Modern Sliding Door Mulling

Installation Instructions

ABSTRACT: These mulling instructions must be used in conjunction with the installation instructions sent with your door. Please read these instructions in their entirety before beginning to install your Marvin window or door product. **Follow these instructions before assembling your frames.**

USAGE DATES: These instructions are relevant for doors manufactured June 2025 to present.

IMPORTANT

Use the installation instructions included with your door for steps on squaring, plumbing and fastening frames as well as other details. These instructions include procedures on preparing your door for mulling as well as the steps for mulling units together within the rough opening.

IMPORTANT

Follow these instructions before assembling your frames. You will use the sill components to properly locate the sill supports prior to assembly and installation in the rough opening.





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Hazard Notations

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

<u>^</u>WARNING!

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

(!) 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.

Tools and Supplies Needed

- · Safety Glasses
- · Gloves
- · Tape Measure
- · Combination square
- Pencil
- · Caulking gun

Steel Specification: ASTM A36/GR50 Steel or better.

Parts Included

- #8-32 x 1/2" trilobular screws (frame to steel)
- #10-12 3" T20 Torx pan head 2/3 thread screws (through brackets into RO framing)
- · Mull end brackets
- · Mull covers
- · Template for fabricating steel ends
- · CSL 343 Sealant or equivalent

- · Power drill/driver
- 1/2" x 2 1/2" (13 x 64) primed flat steel (spec listed below)
- 1/8" (3) drill bit for drilling into steel plate
- #23 drill bit (.154 inches or 3.911mm) for drilling into steel plate
- Rubber mallet
- Clamps

Install the First Sill Support

1. Start with a flat and level opening.



Hint

The following steps describe dry fitting the sill components (before assembling the frames). This allows you to verify proper alignment and fit-up of the sill without having to handle the fully assembled frame.

2. Determine the exterior plane of your door installation. You will fasten the aluminum sill support 6 15/32" (164) 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 7 9/16" (192). See Figure 1 and Figure 2.

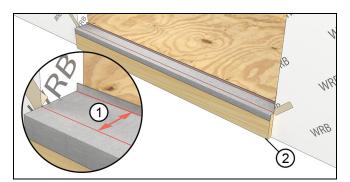


Figure 1

1	6 15/32"	
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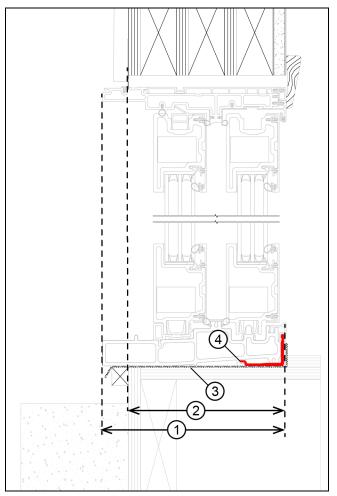


Figure 2

1	Frame exterior plane to sill support interior: 7 9/16"
2	Nailing fin plane to sill support interior: 6 15/32"
3	Panning
4	Sill Support

3. Dry fit the sill components in the opening. Center the components (left to right) and mark the edges of each corner key. If marking the sill from the interior, use a speed square to draw a line See Figure 3, Figure 4 and Figure 5.

NOTE: This will tell you where you can install your sill support safely without interference with the corner keys.

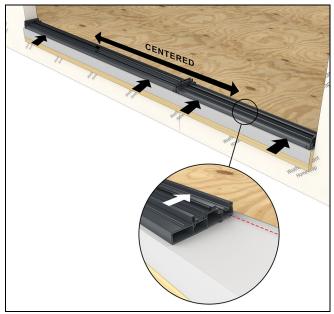


Figure 3



Figure 4

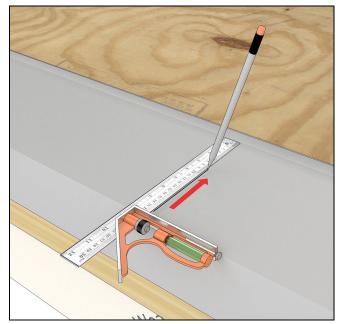


Figure 5



If possible, you may find it easier to mark the interior edge of the sill. You will have to set the sill components further to the exterior to accomplish this.

4. Remove the sill components and set aside, then install your first sill support. Locate the support within the safe zones marked in the previous steps along the 6 15/32" line. You may need to shim the sill support to level.

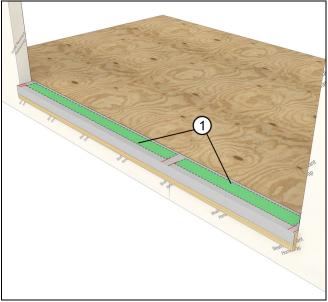


Figure 6

Safe zones to install the sill support.

5. Depending on your construction, use the appropriate fastener to fasten the sill support to the sill. Follow manufacturers instructions for proper application. See Figure 7.

IMPORTANT

Fasteners must penetrate at least 1 1/4" into the sill substrate. Recommended fastener size is a minimum #8 and maximum 1/4" diameter (fastener head height should be no more than 1/4" and not interfere with sill installation). Seal fasteners where they penetrate the panning.

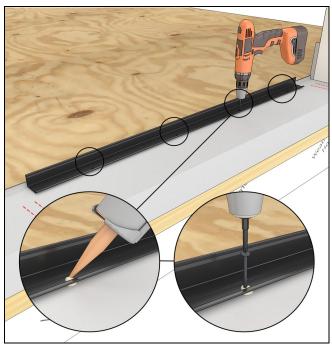


Figure 7

6. Dry fit the first sill component to ensure it is level and that it fully engages with the sill support. Look for an even gap between the sill and sill support (about 1/8"). Another check is the exterior nail fin kerf will line up just outside the sheathing line, about 3/16".



A small piece of nail fin temporarily installed in the kerf will give you a visual indicator that the sill is on the correct plane (even with the sheathing plane).

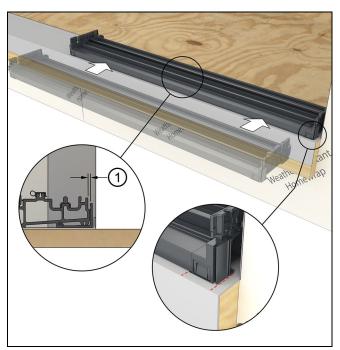


Figure 8

1 1/8"

7. If the sills line up correctly in the opening and no adjustments are necessary, remove the sill from the sill support. Tap on the sill with a rubber mallet to release it from the sill support.



Figure 9 Interior view

Assemble the Frames

1. With the first sill support installed in your rough opening, use the Installation instructions included with your order to assemble the frames.

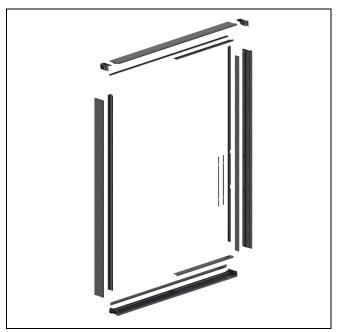


Figure 10 Generic exploded view

2. If not done from the factory, remove all shim blocks and nail fin on the side of frames that will be mulled. See Figure 11.

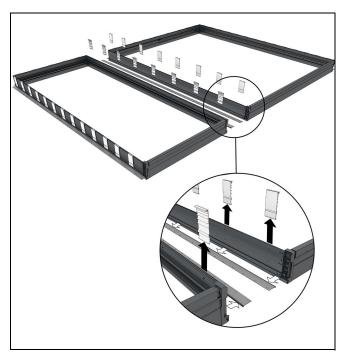


Figure 11

Install the First Frame

The following steps pertain to mulling any operating configuration to a stationary door, or, a stationary to a stationary.

1. Lay a 3/8" bead of sealant on the inside edge of the sheathing line. Run the sealant about 2 1/2" past the edge of the first sill support (the sealant line should stick out about 1/2" once the first frame is installed. See Figure 12.



Figure 12

1 About 2 1/2"

2. Position the first unit in the opening. Shim and plumb the first jamb on the desired vertical plane, then fasten and shim along the jamb with screws into the rough opening. See Figure 13.



Figure 13

1	Shim
2	# 10x 3" flat head screw (through hinge)

3. Temporarily position the mull bracket on the sill. You will need to shim to get the bracket to the correct height if the unit does not sit flat on the sill plate. The bracket should sit flush with the bottom of the frame/shim block. See Figure 14 and Figure 15.

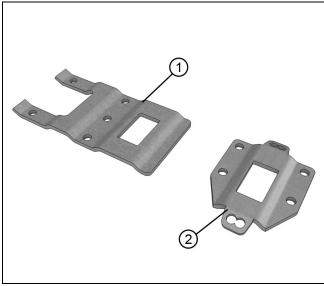


Figure 14

1	Head jamb mull bracket
2	Sill mull bracket

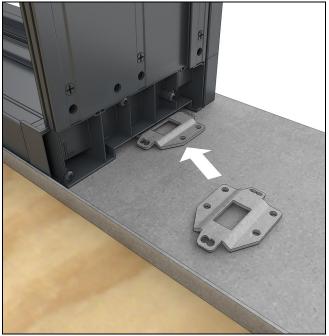


Figure 15

4. Set the steel reinforcement in the bracket and tight against the step in the frame. See Figure 16.

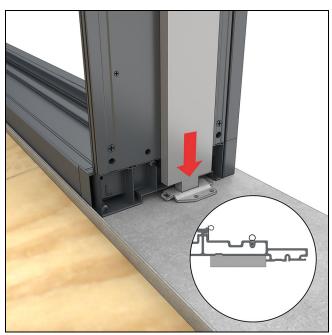


Figure 16

5. Predrill, and fasten the bracket using #10-12 3" T20 Torx pan head 2/3 thread screws or similar depending on the sill material. See Figure 17.

NOTE: Fasteners through the front and back holes in the bracket should be angled toward the center of the bracket.



Figure 17

NOTE: If you are drilling into a sill pan or prepared sill with water management it is highly advised to pre-drill and inject sealant in the screw holes prior to fastening the sill bracket. See Figure 18 and Figure 19.

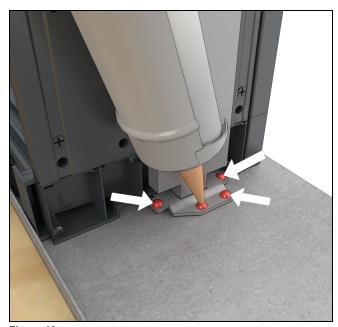


Figure 18



Figure 19

6. Slide the top mull bracket so that it fits over the tab on the mull steel. See Figure 20.

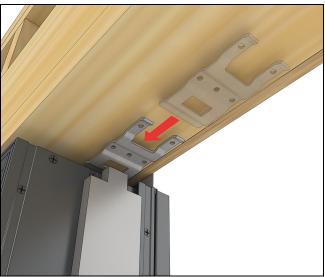


Figure 20

7. Shim the top bracket so that when it is fastened to the RO it will be no more than 1/8" away from the top of the frame/shim block. See Figure 21.

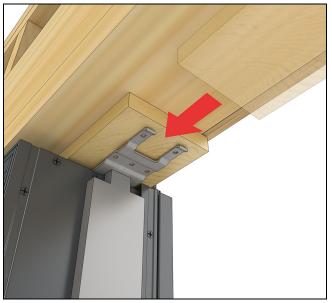


Figure 21

8. Fasten the top bracket to the RO with the 3" screws provided. See Figure 22



Figure 22

9. Using the pre-drilled installation holes in the frame as a guide, drill through the steel with a #23 bit. See Figure 23.

NOTE: You may need to first drill with a 1/8" bit.

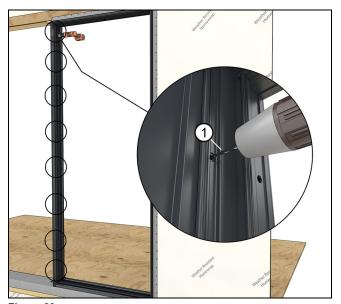


Figure 23



Use quick clamps to hold the steel mull pin in place, while pre-drilling.

10. Fasten the steel to the frame with #8 x 1/2" trilobular screws through the installation holes. See Figure 24

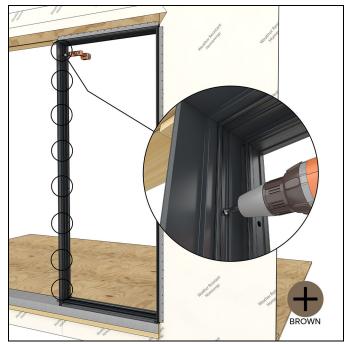


Figure 24

Install the Second Sill Support

1. Install the second sill support using the safe zone marks you made earlier as a reference. Use the same techniques and take the same precautions as those laid out in the section, Install the First Sill Support on page 4.

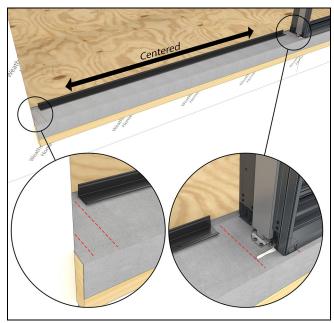


Figure 25

Install the Second Frame

1. Install the aluminum mull pin on the second door about 5/16" below the top of the door frame. Clamp the mull pin to the side of the door. See Figure 26.

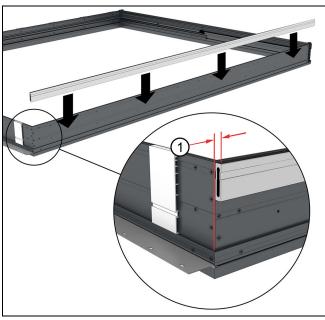


Figure 26

1 5/16" (3)

2. Fasten the mull pin to the door using the installation holes. Fasten with #8 x 1/2" self drilling screws. See Figure 27. **Do not** fasten through strike hardware attachment holes.

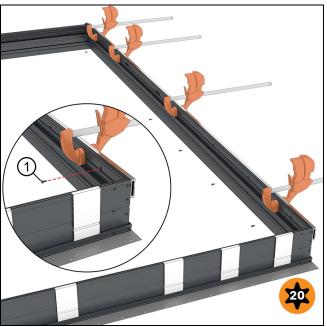


Figure 27

1 #8 x 1/2" self drilling screws

3. Apply a 1/4" bead of sealant beside the exterior frame accessory kerf along the entire length of the mull. Continue the bead to connect with the previous bead on the sill. Then continue the sill bead inside the sheathing line. See Figure 28 and Figure 29.

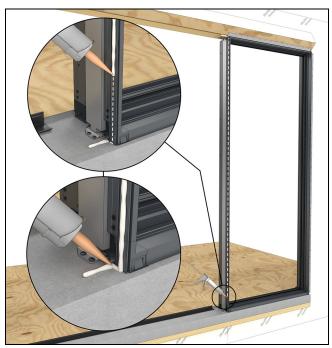


Figure 28



Figure 29 Sealing bead along sheathing line

4. Set the second unit in place in the opening. Align the frames and clamp. See Figure 30 and Figure 31.

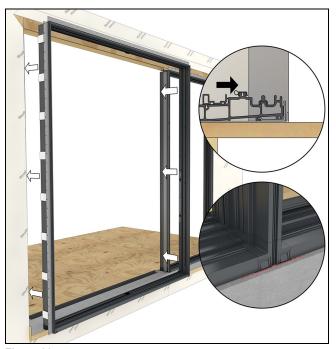


Figure 30



Figure 31

IMPORTANT

Verify the sealant has made contact with both frames before proceeding.

5. Install the **exterior** mull cap. Seat in place with a rubber mallet. See Figure 32.

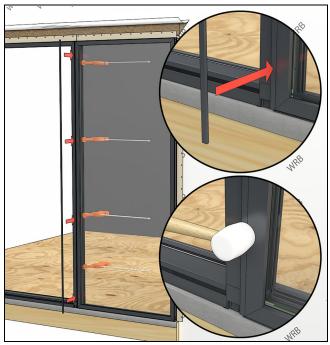


Figure 32

6. Install the interior sill liner. Seat in place with a rubber mallet. See Figure 33.

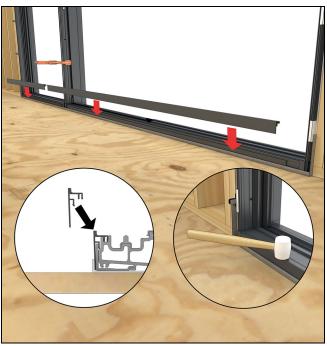


Figure 33



Clean any excess sealant off the frame at this time.

7. Using a drill with a stop collar set to 1", use the installation holes as a guide and bore into the steel with a #23 drill bit. See Figure 34.

IMPORTANT

Confirm that the installation holes on opposite sides of the mull are offset from each other (vertically). If not, drill new holes through the frame at least 1/2" away from the original installation holes

IMPORTANT

Do not bore through the steel and into the opposite frame.

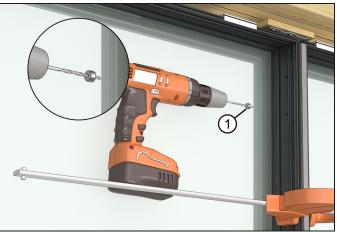


Figure 34

1

Doors: #23 drill bit with stop collar set to 1" depth

8. Fasten the second frame to the steel mull using the #8 x 1/2" trilobular screws included. See Figure 35.



Figure 35

9. Fasten the aluminum mull pin to the first frame using the installation holes. Fasten with $\#8 \times 1/2$ " self drilling screws. See Figure 36.



Figure 36

#8 x 1/2" self drilling screws

10. Making sure all the frames are aligned along the correct exterior plane, shim and fasten the head jambs with #10 x 3" T20 Torx pan head installation screws. See Figure 37.



Figure 37

11. Complete shimming and fastening along the jambs through the installation holes into the RO. See Figure 38.



Figure 38

12. If your configuration has a **locking jamb** on a mull, fasten the strikes into the aluminum mull pin. Use the fasteners found in the "coral" colored kit. See Figure 39.



Figure 39

13. OXO Configurations: Fasten the retainer to the aluminum mull pin. Use the fasteners found with the "evergreen" colored kit. See Figure 40.

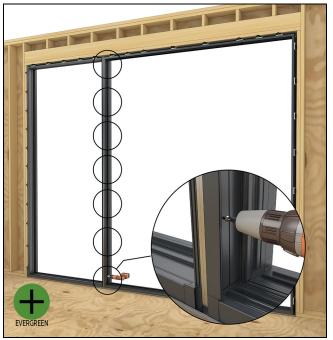


Figure 40 OXO non locking jamb

14. Install the interior mull cap. Seat with a rubber mallet. See Figure 41

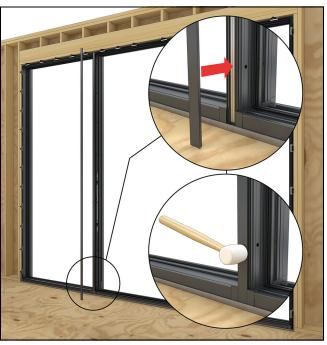


Figure 41

15. Refer to the installation instructions for finishing, insulating, sealing and other procedures.