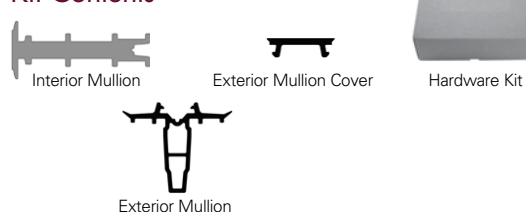


Block Frame Inovo Patio Door/Transom/Sidelite Field Mulling Instructions

Tools Needed



Kit Contents



- EXERCISE CAUTION WITH POWER TOOLS, THEY CAN STRIP OUT THE SCREW HOLES
- PLEASE CONFIRM THAT YOU RECEIVED ALL REQUIRED PARTS BEFORE PROCEEDING WITH THE INSTALLATION.
- FOR PROPER OPERATION, THE PARTS MUST BE INSTALLED IN THE SEQUENCE SHOWN.
- WARNING: WHILE REMOVING THE SASH RETAINER IN STEPS 3 & 4, THE OPERATING PANEL MUST BE HELD IN THE FRAME. OTHERWISE, THE PANEL MAY FALL CAUSING DAMAGE AND/OR INJURY.

1. Locate the door and transom or sidelites to be mullied, and inspect each unit for proper size, style, grid alignment (if applicable) and damage. If units are found to be incorrect or damaged, contact Simonton Service Solutions at 800-746-6704 for further instructions. It is strongly suggested to remove the operating panel from the door frame for reduced weight and easier handling even though it is not necessary for sidelites.

2. To prepare the door for mulling a sidelite on the fixed panel side or transom, first remove the panel stop from the head (if already installed). Remove the screws from the panel stop and set the screws and stop aside. Next remove the interior track cover from the side jamb at the fixed panel end (**Figure 1**). The track cover is snapped in.

Figure 1

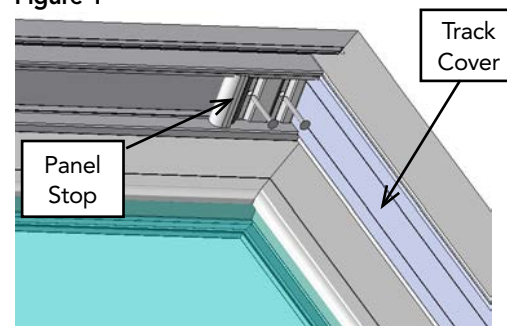


Figure 2

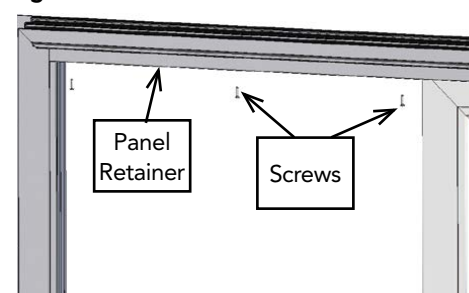
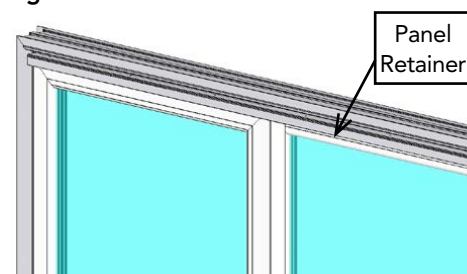


Figure 3



NOTE: If mulling sidelites, skip to Step 5.

3. If a transom is being mullied to the door, the operating panel must first be taken out. Before the panel can be taken out, the sash retainer must be removed. Fully open the operating panel and remove the exposed screws fastening the sash retainer to the head of the door (**Figure 2**). Fully close the operating panel and remove the screws from the other end of the sash retainer. Keeping the operating panel fully engaged in the side jamb, carefully pull the panel retainer from the head (**Figure 3**), and set it aside.



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4. Partially open the operating panel and tilt the top toward the interior of the door (**Figure 4**). Lift the panel off the sill and set it aside.

5. Lay units down onto a clean, flat working surface with the interior facing up. If mulling a sidelight on the operable side, open the operating panel of the door to access the interior track of the side jamb. If mulling on the fixed panel side, remove the track cover.

6. Inspect welds on the corners of all sides of the units to be mulled together. If excess weld is present, clean weld using a utility knife or wood chisel to allow units to be pulled tightly into mullion. Be careful not to cut into frame (**Figure 5**).

7. Place the interior mullion between the door and the transom or sidelite as shown (**Figure 6**), aligning the ends of the mullion with the edges of the frames.

Figure 4

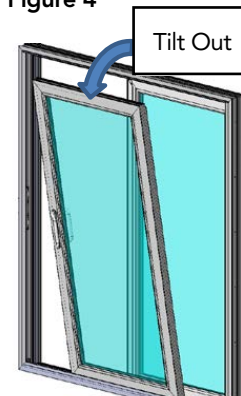


Figure 5

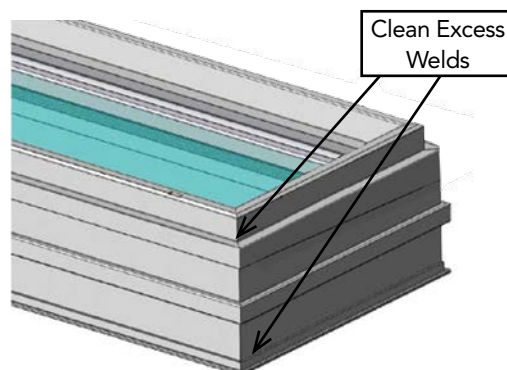
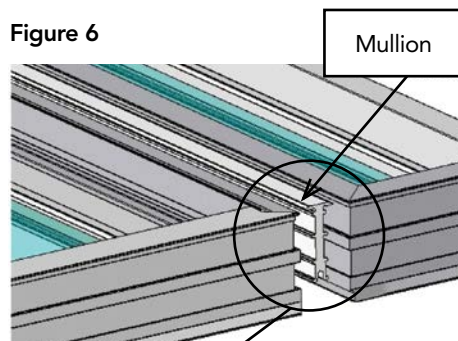
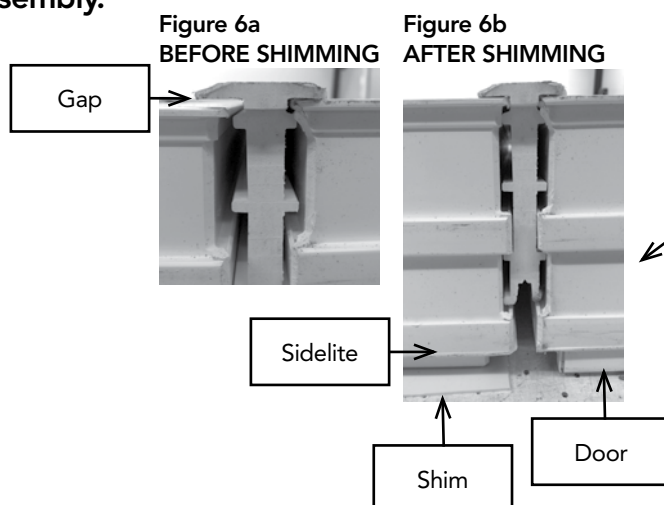


Figure 6



CAUTION: It is required to shim sidelites at the sill (and may be necessary at the top of sidelites or transoms) to ensure interior faces are flush (see Figures 6a & 6b) for proper assembly.



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8. Clamp the units together near the ends and at the center of the unit (**Figure 7**) while applying downward force on the mull face to remove any gaps between backside of the mull and the interior faces (**Figure 7a**). Keep the clamps in place until fasteners and steel strap are installed. If sufficient clamp force cannot be applied, the downward force will need to be applied while driving the screws.

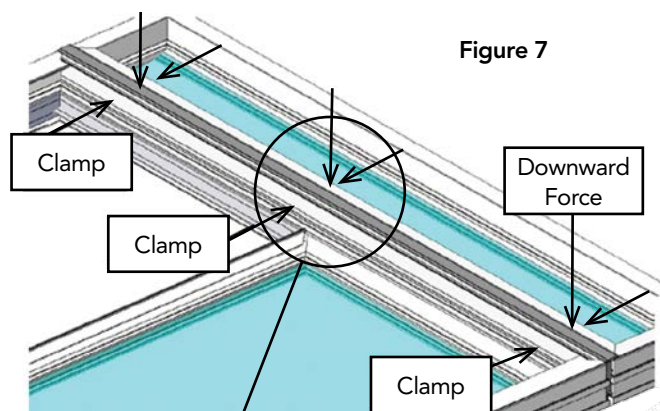
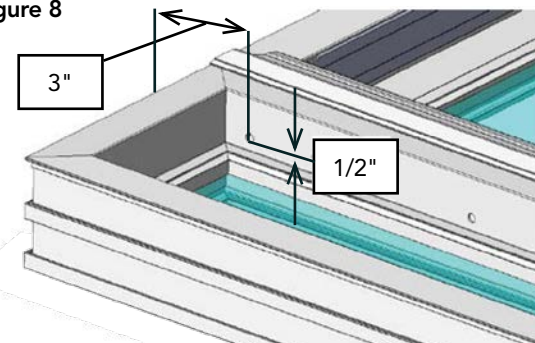


Figure 7a



Figure 8

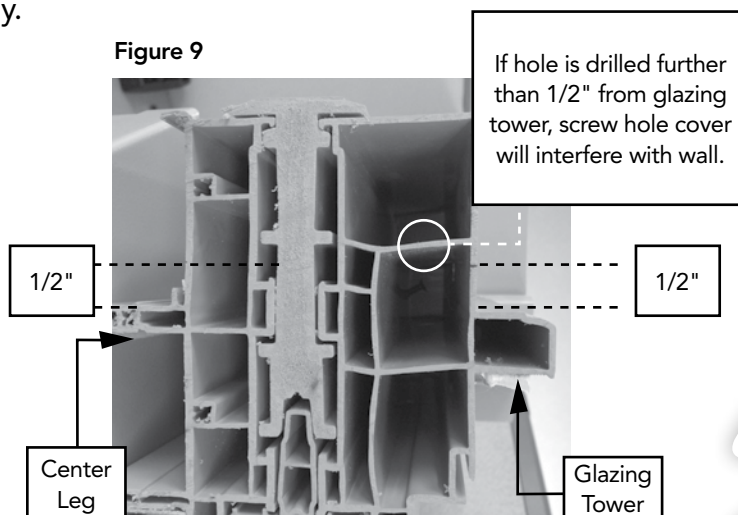


9. Mark the mulling screw hole locations on the transom or sidelite. Screws should be located 1/2" max from the glazing tower as shown (**Figure 8**). Locate the end screws approximately 3" from the edge of the frame, and space screws approximately 11" – 14" apart over the span of the transom or sidelite.

CAUTION: If holes are located beyond 1/2", the screw hole covers may not fit (See Figure 9).

10. Drill holes at all screw locations using a stepped drill bit (3/8" to 1/8"), drilling the 3/8" hole through the first wall of vinyl only.

Figure 9



11. Secure the transom or sidelite to the mullion using #8 x 1-3/4" screws.



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- 12.** Lay out the mulling screw hole locations in the door frame (head or side jamb as applicable). Screws should be located approximately 1/2" from the center frame leg as shown (**Figure 9**), and offset about 1/2" from the screw locations in the transom or sidelite so as to not interfere (**Figure 10**). The head profile has a reference score line at 1/2 inches for ease of drilling. Drill the holes in the frame using the stepped drill bit, drilling the 3/8" hole through the first wall of vinyl only.

NOTE: For sidelites on the operable panel side, you will need to remove the keeper, unless the screw spacing eliminates the need to do so.

- 13.** Secure the door frame to the mullion with #8 x 1-3/4" screws and remove the clamps. Do not use the factory installation holes.
- 14.** Fill the void at the end of the interior mullion with 100% silicone sealant, over the width of the mullion, as shown (**Figures 11 & 11a**). Center the supplied steel strap (with the turned leg up) over the gap between the door and the sidelite or transom, and install the strap into the groove closest to the exterior (**Figure 11b**). Fasten the strap with #8 x 3/8" screws. Repeat caulking and strap application at the remaining ends of all mullions.

NOTE: Make sure weld flash is fully cleaned flush where the steel strap attaches.

Figure 10

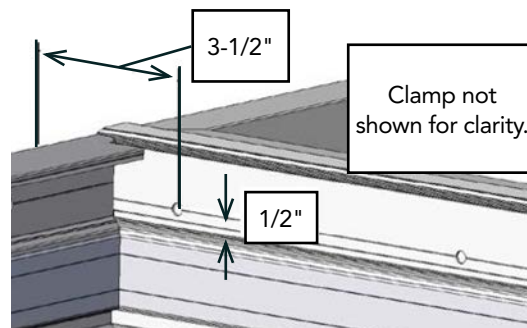


Figure 11a

Figure 11

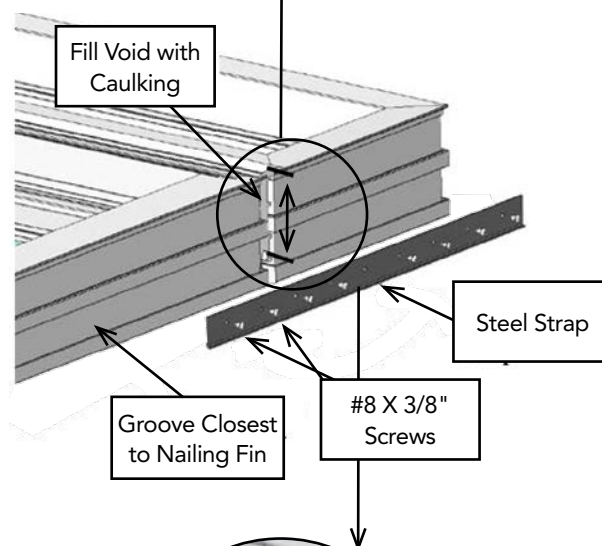
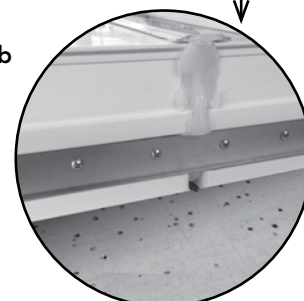


Figure 11b

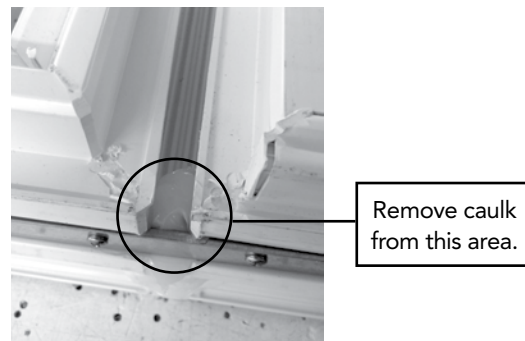


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- 15.** CAREFULLY FLIP THE MULLED ASSEMBLY OVER AT THIS TIME (SO THAT THE EXTERIOR IS FACING UP), SUPPORTING THE UNITS WHILE DOING SO.

CAUTION: If the mull is going to be left unassembled longer than 30 minutes, any caulk must be removed from the ends on the exterior side that were just caulked in step 14 (Figure 12).

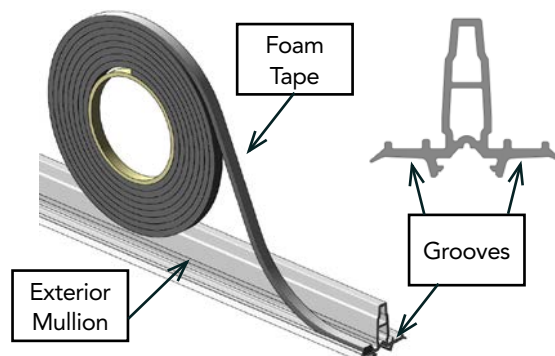
Figure 12



- 16.** Apply the supplied foam tape (MA-1002) into the groove on each side of the exterior mullion as shown (Figure 13). To ensure a good seal, extend the tape 1/8" - 1/4" past the ends of the mullion (this will be trimmed flush once installed).

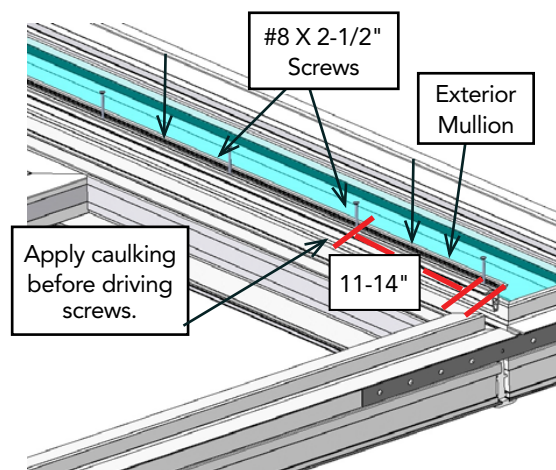
CAUTION: Ensure the door mullion pieces and fixed unit vinyl are free of debris prior to installing the exterior mullion.

Figure 13



- 17.** Peel the protective backing off the foam tape. Position the exterior mullion into the groove between the two units being mulled, centering it over the length (Figure 14). Press the exterior mullion down into the interior mullion, tapping it lightly to seat it if necessary.

Figure 14



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- 18.** Lay out screw locations in the center groove of the exterior mullion for fastening it to the interior mullion. The first screw on each end should be 1" from the end of the exterior mullion (**Figure 14**). Space the screws evenly 11" – 14" apart (**Figure 14**). Apply a small dab of caulking at each screw location before driving #8 x 2-1/2" Flat Head screws into the groove of the exterior mullion and into the interior mullion. Do not overtighten screws.

- 19.** Trim off any excess foam tape from the ends with a sharp knife (**Figure 15**). Run a small bead of 100% silicone caulking across both ends of the exterior mullion and 1" into the groove in addition to filling the grooves in the frames with caulking, for a length of about 1" on each side of the mullied joint.

**IF MULLING SIDELITES, PROCEED TO STEP 20.
IF MULLING A TRANSOM, SKIP TO STEP 21.**

20. INSTRUCTIONS FOR SILL END ONLY: (STEP 20)

Place the supplied End Plug against the exterior mullion **at the sill end only**, between the gap in the frames as shown (**Figure 16**). **NOTE: The flange of the end plug will need to be cut off on the door side only to clear the sill.** (As shown in **Figure 16a**) Fill the cavity and frame areas where the plug fits with caulk. (**Figure 16b**) Start the end plug at an angle and push the down firmly onto the frames, making sure the caulking in the grooves makes a good seal between the frames and the end plug. Install a #6 x 3/4" screw in the hole in the flange of the end plug and into the sidelite frame.

Figure 15

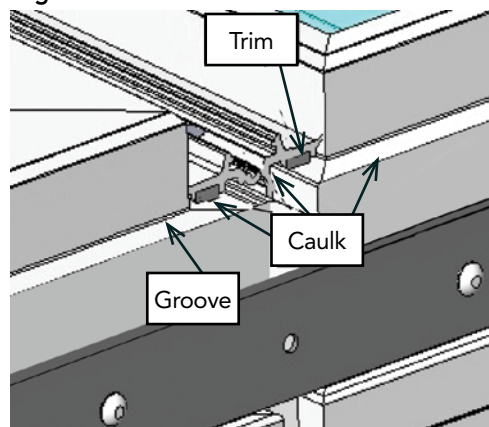


Figure 16

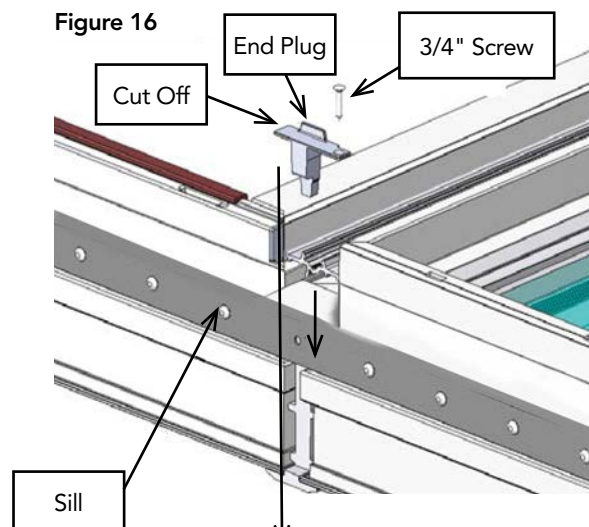


Figure 16a

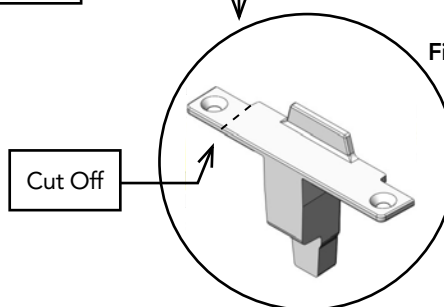
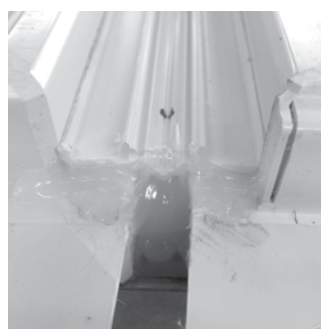


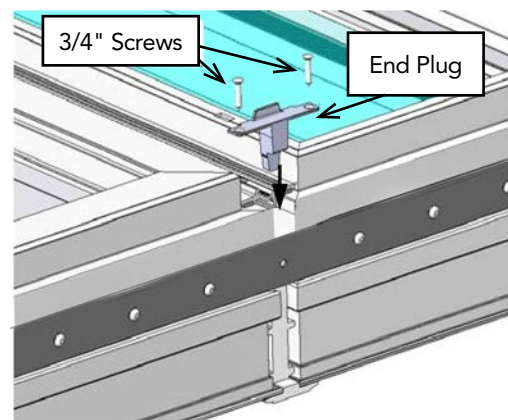
Figure 16b



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- 21.** Fill the cavity and frame areas where the plug fits with caulk (**Figure 16b**). Place a supplied End Plug against the exterior mullion on ends as shown, between the gap in the frames (**Figure 17**). Start the end plug at an angle and push the down firmly onto the frames, making sure the caulking in the grooves makes a good seal between the frames and the end plug. Secure the End Plug with #6 x 3/4" screws.

Figure 17



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25. Clean area of excess caulk where patch will be applied. Apply the supplied adhesive patch against the frame, making sure the patch overlaps both sides (**Figure 21**). Press the patch down firmly and wrap the excess around the frame tightly.
26. Install screw hole covers into the 3/8" mulling screw holes in the sidelite or transom frame (**Figure 22**). If a sidelite was mulled to the operating side of the door, install hole covers into the mulling screw holes in that side jamb as well. **Do not install hole covers on the head of door when mulling a transom as it will interfere with the head insert.**
27. Install the unit into the opening (refer to separate Inovo Patio Door instructions).
28. If the operating panel was removed, re-install it at this time, sliding the panel completely into the side jamb before releasing it. Then re-install the panel retainer (if applicable).
29. Snap the track cover that was removed in Step 2 back into the interior track of the side jamb. Re-install the sash stop.

Figure 21



Figure 22

