

Modern Inswing Door

Installation Instructions

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 the latest version of ASTM E2112, "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.

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).

The English language version of this instruction is the official version and shall take precedence over any translation.

USAGE DATES: These instructions are relevant for doors manufactured 12/15/2020 to present.

Table of Contents

Related Resources:	3
Hazard Notations	4
Protective Film	5
Installer and Builder Information	5
Tools and Supplies Needed	6
Installation and Hardware Accessories Box	6
Rough Opening Prep-Flashing Details	7
Sill Support Installation	8
Frame Assembly	10
Panel Assembly	14
Saddle Sill Frame Installation	15
Frame Installation	16
Stationary Panel Installation	24
Operator Panel Installation	26
Latch Reversal	27
Hinge Adjustment	28
Vertical Hinge Adjustment	28
Horizontal Hinge Adjustment	30
Lock Status Sensor- How to Access the Transmitter Housing	32
Final Steps	32
Technical Specifications	33

Related Resources:

[Centor S2 Gen 2 Screen Installation Instructions](#)



[Centor S2 Screen System Sill Riser Installation](#)



[Swinging Door Site Preparation Instructions](#)



[Standard Mulling Instructions](#)



[Structural Mulling Instructions](#)



Hazard Notations

WARNING!

Do NOT lift or move without proper equipment. Read, understand, and follow all lift equipment manufacturers' instructions and safety information.

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.

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.

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.

WARNING!

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

CAUTION!

Wear gloves and protective clothing when handling the frame components. Some high-density fiberglass surfaces are not coated and can leave splinters in bare skin.

IMPORTANT

Nailing fin is not designed to be a weatherproof flashing.

IMPORTANT

Flashing material must not contain asphalt and must be compatible with flexible PVC (vinyl) such as that found in Marvin vinyl nailing fin.

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

Protective Film

Some products feature a clear protective film adhered to the glass surfaces to protect them from construction debris, dust, dirt, stucco, etc. When construction is complete, simply peel the film off and dispose of it with other construction debris.

IMPORTANT

Do not use a razor blade to remove the protective film. Do not use a pressure washer to clean debris from the film. The film should be removed within nine months of application.

Please refer to the [manufacturer's website](#) and [bulletin](#) for more information on the physical properties and usage of the protective film.

IMPORTANT

DO NOT place suction cups over seams in the protective film.

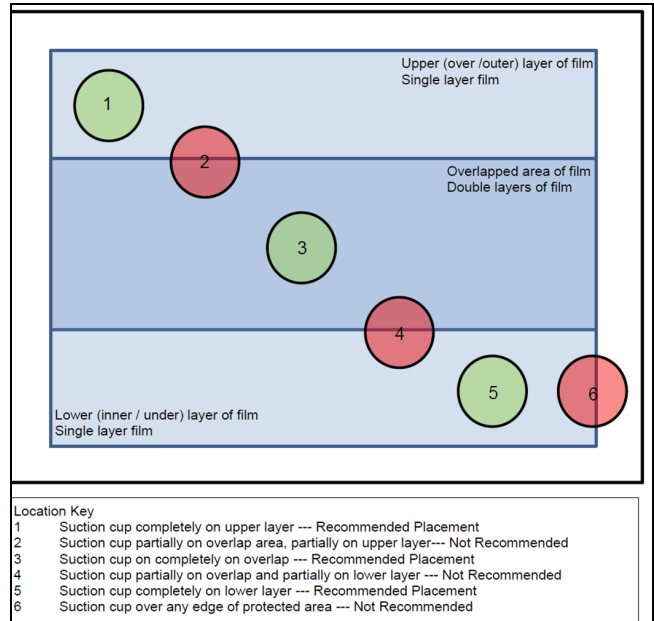


Figure 1 Do not put suction cups on seams or edges

Installer and Builder Information

- Always provide a copy of these instructions for the current homeowner.
- Plan sizing of rough opening and clearance from exterior finishing systems to allow for normal materials shrinkage or shifting (e.g. wood structure with brick veneer; allow adequate clearance at the sill). Failure to do so can void the Marvin warranty coverage.
- Refer to the Technical Installation Specifications section for technical specifications regarding the installation of this product. These installation requirements as well as the details in the section must be followed to achieve the advertised Performance Grade (PG) rating of this product.
- It is the responsibility of the builder, installer, and subcontractors to protect the interior and exterior of windows or doors from contact with harsh chemical washes, construction material contamination and moisture. Damage to glazing, hardware, weather strip and cladding/wood can occur. Protect with painters tape and/or protective sheathing as required. Follow all guidelines regarding material use, preparation, personal safety and disposal.
- Contact your Marvin supplier if you have any questions regarding product and materials used in manufacturing or questions on replacement parts.
- Please refer to the PDF version of this instruction for further information regarding best practices installer and builder information, code, and other legal requirements. The PDF version is the official document of record.

Tools and Supplies Needed

- Screws for attaching Sill Support (#8 x 1 1/2" minimum)
- Phillips screwdriver
- Flat screwdriver
- Power drill/driver
- 3mm and 6mm Allen wrenches
- 3/16" drill bit
- 1/8" x 6" drill bit (for drilling into RO)
- #2 Phillips bit
- T20 Torx drivers
- Rubber mallet
- Caulking gun
- Level (laser level helpful)
- Square
- Utility knife
- Tape measure
- Pencil/marker
- Safety glasses
- Gloves
- Suction cups for handling glass panels
- Utility knife
- Pry bar
- Shims
- Sill panning
- Weather resistive barrier
- Flashing
- Sealant (must be compatible with door frame and rough opening)
- Rags/paper towel
- Low expansion, low compression insulating foam

IMPORTANT

See the [Technical Specifications on page 33](#) for specific details on some materials listed above.

Installation and Hardware Accessories Box

- CSL 343 sealant
- 2-Sealant Nozzles- one trimmed for frame sealing
- Head jamb corner keys
- Fasteners including installation screws
- Trim set
- Construction handle
- Panel alignment bolts
- Stationary brackets
- Strikes (some are factory installed)
- Weep tube outlet
- Flat shims
- Stationary panel bracket wrench
- Nail fin gaskets
- Short cladding pieces

Rough Opening Prep-Flashing Details

1. Before you begin the installation process make sure you have prepared your opening properly in weather-board fashion. The panning should extend up the sides of the rough opening at least 6" (152) and have an upturned leg on the interior of at least 1/2" (13) in height. Wrap the weather resistive barrier around to the interior and seal any seams. See [Figure 2](#) and [Figure 3](#).

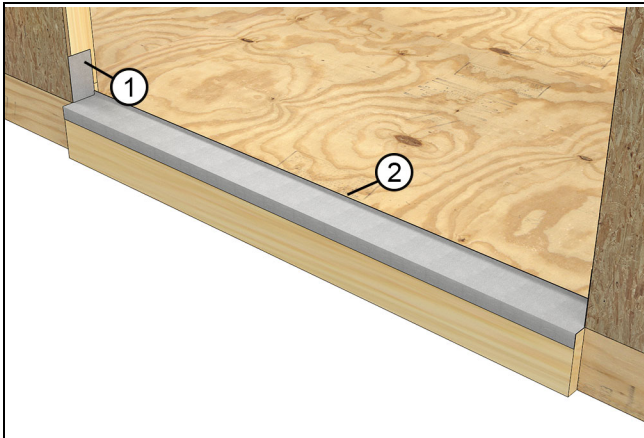


Figure 2

1	Panning extends up the sides by at least 6" (152)
2	Interior leg at least 1/2" (13)

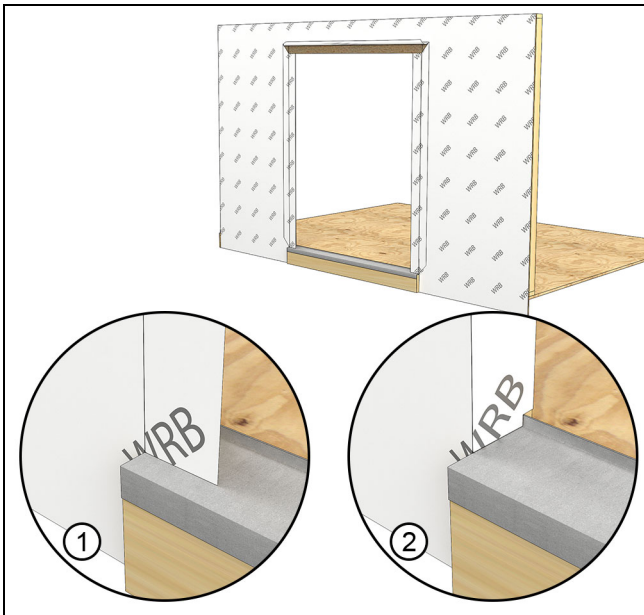


Figure 3

1	Install Panning then WRB
2	WRB wraps over top of panning sides
3	Seal any seams

Sill Support Installation

Using a smartphone or similar device, scan the QR code or click [here](#) to play a video of this procedure.



1. Determine the exterior plane of your door installation. You will fasten the sill support 3 5/16" from the nail fin plane (in some instances, the exterior sheathing plane). Snap a line or use a laser level for reference while installing the sill support. If you are installing in a recessed opening measure back from the exterior plane of the door by 4 13/32". See Figure 4 and Figure 5.

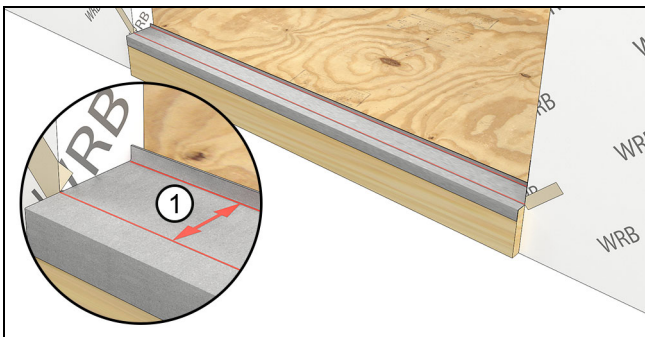


Figure 4

1	3 5/16"
---	---------

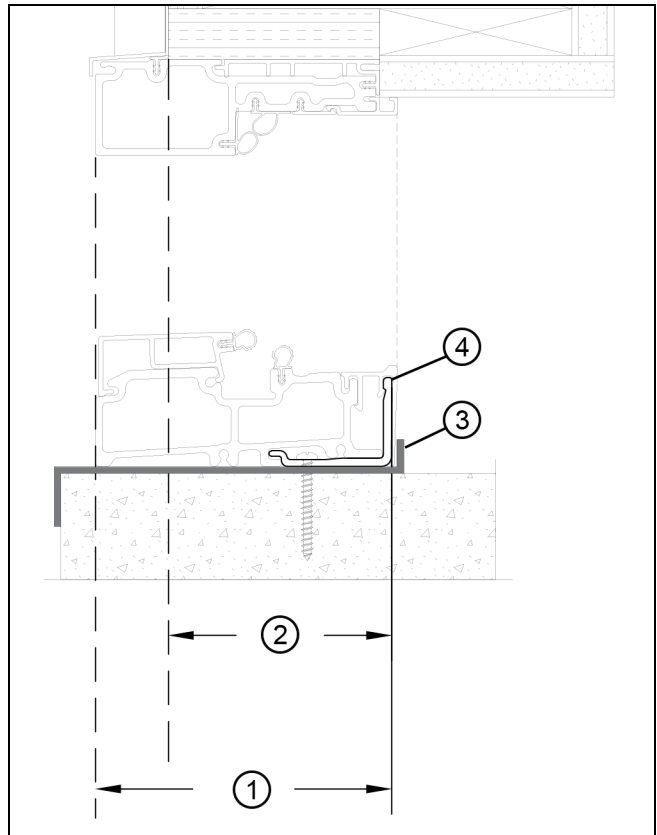


Figure 5

1	Frame exterior plane to sill support interior: 4 13/32" (112)
2	Nailing fin plane to sill support interior: 3 5/16" (84)
3	Panning
4	Sill Support

NOTE: Frames with a saddle sill do not use a sill support.

2. Center the sill support on the rough opening sill oriented with the upturned leg to the interior. Align the interior edge of the sill support on your mark/laser line. See Figure 6.

NOTE: The sill support will be shorter than your actual sill width.

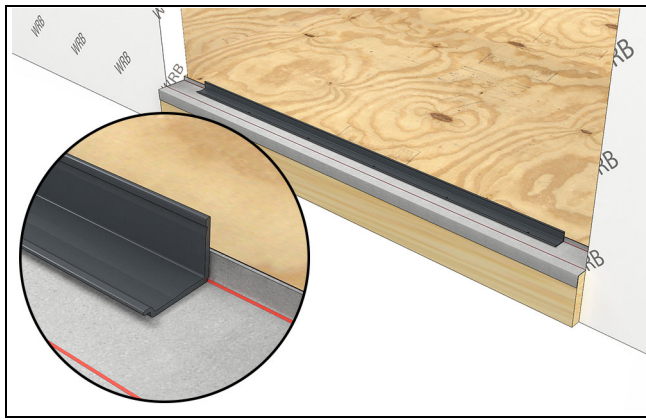


Figure 6

3. Level the sill support and shim if necessary. Use the thin plastic shims provided. Place the shims beneath the sill support installation holes. It is also important that you put shims on the ends to support the frame corner keys. See Figure 7 and Figure 8.

NOTE: Shims should be positioned so it supports the exterior edge of the door sill.

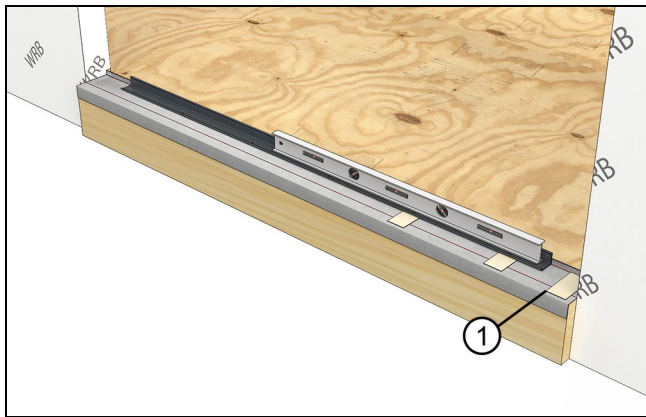


Figure 7



Figure 8

1	Note shim to support exterior edge of sill.
---	---

4. Depending on your construction, use the appropriate fastener to fasten the sill support to the sill. Follow

manufacturers instructions for proper application. See Figure 9.

IMPORTANT

Fasteners must penetrate at least 1" into the sill substrate. Recommended fastener size is a minimum #8 and maximum 1/4" diameter. Seal fasteners where they penetrate the panning

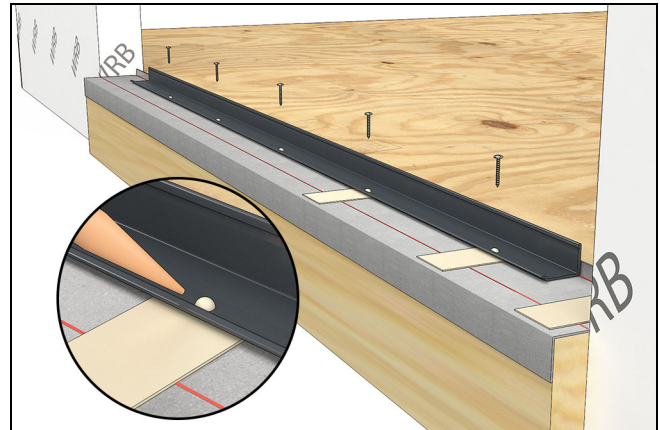


Figure 9

5. **Temporarily** install the sill frame member centered in the rough opening. Tap the sill into the sill support with a rubber mallet. See Figure 10

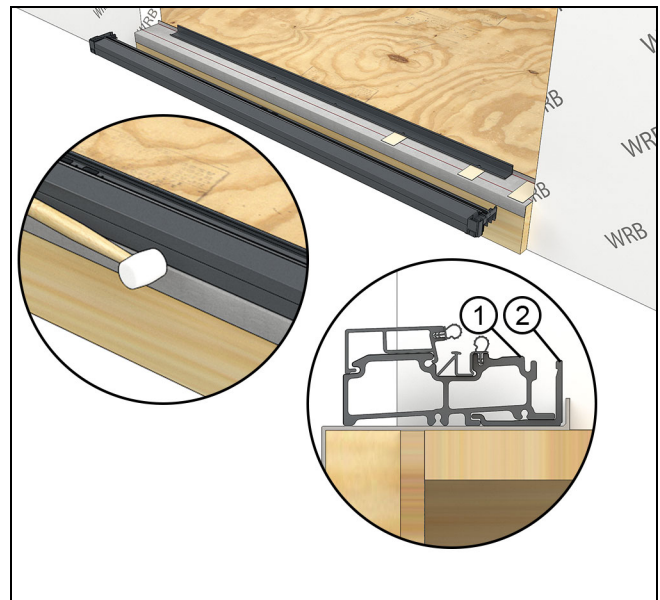


Figure 10

1	Sill
2	Sill Support

6. Mark the exterior of the sill. Be sure to accurately mark the ends of the sill. You will use these lines as

reference to apply sealant prior to installing the frame. See [Figure 11](#).

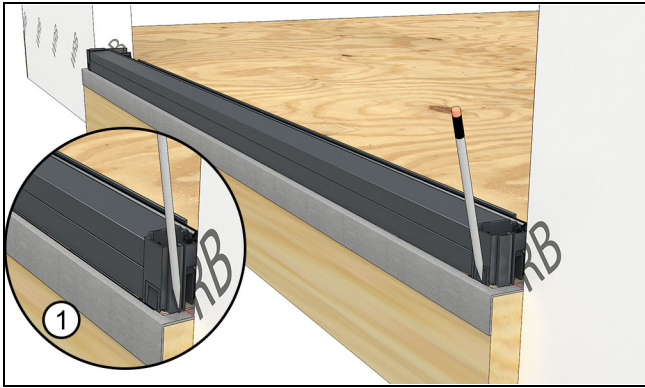


Figure 11

1	Be sure to mark the ends of the sill
---	--------------------------------------

7. Remove the sill from the sill support. Tap on the sill with a rubber mallet to release it from the sill support. See [Figure 12](#).



Figure 12

Frame Assembly

Using a smartphone or similar device, scan the QR code or click [here](#) to play a video of this procedure.



The following parts are pre-assembled onto the frame:

- Sill corner keys
- Lower jamb keys
- Hinges
- Jamb strikes
- Head jamb strikes for XO/OX and XX
- Weather strip

1. Start the frame assembly on a clean flat surface.
2. Remove the jamb and head jamb frame weatherstrip that is lightly tacked into place. Set aside for use later. See [Figure 13](#).

NOTE: The jamb weatherstrip is tacked into place during shipping. Remove this weatherstrip and set aside for use later before installing the frame in the opening.

IMPORTANT

Do not remove the weather strip fully installed on the stops.

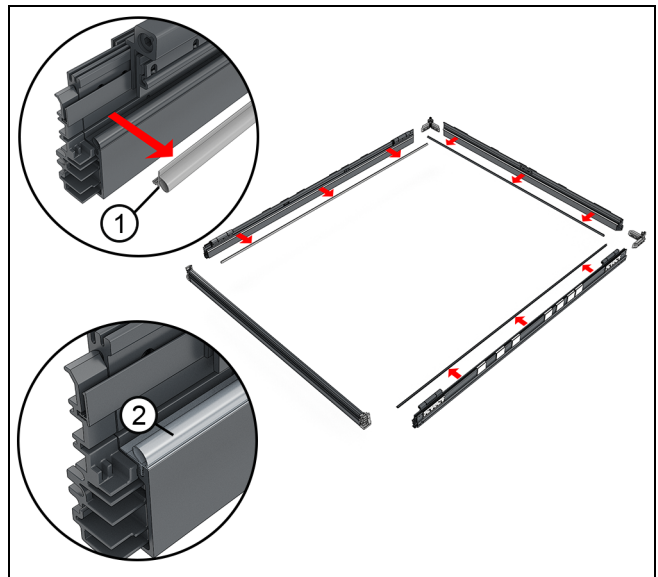


Figure 13

1	Remove frame weather strip
2	DO NOT remove frame stop weather strip

3. Insert the head jamb/jamb corner keys into the ends of the head jamb frame. See [Figure 14](#).

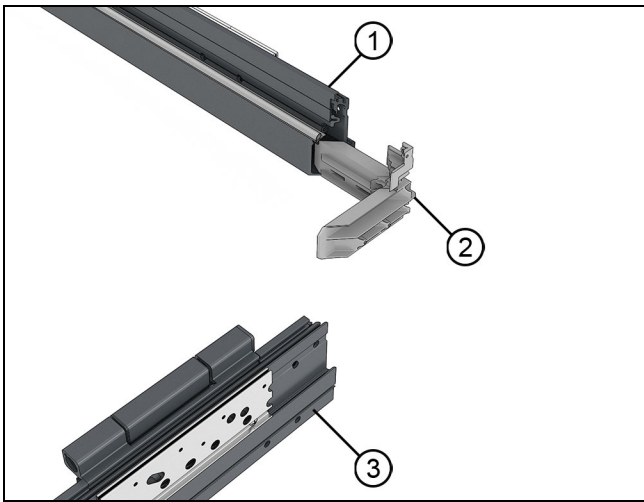


Figure 14 Insert head jamb corner key

1	Head jamb
2	Corner key
3	Jamb

4. Slide the jamb frame members onto the head jamb corner key. See [Figure 15](#).

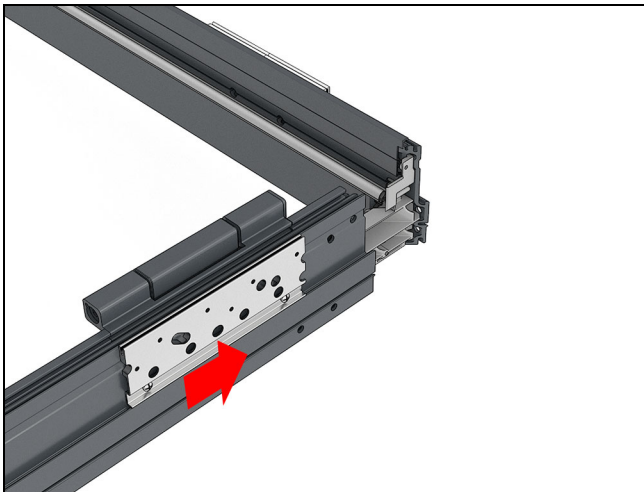


Figure 15

5. Align the head jamb to jamb and make adjustments until both miters are tight. Fasten with four #8 x 1" flat head screws to the exterior side and two #8 x 3/8" flat head screws to the interior side. See [Figure 16](#).

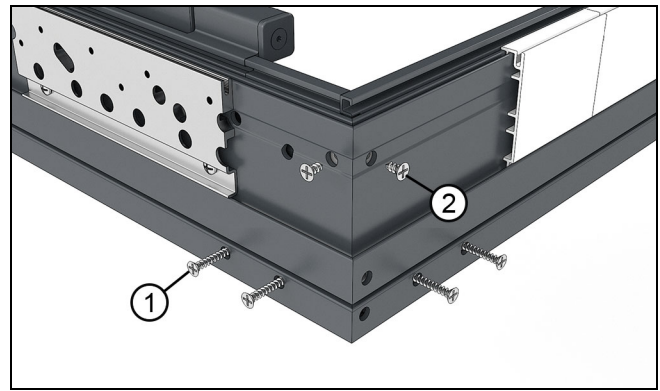


Figure 16

1	#8 X 1" flat head screws
2	#8 x 3/8" flat head screws

6. **Saddle Sills:** Attach the saddle sill to the jambs with three #8 x 1 3/4" pan head screws per corner. See [Figure 17](#).

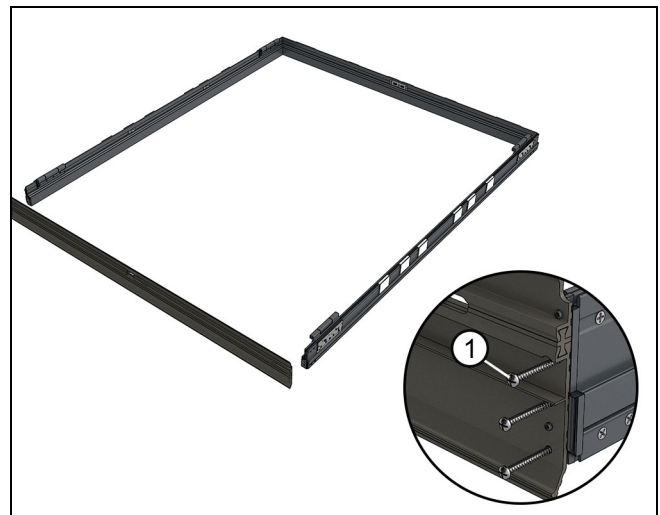


Figure 17

1	#8 x 1 3/4"
---	-------------

7. For performance and low profile sills, slide the sill with attached corner keys onto the jambs. Attach with #8 x 1 3/4" pan head screws. See Figure 18 and Figure 19.

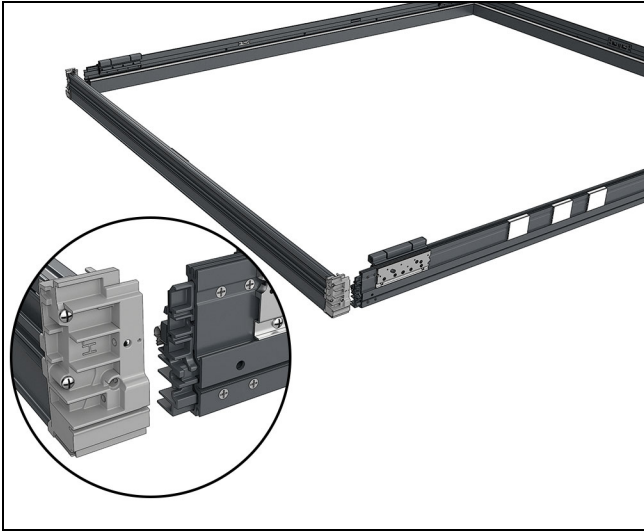


Figure 18

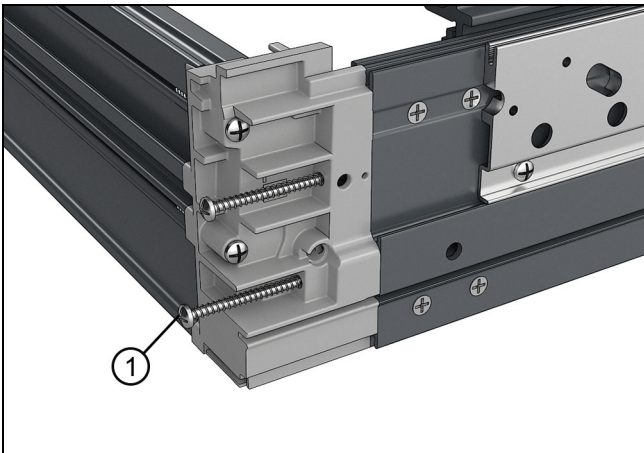


Figure 19

1	#8 x 1 3/4" screws
---	--------------------

8. For X configurations, install the head jamb strike plate. Fasten with one screw #8 1/2" flat head screw on the jamb. The remaining holes will be used during installation. See Figure 20.

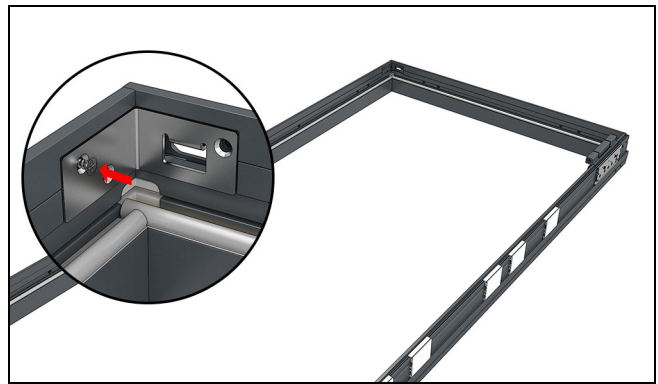


Figure 20

9. At the head jamb inject the provided sealant into the exterior hole until sealant comes out of the adjacent hole. See Figure 21.

NOTE: Two tips are sent with each door. You will need to trim the end of the tip for this application. Use the second tip for the sill injection after the sill cover is installed. This requires a smaller tip size.

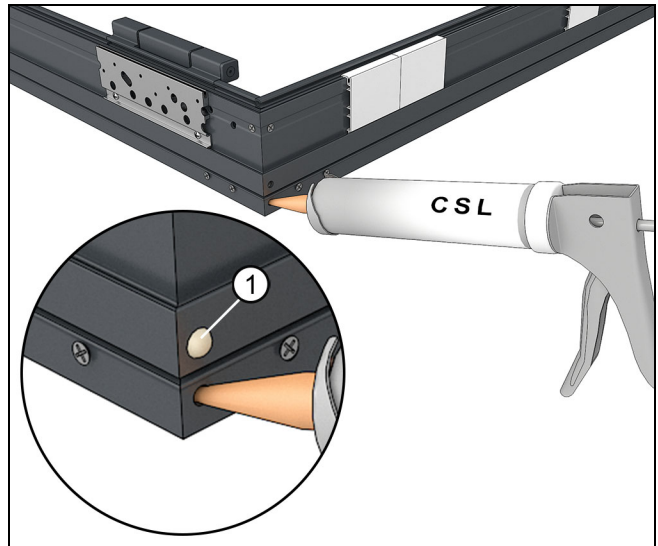


Figure 21 Inject CSL 343 sealant in head jamb corner.

1	Squeeze out hole
---	------------------

10. At the jamb inject the provided sealant into the hole closest to the corner until sealant comes out of the adjacent hole. See Figure 22.



Figure 22 CSL 343 sealant

1	Sealant squeeze out hole
---	--------------------------

11. At the sill inject the provided sealant into the larger hole in the sill corner key until sealant comes out of the adjacent hole. See Figure 23.

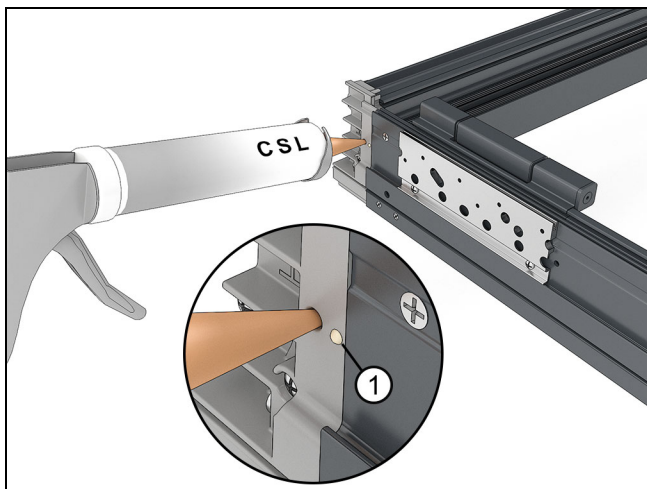


Figure 23 CSL 343 sealant

1	Apply sealant until silicone comes out of this hole
---	---

12. Inject sealant in the hole next to the nail fin kerf until sealant comes out of at the location indicated in Figure 24.

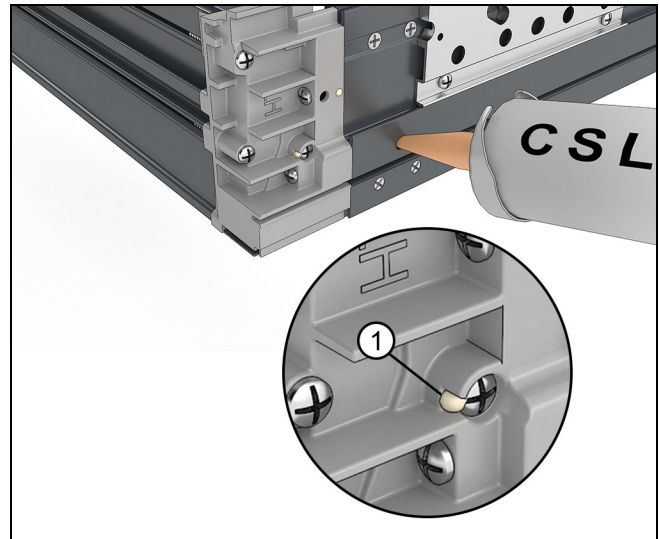


Figure 24 CSL 343

13. Pre-drill through the shim blocks with a 3/16" (5) drill bit. Drill through all jamb screw installation holes, panel alignment bolt holes, and all strike holes. See Figure 25.

NOTE: All installation holes should have a shim block.

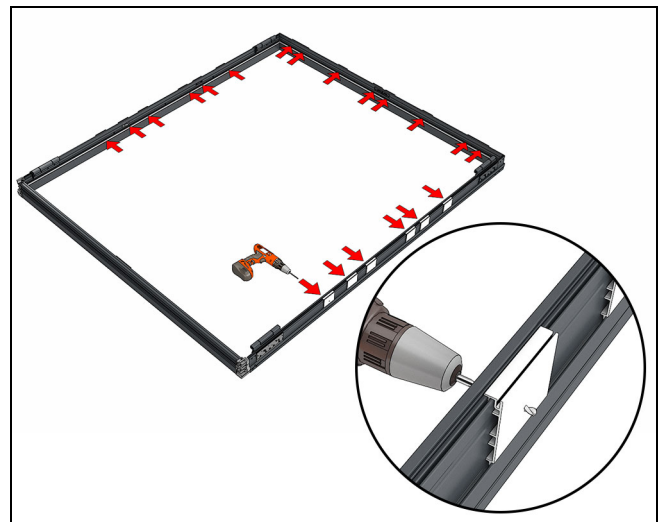


Figure 25

Panel Assembly

Using a smartphone or similar device, scan the QR code or click [here](#) to play a video of this procedure.



1. When using a **saddle sill** attach the sill weatherstrip on the bottom of the active panel. See [Figure 26](#)

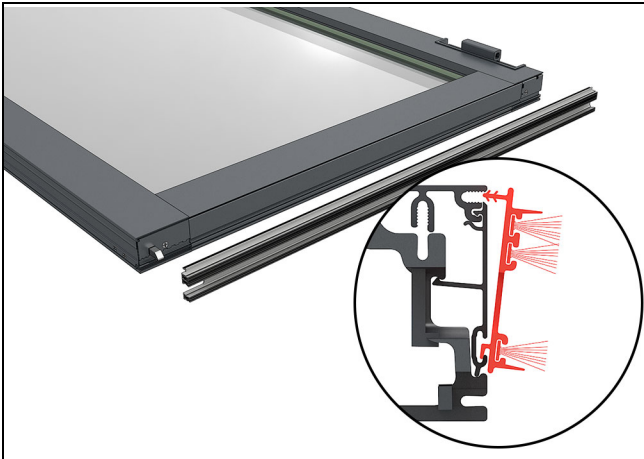


Figure 26

NOTE: The astragal cover is shipped loose. On stationary panels, install the cover AFTER the panel is installed.

2. On stationary panels, press the astragal cover into the astragal base. Make sure the end of the astragal cover is flush with the ends of the base at the top and bottom and not covering the dust block. See [Figure 27](#).

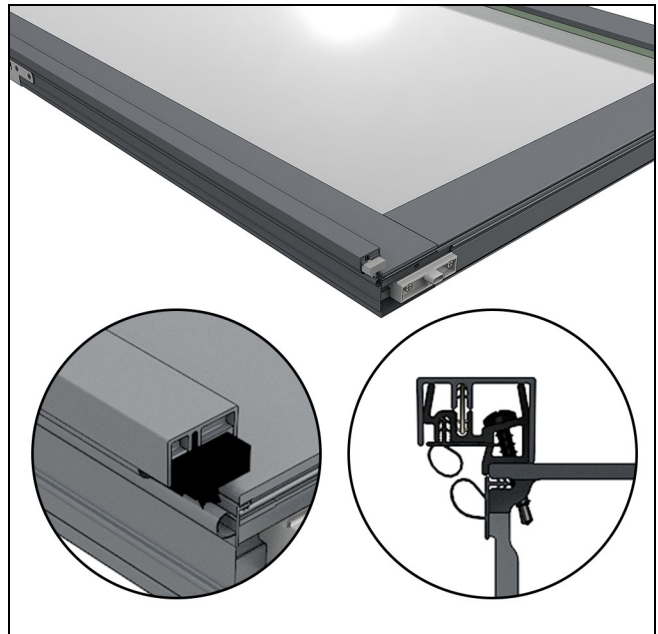


Figure 27

Saddle Sill Frame Installation

1. Temporarily set the frame in place and if necessary shim the sill to level. See [Figure 28](#) and [Figure 29](#).



Figure 28



Figure 29

2. Mark a line on the interior edge of the sill. See [Figure 30](#)



Figure 30

3. Tip the sill out and apply a bead of sealant on the exterior side of the line you just drew. Then tip the frame back into place. See [Figure 31](#) and [Figure 32](#).

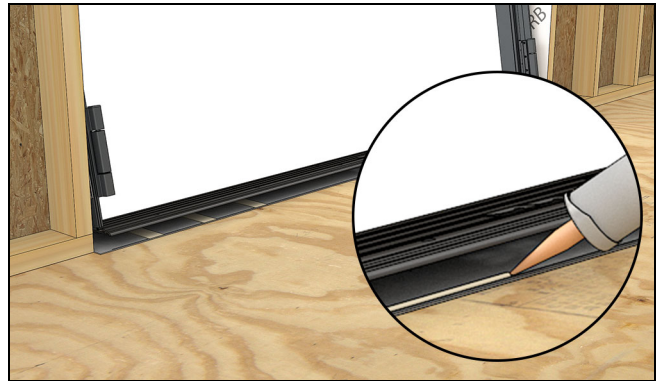


Figure 31

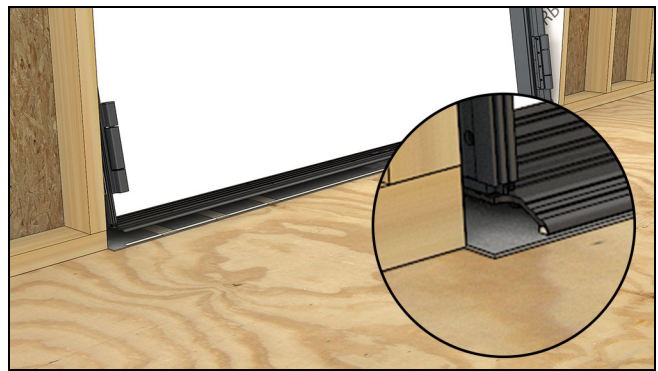


Figure 32

4. Inject sealant in the sill installation holes and fasten with the provided screws. See [Figure 33](#).

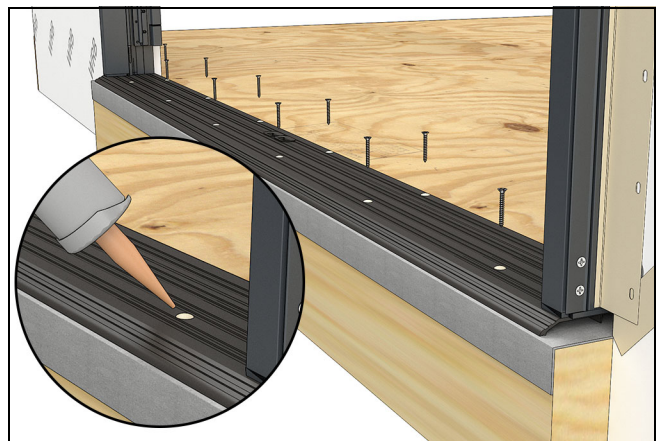


Figure 33

Frame Installation

Using a smartphone or similar device, scan the QR code or click [here](#) to play a video of this procedure.



NOTE: If you are installing a frame with a saddle sill, skip ahead to [step 4 on page 16](#).

1. Performance/Low Profile Sills: Apply a bead of sealant to the interior side of the line you marked earlier. See [Figure 34](#).

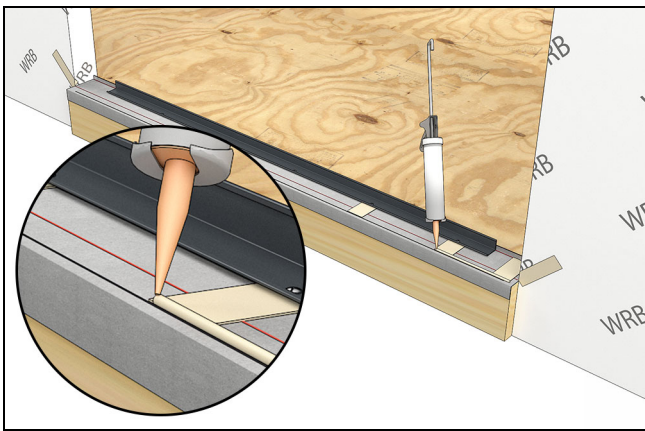


Figure 34 Performance/Low profile sill

2. Tip the frame into place. See [Figure 35](#).



Figure 35

3. Center the frame in the opening taking care to not disturb the sill sealant. Set the sill on top of the sill support. Use a rubber mallet to seat the sill onto the sill support. See [Figure 36](#) and [Figure 37](#).

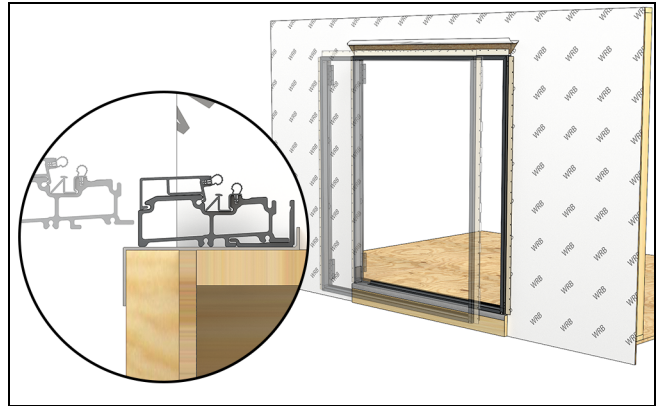


Figure 36



Figure 37

4. Shim near the bottom jambs to maintain the frame centered in the opening. See [Figure 38](#).



Figure 38

5. When driving screws into the rough opening, pre-drill first with a long 1/8" (3) drill bit. See Figure 39.

NOTE: Repeat this step throughout the instruction whenever fastening into the rough opening.

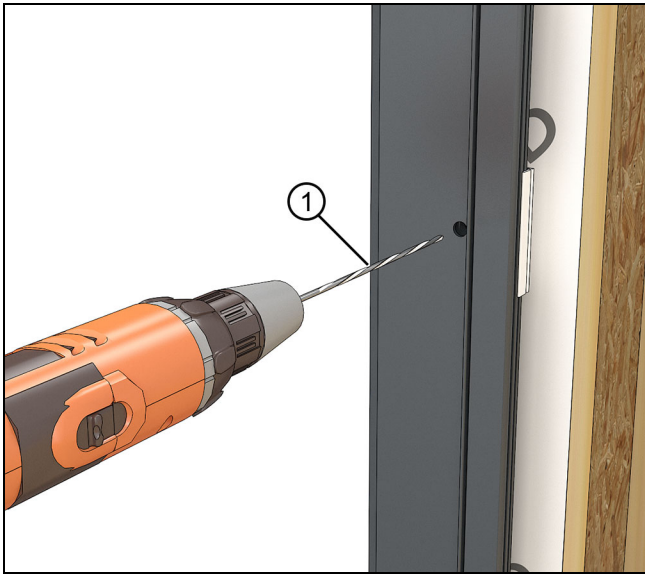


Figure 39

1	Long drill bit, 1/8" diameter
---	-------------------------------

6. Plumb one side jamb (side to side and interior to exterior). Tack the top corner by driving an installation screw through one of the pre-drilled holes in the jamb. Shim to maintain a plumb jamb. See Figure 40 and Figure 41.



Figure 40 Plumb side to side



Figure 41 Plumb interior to exterior, shim and fasten

1	Hinge leaf turned back to expose installation holes
2	Installation screw

7. Plumb and pin the bottom corner. See Figure 42.



Figure 42

8. Plumb and pin the opposite top corner. See [Figure 43](#).



Figure 43

9. Plumb and pin the other bottom corner. See [Figure 44](#).



Figure 44

10. Measure diagonals to obtain a square frame. Adjust screws and shims accordingly. Diagonals should be within 1/16". See [Figure 45](#).



Figure 45

11. On hinged doors, put two installation screws through each hinge. Make sure to maintain a straight jamb (not bowed). Shim behind the hinge. See [Figure 46](#).

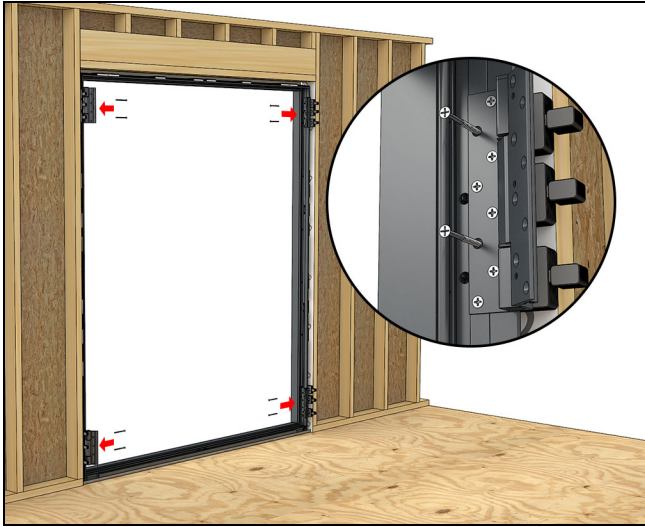


Figure 46

12. Install the interior sill cover. The cover fits over the vertical leg of the sill support and snaps onto the door sill. Use a rubber mallet to seat the cover on the sill. See [Figure 47](#).

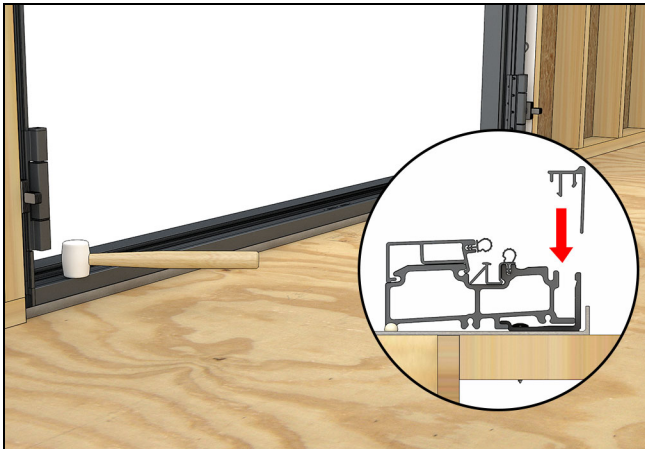


Figure 47

13. Inject the sill. Put a new tip on your sealant gun. Inject the bottom corners of the frame until you see sealant exit the smaller adjacent hole. See [Figure 48](#).

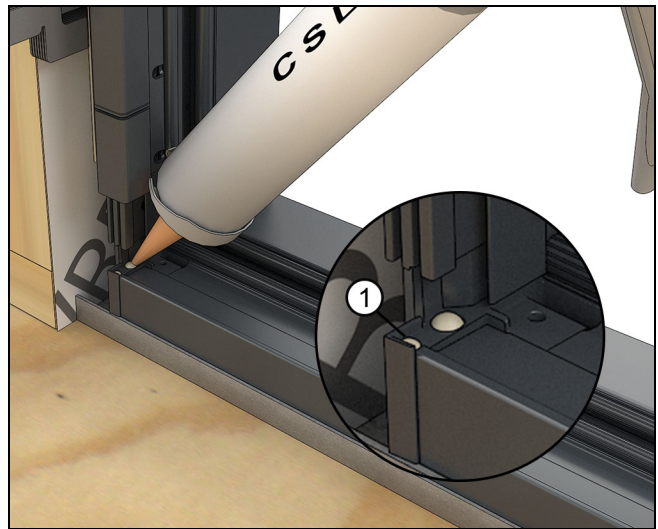


Figure 48 CSL 343

1	Squeeze out port
---	------------------

14. On hinge jamba, slide the small aluminum jamb cover on the frame below the lower hinge. On stationary jamba, the cover is full height. See Figure 49 and Figure 50.

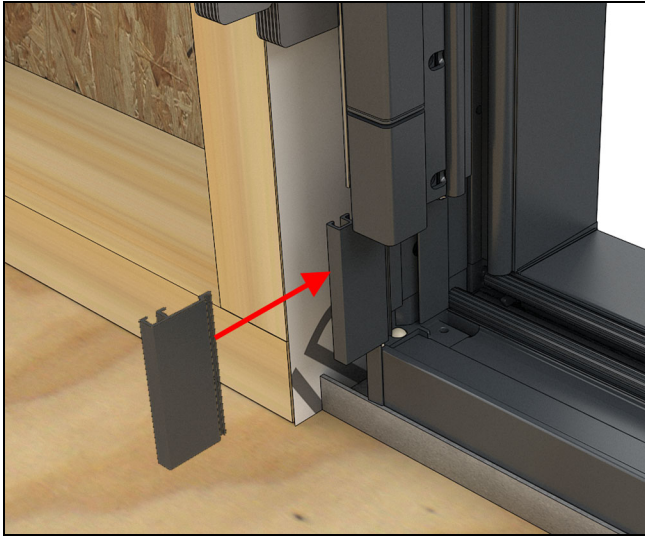


Figure 49 Hinge jamb configurations

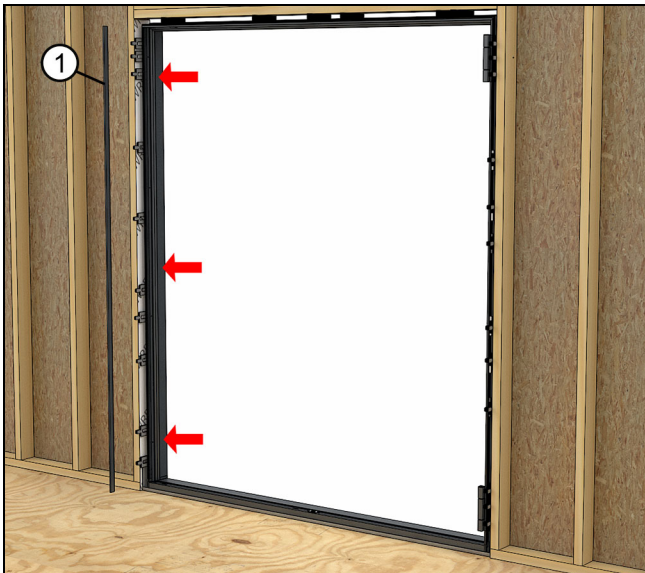


Figure 50 Stationary configurations

1	Stationary jamb full length cover
---	-----------------------------------

15. Lock Jamb Configurations: Install the aluminum locking jamb cover between the jamb strike and the sill. See Figure 51.

NOTE: The cover above the strike is factory installed.

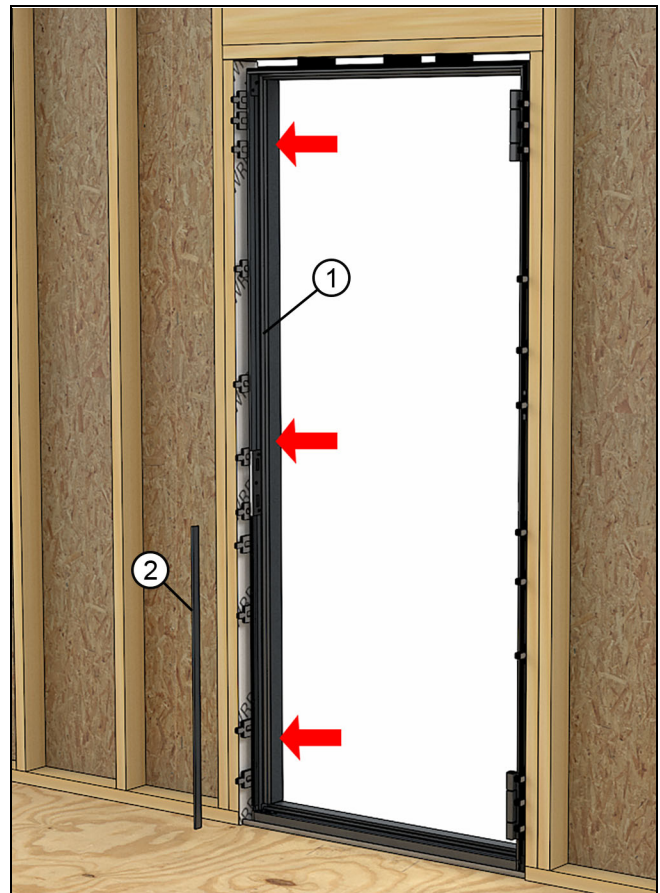


Figure 51 X Configuration

1	Factory installed cover above strike
2	Field applied cover below strike

16. On X units, shim and fasten at the jamb strike and head jamb strike with 3" installation screws. See Figure 52 and Figure 53.



Figure 52

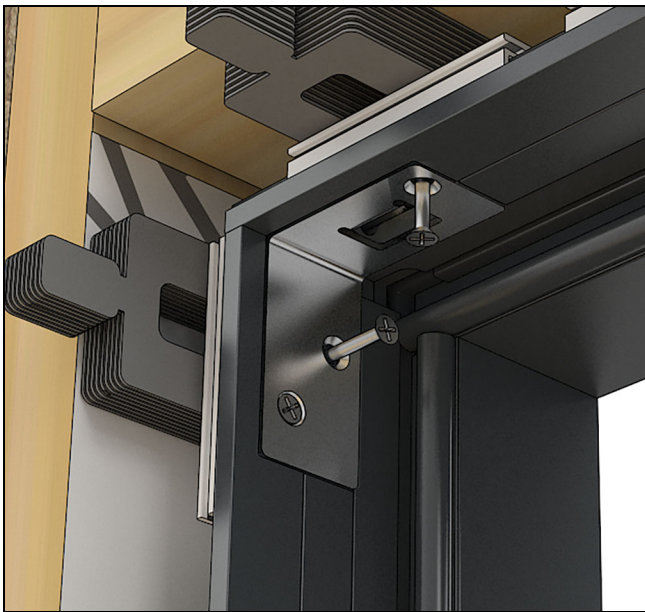


Figure 53

17. On hinged doors, put two installation screws through each hinge. Make sure to maintain a straight jamb (not bowed). Shim behind the hinge. See Figure 46.

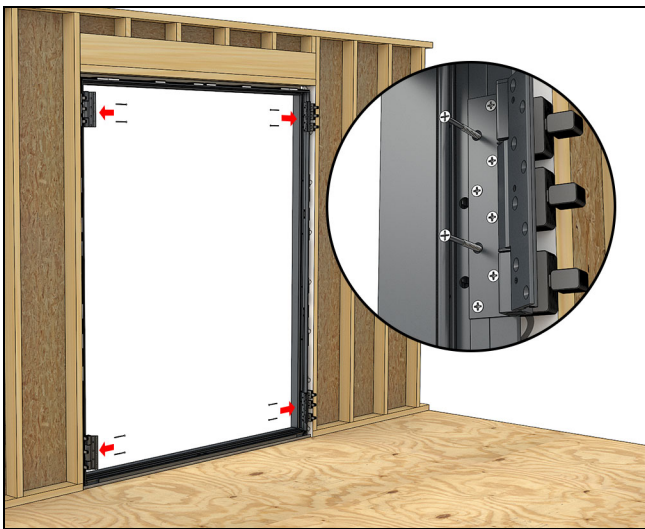


Figure 54

18. Install the sill strike. Fasten with two or three #8 x 1/2" screws. X and XO configurations will use two screws per strike. See Figure 55.

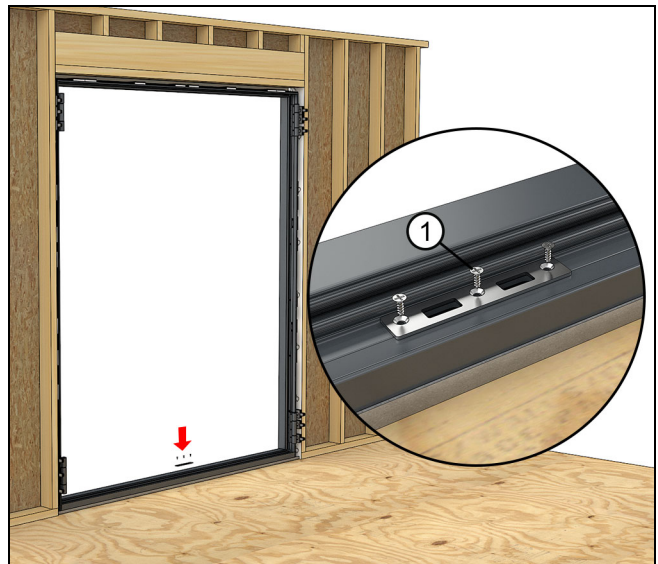


Figure 55

1	#8 x 1/2" flat head screw
---	---------------------------

19. Install the panel alignment bolts between the hinges on the frame. Note the tab on the back side of the bolt. This fits into the kerf on the frame. Shim between the frame at the bolt locations and fasten with #8 x 3" screws. See Figure 56.

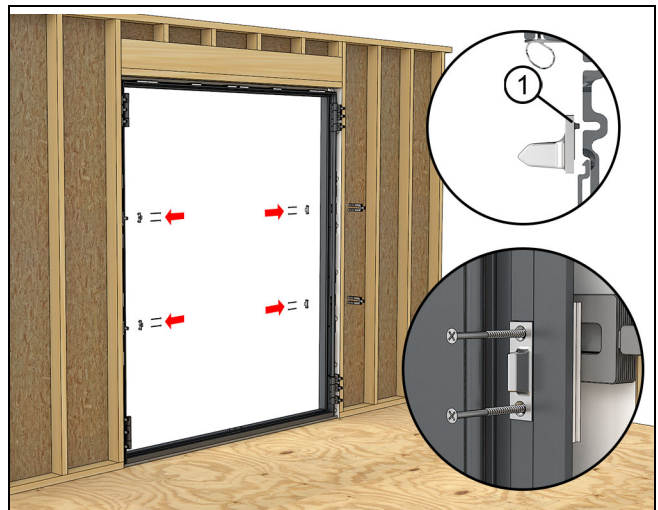


Figure 56

1	Tab on the bolt fits into the groove in the frame.
---	--

20. Fasten and shim remaining installation screws through the jamb and head jamb and strikes. See [Figure 57](#)

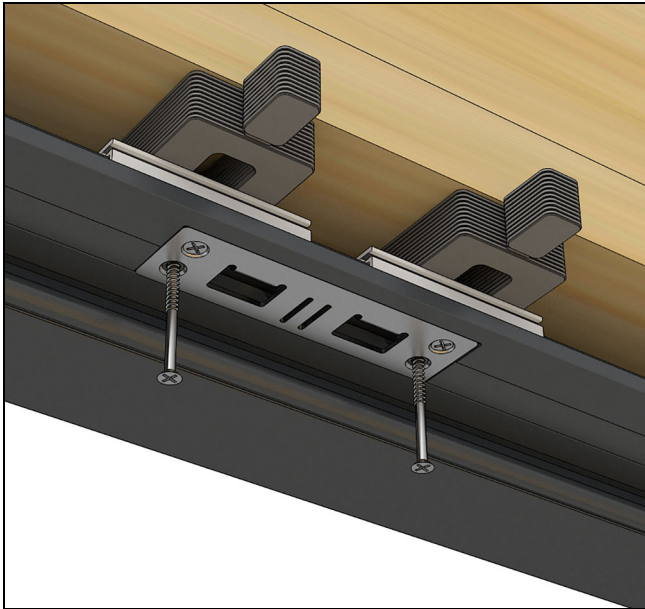


Figure 57

21. Fasten remaining installation screws holes in the jamb and remaining hinge installation screws. See [Figure 58](#).

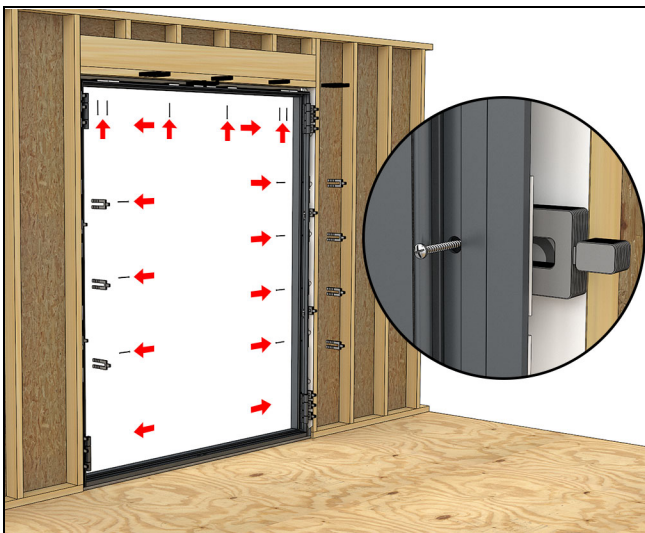


Figure 58

22. Replace the jamb and head jamb weather strip you removed earlier. See [Figure 59](#) and [Figure 60](#).

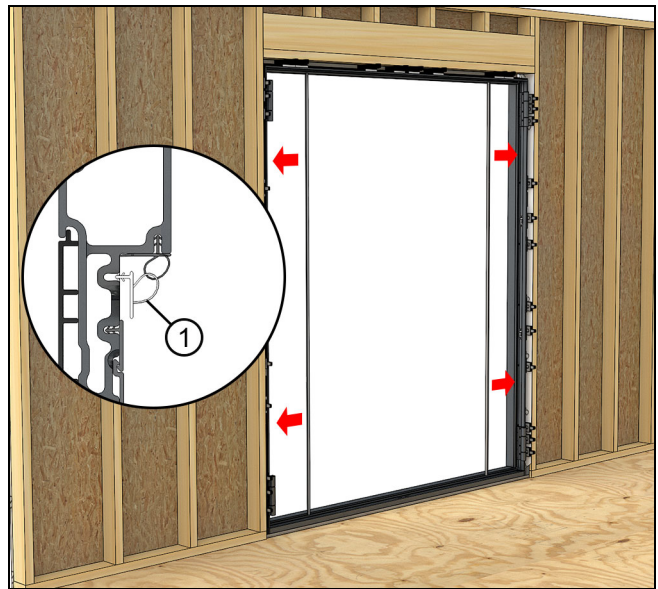


Figure 59

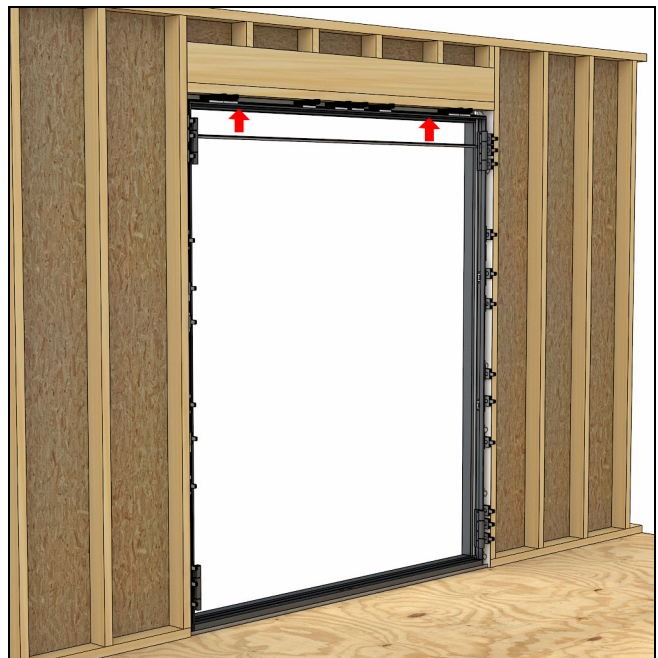


Figure 60

23. On O or OX/XO install the stationary brackets on the frame. Use #10 x 3" screws included. Brackets handed as viewed from the exterior. All brackets on the head jamb are left handed. See [Figure 61](#) and [Figure 62](#).

NOTE: When shimming stationary brackets, do not over-tighten, brackets should be snug but able to rotate with a wrench later.

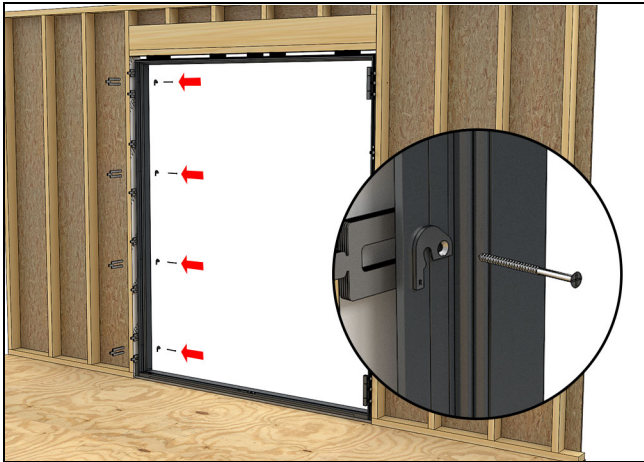


Figure 61 Right hand brackets shown.

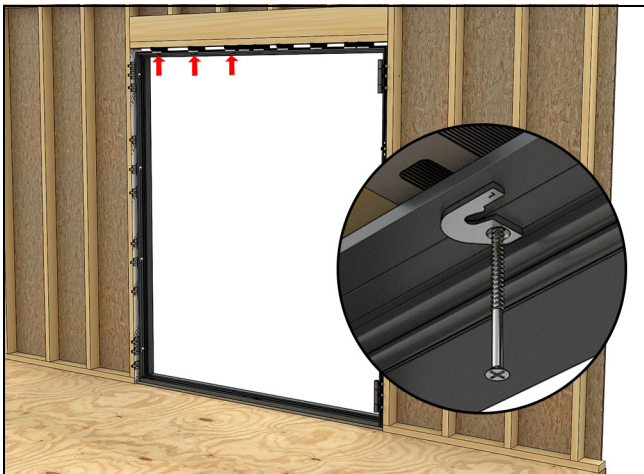


Figure 62 Stationary brackets at the head jamb are left handed

Stationary Panel Installation

Using a smartphone or similar device, scan the QR code or click [here](#) to play a video of this procedure.



1. Use the stationary bracket wrench to turn the brackets to the open position. See [Figure 63](#).



Figure 63

2. Install the stationary panel. Set the panel on the sill, and align the sill bolts with the holes in the sill. Tip the panel into place. See [Figure 64](#) and [Figure 65](#).

IMPORTANT

It is highly advised to rest the panel on a scrap board before setting the panel in place to avoid damage to the frame from the sill bolts on the bottom of the panel.



Figure 64



Figure 65

3. On OX/XO configurations, install the meeting stile stationary bracket. Insert the bracket into the holes in the head jamb strike, fasten with #8 x 1/2" flat head screws provided into the stationary meeting stile pre-drilled holes. See [Figure 66](#).



Figure 66

1	#8 x 1/2" screws
---	------------------

4. Use the stationary bracket wrench on the stationary brackets to lock the panel into the frame. See Figure 67.



Figure 67 Frame not shown for illustrative purposes.

5. For XO/OX units with a screen: apply the astragal on the astragal base, seat with a rubber mallet.

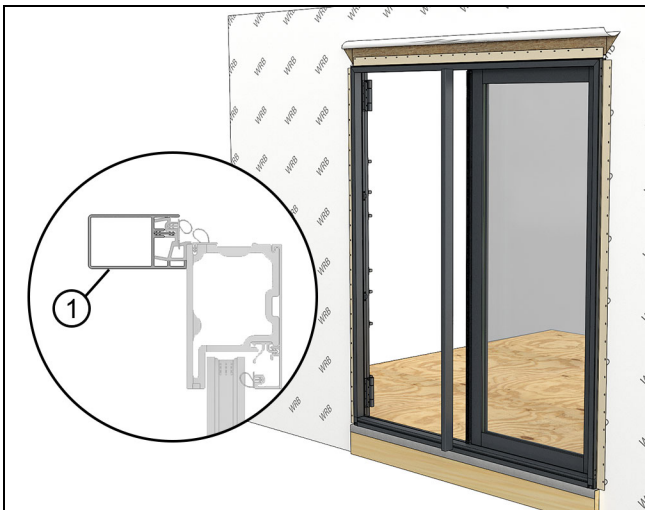


Figure 68

1	Screen astragal
---	-----------------

Operator Panel Installation

Using a smartphone or similar device, scan the QR code or click [here](#) to play a video of this procedure.



1. Position the operator panel near the frame, align the panel with the hinges on the frame. The panel should be set more than 90 degrees to the frame. [See Figure 69.](#)

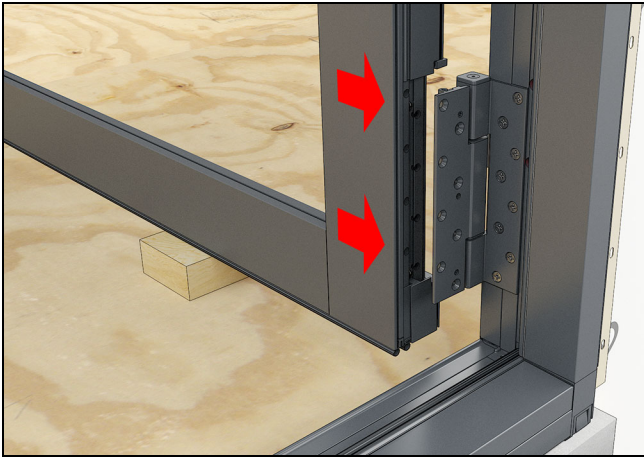


Figure 69

2. Hand tighten #10 x 1 1/2" machine screws to fasten the hinges (2) to the panel. Fasten at least 4 of the 8 screws (two to the exterior and two to the interior). [See Figure 70.](#)

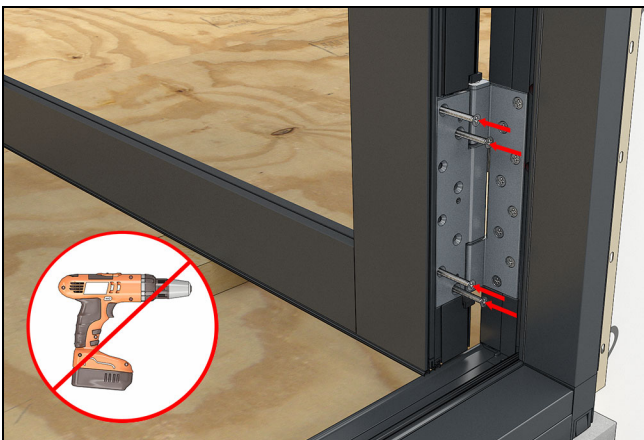


Figure 70

3. On XX doors, install the other panel in the same manner. [See Figure 71.](#)



Figure 71

NOTE: You may need to reverse the handing on your latch. If that is the case, [refer to Latch Reversal on page 27.](#)

4. Close the panel(s) and check both the horizontal and vertical reveals. You might need to adjust the hinges or adjust your jamb fasteners and shims to obtain an even reveal at the top and bottom.

NOTE: See [Hinge Adjustment on page 28](#) for vertical and horizontal panel adjustment.

5. If no adjustments are necessary to the hinges fasten the remaining screws on both hinges to the panel.

Latch Reversal

NOTE: You can reverse the latch orientation while it is installed in the panel.

1. To reverse the latch handing, insert a 2mm hex key in the small hole next to the latch. Start with the wrench angled slightly toward the latch and insert the wrench into the lock to release the latch bolt.

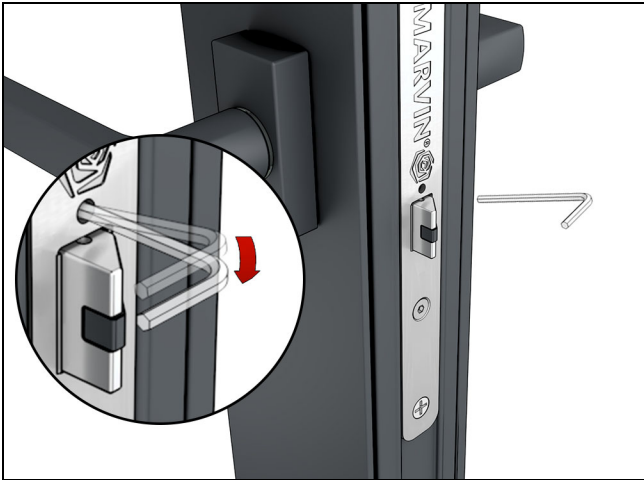


Figure 72

2. Pull the latch bolt out, remove the wrench, reverse the handing and insert back into the lock.

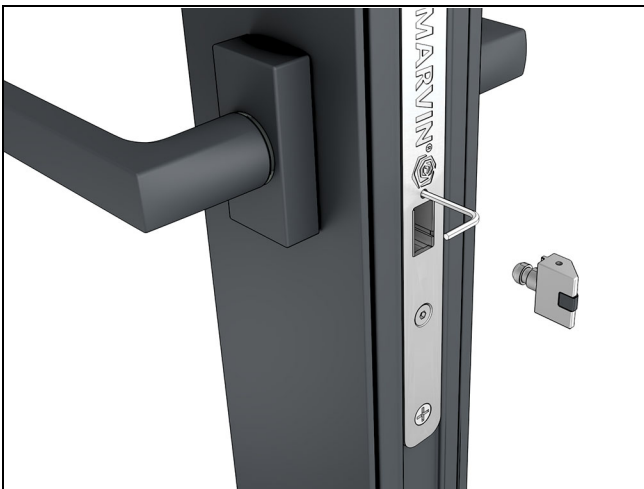


Figure 73



Figure 74

Hinge Adjustment

NOTE: From the factory, hinges are adjusted so they are centered vertically. Horizontally the hinges are adjusted toward the hinge jamb. A gap at the latch jamb and/or meeting stiles is normal.

Vertical Hinge Adjustment

1. Adjust your hinges vertically until you have consistent reveals along the top and bottom of the panels. See [Figure 75](#).

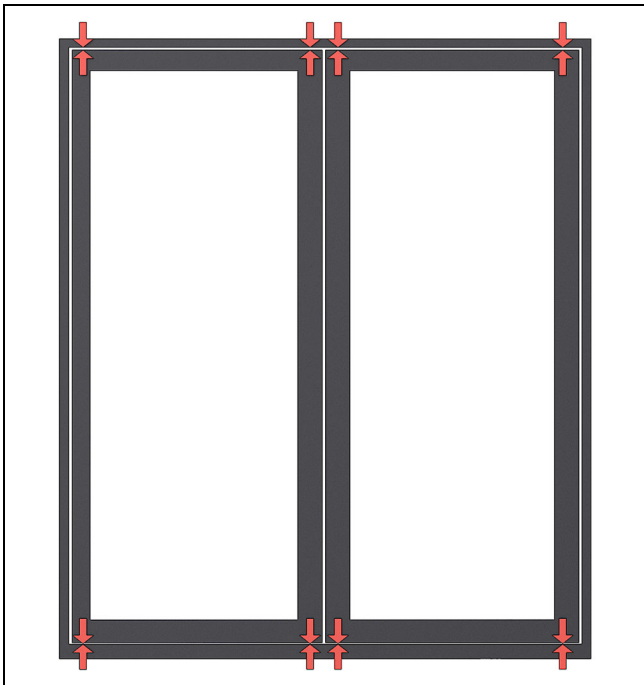


Figure 75

2. Starting with the panel in the closed position, use the 3mm wrench to loosen the top screw 3-4 revolutions on both top and bottom hinges. See [Figure 76](#) and [Figure 77](#).

NOTE: Each hinge has about 1/8" adjustment

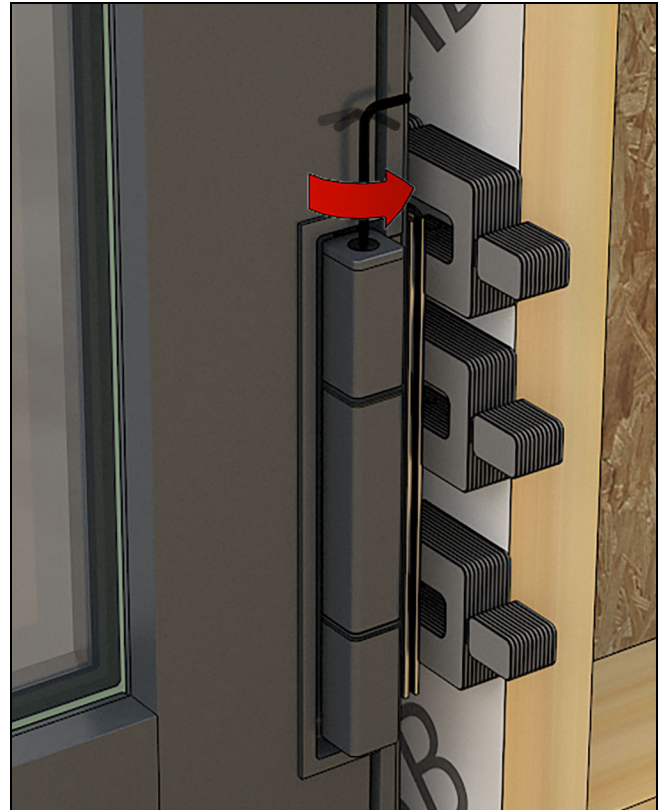


Figure 76 Bottom hinge

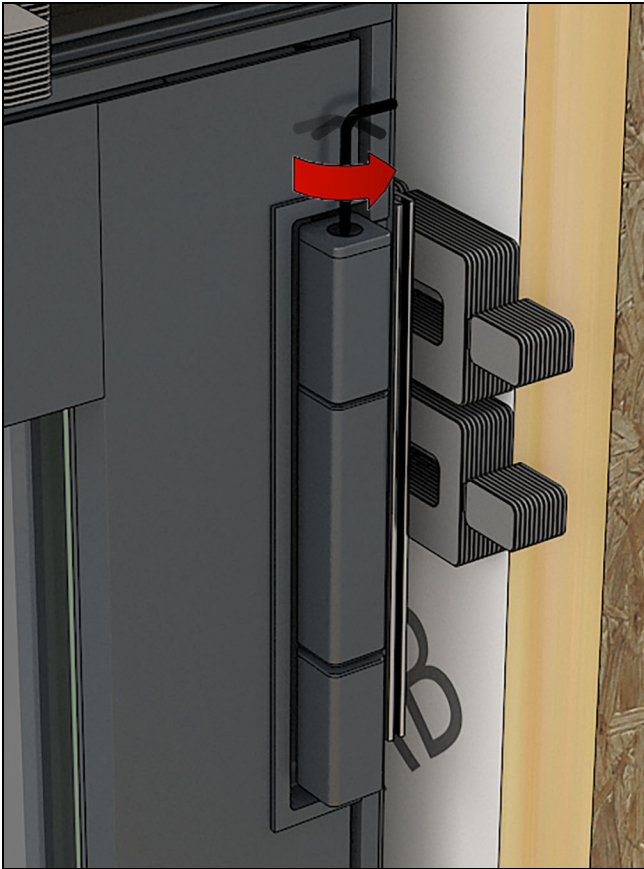


Figure 77 Top hinge

3. On the bottom of each hinge use the 6mm hex wrench to adjust the hinge height. Turning the set screw clockwise will raise the hinge. See Figure 78 and Figure 79.

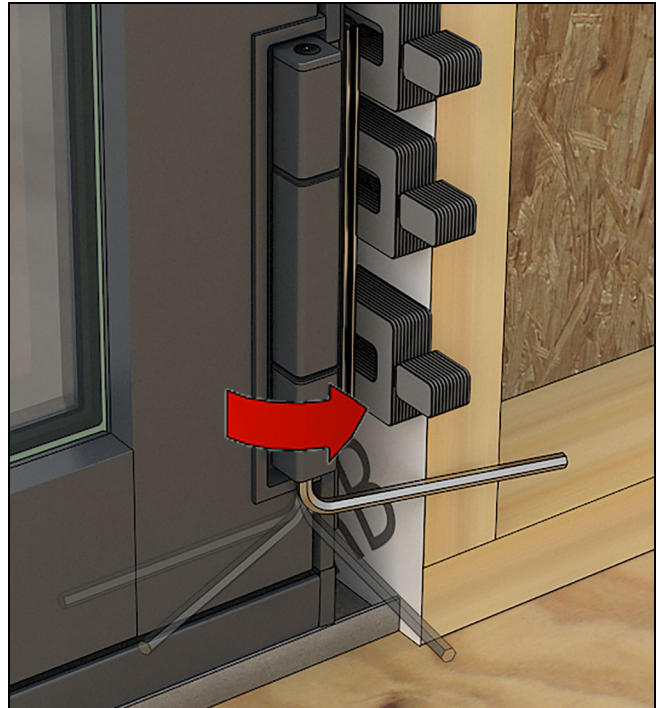


Figure 78

IMPORTANT

Make the same adjustments at both hinges. Be sure both hinges are carrying the weight of the panel approximately the same.

4. When you have finished adjusting the hinge, tighten the top screws until snug. **Do not over-tighten the screw!**

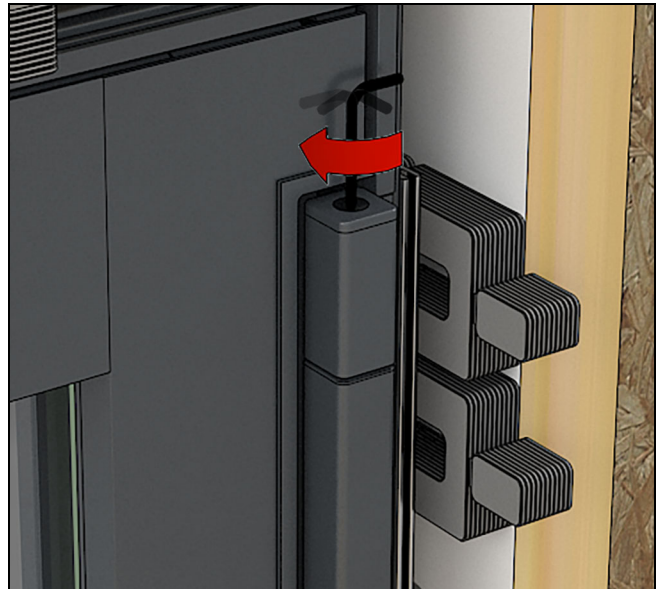


Figure 79

Horizontal Hinge Adjustment

1. Adjust your hinges horizontally until you have consistent reveals along the sides and at meeting stiles. See [Figure 80](#).

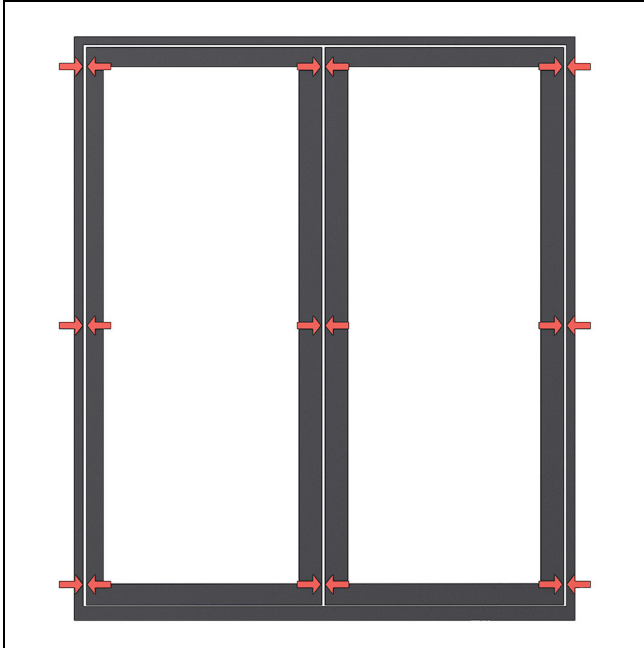


Figure 80

IMPORTANT

Do not use a power drill for adjusting hinges. Use only a hand screwdriver with a #2 Phillips bit and a 3mm hex wrench

2. Open the panel about 90 degrees and support the weight with a 2x4 or other blocking.
3. Use a hand screwdriver with a #2 Phillips bit to loosen the panel leaf screws. Turn the screws approximately 3 turns. See [Figure 81](#).

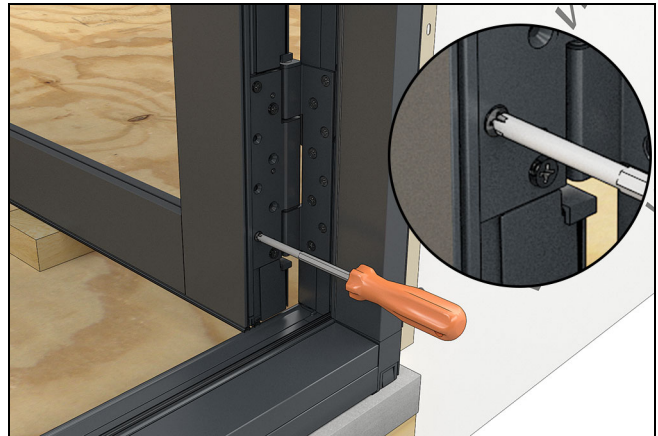


Figure 81

4. To make the necessary horizontal adjustments, use the 3mm hex wrench to turn the 3 set screws. Turn the screws clockwise to move the hinge away from the jamb. Adjust all three set screws to approximately the same depth. See [Figure 82](#).

IMPORTANT

The maximum adjustment is about 5 revolutions (from the screw being flush with the surface of the hinge leaf).

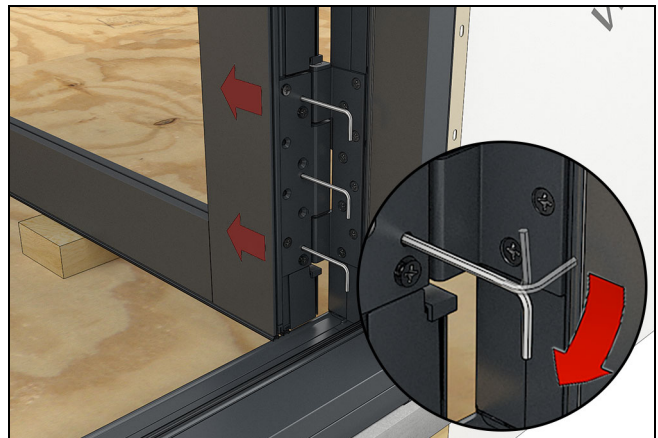


Figure 82

5. When you are done with your adjustments, tighten the panel leaf screws on the top and bottom hinges. See [Figure 83](#)

IMPORTANT

Do not use a power drill to fasten the panel leaf screws. Use hand tools only.



Figure 83

Lock Status Sensor- How to Access the Transmitter Housing

1. The transmitter housing is in the hinge stile above the bottom hinge. Remove the vinyl cover to access the transmitter housing. See [Figure 84](#) and [Figure 85](#).



Figure 84

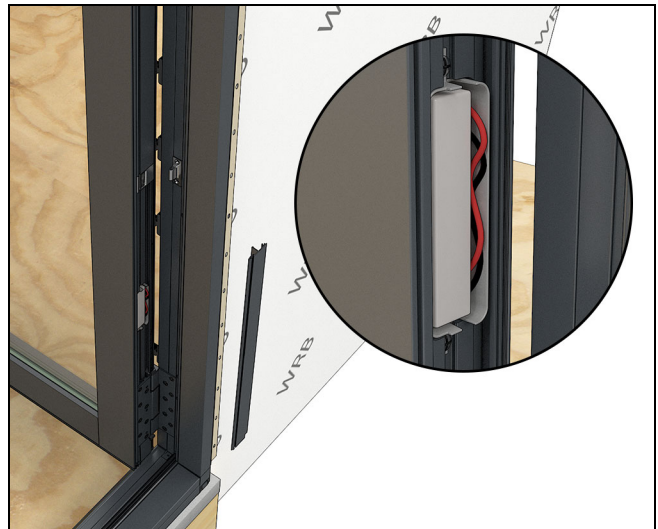


Figure 85

Final Steps

1. Apply a bead of sealant at the exterior face of the sill. Do not seal in front of the sill weeps. See [Figure 86](#)

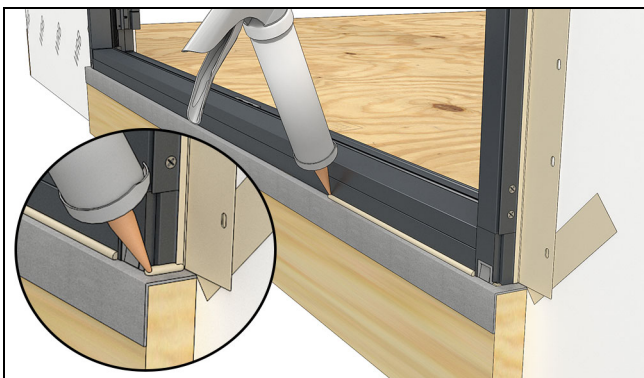


Figure 86

2. Handle Installation: Refer to the instructions included with the hardware to install your handle.

Technical Specifications

The following details are specified for proper installation of the unit to meet the advertised performance grade (PG) rating.

- Rough Opening Width: 1/4"-1 1/2" (6-38) wider than unit frame outside measurement.
- Rough Opening Height: 1/4"-1 1/2" (6-38) taller than unit frame outside measurement.
- Masonry Opening Width: 1/4"-1/2" (6-13) wider than unit frame outside measurement.
- Masonry Opening Height: 1/8"-1/4" (3-6) taller than unit frame outside measurement.

ATTENTION

Architectural Detail Manual Specifications:
Rough Opening: Width up to 1 1/2"(38); Height up to 3/4" (19)

Masonry Opening: Width 1/4"

- The panning must drain water to the exterior of the cladding OR the exterior surface of a concealed weather resistive barrier.

! CAUTION!

Be aware that the use of sill pans and other barriers will decrease the rough opening height clearance. Adjust opening dimensions accordingly.

- The panning system used in these instructions is one component in a structure's overall water management system. It should be used in conjunction with an appropriate drainage plane compatible with the exterior wall cladding.
- Flashing materials must comply with ASTM E2112, and be compatible with all materials used in installation including panning systems, air barriers and building papers, sheathing, and the window unit.
- Properly flash and/or seal all windows at the exterior perimeter.

IMPORTANT

Flashing material must not contain asphalt and must be compatible with flexible PVC (vinyl) if nailing fin is used as a backing material.

IMPORTANT

Sealants used for installation must be Grade NS Class 25 per ASTM C920 and compatible with the building exterior, window or door exterior surface, and flashing/water management materials.

- Optional foams used for installation must be low expansion only. Foam and foam application must comply with ASTM E2112.
- Shims are required at every fastener location.
- Do not use chemically treated products for shim material.
- Fasteners penetrating chemically treated lumber must be a minimum of 0.90 oz/ft² zinc hot dipped galvanized or stainless steel type 304 or 316.
- The frame must not come into direct contact with chemically treated wood products.