambs.
- Slide the jamb inserts up, or down, to position them for where you need to adjust your jambs.
- Drill a 1/4" hole through the door jamb using the hole in the jamb insert as a guide.

 Drill only through the Jamb, not into the framing.
(Fig. 39)

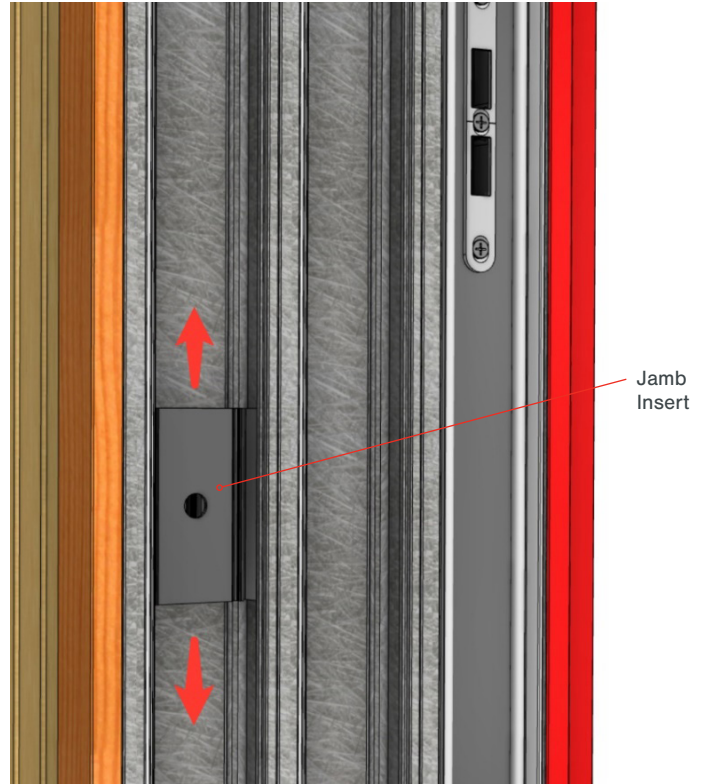


Fig 39



Fig 40

- Use a GRK Top Star Crown Bit (fig. 41), to apply the jamb jacks into the Jamb Inserts.
- Jamb Jacks are provided in the installation kit, the GRK Top Star Crown bit is not.
- Tighten the jamb jack until the head is flush with the surface of the jamb insert.



Fig 41

- Slide the Crown off the driver bit, then use the Torx bit and adjust the jamb jack as needed.

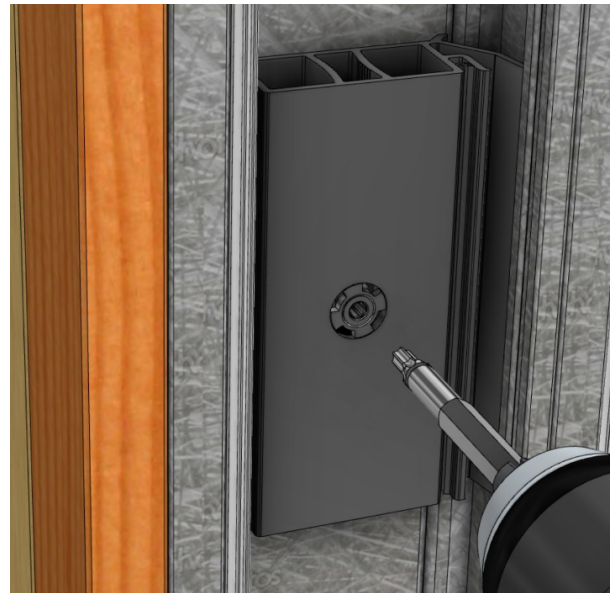


Fig 42

- Remove the factory applied screws from the locking hardware strike plates on the jambs (Fig 43).

 The Truth Hardware strike plate is shown, these instructions are identical to the Winkhaus strike plate.

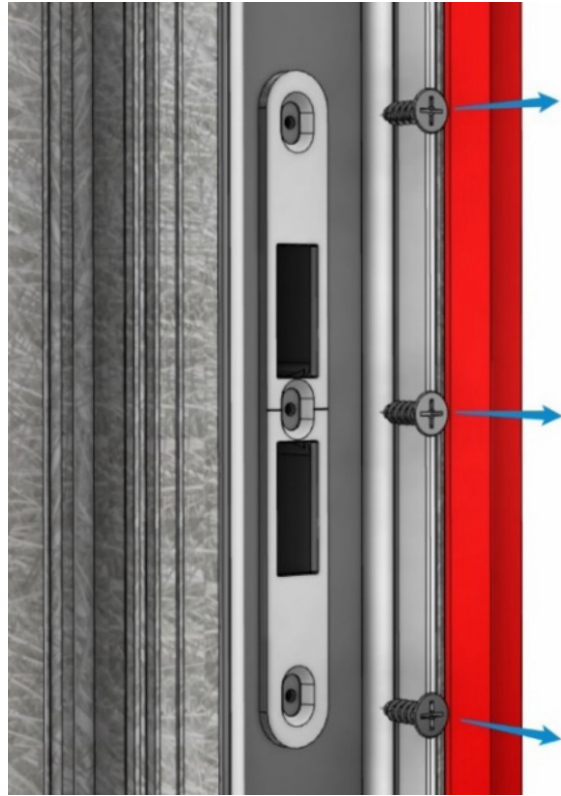


Fig 43

- Use the holes in the jambs from the factory applied screws to drill a 1/8" hole through the jambs and into the framing (Fig 44).
- Shim the jambs at the strike plate location, adjust the shims to ensure the jambs are plumb to the rough opening.

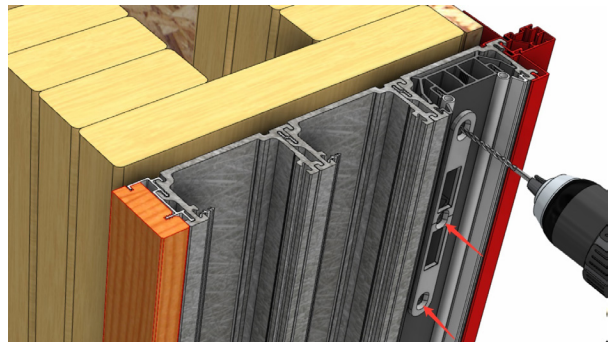


Fig 44

 Ensure the shims run to the front of the rough opening to full support the jamb, See fig 45

- Apply the #8 x 3" Flathead screws, from the installation kit, through the jambs and into the framing.

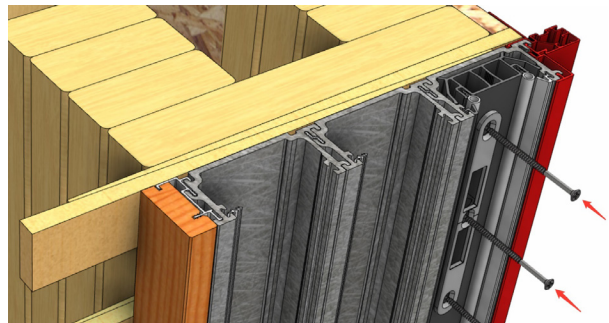


Fig 45

- Locate the alignment pin structural base in the jambs.
- Use the holes in the structural base as a guide to drill two 3/16" holes through the jambs and into the framing (Fig. 46).

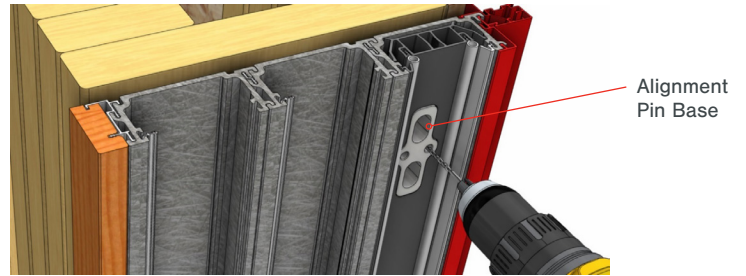


Fig 46

- Shim between the jambs and the framing at each location, adjust the shims to ensure the jambs are plumb to the rough opening.
- ⚠ Ensure the shims run to the front of the rough opening to full support the jambs
- Fasten the Alignment Pin Cover Plate onto the structural base using two # 10 x 3" Flathead screws.
- The Alignment Pin Cover plate and the screws can be found in the installation kit.

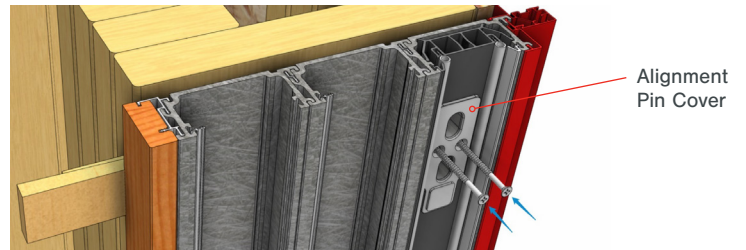


Fig 47

Pocket Doors Only (Skip this page if you are not installing a pocketing door)

- For Pocket doors, locate the pocketing bumper on the pocket jamb, drill a 3/16" hole in each track just above the panel bumper.
- Shim the full depth of the jamb and fasten the jamb to the back of the pocket using # 8 x 1 1/2" (min.) Panhead screws, supplier by others (Fig. PKT1).
- NOTE: the view shown is for an exterior, flange installation, prior to both pocket wall installations.

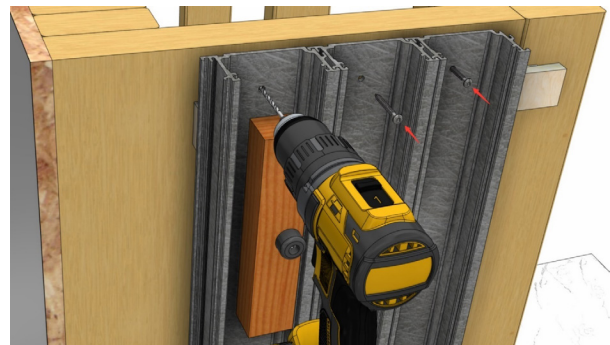


Fig PKT 1

4.3 - Head Anchor Installation

- The head will have a pattern of three holes drilled in each track at the panel interlock locations. (Fig 48)



Fig 48

- Using the holes as a guide, drill into the header using a 7/32" drill bit.

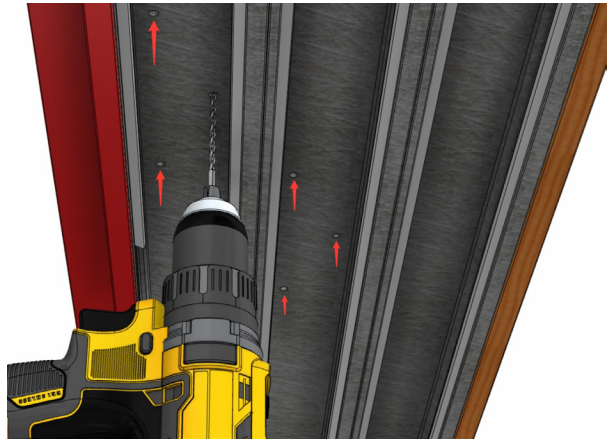


Fig 49

- Place shims at each set of hole patterns. Fig 50



Fig 50

- Locate the Structural Braces and the #12 x 2 1/2" Flat-head screws in the Installation Kit.
- Apply one Structural Brace per hole pattern using the #12 x 2 1/2" screws. See Fig. 51
- Repeat this for each set of hole patterns found in the Head channels.

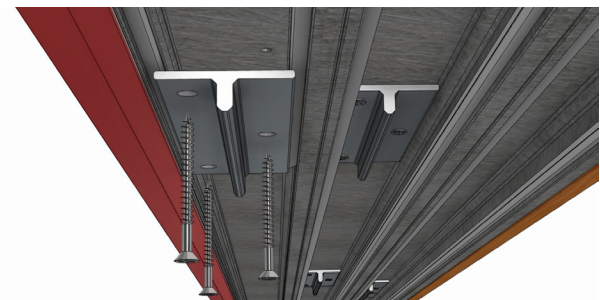


Fig 51

Pocket Doors Only (Skip this page if you are not installing a pocketing door)

- Before installing the first panel, seal the front of the sill to the back of the exterior pocketing wall (Fig. PKT 9).

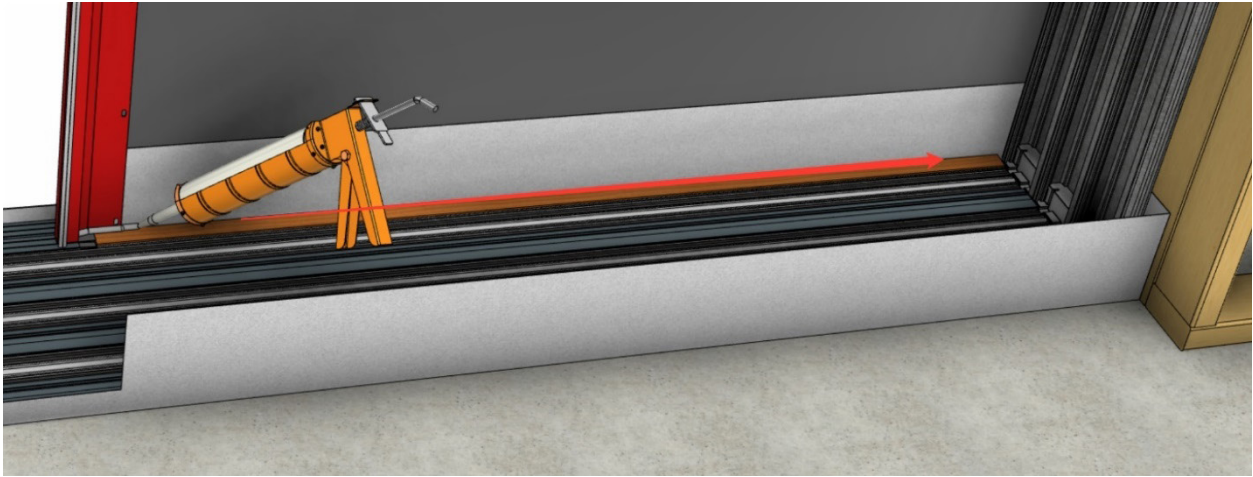


Fig PKT 9

- Apply sealant directly behind the pocketing interlock, continue to seal the entire front length of the sill (Fig. PKT 10).
- Be sure to fill the entire gap between the exterior pocket wall and the jamb (Fig. PKT 11).

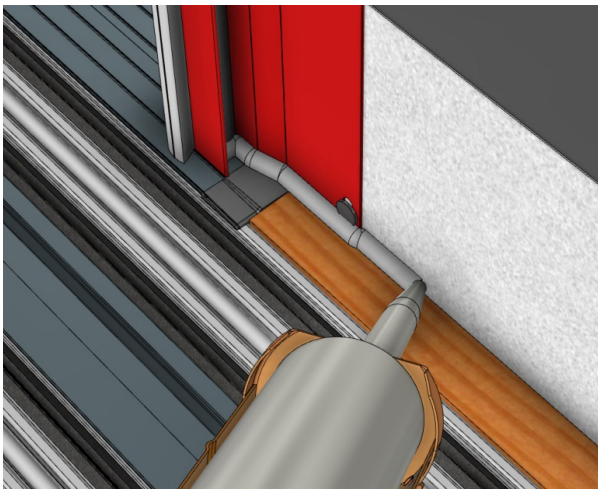


Fig PKT 10

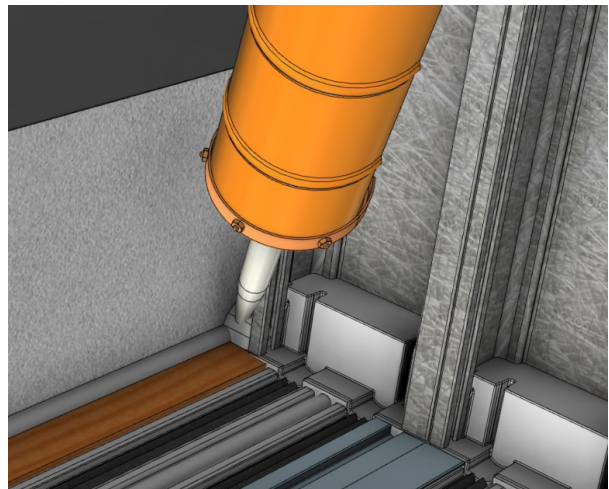


Fig PKT 11

PANEL INSTALLATION

(XXO Unit Shown)

- Unpackage the panels for your door and locate the Primary operating panel ('X' Panel with the handle set). When panels are installed from the exterior of the house, the order of installation will be starting from the inner most panel and moving outward.
- ⚠ When handling the panels, take special care not to set them down too aggressively and do not slide the panels on the ground; this will damage the Guide Rail at the bottom of the panels.
- Tilt the panel into the inner most channel in the Head (Fig. P1).
- Lift the panel while tilting the bottom of the panel inward until the black caps on the ends of the panel align with the steel track (Fig P2), then gently lower the panel onto the sill.
- Ensure the previously installed panel is in a partially open position to overlap half of the next panel to be installed. (Fig. P3)
- Install the intermediate 'X' panels next, these are the panels with two interlocks, one on the interior and exterior. Tilt the panel into the next available Head channel from the previously installed panel.
- Following the same installation process outlined above, tilt and lift all remaining Intermediate panels into the frame.



Fig P1

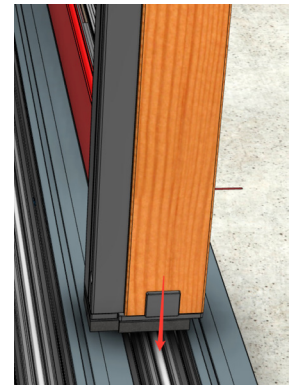


Fig P2



Fig P3

- Install the fixed panel last ('O' Panel).
- With the last Intermediate panel in a half open position, tilt the fixed panel into the outer most channel in the Head. (Fig. P4)



Fig P4

- Place the panel approximately 2" from the jamb to ensure the panel can be lifted into place without interfering with the corner key. (Fig. P5)

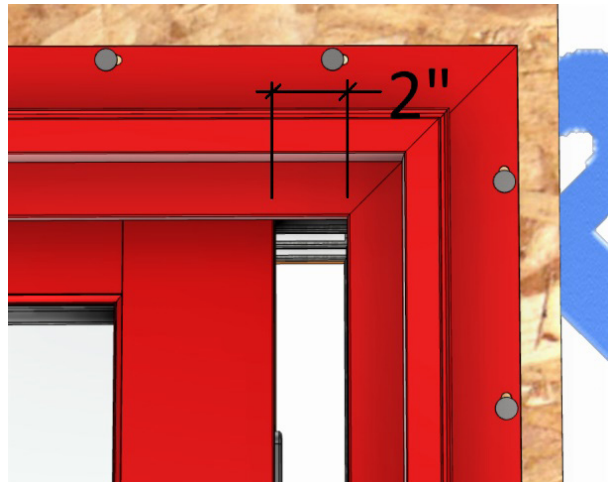


Fig P5

- Before lifting the Fixed ('O') panel onto the sill, lay and hold a thin pry-bar, or a similar protective material, over the transverse drain, See Figures P6 and P7.



Fig P6

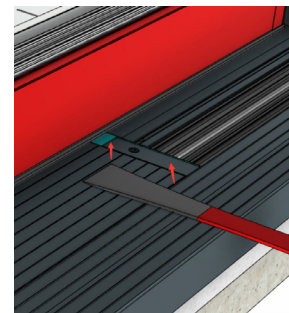


Fig P7

- Lift the panel onto the sill, resting one side of the panel on top of the pry-bar to protect the transverse drain.

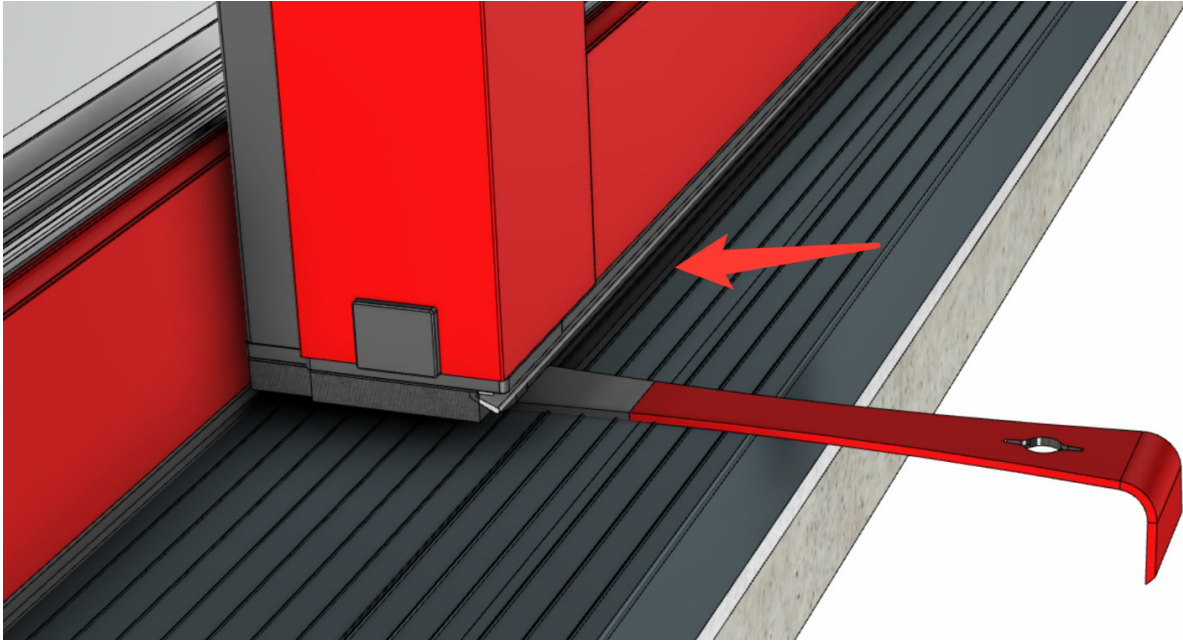


Fig P8

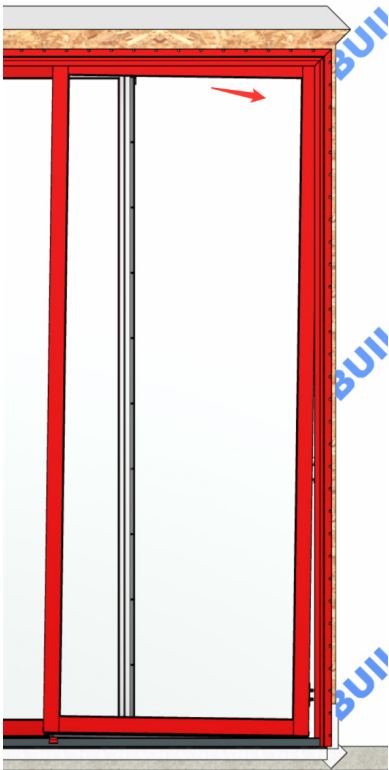


Fig P9

- With one side of the panel resting on the pry-bar and the panel still approximately 2" from the jamb, tilt the top of the panel into the jamb (Fig. P9).
- Holding the pry-bar in place, lift and slide the bottom of the panel into the jamb (Fig. P10)
- The panel will then full sit down into the track (Fig. P11). Remove the pry-bar from under the panel by pulling directly outward

⚠ NOTE: it is critically important to follow the sequence of steps from Figure P6 to P11 when installing the fixed ('O') panel.

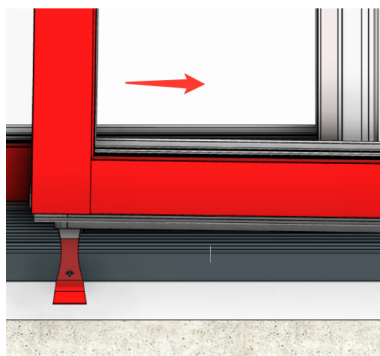


Fig P10

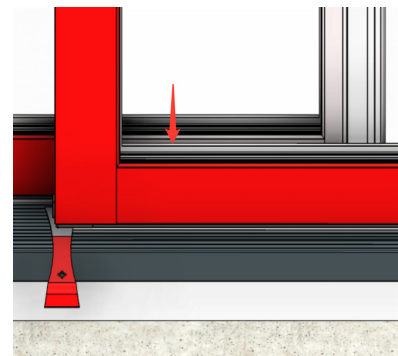


Fig P11

- When removing the 'O' panel, reapply the pry bar to protect the transverse drain by pushing it under the weatherstrip pad located at the leading edge of the exterior Stile (Fig. P12).

⚠ Lift **ONLY** at the edge of the panel where the pry bar is located and pull the panel onto the bar.

- Then pull the panel out far enough to achieve any adjustments needed; keep the pry bar over the transverse drain.

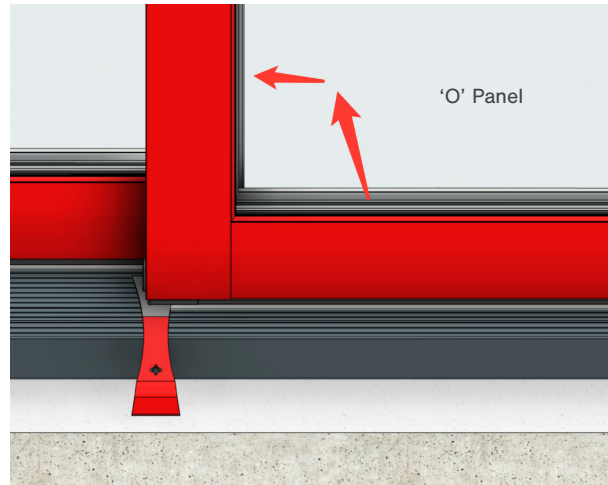


Fig P12

- Move the primary operating ('X') panel to an almost closed position, ensure the visible gap between the jamb and the panel is even from top to bottom. (Fig. P13)
- Repeat this step with the overlapping Stiles of each of the intermediate ('X') panels to determine which panel rollers may need adjusting (Fig. P14).

⚠ Be sure to start this process with the locking jamb to stile gap first (Fig. P13) and then align all other panels to the primary operating panel. This will ensure a good seal between the jamb and the panels.

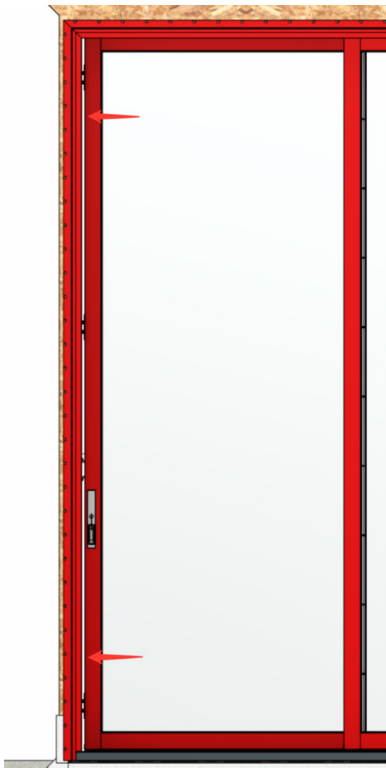


Fig P13



Fig P14

Pocket Doors Only

⚠ Panels for pocketing doors can be installed from the interior or the exterior of the house, and in the reverse order from those described above.

- Apply the 3/8" x 1 1/2" bolts, found in the installation kit, into the pre-drilled holes located on the back of the pocket panel stile (Fig. PKT 12)
- Do not fully tighten the bolts, leave the Head roughly 3/8" off the wood surface.
- Slide the pocketing interlock, found in the installation kit, onto the bolts, as shown in Fig. PKT 13.
- Ensure the pocketing interlock is seated downward on the bolts as shown in Fig. PKT 14.
- Tighten the bolt with a wrench through the access clearance cut in the side of the interlock.



Fig PKT 12



Fig PKT 13



Fig PKT 14

- Install the Skirt Panel, found in the installation kit, to the pocketing interlock.
- Slide the panel between the pocketing stile and the interlock (Fig. PKT 15).

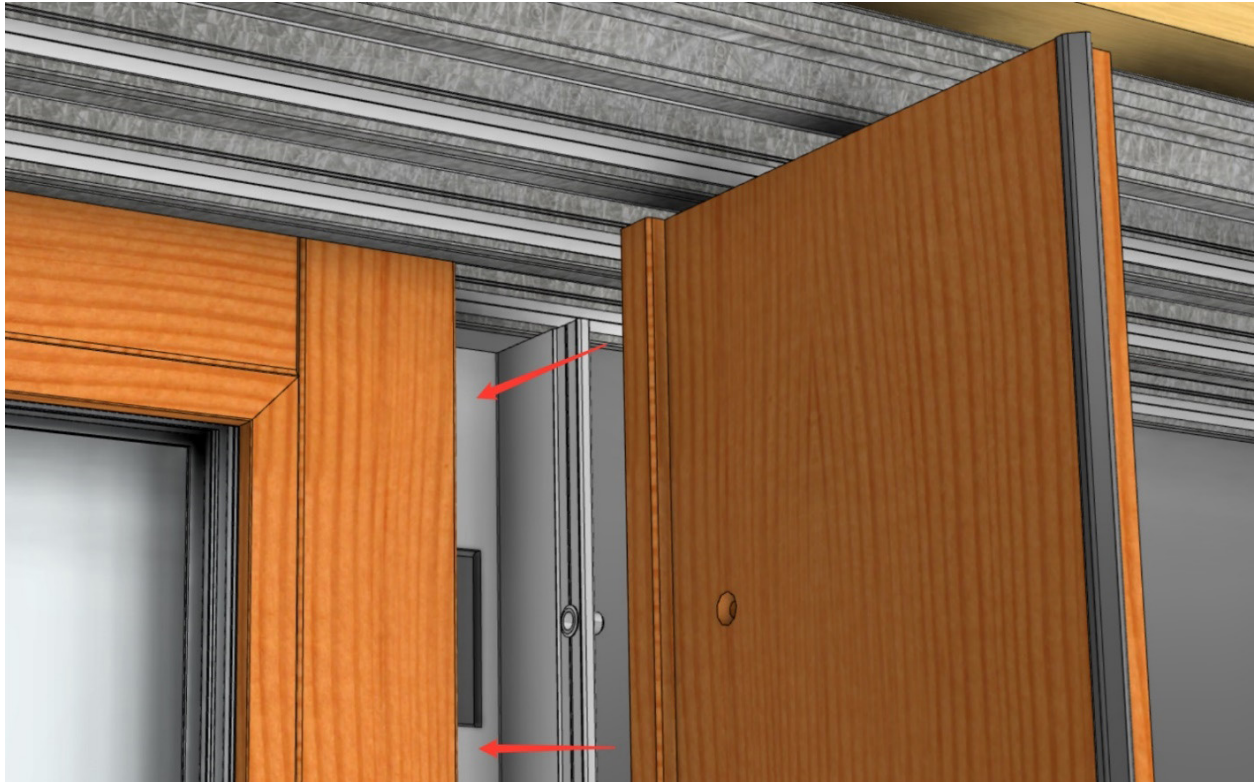


Fig PKT 15

- Fasten the skirt panel using the 10 – 32 x 1 1/2" Philips head machine screw (Fig. PKT 16).

 Apply and tighten these screws by hand.
Do not overtighten.

 Note: PX, XP and PX-XP doors
Will not come with a Skirt Panel.

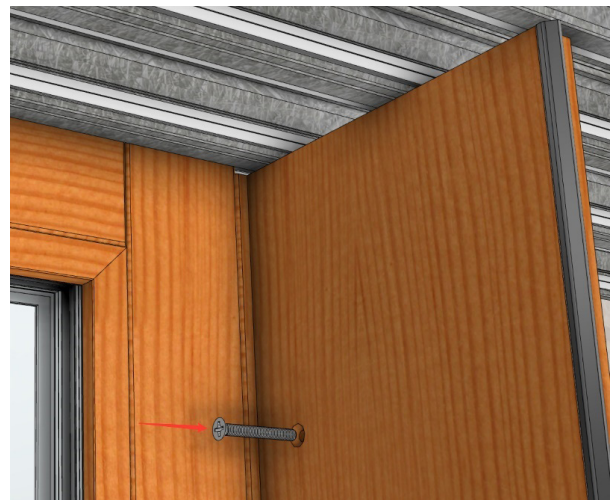


Fig PKT 16

PX, XP / PX-XP Pocketing Doors Only

⚠ Panels for pocketing doors can be installed from the interior or the exterior of the house, and in the reverse order from those described above.

- 'Single Pocketing' units require an angled panel stop to be installed into the head track (fig. SPKT 1).
- All operating doors, including single panel units, will come with two tracks.
- Only the track with the panel requires a stop. The holes for the stop will be factory drilled in the front track near the pocket jamb.
- Single Pocketing units that come with Raised Handles require the angled stop to be oriented towards the panel see Fig. SPKT 2.
- Single Pocketing units that come with Flush Handles require the angled stop to be oriented away from the panel, see Fig. SPKT 3.



Fig SPKT 1

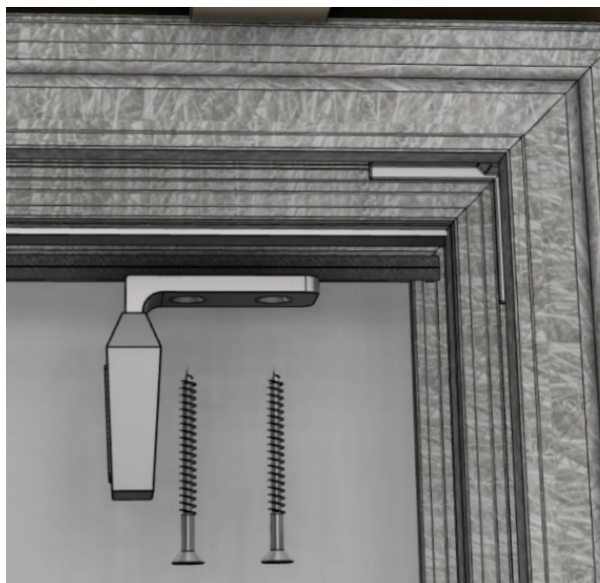


Fig SPKT 2



Fig SPKT 3

BI-PARTING PAS-X PANELS ONLY

- Remove the Astragal on Bi-Parting panels PRIOR installing the panel.
- Remove the two screws at the top and bottom of the Astragal as shown in Fig. PBT 1

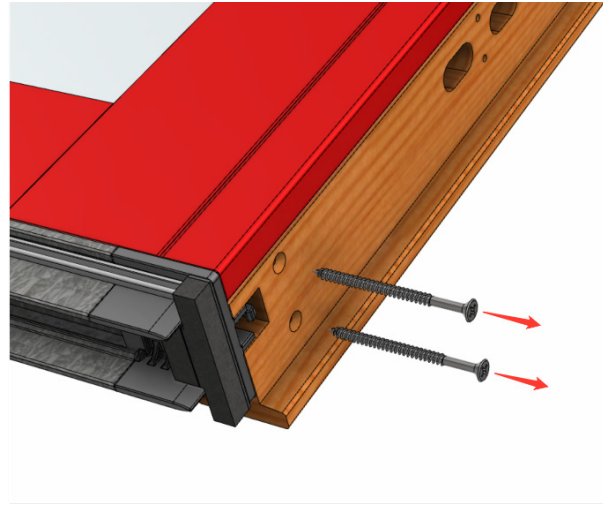


Fig BPT 1

- Remove the screws from the strike plate.

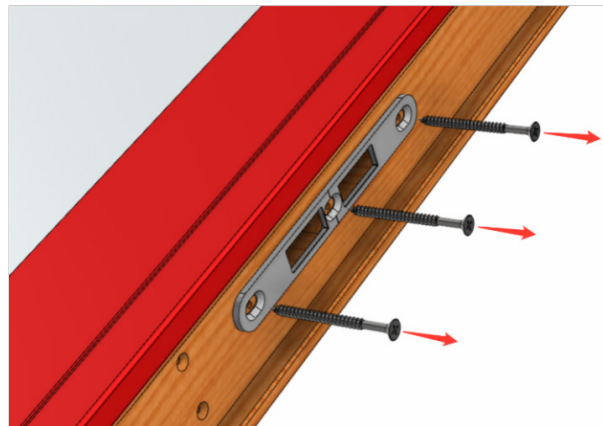


Fig BPT 2

- Remove the Astragal from the panel and place it in a secure location to avoid any damage to it until it is reinstalled.
- With the Astragal removed, place the panel into the frame as described in Figure P 1 – P 3 above.
- Continue to adjust the panel as described in the next section of these instructions before placing the Astragal back to the panel. (See Fig. BPT 4 – BPT xxx).

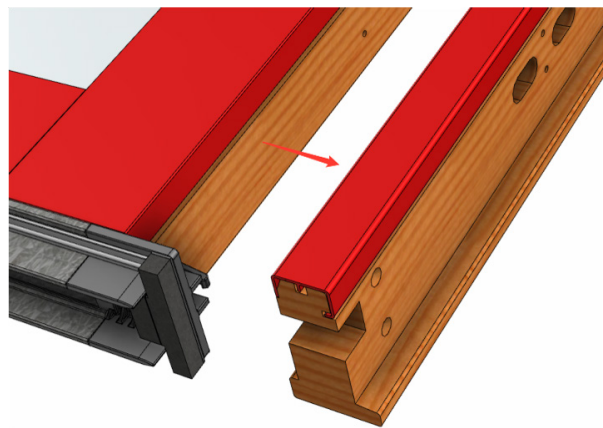


Fig BPT 3

5.1 – Roller Adjustment

- After identifying which rollers need to be adjusted, remove the small black cover from the bottom side of the panel where you need access to the roller (Fig. A1).
- Lay a wooden shim or block on the sill near the end of the panel and place a pry-bar under the Stile. Ensure the bar is near the end of the panel (Fig A2).
- Or use suction cups to lift the panel and place shims under the end of the panel (not pictured).

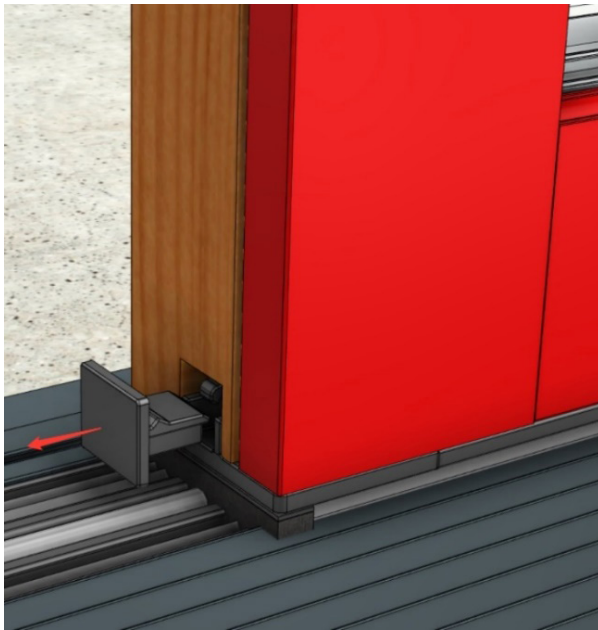


Fig A1



Fig A2

- Raise the panel with the pry-bar to remove all the weight from the rollers, then insert a #2 Philips screwdriver, with an 8" shaft, into the end of the panel and find the adjustment screw on the roller (Fig. A3).



Fig A3

- Turn the screwdriver clockwise to raise the panel and counterclockwise to lower it.
- Adjust and check for level repeatedly until all panels sit square to one another and to the jams.
- Replace the black covers into the adjustment channel on all panels. Make sure to insert it under the visible tongue in the channel (Fig. A5).

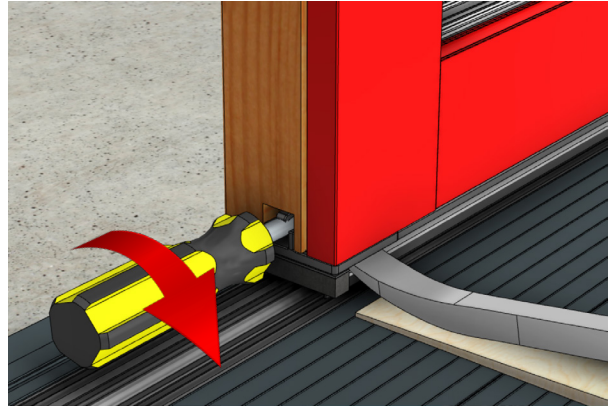


Fig A4

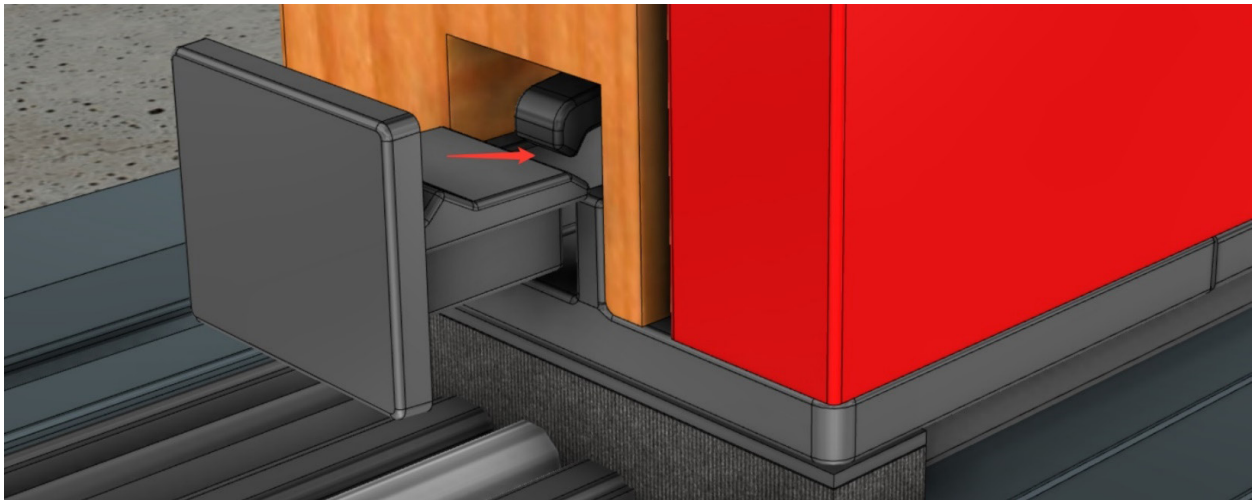


Fig A5

BI-PARTING PAS-X PANELS ONLY

- With the Bi-Parting Passive X panel installed and adjusted, place a continuous bead of silicone sealant along the cladding side of the panel as shown in Fig. BPT 4.
- Run the bead the full height of the panel from bottom to top.
- Rest the Astragal on the Guide Rail End Cap as shown in Fig. BPT 4 and apply it to the panel

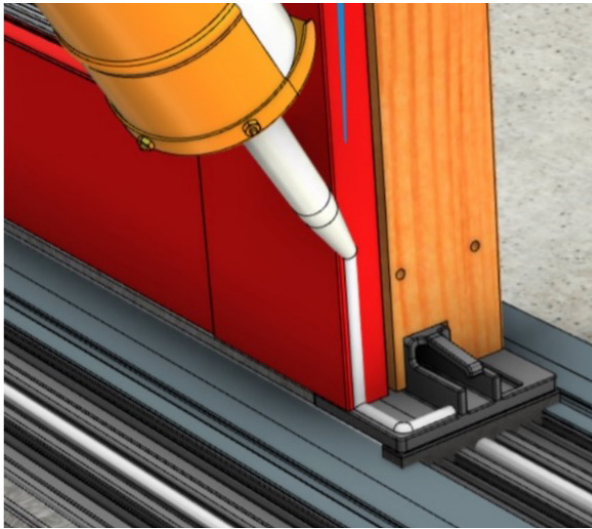


Fig BPT 4



Fig BPT 5

- Replace the # 8 x 2 1/2" Screws to the Astragal that were removed in Fig. BPT 3, repeat applying the same screws the full length of the Astragal into all the countersunk holes.

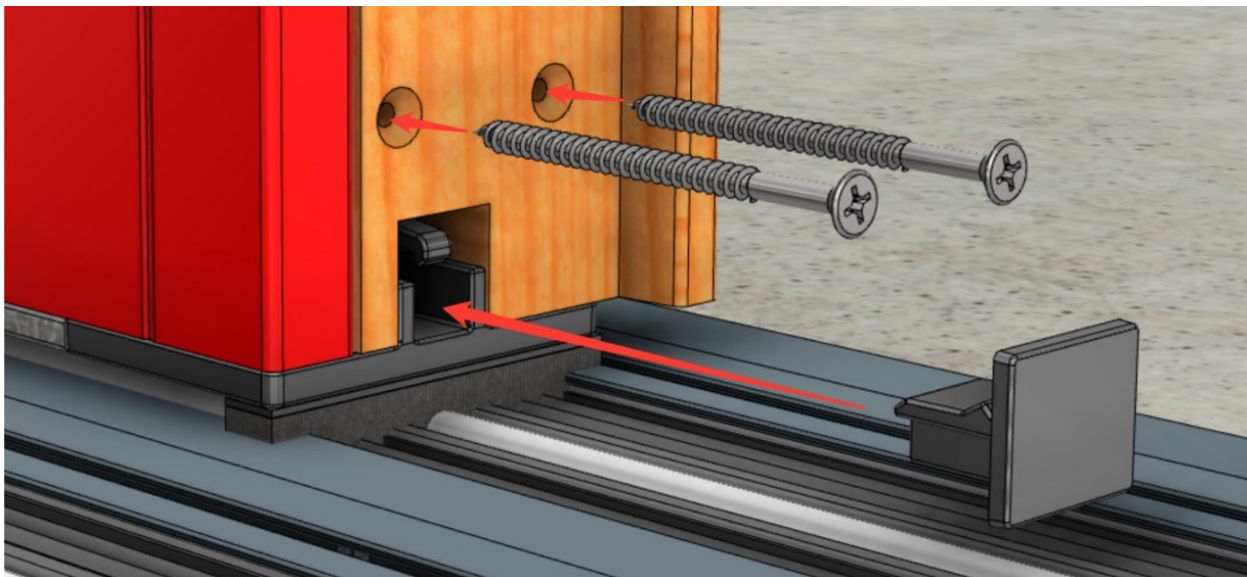


Fig BPT 6

- Locate the elongated holes on the Astragal (1 below the handle, 2 above the handle).
- Apply the Alignment Pin Covers to the Astragals using the #10 2 1/2" flat headscrews as shown in Fig BPT 7.

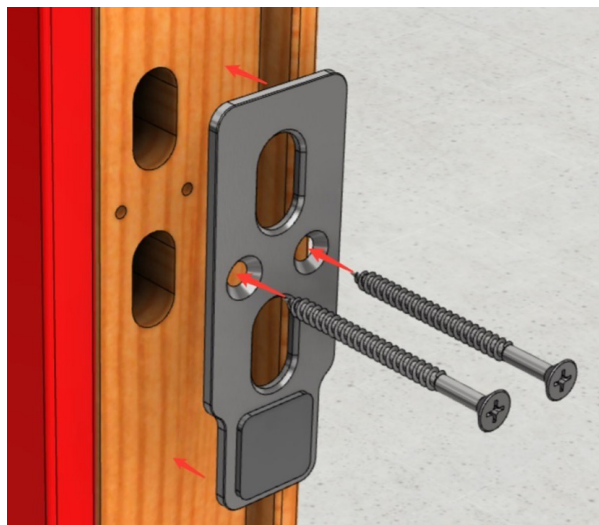


Fig BPT 7

- Re-apply the strike plate using the original screws that were removed in Fig. BPT 2.



Fig BPT 8

5.2 – Structural Rail Installation

- After all the panels have been adjusted, slide the Structural Rails, found in the installation kit, into the top of each panel.

⚠ Be sure to insert the structural rail into the exterior (Fig. A6) AND the interior side (Fig. A7) of all Intermediate 'X' panels. The primary 'X' and the fixed 'O' panels only require one structural rail each.

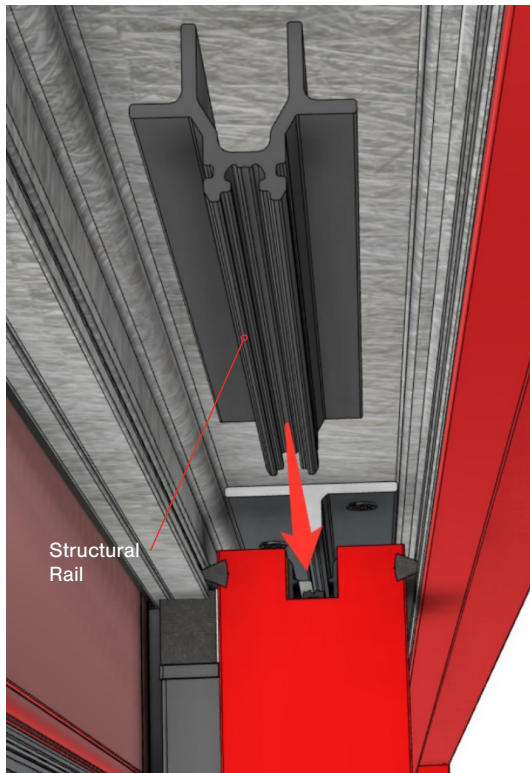


Fig A6

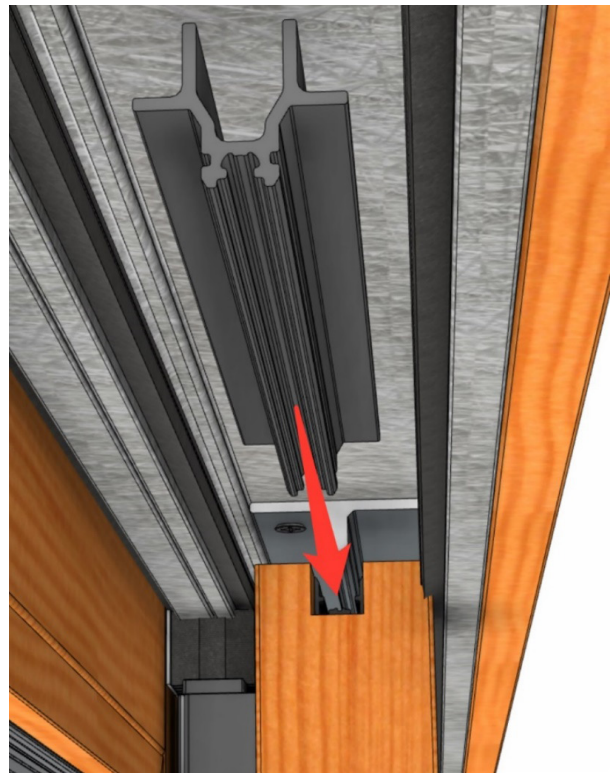


Fig A7

- Slide the structural rail into the structural rail base, located on the top of each panel near the edge of the Stile (Fig. A8).
- Insert the structural rail and slide it into place until you feel a definitive stop. The seated position is approximately 3/4" inset from the edge of the panel, See Fig. A9.
- Fasten the rail into the base using the black #10 x 3/4" Flathead screw from the installation kit as shown in Figure A9.

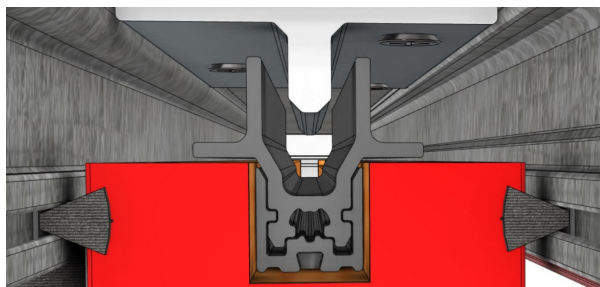


Fig A8

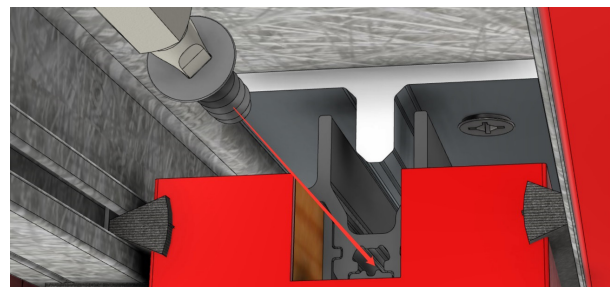


Fig A9

FRAME COVER INSTALLATION

6.1 - Head Cover Installation

⚠ NOTE: all the metal frame covers have a 'leg' on one side; the covers should be installed with this leg pointing to the interior of the door. (Fig. C1)

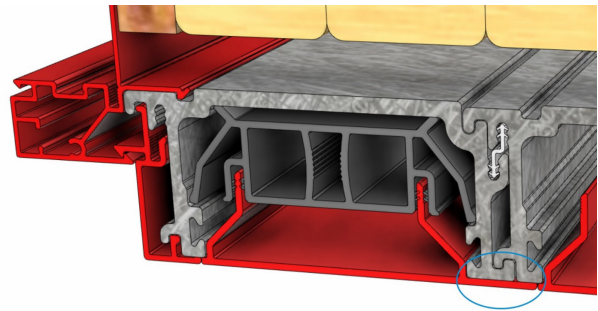


Fig C1

- Locate and remove the frame covers for the head and the foam weatherstrip blocks from the Installation Kit.
- Slide the foam block onto the end of the cover that will be against the panel. (Fig. C2 and Fig. C3).

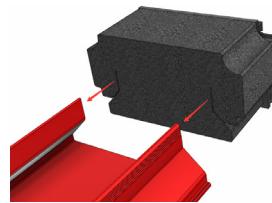


Fig C2

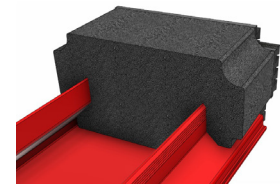


Fig C3

- With the foam pad attached to the cover, insert one end of the cover into the corner of the frame. The shape of the cover will naturally guide it to index into the clips already located in the frame (Fig. C4).
- Press the cover into place by hand, moving along the head from the corner to the panel. Use a wooden block and mallet to tap them into place if necessary.
- Note: The position of the Frame Cover Clips can be adjusted in the head and jambs simply by sliding them in the channels, if necessary.

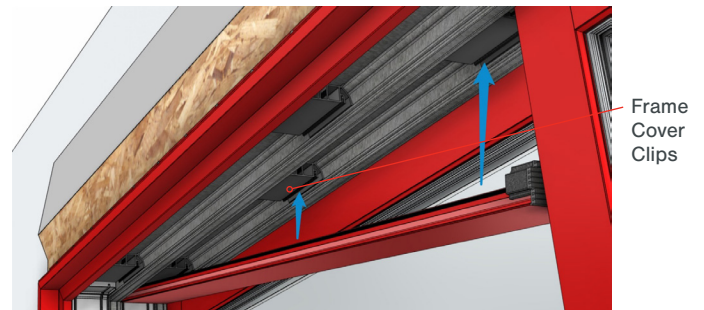


Fig C4

- Compress the foam block from both sides as you press the cover up and into the channel (Fig. C5).

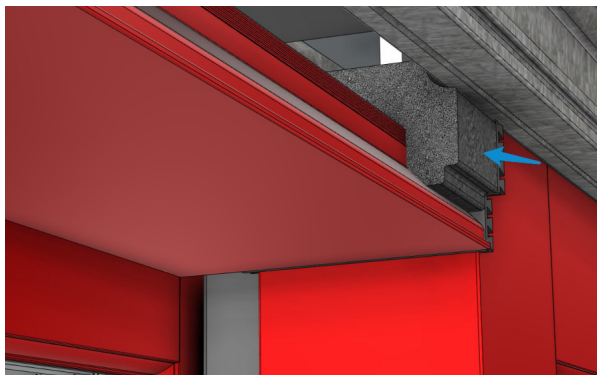


Fig C5

- Continue installing all the frame covers into the head of your unit following the above procedures. (fig. C6).



Fig C6

6.2 - Exterior Jamb Cover Installation

- Place the exterior jamb covers next to the Lock Jamb of your door, align the bottom of the cover with the frame channel you are installing it into. (Fig. C7)
- ⚠ Take precautionary measures to ensure that the jamb covers do not scratch the sill
- Press the cover into place by hand, starting at the sill and moving upward along the jamb.
- Tap the covers into place by hand or use a wooden block and mallet to gently tap them down. Do not use enough force to dent the covers.
- Install any remaining exterior Jamb Covers, repeating the above procedures.

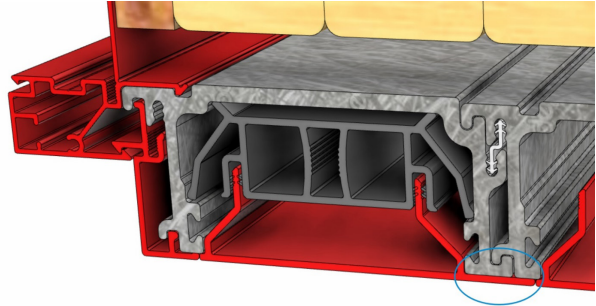
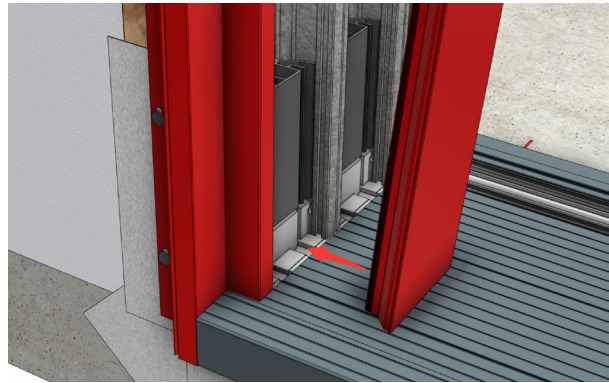


Fig C1



6.3 - Interior Jamb Cover Installation

- Place the interior wood jamb cover, found in the installation kit, on top of the sill and against the outer most jamb channel (Fig. C8).
- Rotate the cover against the jamb channel and tap it into place using a wooden block and a mallet. Start at the bottom and work your way up taping the cover into place (Fig. C9).



Fig C8

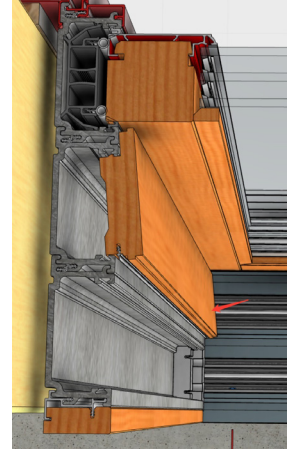


Fig C9

- Moving inward, install any remaining wood Jamb Covers, repeating the above procedures (Fig. C10 and Fig. C11).



Fig C10



Fig C11

COMPLETE FRAME INSTALLATION

- Apply flashing tape to both jambs, running the tape past the head approximately 3" and below the sill rough opening at least 1" (Fig. F1). For pocketing units, see Fig. PKT 17 below.
- Use a J roller to push all air pockets out from behind the tape to ensure good adhesion.
- If at any time the flashing does not stick due to cold wet substrates, it is permissible to secure the flashing tape with a tack hammer and staples.

⚠ NOTE: If a rigid flashing / Drip edge hasn't been factory installed to the head of the unit, ensure an appropriate one is installed correctly.

- For pocketing units, place an Additional line of flashing over the seam in the building wrap at the exterior pocketing wall.
- With both jambs taped, apply the same flashing tape across the head of the unit.
- Ensure that the tape fully overlaps the jamb tape and sits just below the WRB flap that was taped up during the R.O. prep (Fig, F2).

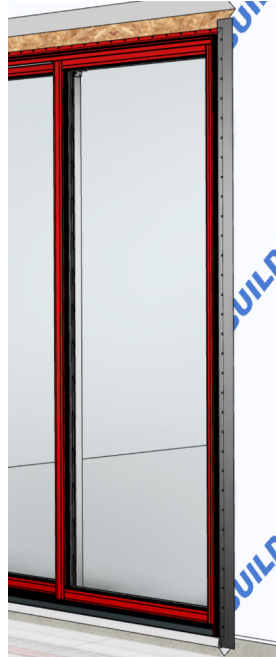


Fig F1



Fig PK17



Fig F2

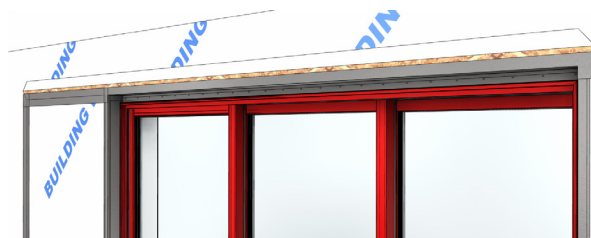


Fig PKT 18

- Fold the WRB flap back to place covering the head flashing tape (Fig. F3).
- Apply a short strip of flashing tape to fully cover the diagonal cut made in the WRB earlier (Fig. F4).

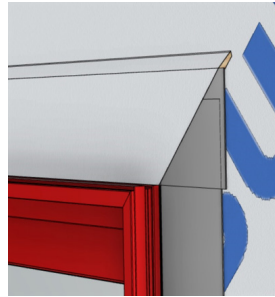


Fig F3

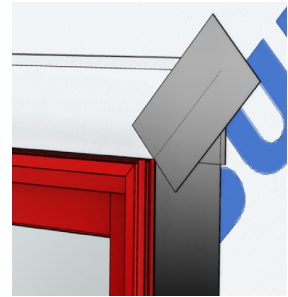


Fig F4

- Spray- foam the rough opening at the sill with a low expansion closed cell foam.
- Ensure that you have a spray foam nozzle that can reach within 1" from the front of the rough opening (Fig. F5).

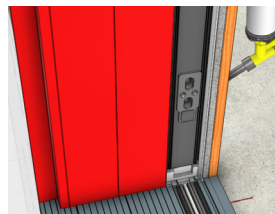


Fig F5

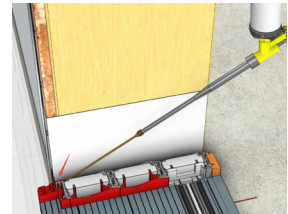


Fig F6

- ⚠ This application applies to ALL unit types, including the jambs inside the pockets of pocketing units.
- ⚠ NOTE: It is critical to the performance of the door that the low expansion spray foam be applied the full depth of the rough opening from directly behind the nail flange to the interior of the sill pan.
- Repeat foaming the upper corners of the frame (Head / Jamb joints), sealing from outside to inside.
- After the foam has set, apply a 2" layer of foam against the back of the flange around the entire rough opening.
- Once the foam has set, continue to fill the entire rough opening with fiber-glass insulation.
- ⚠ While applying spray foam into the rough opening, take special care to ensure that the expanding foam is applied at a rate that does not cause bowing of the Head, or Jambs.

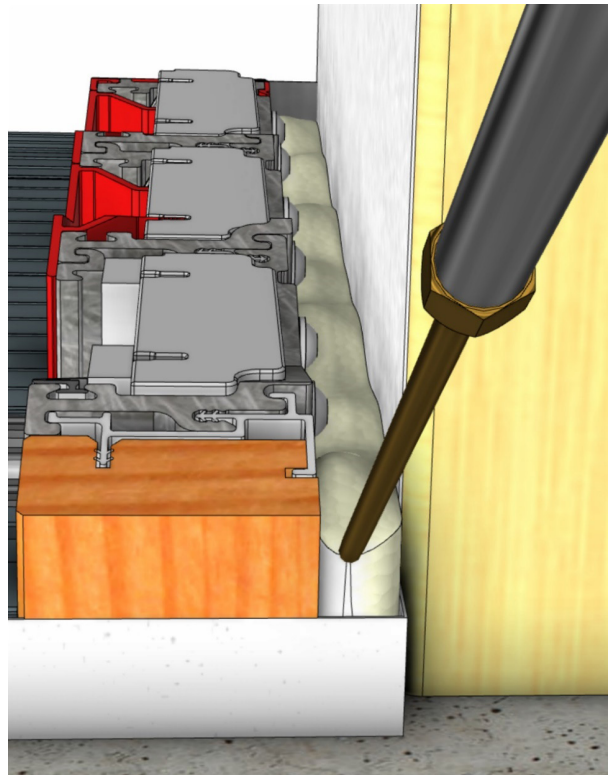


Fig F6

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