

# Ultimate Multi-Slide Door

## High Performance or IZ3 Sill Installation Instruction

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1. The key to proper operation is squaring the door frame in relation to the sill.
2. A GOOD INSTALLATION has a **FLAT** sill that is also **LEVEL**.
3. The BEST INSTALLATION requires a **FLAT** and **LEVEL** sill and a **SQUARE** and **PLUMB** opening.

Correcting an out of square opening requires shimming beneath the sill and/or at the corners. These instructions assume an opening is constructed for the BEST installation with a flat and level sill and a square opening.

**ABSTRACT:** Please read these instructions in their entirety before beginning to install your Marvin **Door product**. These installation instructions demonstrate the installation of a Marvin door in new wood frame construction using an industry approved water management system. For installation using other construction methods, such as remodeling, replacement, and recessed openings refer to ASTM E2112-07, "Standard Practice for Installation of Exterior Windows, Doors and Skylights," for installation suggestions. The same information for ASTM E2112 can be found on the ASTM website, [www.astm.org](http://www.astm.org).

**Regional standard practices, environmental conditions, and codes may vary and supersede the procedures contained within. The responsibility for compliance is yours: the installer, inspector, and owner(s).**

*NOTE: Numbers listed in parentheses ( ) are metric equivalents in millimeters rounded to the nearest whole number.*

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## Before You Begin

*NOTE: If the video does not play you may need an updated version of [Adobe Reader](#).*

*NOTE: Multi-Slide panel operation force is affected by panel size and number of panels. Keep this in mind when having to open or close large and/or multiple panels at one time.*



### WARNING

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



### WARNING

Pinch point can occur at panel intersections during operation. Do not keep fingers in exterior pull when bypassing adjacent panel.

## Hazard Warnings

Please familiarize yourself with the following hazard notations used throughout this instruction.

Caution	Warning	Seek Assistance	Tips/Hints
Mistakes or misuse could cause damage to the door or result in faulty installation and unit performance	Mistakes or misuse could result in personal injury and/or severe damage to unit, equipment, and/or structure	Help from another individual is necessary to perform this task safely and correctly	Information on alternative procedures, definitions, helpful hints



### WARNING

This product can expose you to chemicals including titanium oxide, which is known to the state of California to cause cancer. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



### WARNING

This product can expose you to chemicals including methanol, which is known to the state of California to cause birth defects or other reproductive harm. For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).



### WARNING

Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to [www.P65Warnings.ca.gov/wood](http://www.P65Warnings.ca.gov/wood).

## After Market Products

Alterations to Marvin window and door products including window films, insulating or reflective interior treatments or additional glazings can cause excessive heat buildup and/or condensation. They may lead to premature failures not covered under warranty by Marvin.

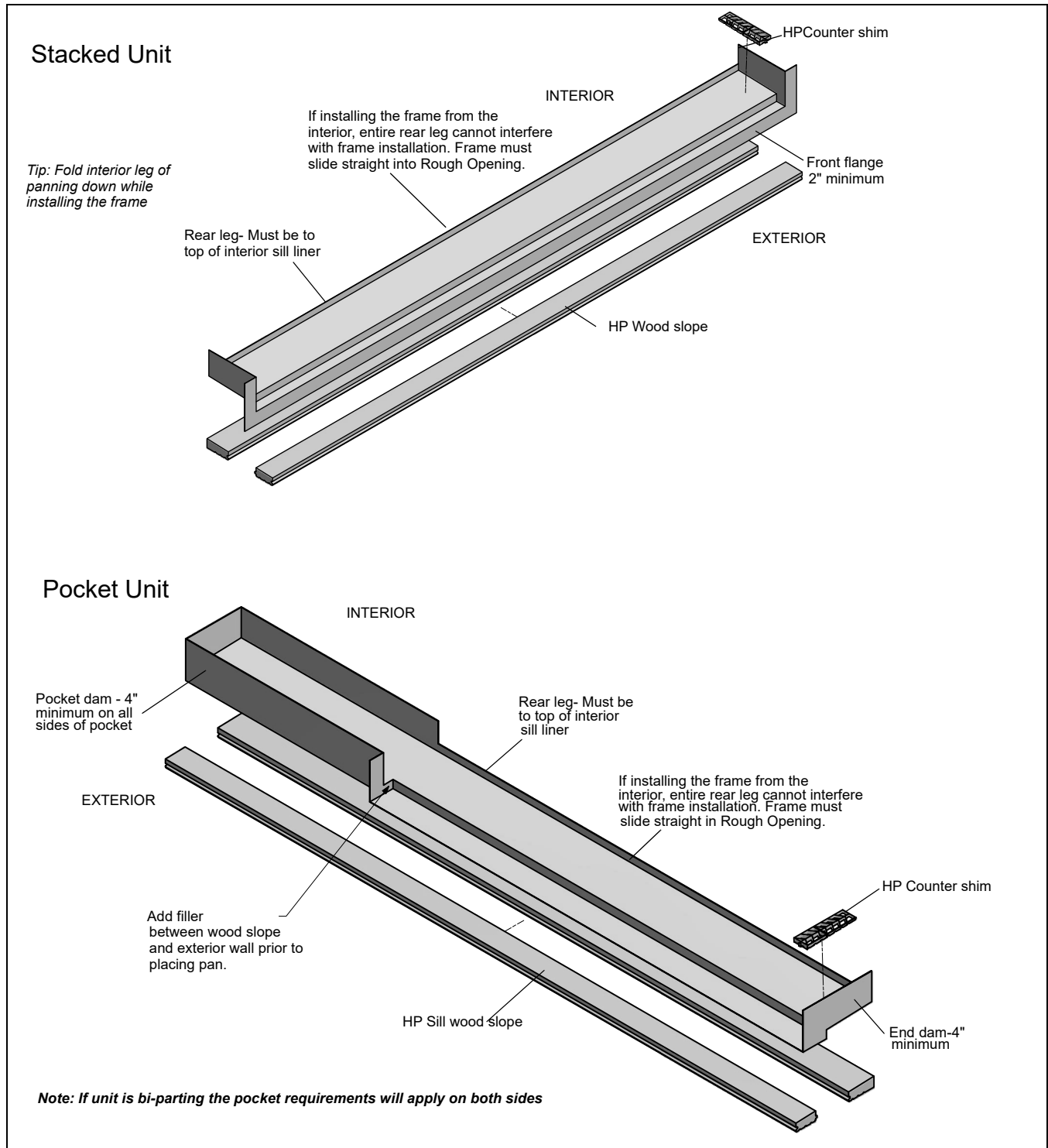
Before purchasing or applying any product that may affect the installation or performance of Marvin products contact the manufacturer of after market product/glazings that are not supplied by Marvin and request written product use, associated warranties and damage coverage. Provide this information and warranties to the end user and/or building owner for future reference.

<b>Tools Needed:</b>	
Safety glasses	#3 Phillips screwdriver
Putty knife	Utility knife
Pry bar	Level
Square	Hammer
Drill	Tape measure
Gloves	Mason's line
Flathead screwdriver	
Suction cups for handling glass panel(s)	
<b>Supplies Needed:</b>	
#8 X 2 1/2" pan head screws (minimum length) for securing wedge at sill (#8 x 1 1/2" pan head screws for performance sill)	
Filler board (use between wood wedge and exterior wall on pocket units)	
Story Poles (if necessary)	Sill pan
Low expansion foam	Weather resistive barrier
Flashing	Shims
Sealant	Rags/paper towel

# All Units

## Sill Panning

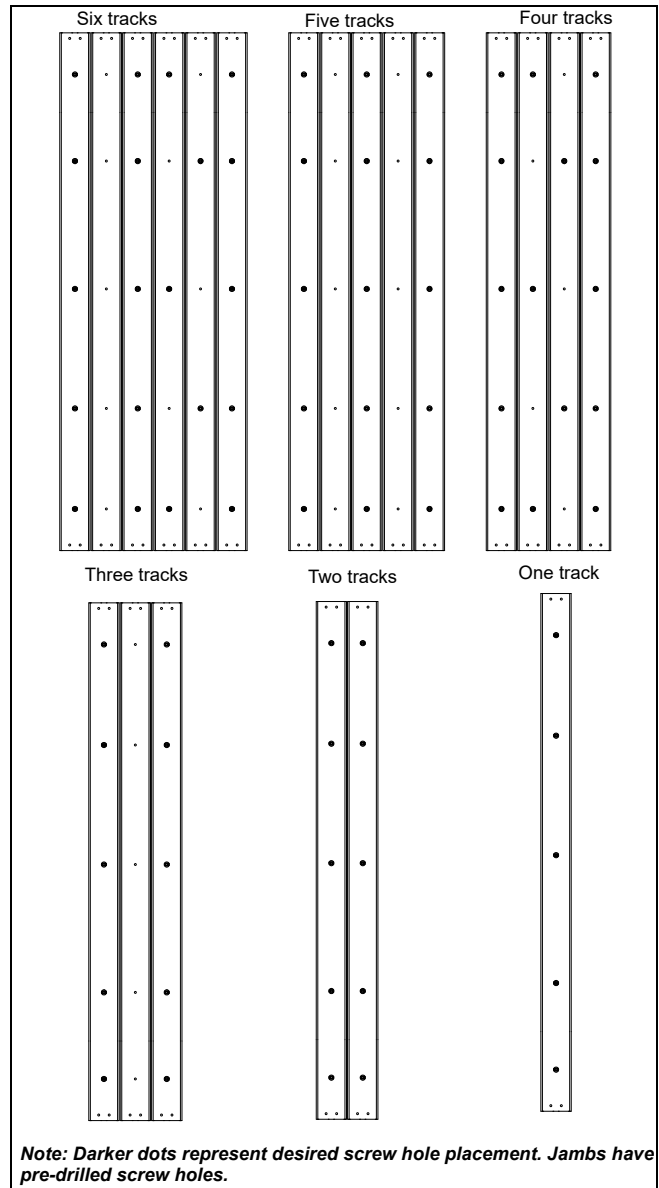
We require a sill pan for all Multi-Sliding doors in accordance with ASTM E2112. A sill pan is installed across the bottom of the opening and integrated into the weather-resistive barrier (WRB). The below illustration shows the basic requirements. Modification may be needed depending on your Rough Opening and alternative field preparation. Pocket units need a filler board to fill gap between wedge and exterior wall. Panning is only required over the wood slope system. Double panning can be achieved with one pan being placed under the wood slope and one on top, but is not required.



## Frame Jamb and Head Jamb Fastening Guide

All jambs will follow this guide (pocket jamb, stationary jamb, locking jamb) **except** the following:

- **Stationary jambs:** have the wood filler on the exterior most track. This will use different screws through the stationary panel brackets into the rough opening and one screw, top and bottom, through the wood into the rough opening.
- **Locking jambs:** have the wood filler on the interior most track. This will use different screws through the strike plate into the rough opening and one screw, top and bottom, through the wood into the rough opening.
- **Pocket Jambs:** have the two pocket bumpers on the top and bottom of the exterior most track. These are installed with the same screws as the diagram uses, through the same holes.
- **Bi-parting units:** Flush bolt strike is installed using two #8 x 3" black installation screws through pre-drilled holes in head jamb.

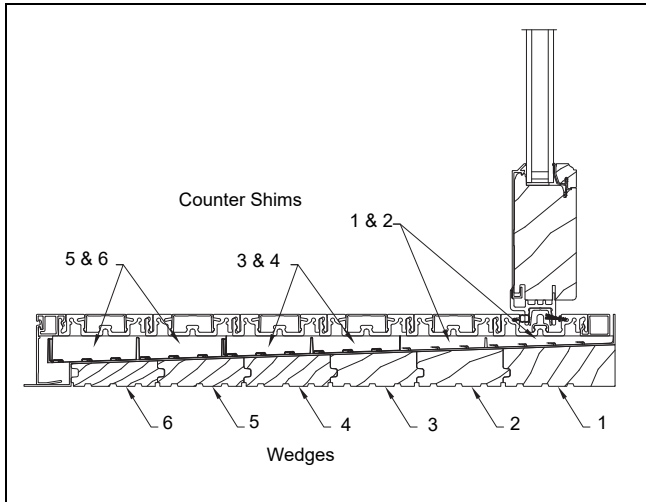


**NOTE:** All screw kits come with extra screws, not all screws are needed.

## Sill Fastening

Sill fasteners are **required** through all holes on outer-edge of interior and exterior tracks. Additional fasteners should be applied to ensure sill stays flat, level, and straight.

# HP Sill Prep



1. Cut wedge sections to rough opening width. See figure 1.



Figure 1

2. Place screws in the center of each wedge, 20" on center. See figure 2. Apply panning over slope system.



Figure 2

**NOTE:** The side with grooves needs to face down.

## IMPORTANT

Panning is required over the slope system.

3. Space counter shims 2" (51) from ends and maximum of 10" (254) on center. See figure 3.

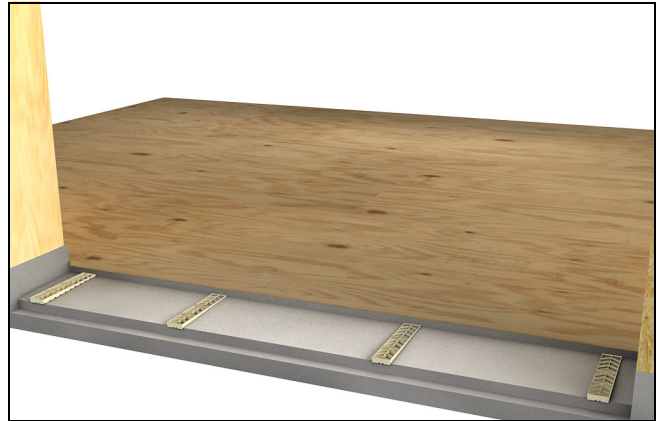


Figure 3



## Tip

Sealant can be used to hold counter shims in place.

**NOTE:** For one, three, and five track units the exterior most shim must be snapped off and discarded.

4. Starting at the highest point, level sill shim points using supplied adhesive shims. Place on top of counter shims. *Note: Larger shims are used on the interior most row. Maximum of four flat shim high.* See figure 4.

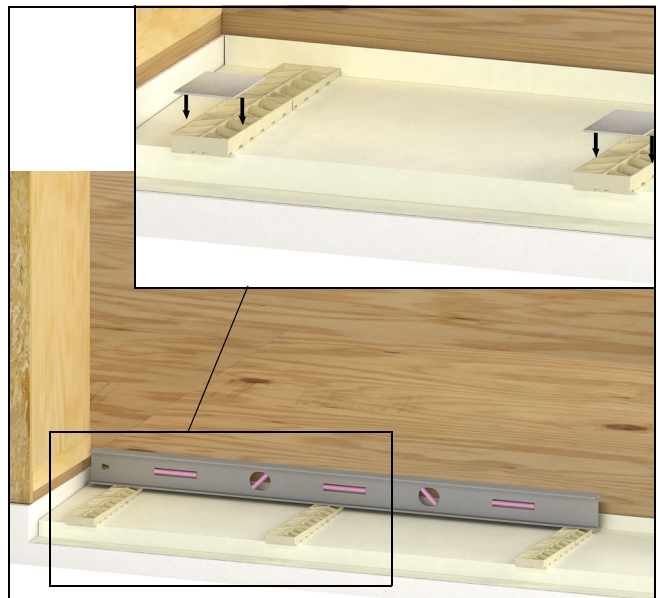


Figure 4

## Frame Sub-Assembly

If the frame width is over 23 1/2' (7163), field assembly of the sill and head jamb is required. If your unit is 23 1/2' (7163) or less, proceed to "Frame Assembly" in appropriate configuration section.

### Sill Field Assembly (Splice Application)

1. Lay out the sill sections upside down in the correct configuration on clean flat surface next to the opening. All sill sections must be in correct sequence.

**NOTE:** If assembling performance sill, use leveling blocks to ensure sill is flat and protect interior sill liner.

2. Insert sill liner splice keys into one side of each splice. Align holes of key and sill liner. Fasten one #8 x 5/8" flat head screw into sill liner splice keys. Insert one screw into each splice key. Do not tighten screws completely. See figure 5.

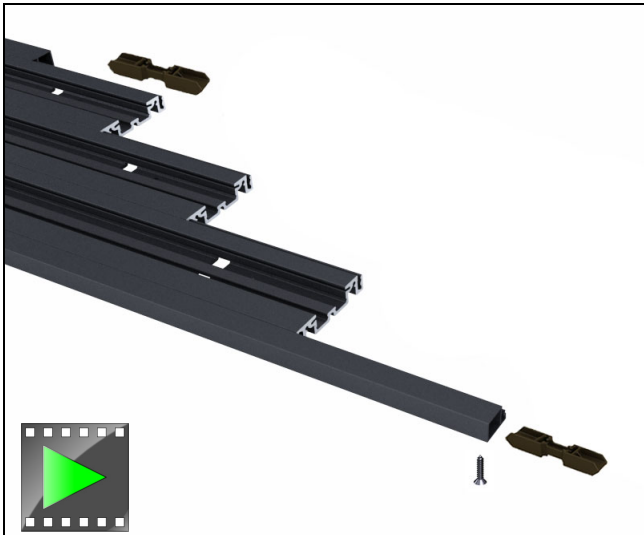


Figure 5

3. Align sill sections at splice by approximately 3" (76) apart. Using rubber mallet, snap sill sections together. Once snapped, slide sections the remaining 3" (76) together. Ensure end of individual sill tracks are flush. When assembled, exterior sill liner will overhang sill track evenly on both ends. See figure 6.

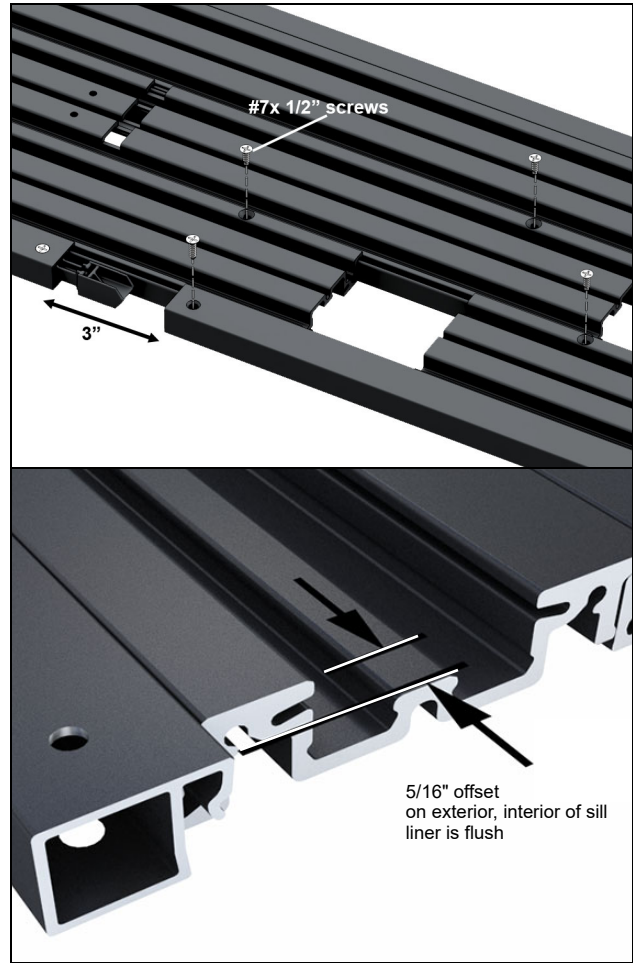


Figure 6

4. Fasten with #7 x 1/2" flat head screws.



#### Tip

When assembling, tighten screws after completing each section.

5. Flip sill assembly so top side is up. Insert bulb weather strip into kerf, adjacent to the pile weather strip. Install sill track if shipped loose. See figure 7.

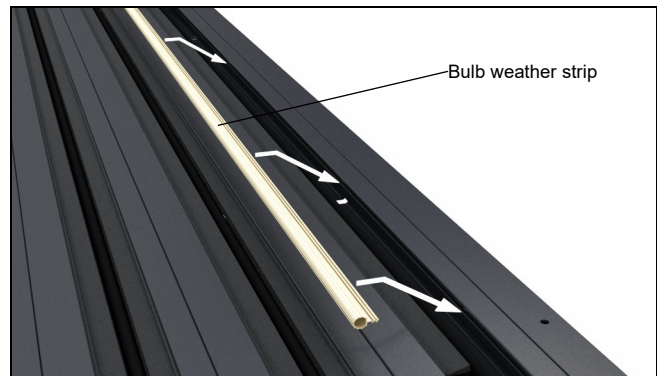


Figure 7

## Head Jamb Field Assembly (Splice Application)

**NOTE:** If unit is only one track deep, skip steps 1 & 2.

1. Lay out the head jamb sections top side down on a clean flat surface in the correct configuration. See figure 8.

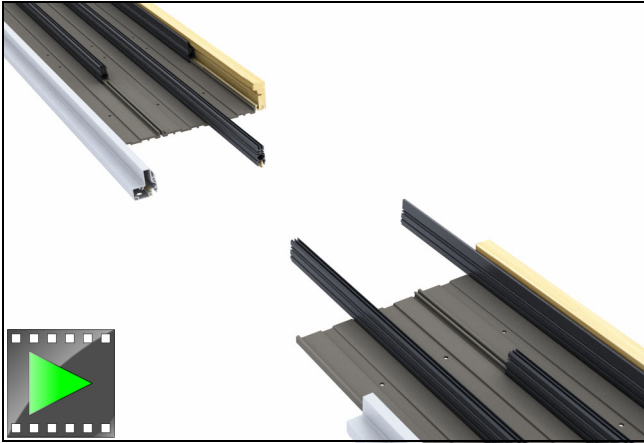


Figure 8

2. Insert frame connector splice key into the frame connector(s). See figure 9.

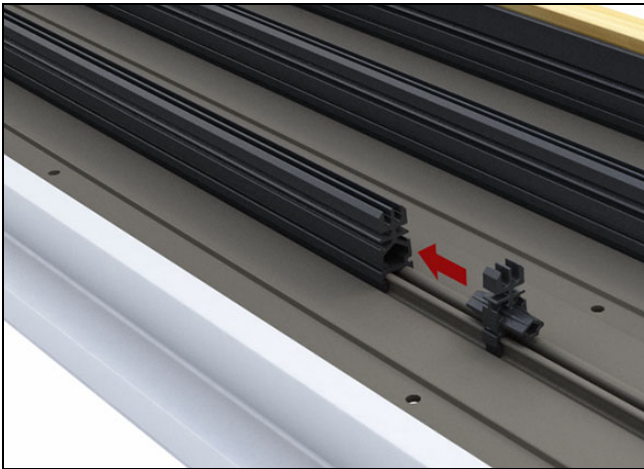


Figure 9

3. Flip the head jamb sections over so the top side is facing up. See figure 10.

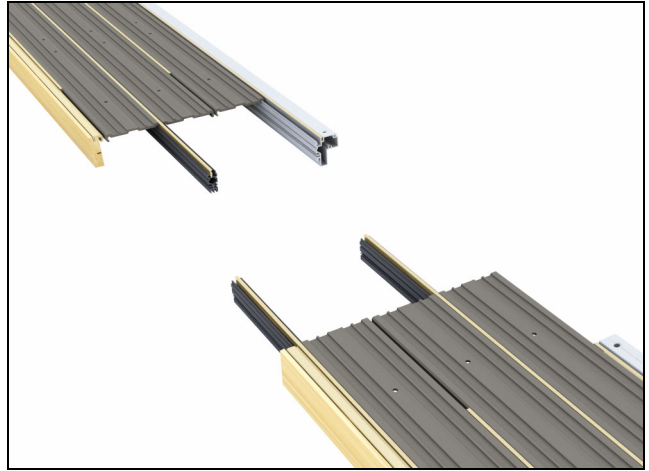


Figure 10

4. Insert frame cladding splice key(s) into one side of each splice. Align key(s) hole(s) with the hole in the frame cladding. Fasten one #7 x 5/8" flat head screw into the frame cladding splice key(s). Do not tighten screw. See figure 11.

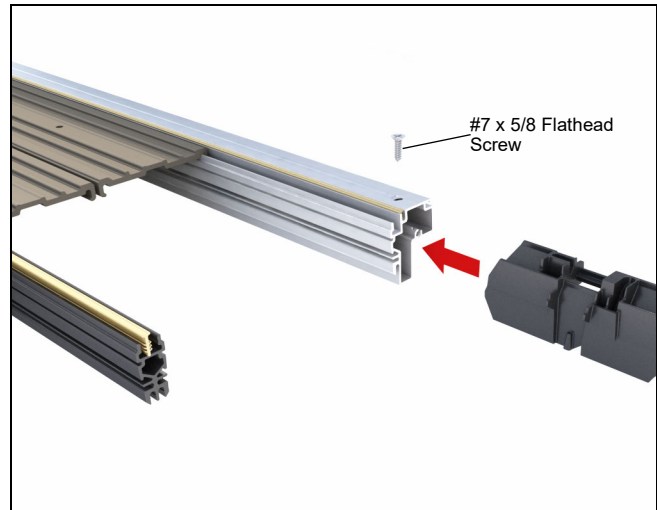


Figure 11

5. Align all components of head jamb sections and slide together. See figure 12.

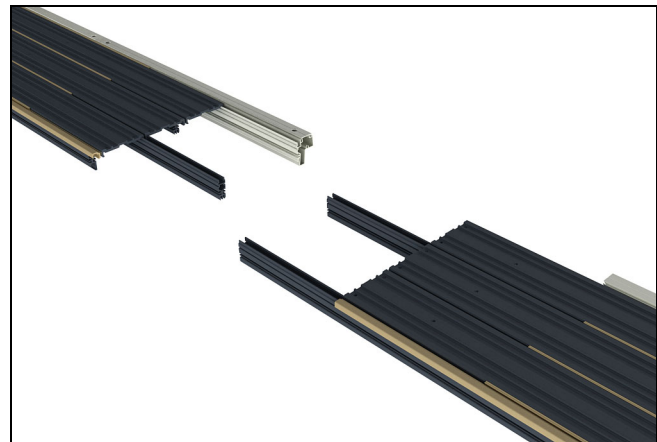


Figure 12



6. Press supplied frame wedge into head jamb frame assembly kerf and cut to length. Tapping gently with a soft mallet. See figure 13.

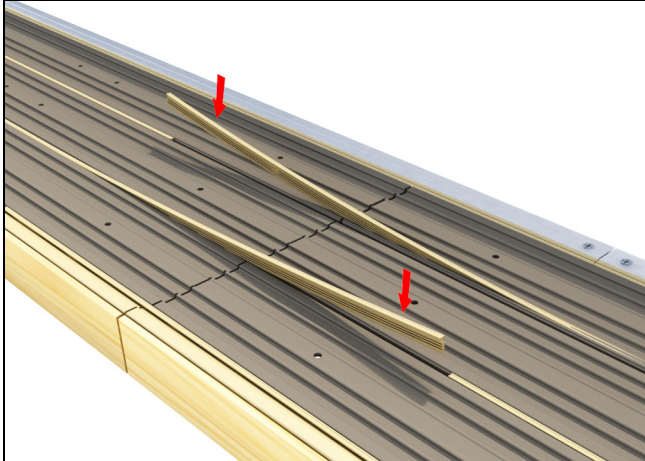


Figure 13

7. Inject sealant into the open hole on the frame cladding splice key until squeeze out occurs. Insert #7 x 5/8" flat head screw into hole. See figure 14.

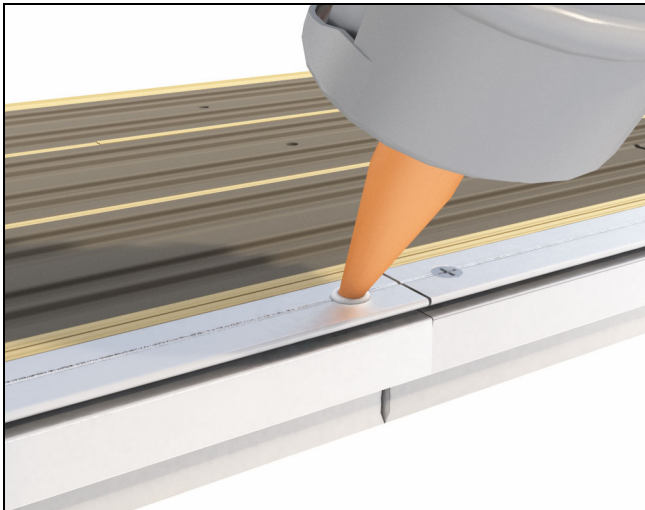


Figure 14

8. Remove other (non-injected) frame cladding splice key screw and inject with sealant until squeeze out occurs in a different location. Install #7 x 5/8" flat head screw. See figure 15.

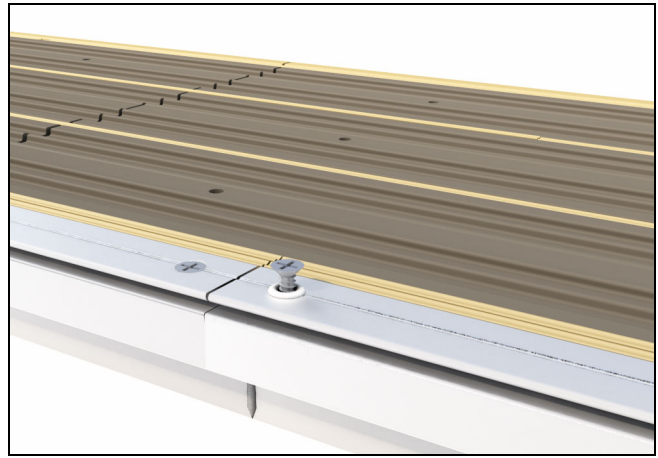


Figure 15

9. Flip head jamb assembly over so top side is down. Ensure frame connectors are tight at splices and evenly spaced on frame assembly. See figure 16.



Figure 16

10. Insert bulb weather strip into kerf, adjacent to pile weather strip. See figure 17.

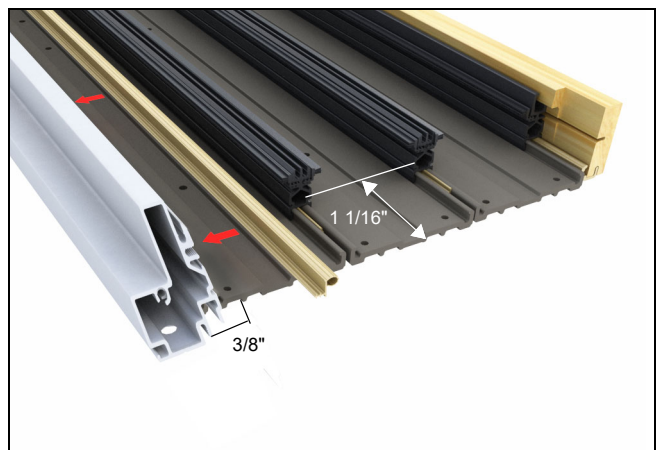


Figure 17



### Tip

Prior to frame assembly, place sill into opening to verify level and fit. Once location is verified, pre-drill installation holes if needed every 20" (508). See figure .

### IMPORTANT

Verify sill panning is flush with top of interior sill liner.



Figure 18

### IMPORTANT

If installing frame from interior, ensure the interior lip of the sill pan can be folded to allow frame to be slid into place.

## Head Jamb Field Assembly (Splice Application)

*NOTE: If unit is only one track deep, skip steps 1 & 2.*

1. Lay out the head jamb sections top side down on a clean flat surface in the correct configuration. See figure 19.

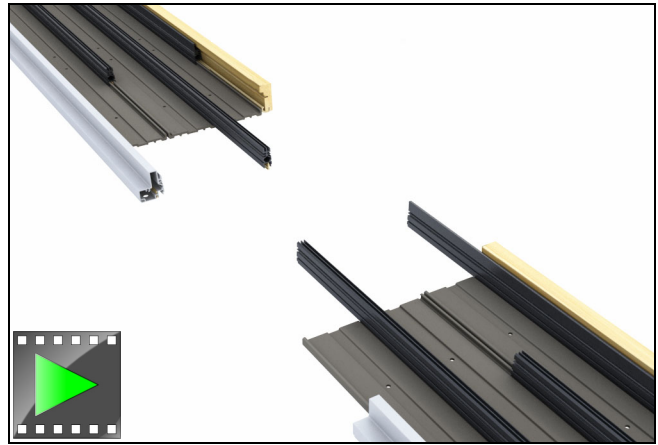


Figure 19

2. Insert frame connector splice key into the frame connector(s). See figure 20.

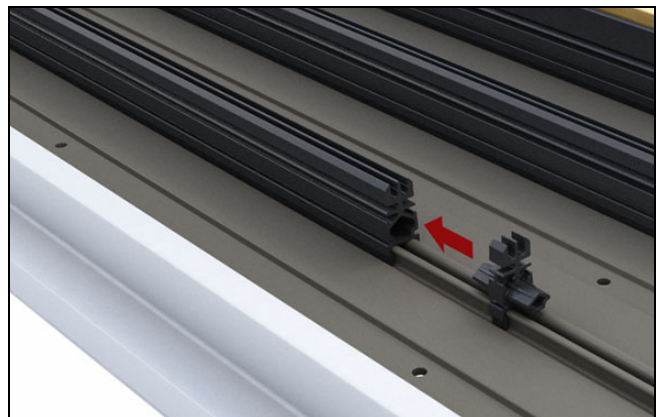


Figure 20

3. Flip the head jamb sections over so the top side is facing up. See figure 21.

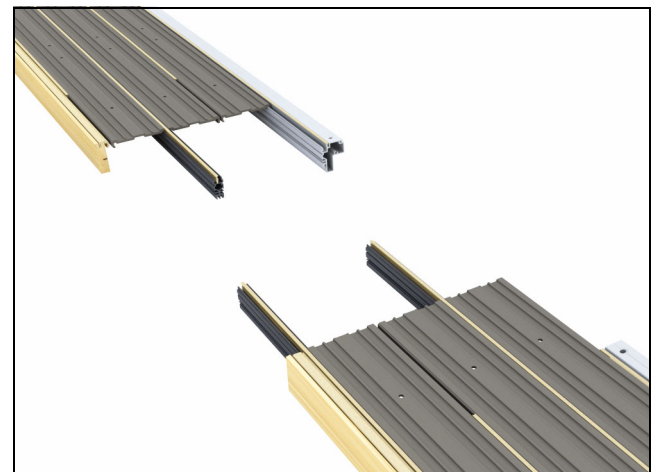


Figure 21

4. Insert frame cladding splice key(s) into one side of each splice. Align key(s) hole(s) with the hole in the frame cladding. Fasten one #7 x 5/8" flat head screw into the frame cladding splice key(s). Do not tighten screw. See figure 22.

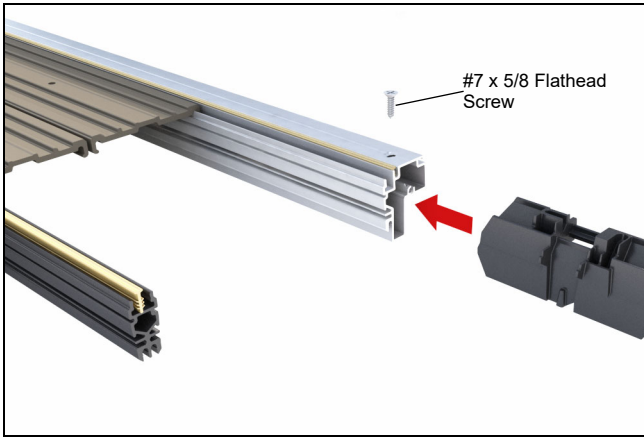


Figure 22

5. Align all components of head jamb sections and slide together. See figure 23.

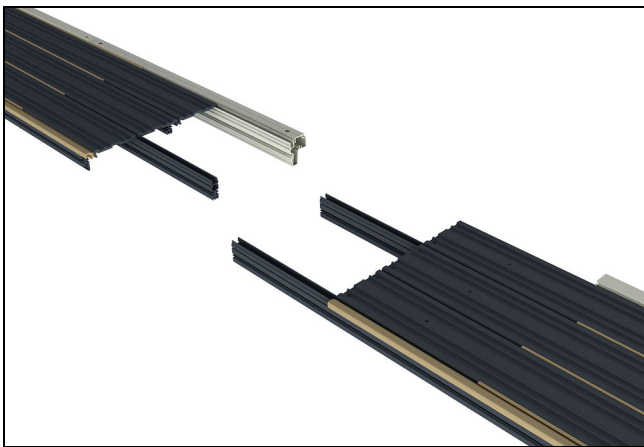


Figure 23

6. Press supplied frame wedge into head jamb frame assembly kerf and cut to length. Tapping gently with a soft mallet. See figure 24.

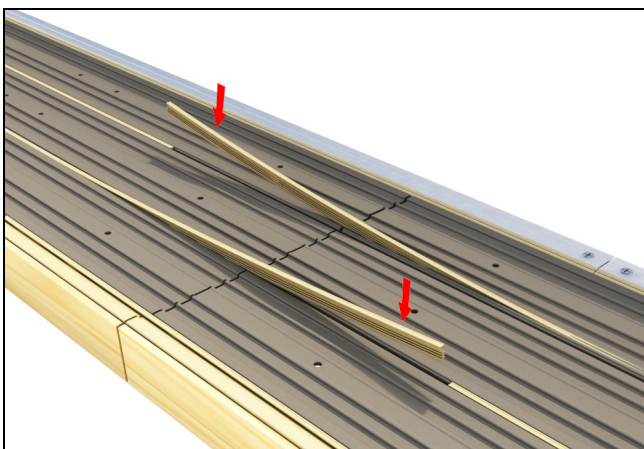


Figure 24

7. Inject sealant into the open hole on the frame cladding splice key until squeeze out occurs. Insert #7 x 5/8" flat head screw into hole. See figure 25.

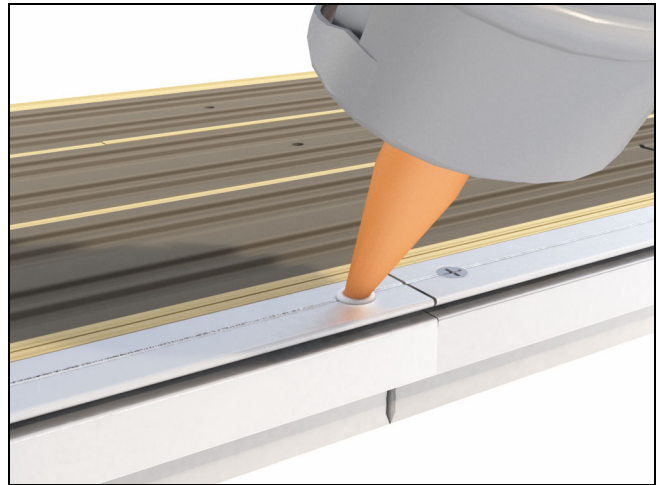


Figure 25

8. Remove other (non-injected) frame cladding splice key screw and inject with sealant until squeeze out occurs in a different location. Install #7 x 5/8" flat head screw. See figure 26.

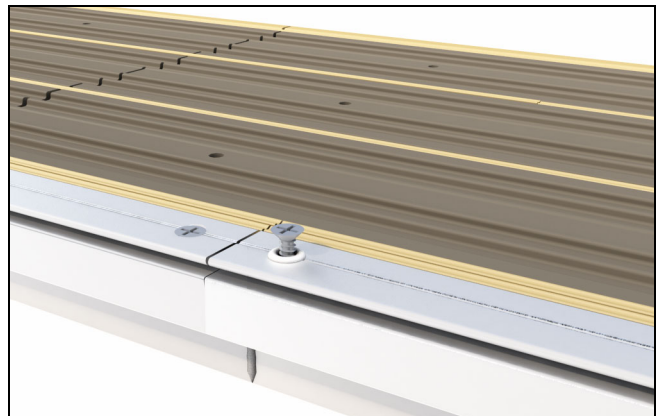


Figure 26

9. Flip head jamb assembly over so top side is down. Ensure frame connectors are tight at splices and evenly spaced on frame assembly. See figure 27.



Figure 27

10. Insert bulb weather strip into kerf, adjacent to pile weather strip. See figure 28.

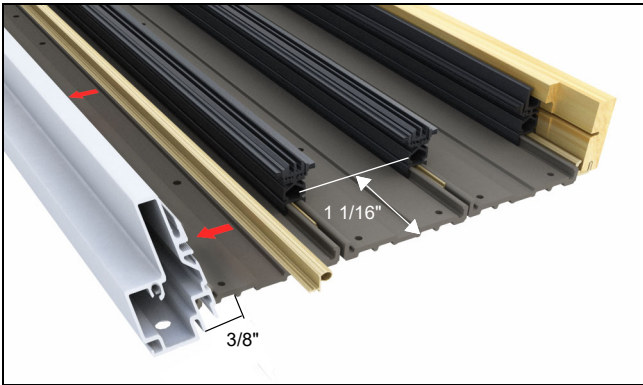


Figure 28

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**IMPORTANT**

Verify sill panning is flush with top of interior sill liner.

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**IMPORTANT**

If installing frame from interior, ensure the interior lip of the sill pan can be folded to allow frame to be slid into place.

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# Uni-Directional Stacked Unit

## Frame Assembly

1. Lay out the four sides of frame and insert frame cladding corner keys into head jamb. See figure 29.



Figure 29

2. Align side jamb to head jamb, using frame cladding corner key as reference. Slide until miter is aligned. See figure 30.

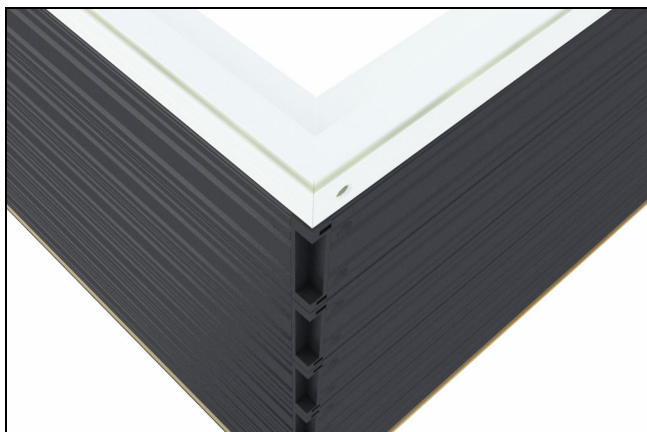


Figure 30

3. Fasten head jamb to side jamb using #8 x 1 1/4" pan head screws. See figure 31. *Note: If unit is prepped for motorization, use two #8 x 3/8" pan head screws on interior track.*

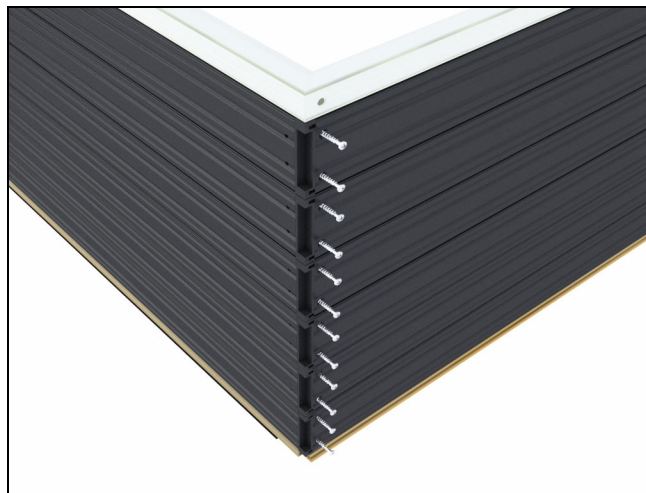


Figure 31

4. Do not install screw into frame cladding miter at this time. See figure 32.

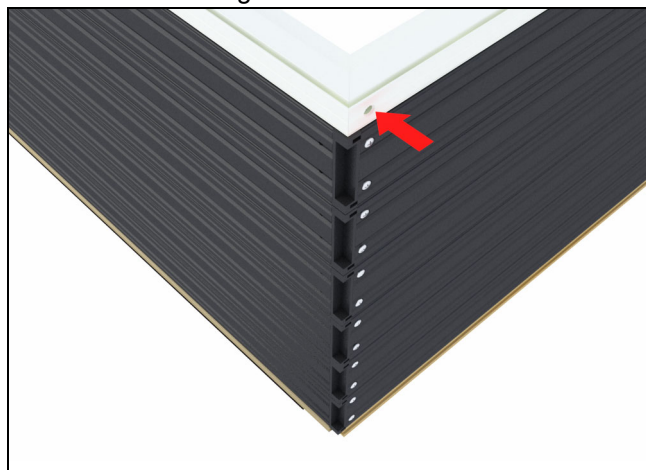


Figure 32

5. Repeat steps 2 and 3 on opposite jamb.

- Align side jamb to sill by sliding corner keys into sill. Fasten side jamb and sill through corner keys using two #8 x 1 3/4" pan head screws per key. See figure 33.

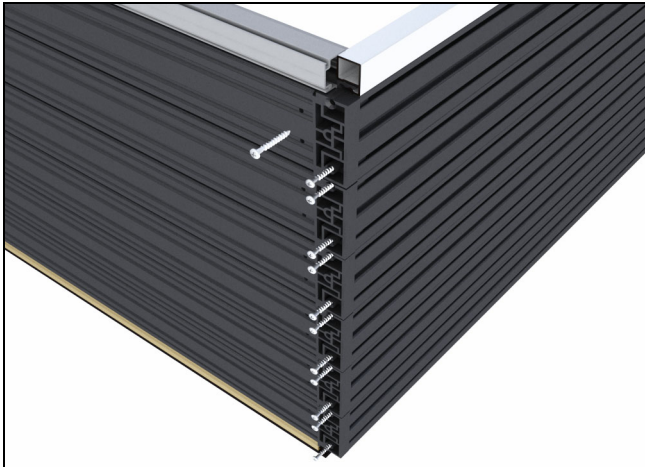


Figure 33

- Fasten sill liner to frame cladding using #8 x 1 1/2" flat head screws. See figure 34. *Note: Ensure hole is lined up with screw boss in frame cladding.*

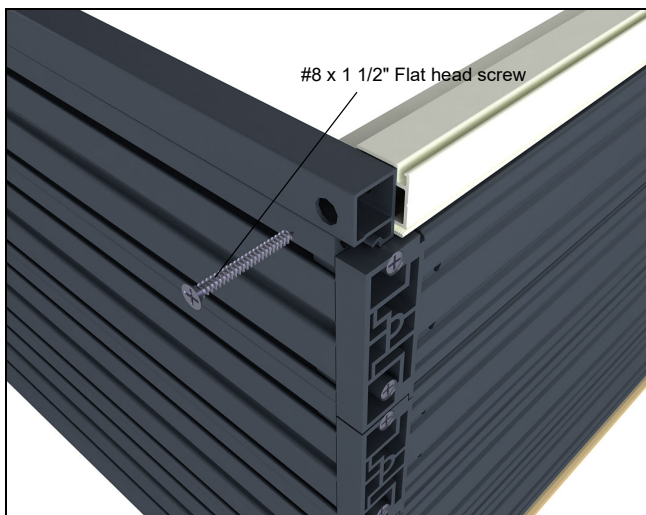


Figure 34

- Repeat steps 5 and 6 on opposite jamb.
- Inject both frame cladding corner key holes with sealant until squeeze out occurs. Fasten using a #8 x 1 1/2" flat head screw into each corner key. See figure 35.



Figure 35

## Frame Installation

- Stand frame upright in front of rough opening. See figure 36.

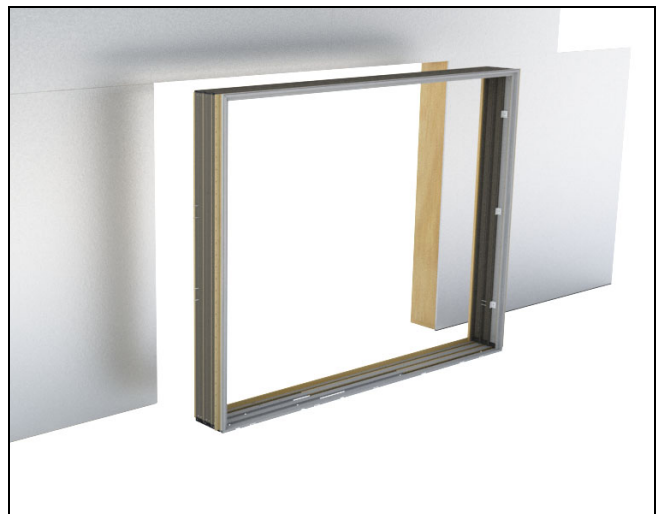


Figure 36

- Place the frame into the opening and position. Install #8 x 1 3/4" anchor screws to secure the sill. Recheck sill for level.

- Plumb and true the side jambs, adding shims and #8 x 3" black installation screws (through provided installation holes) at the top and bottom corners. Ensure the frame is square. Add remaining shims and #8 x 3" black installation screws to side jamb. Follow the screw pattern as shown on page 4. Follow the same procedure for the other side jamb. See figure 37.



Figure 37

- If necessary, shim head jamb so that the story pole stays in light contact with the sill and head jamb frame. Fasten with #8 x 3" black installation screws. See figure 38.



Figure 38

- Remove tape from head jamb structural clips in head jamb and fasten using #8 x 3" black installation screws through all the pre-drilled holes. See figure 39.

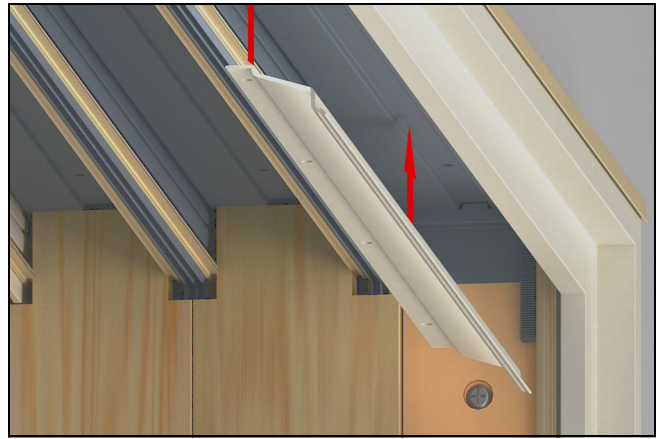


Figure 39

- Install remaining #8 x 1 3/4" (minimum) installation screws into sill.
- Install the stationary bracket, installation #8 x 2 1/2" flat head screws through the brackets and into the rough opening. At top and bottom of wood filler fasten using #8 x 3" washer head screws using counter-bored holes. Ensure there are adequate shims between the rough opening and stationary jamb where the brackets are located. See figure 40.

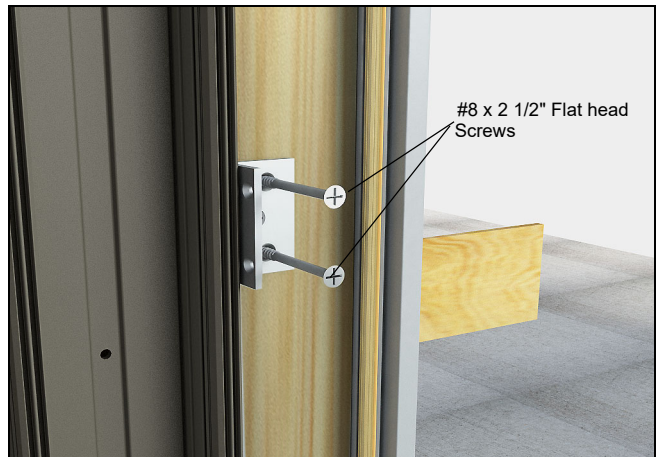


Figure 40

- Fasten the #8 x 2 1/2" flat head screws in the lock strike plate to the locking jamb with provided screws. At top and bottom of wood filler fasten using #8 x 3" washer head screws using counter-bored holes. Ensure there are adequate shims between the rough opening and the locking jamb where the strike is located. See figure 41. At top and bottom of wood filler fasten using #8 x 3" washer head screws.



Figure 41

## Panel Installation

### Panel Installation from Interior

**NOTE:** Panels can not be installed under a structural bracket.

1. Install the weather strip guard by measuring the overall panel width and placing the four weather strip guards into the kerf above the head jamb weather strip the panel width apart. See figure 42.

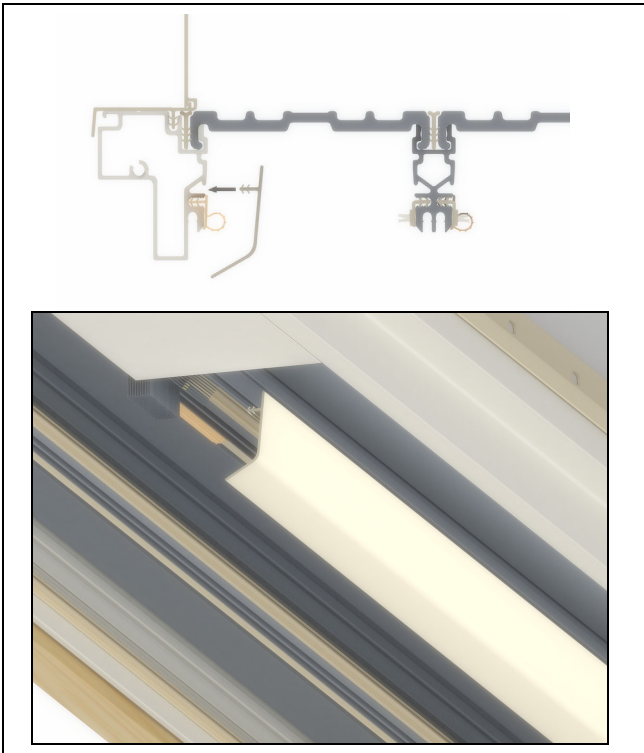


Figure 42

2. Determine which panel goes on which sill track. The panels are set in the same manner as any conventional sliding door system, stationary to the exterior (first), and primary to the interior (last).
3. Install stationary panel(s) first. Tilt top into place and slide the bottom of the panel onto the sill. Slide stationary panel back tight against side jamb and fasten stationary bracket to panel with #6 x 1 1/2" screws. See figure 43. Operate panel and remove weather strip guards. Repeat steps on remaining panels.



Figure 43

4. For remaining panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 44. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 44



5. Operate the doors to ensure smooth movement and check positioning of the interlocks, head jamb, side jambs and lock engagement. Make any necessary adjustments at this time. See figure 45.

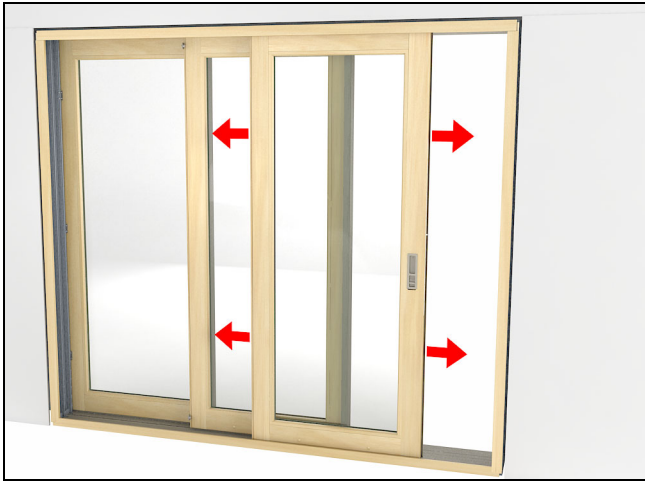


Figure 45

### Panel Installation from Exterior

1. Install the weather strip guard by measuring the overall panel width and placing the four weather strip guards into the kerf above the head jamb weather strip the panel width apart. See figure 46.

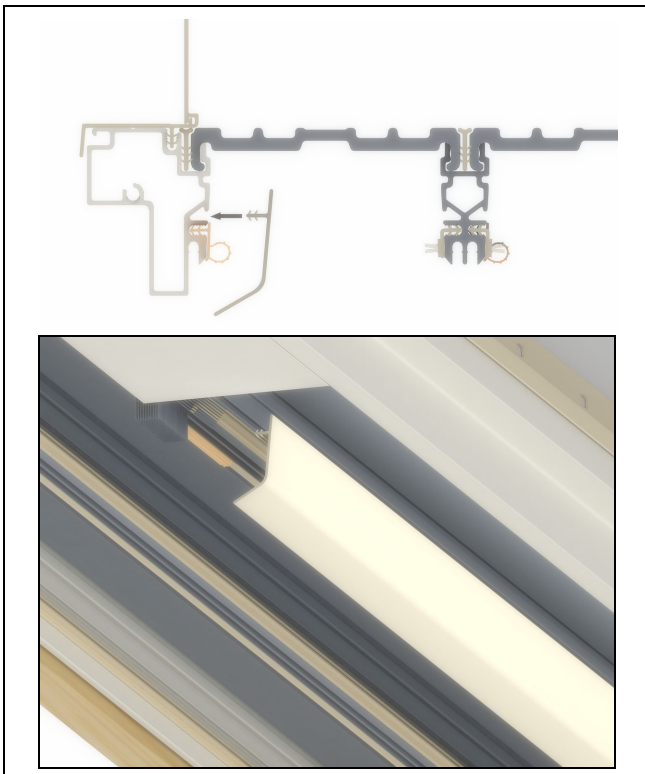


Figure 46

2. Determine which panel goes on which sill track. The panel are set in the same manner as any conventional sliding door system, primary to the interior (first) and stationary to the exterior (last).

3. Install primary panel(s) first. Tilt top into place and slide the bottom of the panel onto the sill. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 47. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 47

4. For remaining operating panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 48.



Figure 48

5. Install stationary panel(s) last. Tilt top into place and slide the bottom of the panel onto the sill. Slide stationary panel back tight against the side jamb and fasten brackets to panel with #6 x 1 1/2" screws. See figure 49.



Figure 49

6. Operate the doors to ensure smooth movement and check positioning of the interlocks, head jamb, and side jamba. Make any necessary adjustments at this time. See figure 50. To ensure pocket interlock is placed correctly, close all panels, making sure primary panel locks properly. See figure 50.



Figure 50

# Bi-Parting Stacked Unit

## Frame Assembly

1. Lay out the four sides of frame and insert frame cladding corner keys into head jamb. See figure 51.



Figure 51

2. Align side jamb to head jamb, using frame cladding corner key as reference. Slide until miter is aligned. See figure 52.

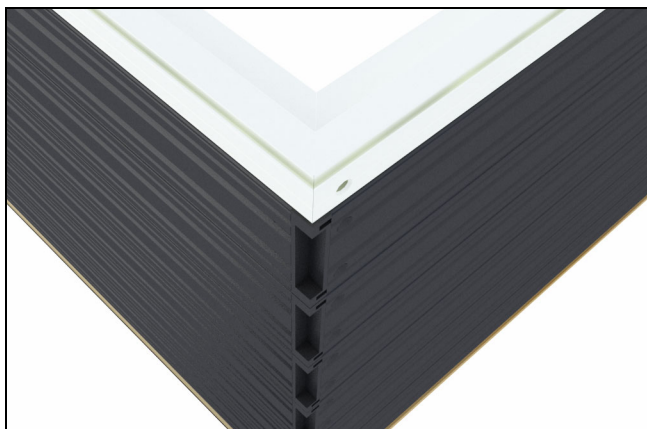


Figure 52

3. Fasten head jamb to side jamb using #8 x 1 1/4" pan head screws. See figure 53. *Note: If unit is prepped for motorization, use two #8 x 3/8" pan head screws on interior track.*

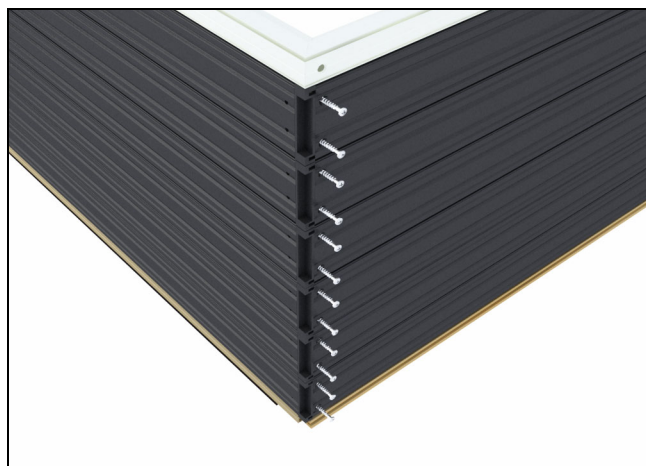


Figure 53

4. Do not install screw into frame cladding miter at this time. See figure 54.

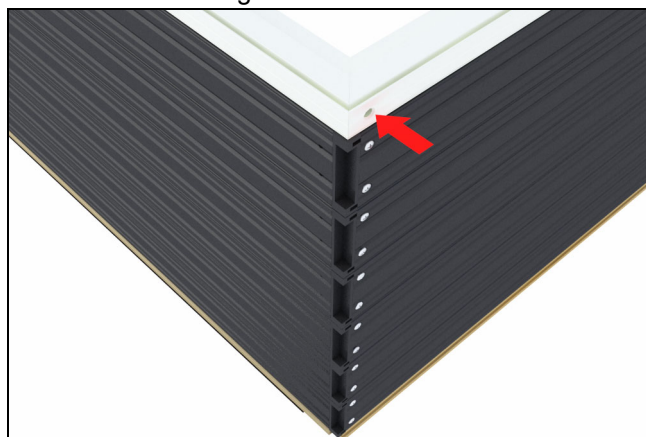


Figure 54

5. Repeat steps 2 and 3 on opposite jamb.
6. Align side jamb to sill by sliding corner keys into sill. Fasten side jamb and sill through corner keys using two #8 x 1 3/4" pan head screws per key. See figure 55.

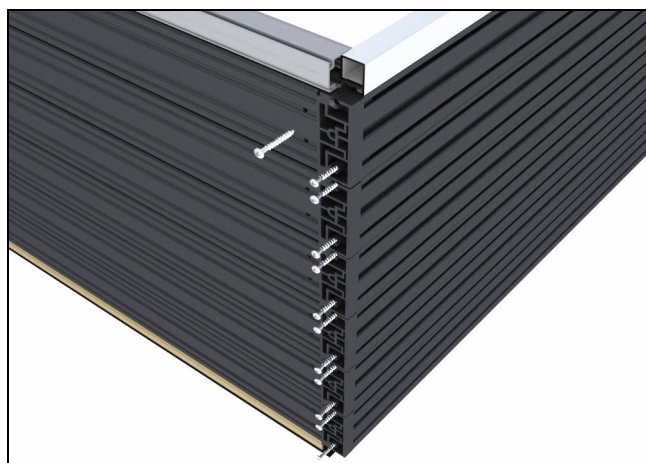


Figure 55

7. Fasten sill liner to frame cladding using #8 x 1 1/2" flat head screws. See figure 56. *Note: Ensure hole is lined up with screw boss in frame cladding.*

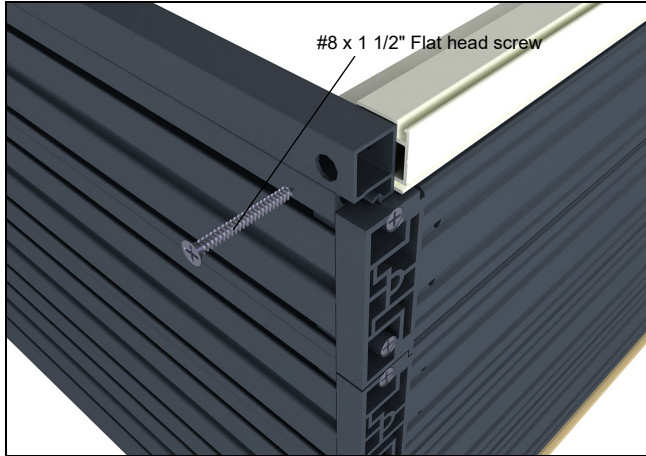


Figure 56

8. Repeat steps 5 and 6 on opposite jamb.
9. Inject both frame cladding corner key holes with sealant until squeeze out occurs. Fasten using a #8 x 1 1/2" flat head screw into each corner key. See figure 57.

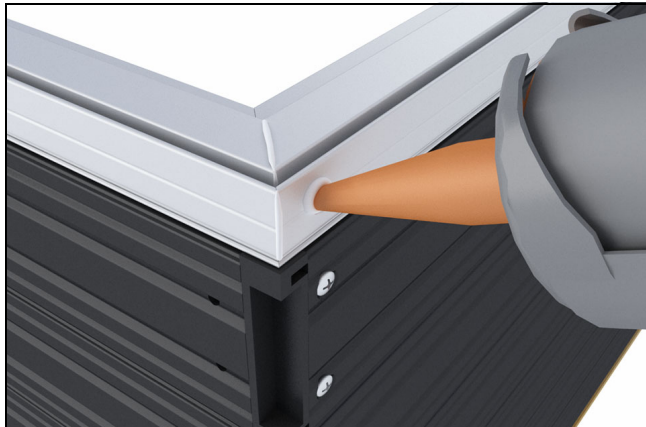


Figure 57

## Frame Installation

1. Stand frame upright in front of rough opening. See figure 58.

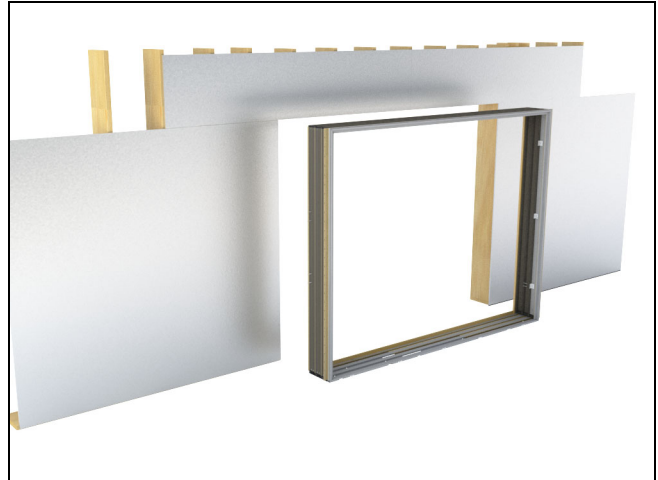


Figure 58

2. Place the frame into the opening and position. Install #8 x 1 3/4" anchor screws to secure the sill. HP sill: install a minimum #8 x 1 1/2" anchor screws to secure the performance sill. Recheck sill for level.
3. Plumb and true the side jambs, adding shims and #8 x 3" black installation screws (through provided installation holes) at the top and bottom corners. Ensure the frame is square. Add remaining shims and #8 x 3" black installation screws to side jamb. Refer to screw logic diagram. Follow the same procedure for the other side jamb. See figure 59.



Figure 59

- If necessary, shim head jamb so that the story pole stays in light contact with the sill and head jamb frame. Fasten with #8 x 3" black installation screws. See figure 60.

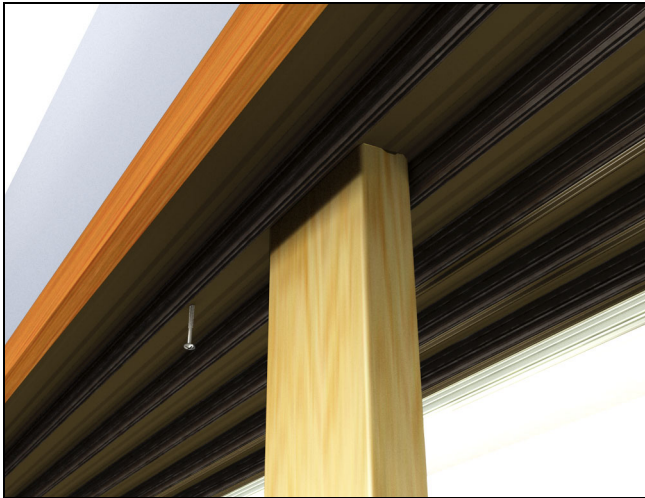


Figure 60

- Install remaining #8 x 1 3/4" installation screws into sill.
- Install the stationary bracket, installation #8 x 2 1/2" flat head screws through the brackets and into the rough opening. At top and bottom of wood filler fasten using #8 x 3" washer head screws using counter-bored holes. Ensure there are adequate shims between the rough opening and stationary jamb where the brackets are located. See figure 61.

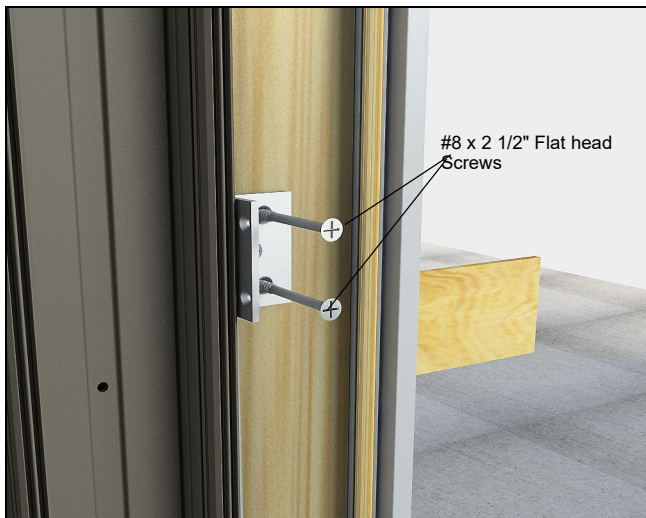


Figure 61

- Fasten the flush bolt strike through the pre-drilled holes using the #8 x 3" black installation screws, near the center of the head jamb on the interior track. Ensure there are adequate shims between the rough opening and the head jamb where the strike is located. See figure 62.

## IMPORTANT

If unit is prepped for motorization, do not install flush bolt strike.

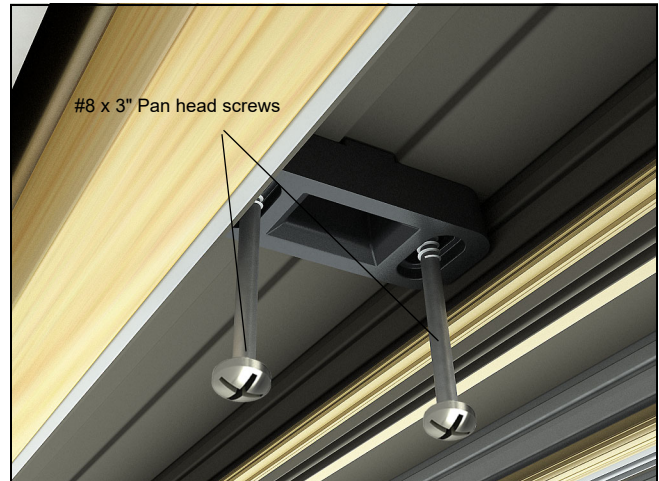


Figure 62

- Remove tape from head jamb structural clip in head jamb and fasten using #8 x 3" black installation screws through all the pre-drilled holes. See figure 63.

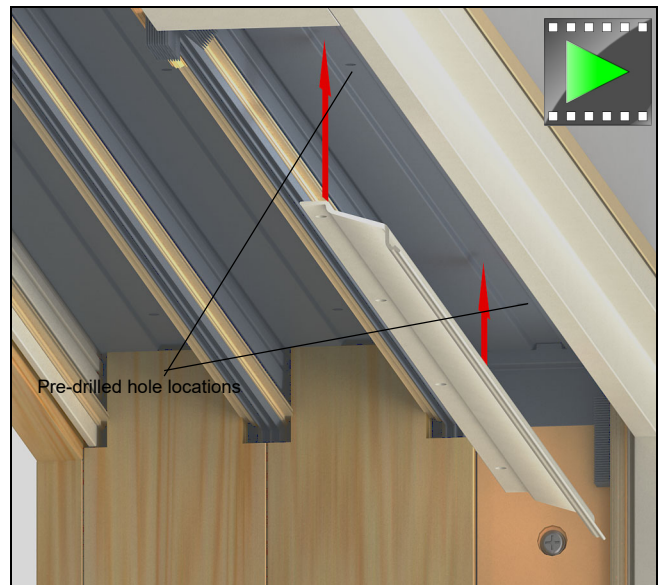


Figure 63

# Panel Installation

## Panel Installation from Interior

**NOTE:** Panels can not be installed under a structural bracket.

1. Install the weather strip guard by measuring the overall panel width and placing the four weather strip guards into the kerf above the head jamb weather strip the panel width apart. See figure 64.

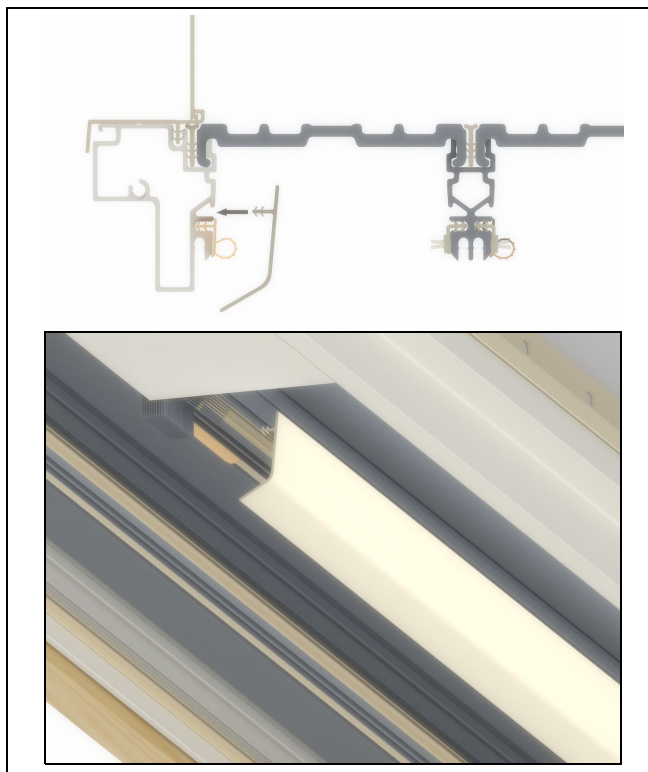


Figure 64

2. Determine which panel goes on which sill track. The panels are set in the same manner as any conventional sliding door system, stationary to the exterior (first), and primary to the interior (last).
3. Install stationary panel(s) first. Tilt top into place and slide the bottom of the panel onto the sill. Slide stationary panel back tight against side jamb and fasten stationary bracket to panel with #6 x 1 1/2" screws. See figure 65.
4. Operate panel and remove weather strip guards. Repeat steps on remaining panels.



Figure 65

5. For remaining panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage the with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 44. *Note: Rollers must be adjusted to raised panel position. For information on roller*
6. Determine which panel goes on which sill track. The panels are set in the same manner as any conventional sliding door system, stationary to the exterior (first), and primary to the interior (last).
7. Install stationary panel(s) first. Tilt top into place and slide the bottom of the panel onto the sill. Slide stationary panel back tight against side jamb and fasten stationary bracket to panel with #6 x 1 1/2" screws. See figure 66.



Figure 66

8. For remaining panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 67. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 67

9. Operate the doors to ensure smooth movement and check positioning of the interlocks, head jamb, side jambs and lock engagement. Make any necessary adjustments at this time. See figure 68



Figure 68

## Panel Installation from Exterior

1. Determine which panel goes on which sill track. The panel are set in the same manner as any conventional sliding door system, primary to the interior (first) and stationary to the exterior (last).
2. Install primary panel(s) first. Tilt top into place and slide the bottom of the panel onto the sill. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 69. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 69

3. For remaining operating panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 70.



Figure 70

4. Install stationary panel(s) last. Tilt top into place and slide the bottom of the panel onto the sill. Slide stationary panel back tight against the side jamb and fasten brackets to panel with #6 x 1 1/2" screws. See figure 71.



Figure 71

5. Operate the doors to ensure smooth movement and check positioning of the interlocks, head jamb, and side jambs. Make any necessary adjustments at this time. See figure 72. To ensure pocket interlock is placed correctly, close all panels, making sure primary panel locks properly.



Figure 72



# Uni-Directional Pocket Unit

## Frame Assembly

**NOTE:** Pocket frame installation is from in the interior only.

1. Lay out all four sides of frame and insert frame cladding corner key into frame cladding at the edge of the head jamb. See figure 73.



Figure 73

2. Align side jamb to head jamb. See figure 74.

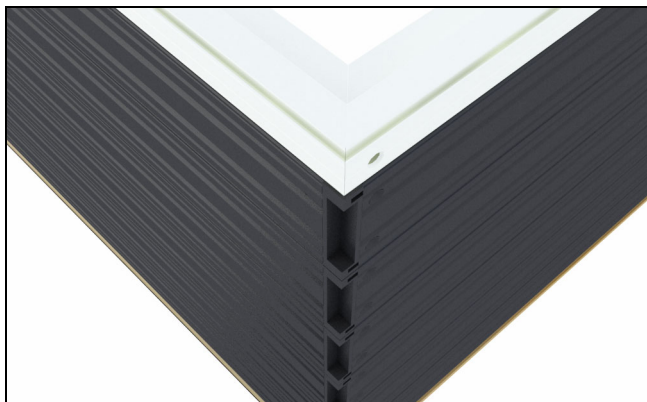


Figure 74

3. Fasten head jamb to side jamb using #8 x 1 1/4" pan head screws. See figure 75. Do not install screw into frame cladding miter at this time. *Note: If unit is prepped for motorization, use two #8 x 3/8" pan head screws on interior track.*

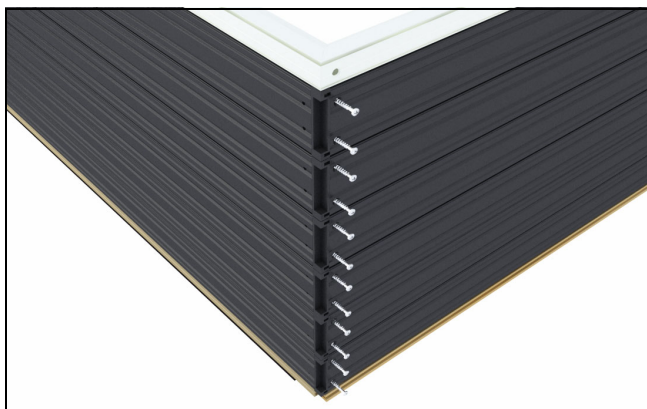


Figure 75

4. Repeat steps 2 and 3 on opposite jamb.
5. Align side jamb to sill by sliding corner keys into sill. Fasten side jamb and sill through corner keys using two #8 x 1 3/4" pan head screws per key. See figure 76.

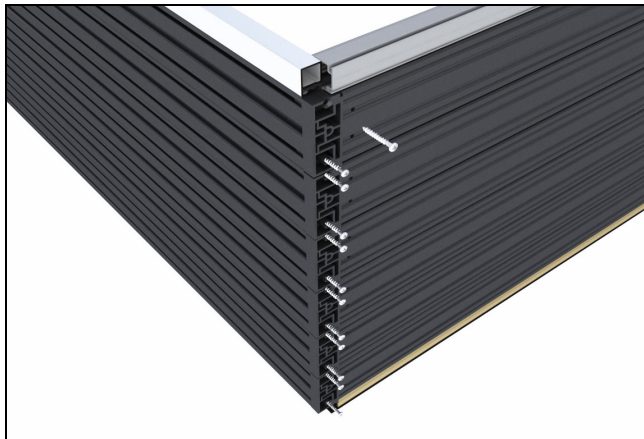


Figure 76

6. Fasten sill liner to frame cladding using #8 x 1 1/2" flat head screw. *Note: Ensure hole is line up with the screw boss in frame cladding.* See figure 77.

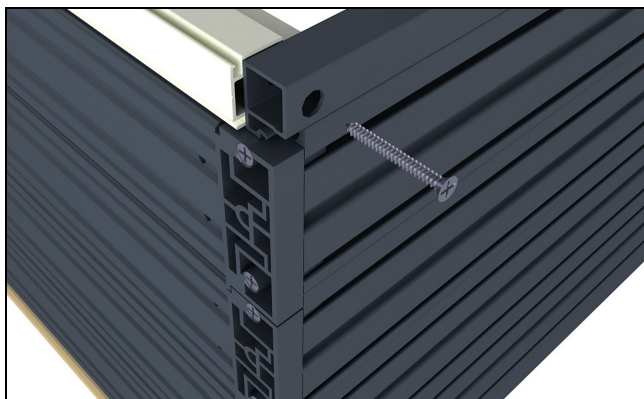


Figure 77

7. Repeat steps 5 and 6 on opposite jamb.

8. On pocketing interlock, insert frame cladding corner key into mitered end and align with head jamb cladding using key as reference. See figure 78.

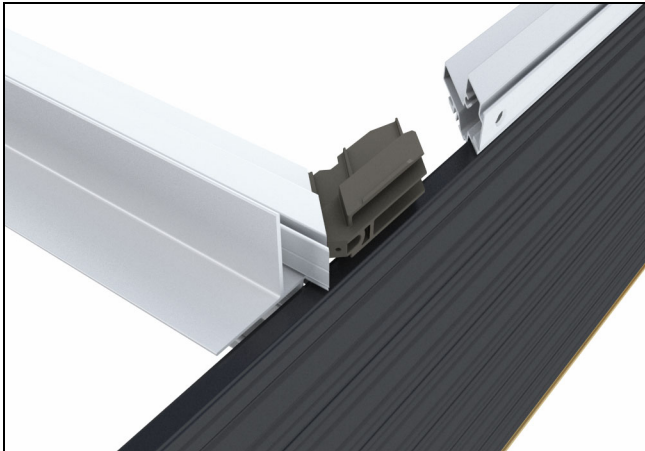


Figure 78

9. Fasten sill liner to pocketing interlock(s) using #8 x 1 1/2" flat head screw. See figure 79.

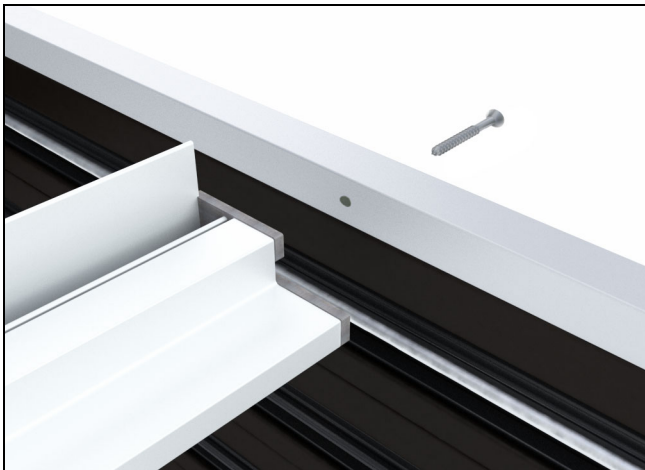


Figure 79

10. Ensure hole is lined up with screw boss in pocketing interlock. See figure 80.

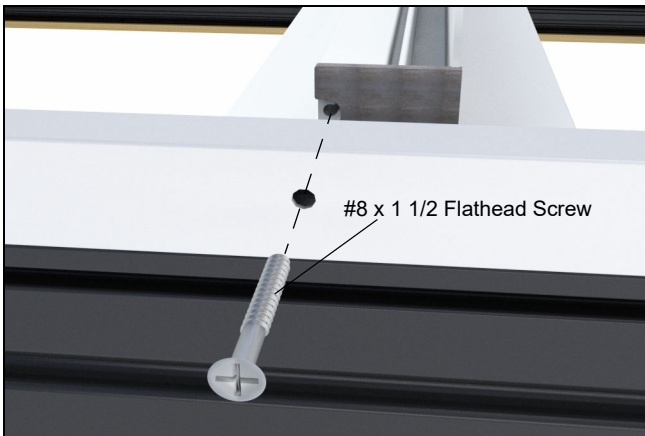


Figure 80

11. Inject both frame cladding corner key holes with sealant until squeeze out occurs. Fasten using #8 x 1 1/2" screw into each corner key. See figure 81.

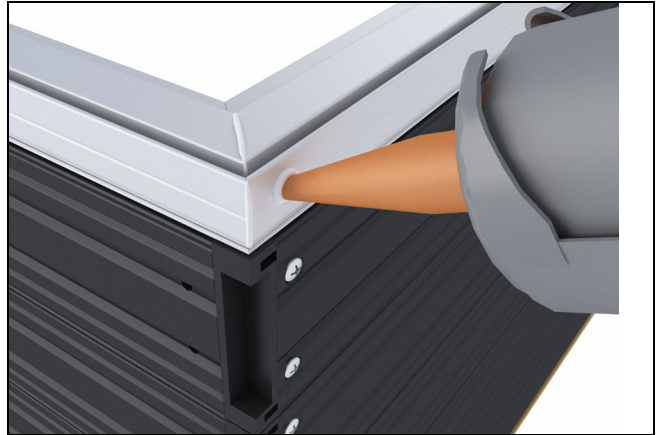


Figure 81

## Frame Installation

1. Stand frame upright in front of rough opening.
2. Place the frame into the opening and position. Install #8 x 1 3/4" anchor screws to secure the sill. HP Sill: install minimum #8 x 1 1/2" anchor screws to secure the performance sill. Recheck sill for level.
3. Plumb and true the pocket interlock, shim and install a few #8 x 3" black installation screws. Remaining screws will be installed after panels are installed. See figure 82.



Figure 82

4. Plumb and true the side jambs, adding shims and #8 x 3" black installation screws (through provided installation holes) at the top and bottom corners. Ensure the frame is square. Add remaining shims and #8 x 3" black installation screws to side jamb. Refer to screw placement on page 4. Follow the same procedure for the other side jamb. See figure 83.



Figure 83

5. If necessary, shim head jamb so that the story pole stays in light contact with the sill and head jamb frame. Fasten with #8 x 3" black installation screws. See figure 84.

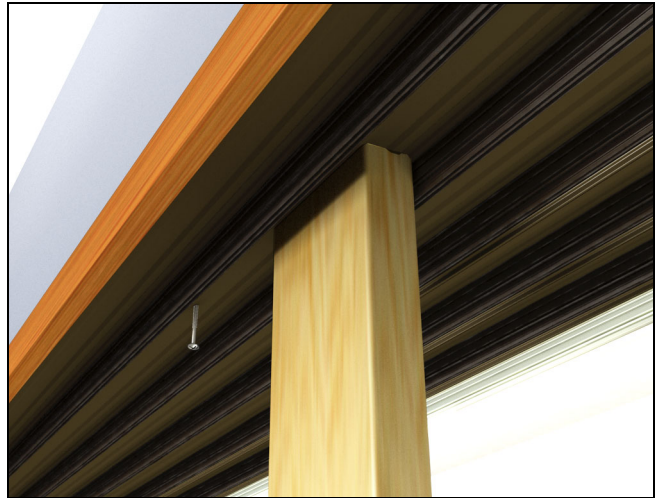


Figure 84

6. Install remaining #8 x 1 1/2" (minimum) installation screws into sill. These screws are not provided.
7. Install pocket bumpers on exterior most track through the top and bottom installation holes using #8 x 3" black installation screws. See figure 85. Note: If installation screws are already in place, remove and insert bumper using same screw.



Figure 85

8. Fasten the #8 x 2 1/2" flat head screws in the lock strike plate to the locking jamb with provided screws. At top and bottom of wood filler fasten using #8 x 3" washer head screws using counter-bored holes. Ensure there are adequate shim between the tough opening and the locking jamb where the strike is located. See figure 86. At top and bottom of wood filler fasten using #8 x 3" washer head screws.



**Figure 86**

# Panel Installation

**NOTE:** If the sill has a performance sill, panels must be installed from the exterior.



## Tip

Removal of head jamb weather strip where panels are being installed may reduce the risk of damaging the weather strip and aid in the installation process. Weather strip must be installed after panel installation.

## Pocket Unit Panel Installation from Interior

1. Determine which panel goes on which sill track. The panels are set in the same manner as any conventional sliding door system, pocket to the exterior (first) and primary to the interior (last).
2. Install the panel that engages with the pocket interlock first. Tilt top into place and slide bottom of panel onto center of track. Operate panel to ensure the rollers are on the track. See figure 87. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 87

3. Temporarily attach the pocket support block by placing a few #8 x 2" flat head screws into the pre-drilled holes. See figure 88.



Figure 88

4. For remaining panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 89.



Figure 89

5. Operate the doors to ensure smooth movement and check positioning of the interlocks, head jamb, and side jambs. To ensure pocket interlock is placed correctly, close all panels, making sure primary panel locks properly. Make any necessary adjustments at this time. See figure 90.



Figure 90

6. Remove pocket support block, and install remaining #8 x 3" black installation screws into pocket interlock. See figure 91.

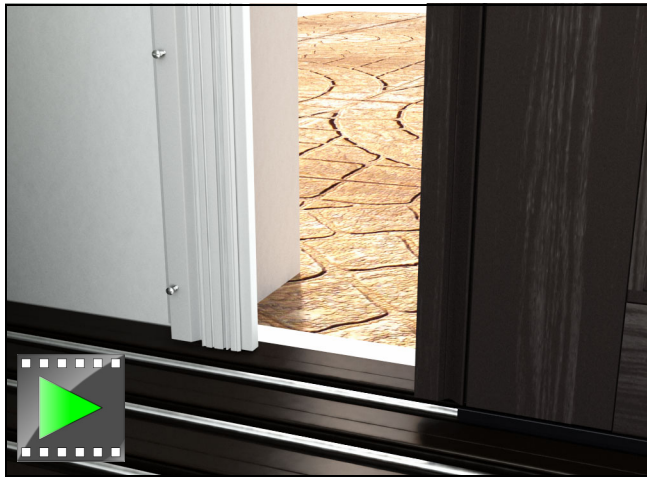


Figure 91

7. Install pocket support block using #8 x 2" flat head screws and check operation. See figure 92.



Figure 92

## Pocket Unit Panel Installation from Exterior

1. Determine which panel goes on which sill track. The panels are set in the same manner as any conventional sliding door system, primary to the interior (first) and pocket to the exterior (last). See figure 93.



Figure 93

2. Install primary panel(s) first. Tilt top into place and slide the bottom of the panel onto the sill. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 94. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 94

3. For remaining operating panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 95.



Figure 95

4. Temporarily attach the pocket support block by placing a few #8 x 2" flat head screws into the pre-drilled holes. See figure 96.



Figure 96

5. Operate the doors to ensure smooth movement and check positioning of the interlocks, head jamb, and side jambs. To ensure pocket interlock is placed correctly, close all panels, making sure primary panel locks properly. Make any necessary adjustments at this time.

# Bi-Parting Pocket Unit

## Frame Assembly

**NOTE:** Pocket frame installation is from in the interior only.

1. Align side jamb to head jamb. See figure 97.

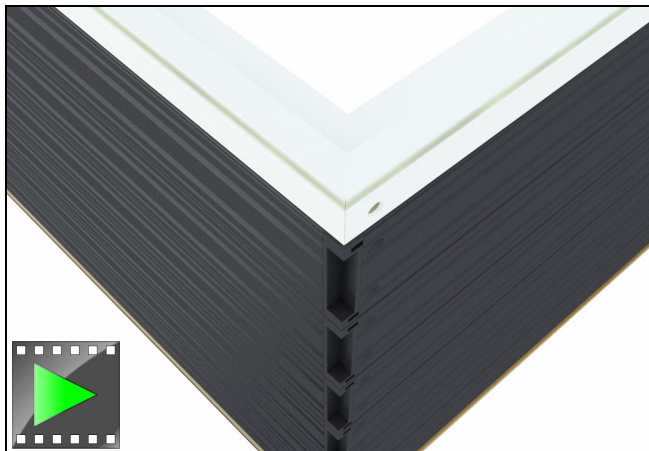


Figure 97

2. Fasten head jamb to side jamb using #8 x 1 1/4" pan head screws. See figure 98. *Note: If unit is prepped for motorization, use two #8 x 3/8" pan head screws on interior track.*



Figure 98

3. Repeat steps 2 and 3 on opposite jamb.
4. Align side jamb to sill by sliding corner keys into sill. Fasten side jamb and sill through corner keys using two #8 x 1 3/4" pan head screws per key. See figure 99.

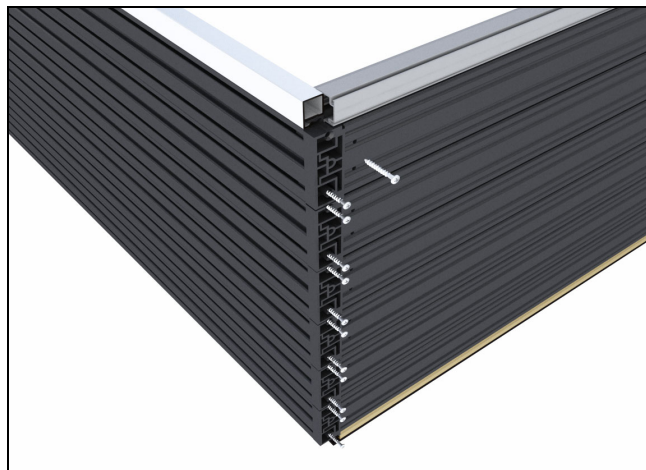


Figure 99

5. Fasten sill liner to frame cladding using #8 x 1 1/2" flat head screw. *Note: Ensure hole is line up with the screw boss in frame cladding.* See figure 100.

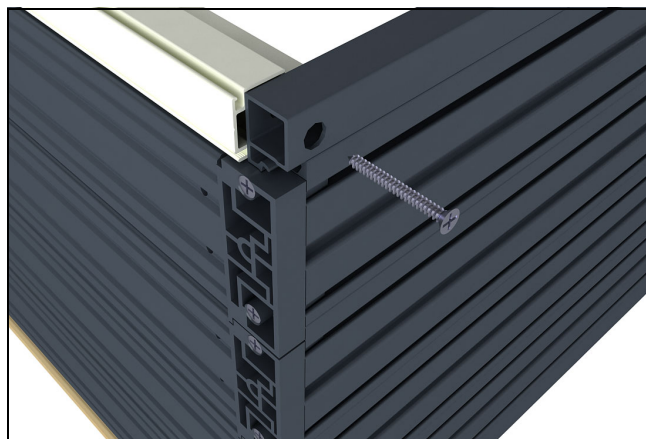


Figure 100

6. Repeat steps 5 and 6 on opposite jamb.



7. On pocketing interlocks, insert frame cladding corner key into mitered end and align with head jamb cladding using keys as reference. See figure 101.

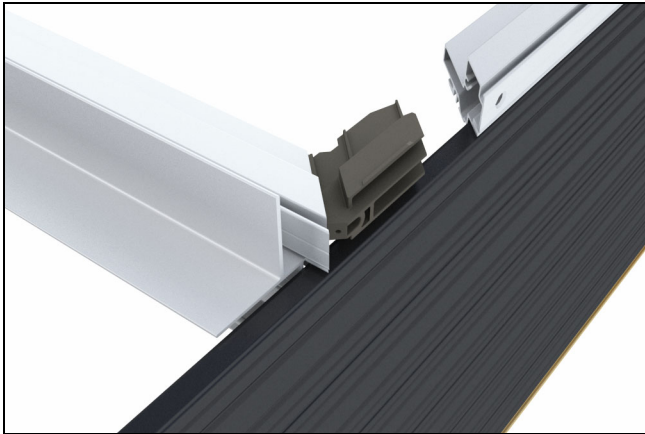


Figure 101

10. Inject both frame cladding corner key holes with sealant until squeeze out occurs. Fasten using #8 x 1 1/2" screw into each corner key. See figure 104.

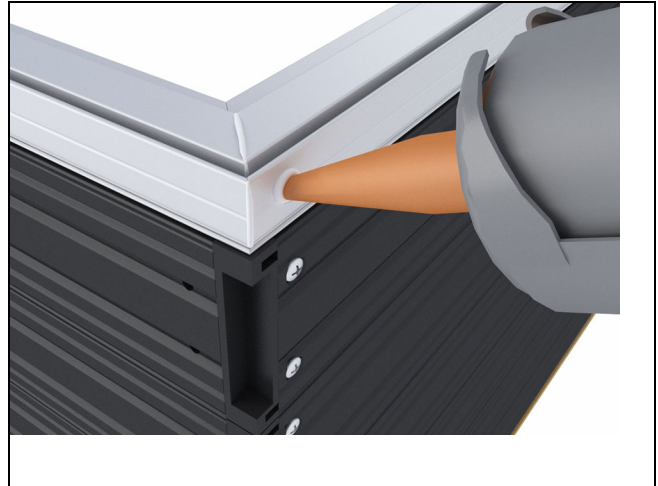


Figure 104

8. Fasten sill liner to pocketing interlocks using #8 x 1 1/2" flat head screw. See figure 102.



Figure 102

9. Ensure hole is lined up with screw boss in pocketing interlock. See figure 103.

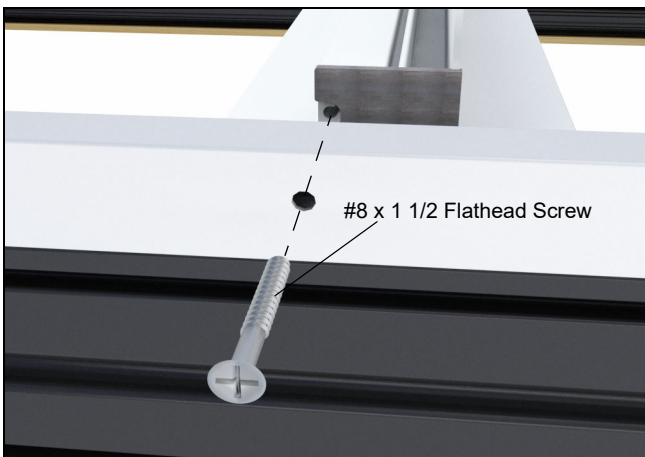


Figure 103

## Frame Installation

1. Stand frame upright in front of rough opening.
2. Place the frame into the opening and position. Install #8 x 1 3/4" anchor screws to secure the sill. HP Sill: install minimum #8 x 1 1/2" anchor screws to secure the performance sill. Recheck sill for level.
3. Plumb and true the pocket interlocks, shim and install a few #8 x 3" black installation screws. Remaining screws will be installed after panels are installed. See figure 105.

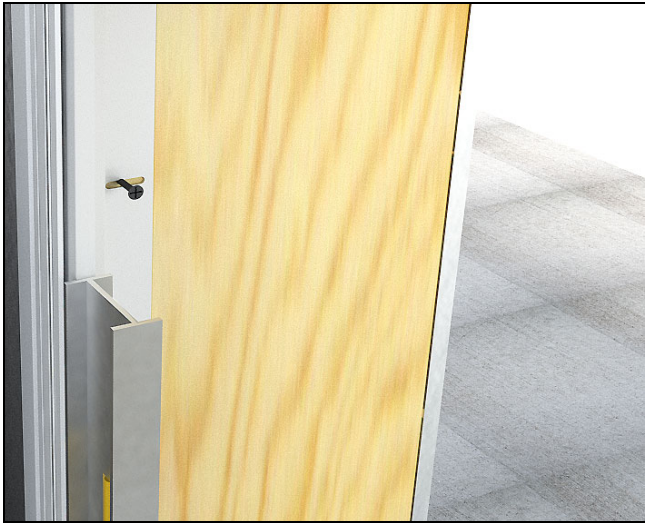


Figure 105

4. Plumb and true the side jambs, adding shims and #8 x 3" black installation screws (through provided installation holes) at the top and bottom corners. Ensure the frame is square. Add remaining shims and #8 x 3" black installation screws to side jamb. Refer to screw logic diagram. Follow the same procedure for the other side jamb. See figure 106.



Figure 106

5. If necessary, shim head jamb so that the story pole stays in light contact with the sill and head jamb

frame. Fasten with #8 x 3" black installation screws. See figure 107.

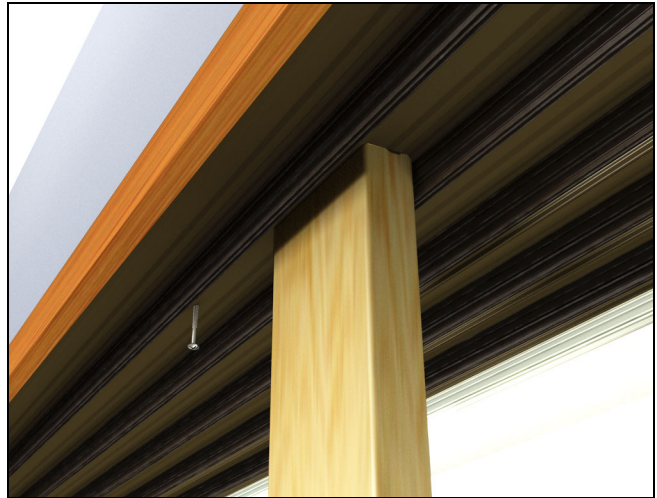


Figure 107

6. Install remaining #8 x 1 1/2" (minimum) installation screws into sill. These screws are not provided.
7. Install pocket bumpers on exterior most track through the top and bottom installation holes using #8 x 3" black installation screws. See figure 108. *Note: If installation screws are already in place, remove and insert bumper using same screw.*



Figure 108

8. Fasten the flush bolt strike through the pre-drilled holes using the #8 x 3" black installation screws, near the center of the head jamb on the interior track. Ensure there are adequate shims between the rough opening and the head jamb where the strike is located. See figure 109.

### IMPORTANT

If unit is prepped for motorization, do not install flush bolt strike.

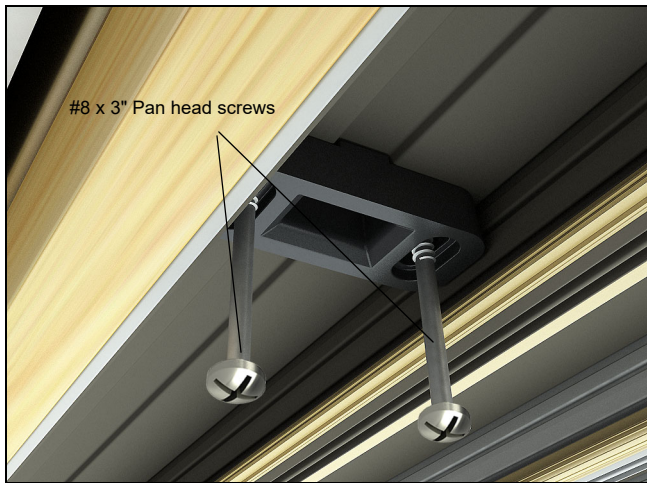


Figure 109

9. Remove tape from head jamb structural clip in head jamb and fasten using #8 x 3" black installation screws through all the pre-drilled holes. See figure 110.

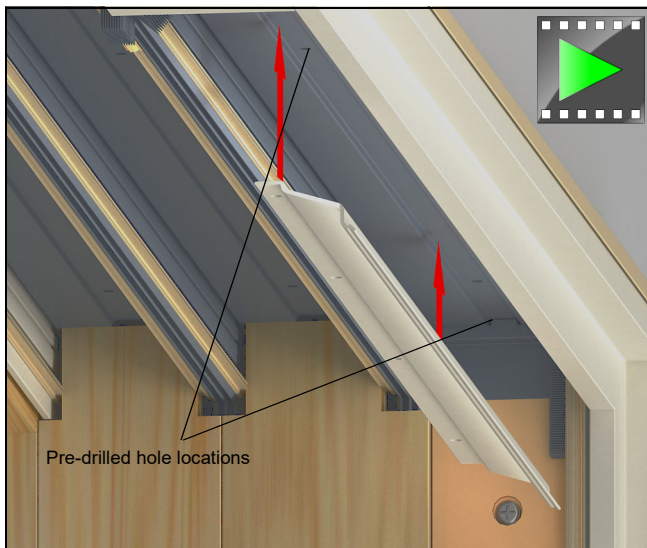


Figure 110

## Pocket Unit Panel Installation from Interior

1. Determine which panel goes on which sill track. The panels are set in the same manner as any conventional sliding door system, pocket to the exterior (first) and primary to the interior (last).
2. Install the panel that engages with the pocket interlock first. Tilt top into place and slide bottom of panel onto center of track. Operate panel to ensure the rollers are on the track. See figure 111. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 111

3. Temporarily attach the pocket support block by placing a few #8 x 2" flat head screws into the pre-drilled holes. See figure 112.



Figure 112

4. For remaining panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 113.



Figure 113

5. Operate the doors to ensure smooth movement and check positioning of the interlocks, head jamb, and side jambs. To ensure pocket interlock is placed correctly, close all panels, making sure primary panel locks properly. Make any necessary adjustments at this time. See figure 114.

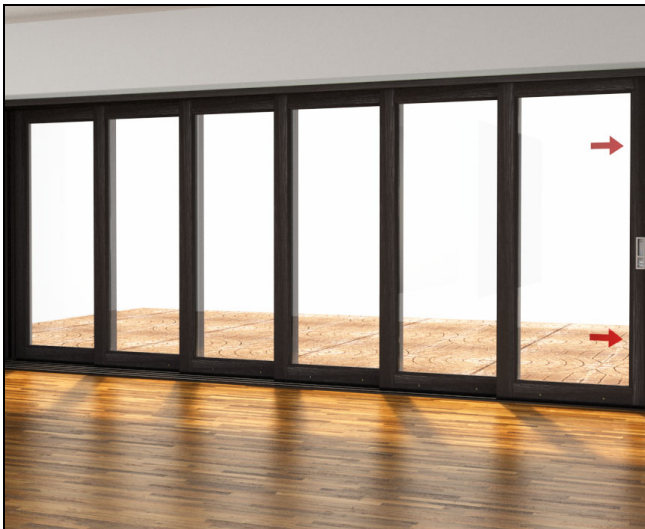


Figure 114

6. Remove pocket support block, and install remaining #8 x 3" black installation screws into pocket interlock. See figure 115.



Figure 115

7. Install pocket support block using #8 x 2" flat head screws and check operation. See figure 116.



Figure 116

## Pocket Unit Panel Installation from Exterior

1. Determine which panel goes on which sill track. The panels are set in the same manner as any conventional sliding door system, primary to the interior (first) and pocket to the exterior (last). See figure 117.



Figure 117

2. Install primary panel(s) first. Tilt top into place and slide the bottom of the panel onto the sill. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 118. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 118

3. For remaining operating panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the previously installed panel. Center the bottom of the panel over the sill track, set panel down, and test panel to see if the rollers are on the track. See figure 119.



Figure 119

4. Temporarily attach the pocket support block by placing a few #8 x 2" flat head screws into the pre-drilled holes. See figure 120.



Figure 120

5. Operate the doors to ensure smooth movement and check positioning of the interlocks, head jamb, and side jamba. To ensure pocket interlock is placed correctly, close all panels, making sure primary panel locks properly. Make any necessary adjustments at this time.

# Center Stacked Unit

## Frame Assembly

1. Lay out the four sides of frame and insert frame cladding corner keys into head jamb. See figure 121.



Figure 121

2. Align side jamb to head jamb, using frame cladding corner key as reference. Slide until miter is aligned. See figure 122.

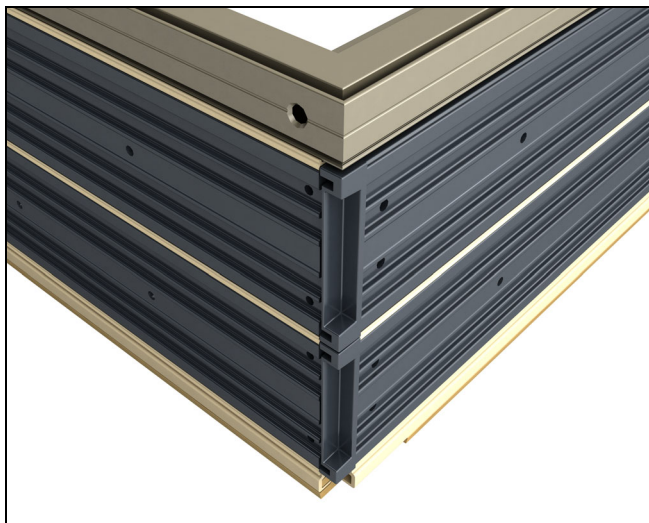


Figure 122

3. Fasten head jamb to side jamb using #8 x 1 1/4" pan head screws. See figure 123.

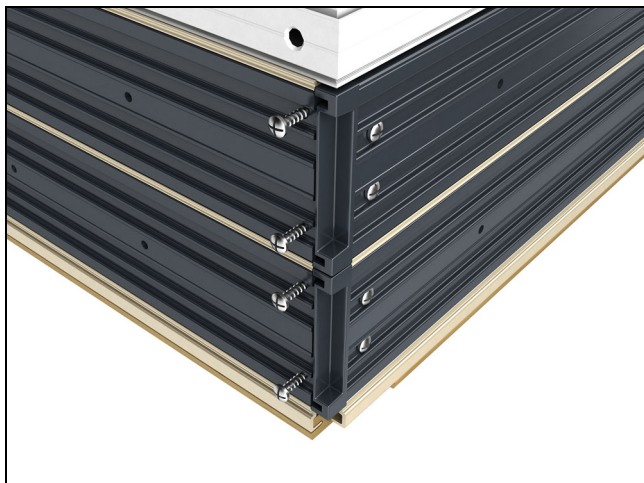


Figure 123

4. Do not install screw into frame cladding miter at this time. See figure 124.

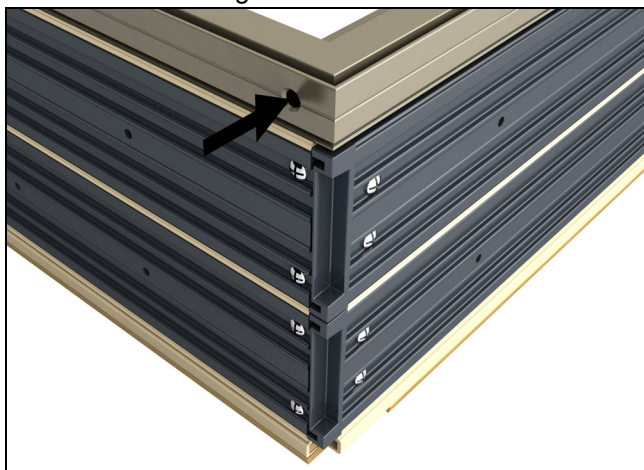


Figure 124

5. Repeat steps 2,3, and 4 on opposite jamb.
6. Align side jamb to sill by sliding corner keys into sill. Fasten side jamb and sill through corner keys using two #8 x 1 3/4" pan head screws per key. See figure 125.

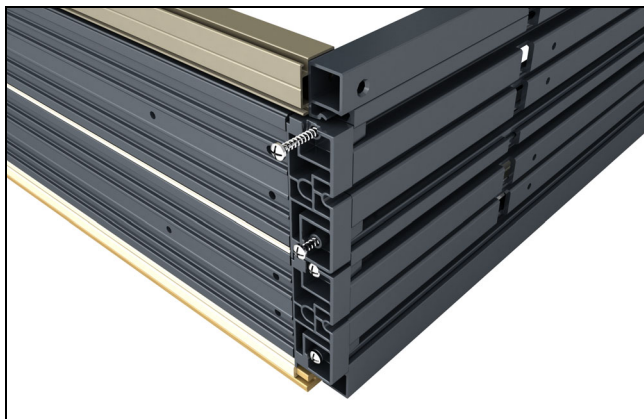


Figure 125

7. Fasten sill liner to frame cladding using #8 x 1 1/2" flat head screws. See figure 126. *Note: Ensure hole is lined up with screw boss in frame cladding.*

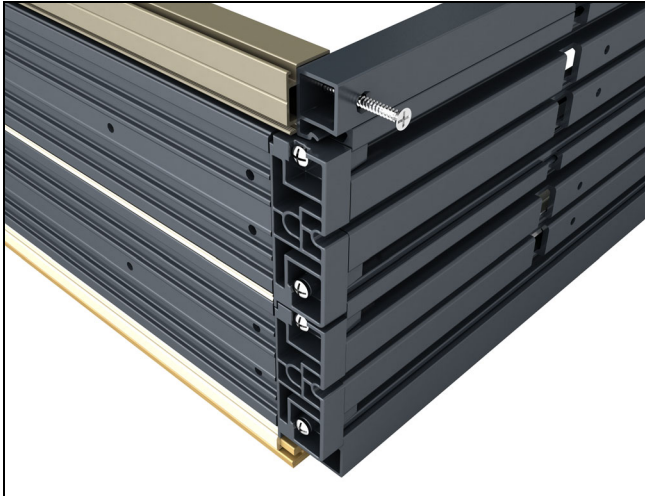


Figure 126

8. Repeat steps 6 and 7 on opposite jamb.
9. Inject both frame cladding corner key holes with sealant until squeeze out occurs. Fasten using a #8 x 1 1/2" flat head screw into each corner key. See figure 127.



Figure 127

## Frame Installation

1. Stand frame upright in front of rough opening. See figure 128.



Figure 128

2. Place the frame into the opening and position. Begin to install anchor screws to secure the sill. See figure 129. After installing a few anchor screws, begin the sill leveling process. **A laser level works well for this application.** *NOTE: If sill has to be shimmed, the distance between shims should be 12" on center maximum.*



Figure 129

3. Plumb and true the side jambs, adding shims and #8 x 3" black installation screws (through provided installation holes) at the top and bottom corners. Ensure the frame is square. Add remaining shims and #8 x 3" black installation screws to side jamb. Follow the screw pattern as shown on page 4. Follow the same procedure for the other side jamb. See figure 130.



Figure 130

4. Fasten the #8 x 2 1/2" flat head screws in the lock strike plate to the locking jamb with provided screws. At top and bottom of wood filler fasten using #8 x 3" washer head screws using counter-bored holes. Ensure there are adequate shims between the rough opening and the locking jamb where the strike is located. See figure 131.



Figure 131

5. Repeat steps on opposite jamb.
6. Remove the structural brackets from head jamb by removing the tape and rotating outwards. See figure 132.

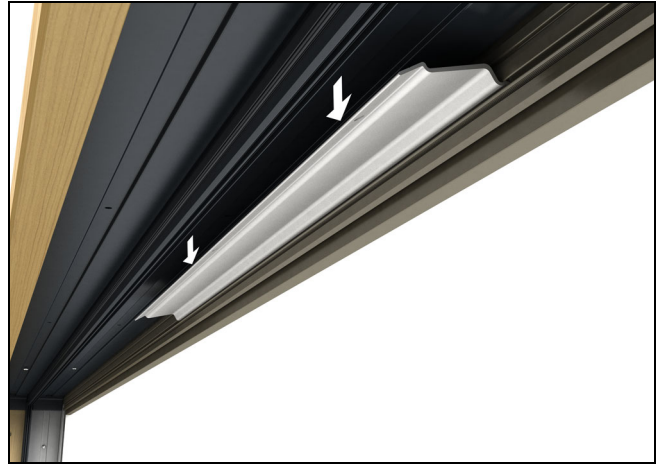


Figure 132

7. If necessary, shim head jamb so that the story pole stays in light contact with the sill and head jamb frame. Fasten with #8 x 3" black installation screws. See figure 133.

*NOTE: Do not install screws in holes where structural brackets are located.*



Figure 133

8. Install remaining #8 x 1 1/2" (minimum) installation screws into sill. These screws are not provided.



# Panel Installation

**NOTE:** If the sill has a performance sill, panels must be installed from the exterior.

## Panel Installation from Interior

1. Determine which panel goes on which sill track. The panels are set in the same manner as any conventional sliding door system, stationary to the exterior (first), and primary to the interior (last).
2. Install stationary sill brackets by applying the bracket to the panel shoe and fastening with #8 x 2" flat head screws into pre-drilled holes. See figure 134.



Figure 134

3. Install stationary panel first. Tilt top into place and slide the bottom of the panel onto the sill. Slide stationary panel back close to either jamb. See figure 135.

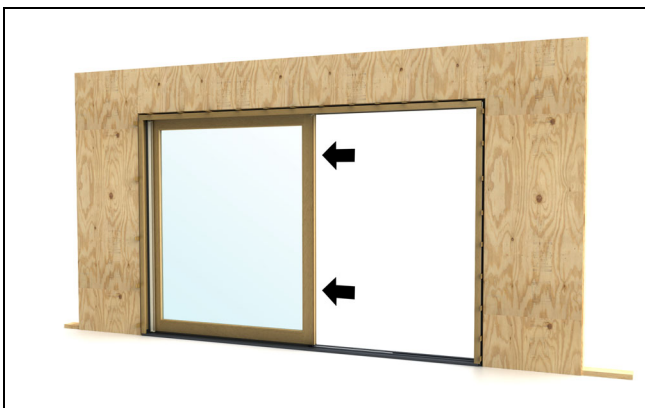


Figure 135

4. Rotate in one structural bracket with pre-drilled holes and install with three #8 x 3" black installation screws. See figure 122.

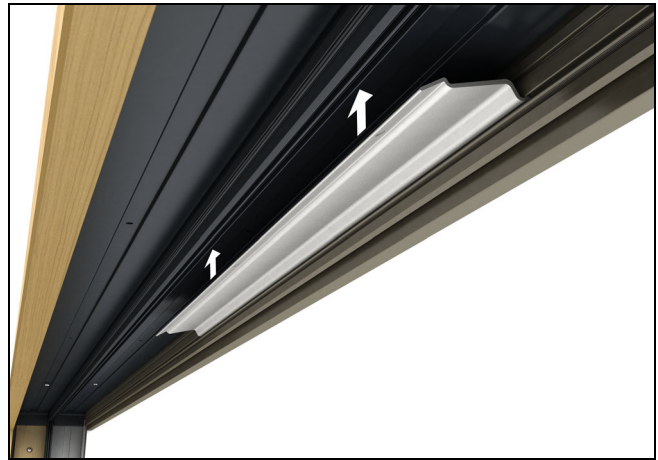


Figure 136

5. Slide panel to opposite jamb and repeat step 4. See figure 137.



Figure 137

6. Roughly center panel in frame. For remaining operating panels, tilt top into place and slide the bottom of the panel onto the sill so the interlock of the panel being installed can engage with the stationary panel. See figure 138. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 138

- Center the stationary panel by measuring from frame cladding to panel, move if necessary. Close and lock both operating panels, making adjustments if needed. See figure 139.



Figure 139

- Pre-drill the sill using bracket as a guide and 1/8" (3) drill bit. **Do not puncture pan.** Fasten using #8 x 3/8" pan head screws. See figure 140.

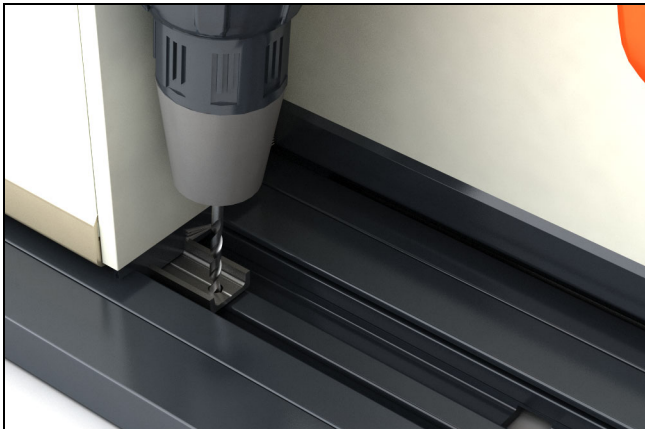


Figure 140

- Attach brackets to the top of each stile using #8 x 1 3/4" pan head screws. Do not tighten. See figure 141.



Figure 141

### Panel Installation from Exterior

- Determine which panel goes on which sill track. The panel are set in the same manner as any conventional sliding door system, primary to the interior (first) and stationary to the exterior (last).
- Install stationary sill brackets by applying the bracket to the panel shoe and fastening with #8 x 2" flat head screws into pre-drilled holes. See figure 142.



Figure 142

- Install operating panels first. Tilt top into place and slide the bottom of the panel onto the sill. Test panel to see if the rollers are on the track. See figure 143. *Note: Rollers must be adjusted to raised panel position. For information on roller adjustment, reference the section on Roller Adjustment.*



Figure 143

4. Install stationary panel last. Tilt top into place and slide the bottom of the panel onto the sill. Slide stationary panel back close to either jamb. See figure 144.



Figure 144

5. Rotate in one structural bracket with pre-drilled holes and install with three #8 x 3" black installation screws. See figure 145.

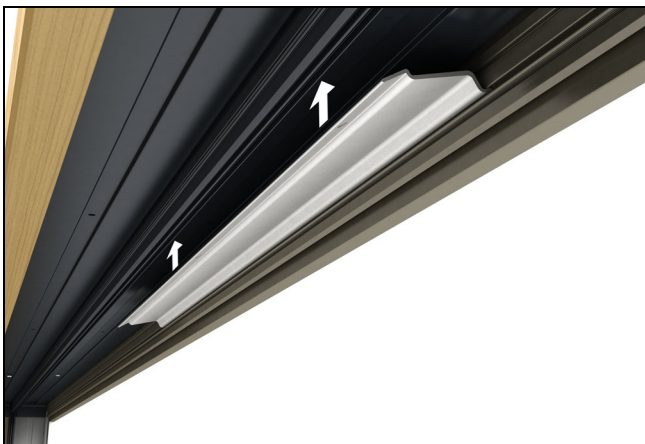


Figure 145

6. Slide panel to opposite jamb and repeat step 5. See figure 146.

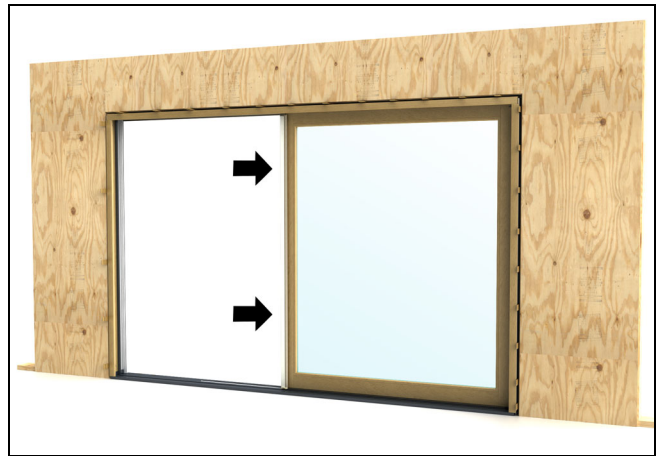


Figure 146

7. Center the stationary panel by measuring from frame cladding to panel, move if necessary. Close and lock both operating panels, making adjustments if needed. See figure 150.



Figure 147

8. Pre-drill the sill using bracket as a guide and 1/8" (3) drill bit. **Do not puncture pan.** Fasten using #8 x 3/8" pan head screws. See figure 148.

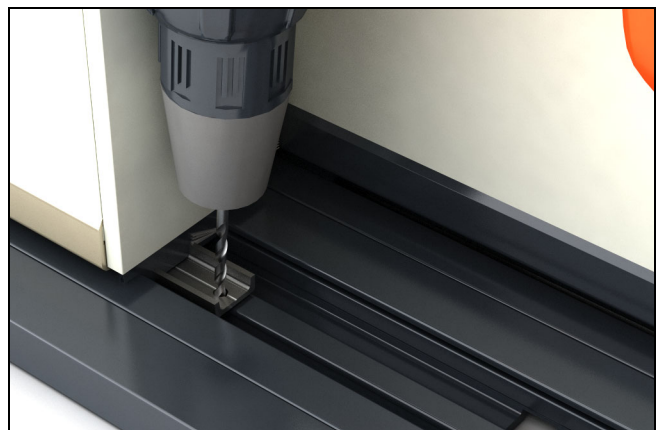


Figure 148

9. Attach brackets to the top of each stile using #8 x 1 3/4" pan head screws. Do not tighten. See figure 149.



Figure 149

### All Units-Other

**Locking and stationary jambs:** on all units add 6" (152) of spray foam to the bottom between the jamb and the rough opening. See figure 150.



Figure 150

### Adjustments

1. *Rollers must be adjusted to raised panel position.* To adjust panel rollers, panel weight must be removed from rollers prior to adjustment. Use a pry bar to lift panel, ensuring protection of sill. See figure 151. Using a #3 Phillips screwdriver, rotate screwdriver in adjustment holes until arrows showing adjusting

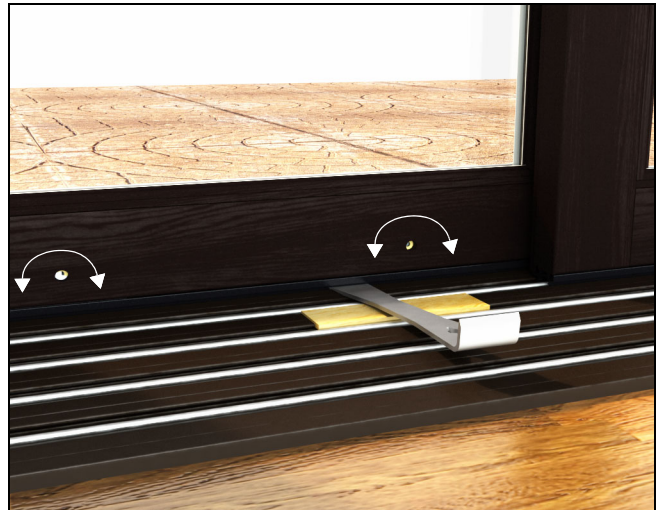


Figure 151

2. **Bi-parting units:** Close passive panel and engage flush bolt. Loosen screws on flush bolt strike and adjust if necessary. See figure 152.



Figure 152

# Final Installation of Frame

Sill track covers and clad part stops applied in steps 1 and 3 are marked on the back side with a track number and splice number (T2 S1, T3 S2, etc.). If a track cover is spliced, it will have multiple “S” numbers for the corresponding track (T1S1, T1S2, etc.) and can be installed in any order on that track. See figure 153 below for track numbering.

*NOTE: On uni-directional units, clad jamb part stop(s) will not be marked for location. They are interchangeable.*



Figure 153

1. Place reticulated foam in sill track cover on end near pane(s) placement. Install sill track covers using a soft rubber mallet. See figure 154. *Note: Sill cover is tucked under edge of panel.*



**Tip**

To prevent denting, use a buffer between the soft rubber mallet and the sill track cover.

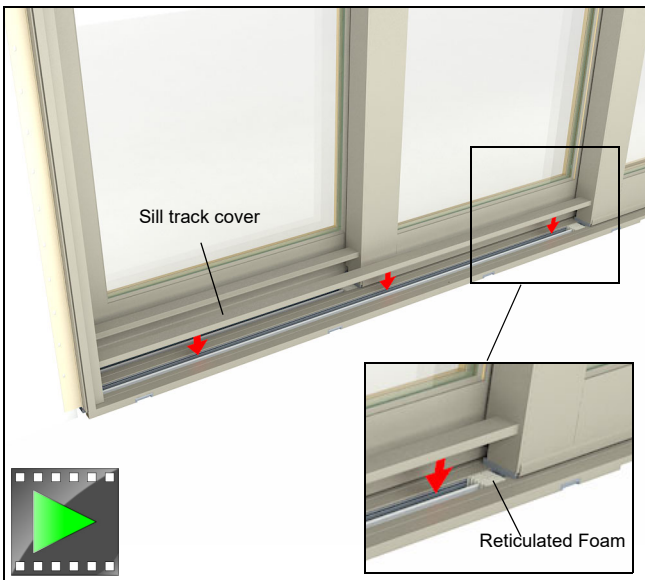


Figure 154

2. Close all panels and lock. Install header part stop foam seal into head jamb on the edge of all non primary panel(s). Ensure the adhesive back is overlapped 1/4” (6) past edge of panel for proper compression of foam seal. See figure 155.



Figure 155

3. Install head jamb part stops onto head jamb, starting with exterior most part stop. Tap in place using a soft rubber mallet, ensuring barb inserted into proper kerf. Part stop will be tight to panel one in closed position. See figure 156.

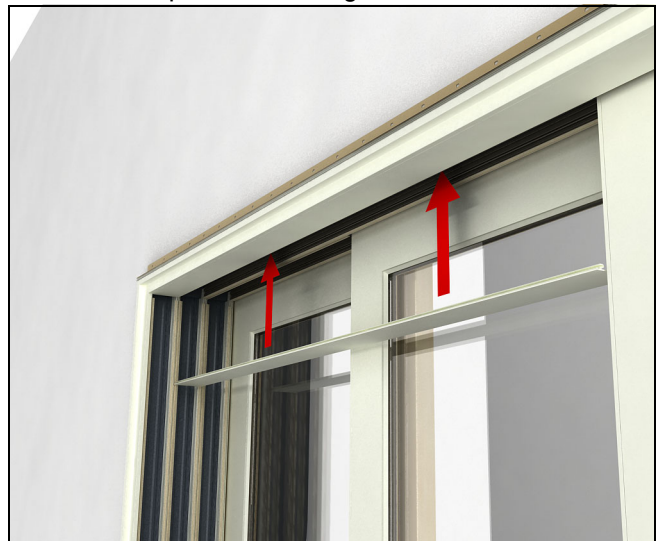


Figure 156

4. **Uni-directional units:** Install side jamb clad part stops onto side jamb, starting with exterior most part stop. Tap in place using a soft rubber mallet, ensuring barb is inserted into proper kerf. See figure 157.



Figure 157

5. **Stacked units:** Install side jamb wood part stops onto stationary side jamb(s), starting with exterior most part stop. Tap in place using a soft rubber mallet, ensuring barb is inserted into proper kerf. See figure 158.



Figure 158

6. On all HP sill units install sill nosing into groove on exterior sill liner.

7. **HP Sill Stacked Units:** Apply sealant around end cap and place into ends of sill liner. See figure 159.

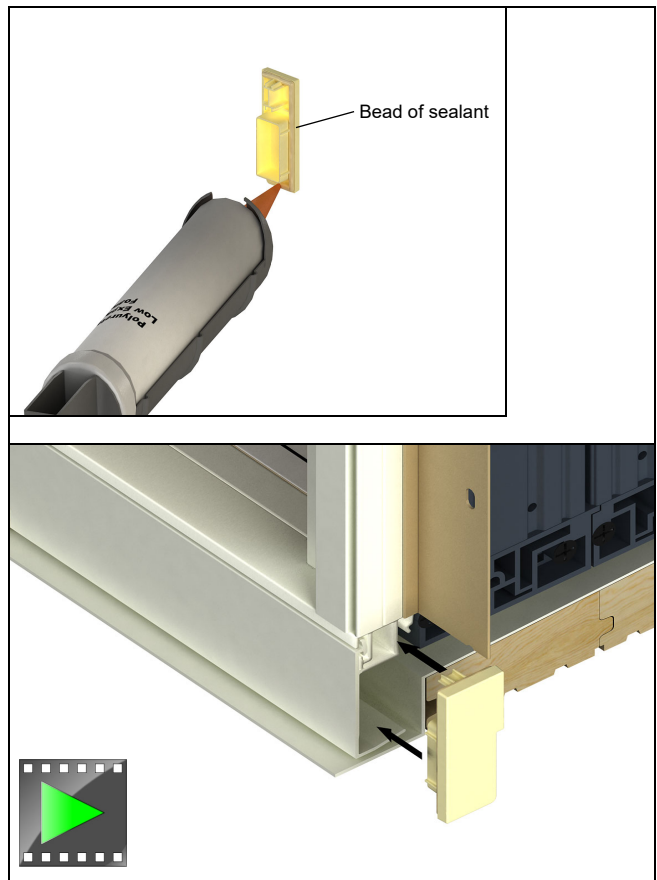


Figure 159

8. Using sealant, seal the bottom of the entire length of sill nosing except in front of weeps. See figure 160.

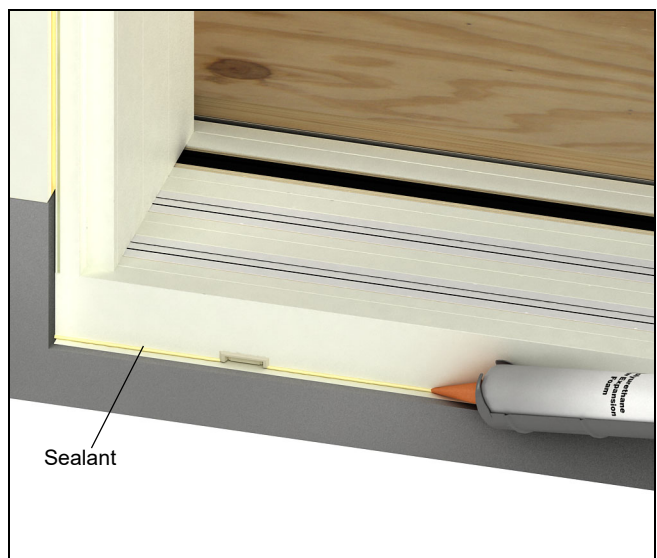


Figure 160

## Final Installation of Panels

9. Tap wood adjustment hole button into each roller adjustment hole using a soft rubber mallet. See figure 161.

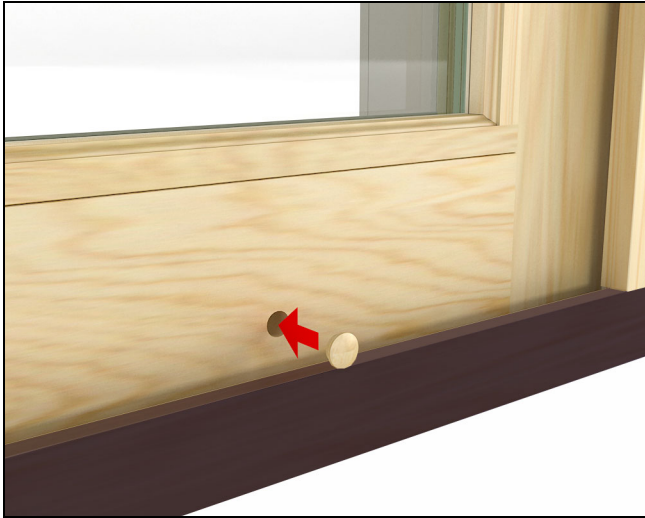


Figure 161

10. **Secondary panels:** Fasten panel bumpers using a #8 x 2 1/2" bronze flat head screws routes on the stile. See figure 162.



Figure 162

11. **Pocket units:** Other than single track doors, fasten pocket cover(s) onto pocket support block(s). See figure 163.



Figure 163

*NOTE: If unit is 4+ tracks deep, fasten supplied pocket cover support brackets using #8 x 1" pan head screws to pocket cover(s) prior to installation of cover(s). Pocket cover support brackets should align with groove in pocket support block. See figure 164.*



Figure 164

12. Install pocket stile trim into pocket stile kerf using a soft rubber mallet. See figure 165.



Figure 165

*NOTE: Ensure that you don't place screws where they will interfere with the flush bolt or the strike.*

13. **Bi-parting units:** Fasten the mull base to the active panel with # 7 x 2" flat head screws. See figure 166.



Figure 166

14. Fasten mull casing cover to the mull base using #8 x 1 1/2" flat head with screws. See figure 167.

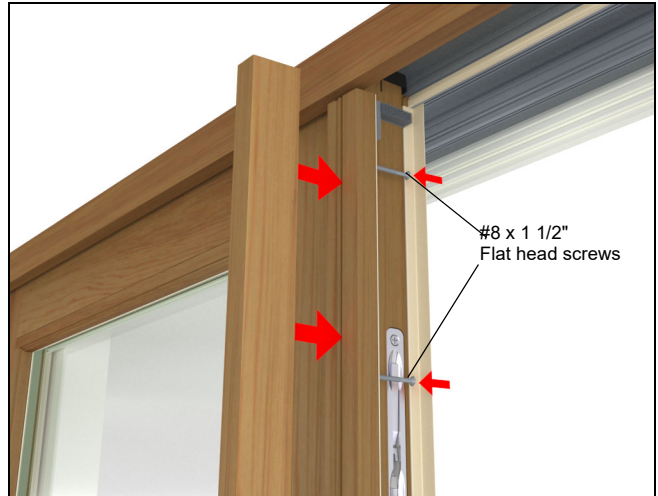


Figure 167



## Technical Installation Specifications

The following details are specified for proper installation and performance of the Marvin Door.

- Rough Opening Width: 1/4"-1" (6-25) wider than door frame outside measurement.
- Rough Opening Height: 1/4"-1/2" (6-13) higher than door frame outside measurement.
- Masonry Opening Width: 1/4"-1/2" (6-13) wider than door frame outside measurement.
- Masonry Opening Height: 1/8"-1/4" (3-6) higher than door frame outside measurement.
- Properly flash and/or seal all doors at the exterior perimeter.
- Sealants used for installation must be Grade NS Class 25 per ASTM C920 and compatible with the building exterior, door exterior surface, and flashing/water management materials.
- Construction adhesive must be APA rated AFG-01 SPEC.
- Flashing materials must comply with ASTM E2112-07, section 5.13 and be compatible with all materials used in installation including panning systems, air barriers and building papers, sheathing, and the door unit.
- The following materials were used to develop these instructions:

**Weather Resistant Barriers:** DuPont™ Tyvek® HomeWrap or Grade D building paper.

**Flashing Materials:** DuPont™ FlexWrap or DuPont™ Straight Flash, DuPont™ Tyvek® Tape.

**Sealant:** OSI® Quad Pro-Series®; solvent release butyl rubber sealant or DAP DynaFlex230™.

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### IMPORTANT

Flashing material must not contain asphalt and must be compatible with flexible PVC (vinyl).

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- Optional foams used for installation must be low expansion only. Foam and foam application must comply with ASTM E2112-07, SEC 5.9.2.
- Fasteners penetrating chemically treated lumber must be a minimum of 0.90 oz/ft<sup>2</sup> zinc hot dipped galvanized or stainless steel type 304 or 316.
- Shim 4"-6" (102-152) from each corner, and at every point of attachment.

### Maintenance

Door hardware is subject to wear and tear, deterioration or damage by everyday use, corrosion and other conditions. Maintenance of hardware is much more important in coastal marine or industrial and chemically aggressive environment. Any metal including stainless steel products require maintenance to prevent or reduce wear and tear or deterioration. Alcohol should never be used to clean the sill system.

Minimum requirement for the maintenance of hardware is as follows:

- **Brackets:** Wipe down with warm soapy water and a soft rag, rinse clean and dry all exposed surfaces well. Apply a light spray of lubricant. Remove excess with a dry cloth.
- **Flush bolts:** Apply a lightweight lubricant to the sliding pin inside the bolt. Do not remove the bolts from the doors but instead use the access holes or slots that are provided on all drop bolts.

To ensure smooth operation and prevent deterioration of parts and materials. The above maintenance procedures need to be carried out as often as it is necessary. The hardware manufacturer recommends the following minimum maintenance frequency:

Inland environment/climate- every six months.

Coastal marine and industrial environment/climate- every three months.

- Regular maintenance is required to all hardware and materials, otherwise manufacturer's warranty may be voided.