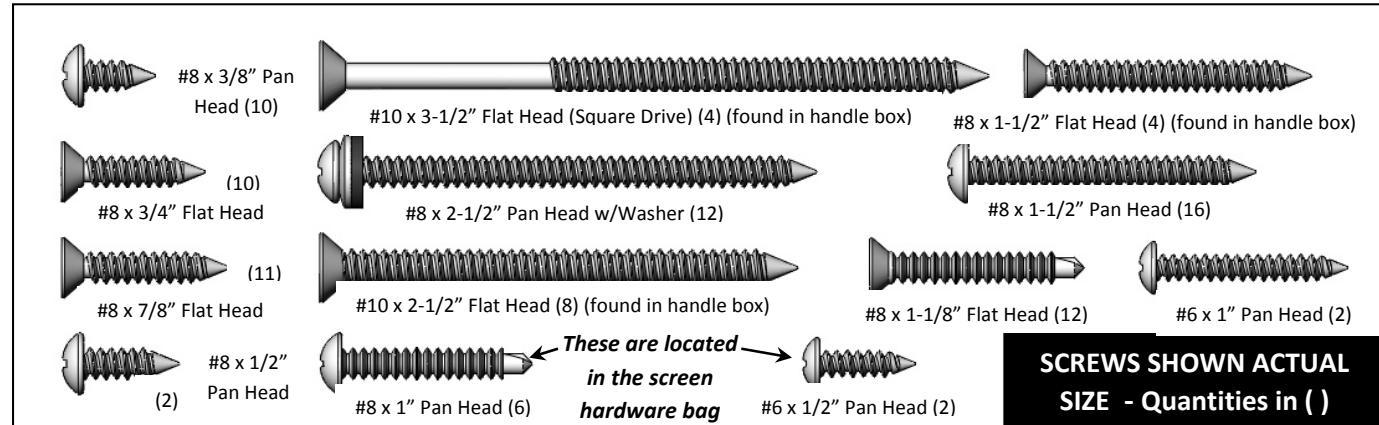


INOVO 4-LITE SLIDING PATIO DOOR

ASSEMBLY AND INSTALLATION INSTRUCTIONS

IMPORTANT: READ THE INSTRUCTIONS AND FAMILIARIZE YOURSELF WITH THE DOOR PARTS AND PIECES BEFORE BEGINNING ASSEMBLY AND INSTALLATION.

TOOLS NEEDED: Cordless Screw Gun, Tape Measure, 4' Level, #2 Phillips Bit (4" minimum in length), Square Drive Bit, #3 Phillips Screwdriver, 7/64" Drill Bit, Caulk Gun and Silicone Caulk



- 1) Prepare a clean flat work space for the door frame assembly. Remove the door frame pieces and all other components. Refer to packing list to ensure that no parts and pieces are missing.
- 2) Remove all the parts and pieces from the vinyl head, sill, and side jambs. Lay the frame pieces out with the exterior side up, arranged in the order they will be assembled (Fig. 1).

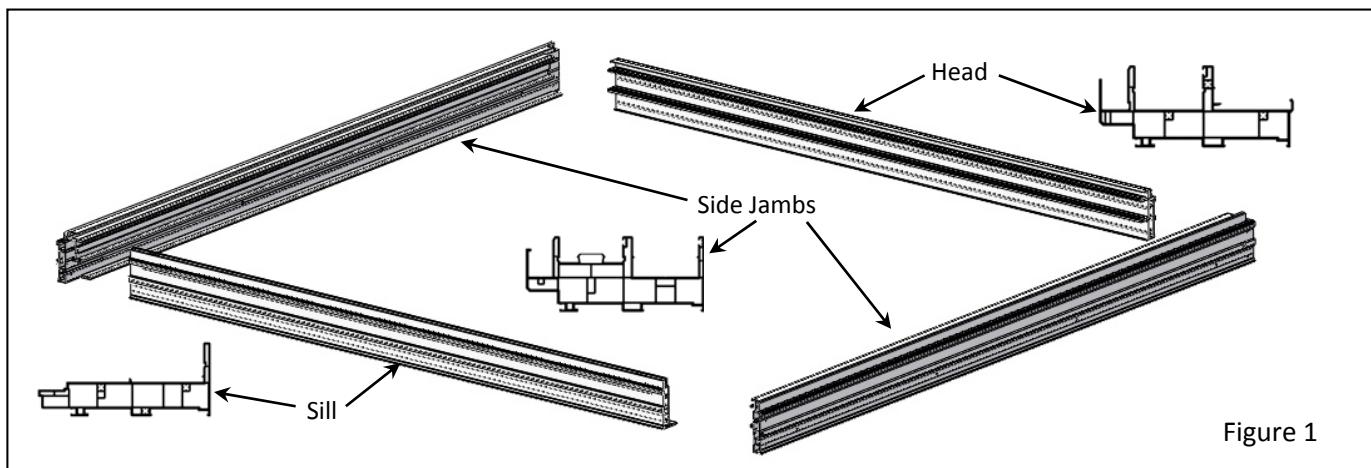


Figure 1

- 3) Clean any dirt or debris from the end surfaces of the side jambs. Remove the frame gaskets (located in hardware package) from the paper backing and carefully place them on each end of the side jambs as shown (Figs. 2 & 3). NOTE: The gaskets for the sill end are different from those for the head end. If gaskets are damaged, do not install them and call your Simonton dealer for further instructions. Proper gasket alignment is critical to prevent water from entering through the frame corners.

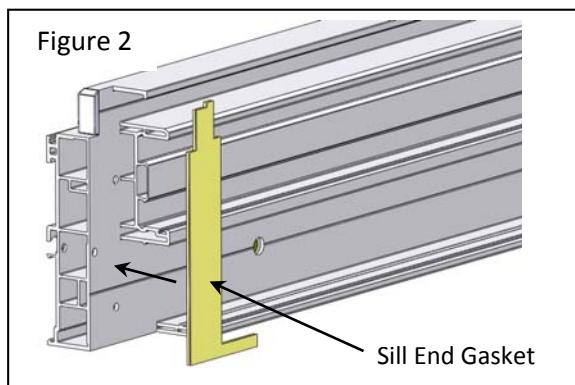


Figure 2

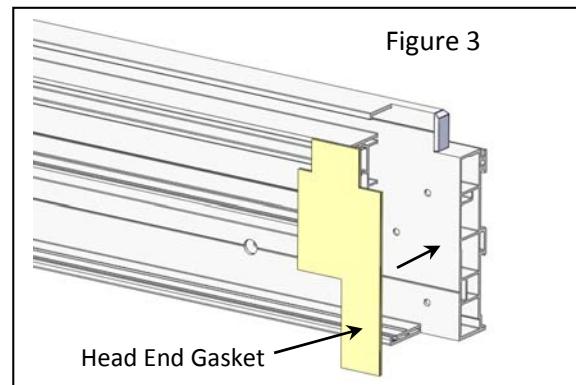
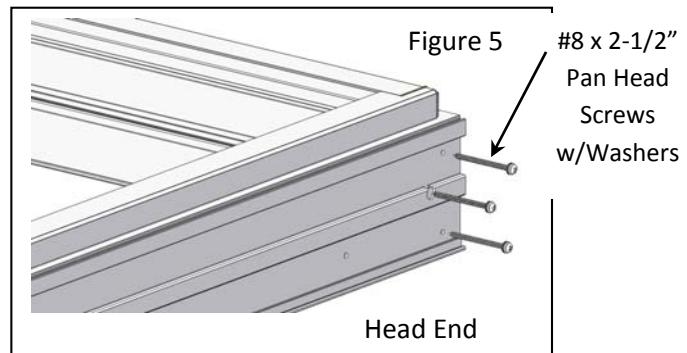
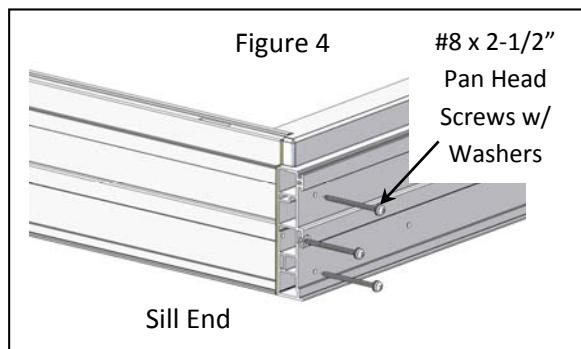
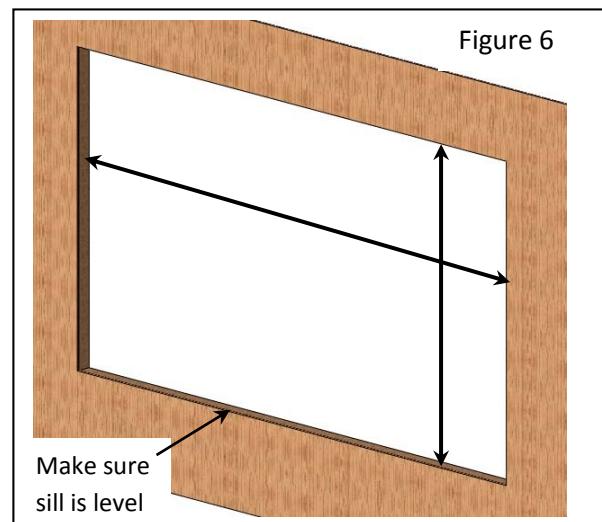


Figure 3

4) Attach each side jamb to the sill and head with three #8 x 2-1/2" Pan Head screws with washers through pre-drilled holes (Figs. 4 & 5). Start screws in each screw hole by hand to ensure proper screw alignment and to prevent damage to the gasket. Be careful that you do not over tighten the screws, which could crush the vinyl frame members and damage the frame.

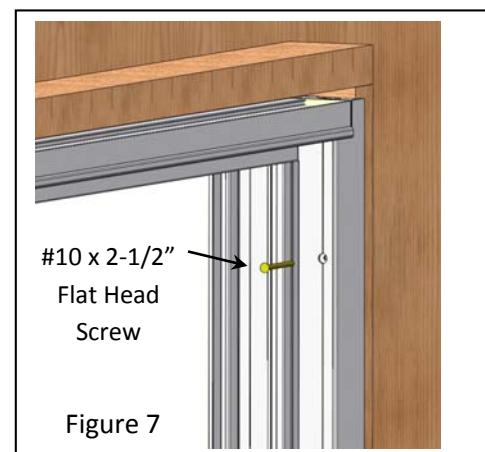


5) Check opening for proper size before installing frame. Opening should be approximately 3/4" larger in width and height than the assembled frame (Fig. 6). Check to see if the sill is level. If not level, correct at this time. Once the sill is level, apply a minimum 1/2" bead of silicone caulk across the sill of the opening in a crisscross pattern before installing the frame.



6) Carefully move frame into the opening, making sure it is kept square during movement. Once in the opening, shim frame so that it is plumb, level, and square. Attach frame to opening using provided #10 X 2-1/2" Flat Head installation screws. Place screws in each side jamb in the pre-drilled holes (Fig. 7). Screws are required to have an embedment of 1-1/2" in wood or 1-1/4" in a masonry structural member. Shims should be placed at all anchorage locations between the jamb and opening to prevent bowing of the frame, which could affect performance. No screws are required through the head or sill.

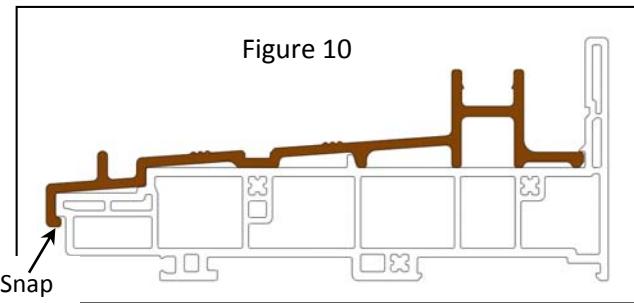
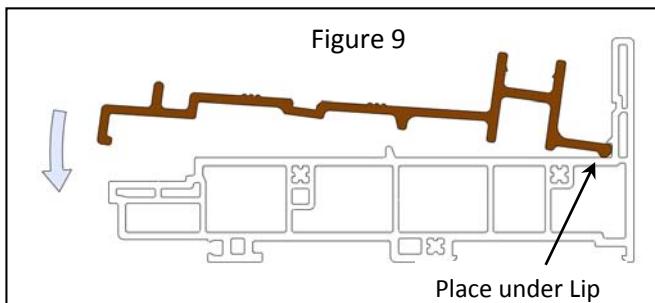
**Do not install screws through the sill.
This could allow water infiltration that
would damage the structure.**



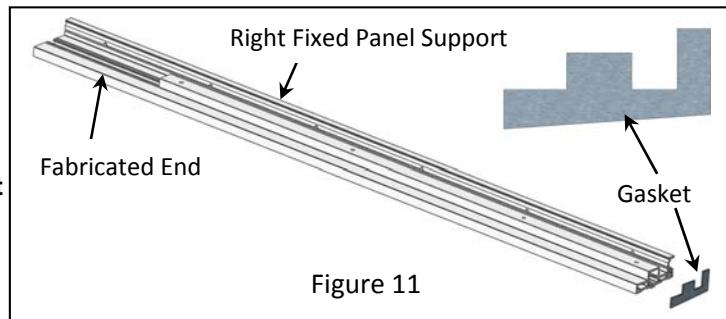
7) Apply a 3/8" bead of silicone caulk to the bottom side of the fiberglass sill cover, in a U-shaped pattern as shown Fig. 8. Start the pattern approximately 2" from the end of the cover.



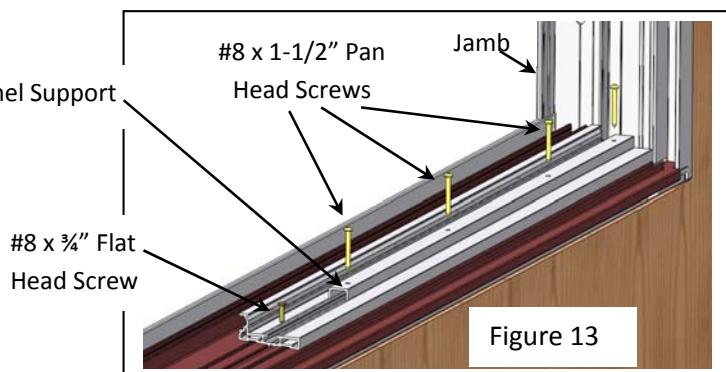
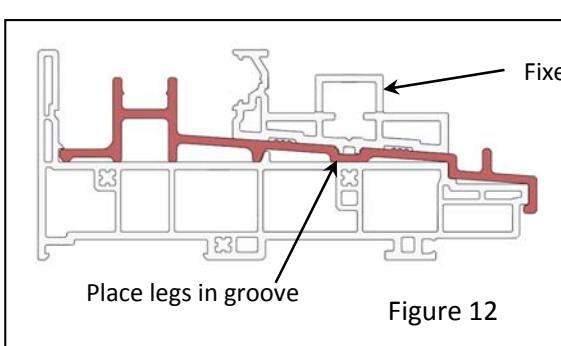
8) Center the fiberglass sill cover over the vinyl sill side to side and install the cover onto the sill. Start by placing the front of the cover under the lip on the back side of the sill dam as shown (Fig. 9), and rotate the cover down until it snaps over the ledge on the exterior of the vinyl sill (Fig. 10).



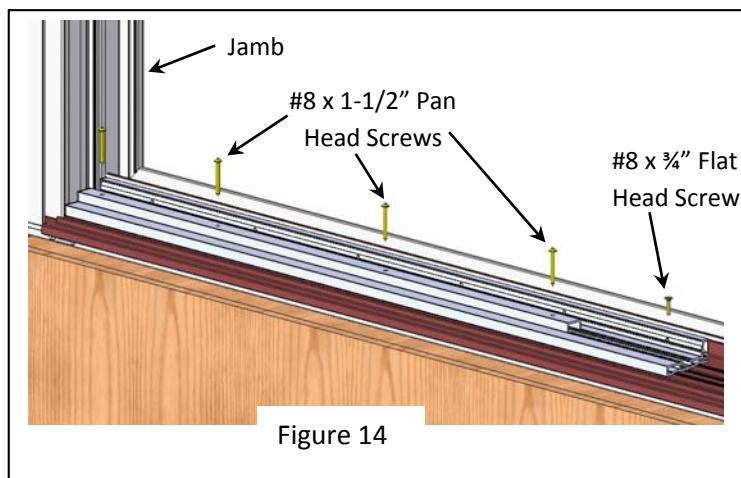
9) Peel the backing from the foam gasket for the Right Fixed Panel Support and carefully apply the gasket to the end of the Panel Support that is NOT FABRICATED as shown (Fig. 11). Be sure that the gasket aligns with the contour of the end of the part.



10) Place the Right Fixed Panel Support onto the fiberglass sill cover with the legs on the bottom of the panel support in the groove in the fiberglass cover as shown (Fig. 12). Make sure the gasket firmly against the right jamb. Drive four #8 x 1-1/2" Pan Head screws through the Panel Support and into the sill (Fig. 13). Drive a #8 x 3/4" Flat Head Screw through the hole in the fabricated end and into the sill.



11) Repeat steps 9 and 10 to install the Left Fixed Panel Support on the other end of the frame. Be sure to apply the gasket to the end of the panel support that goes against the left side jamb. Hold the panel support firmly against the jamb while driving four #8 x 1-1/2" Pan Head screws and one #8 x 3/4" Flat Head Screw (Fig. 14).



12) Slide the T-shaped insert into the fabricated end of each fixed panel support as shown (Fig. 15). Be sure the legs on the insert interlock with the projecting legs on the panel support. Push the insert in until it is flush with the end of the fixed panel support.

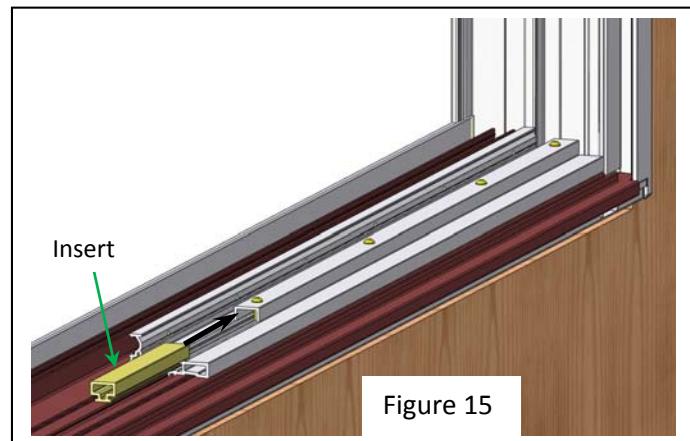


Figure 15

13) Distinguish the fixed panels from the operating panels. The fixed panels do not have rollers on the bottom or holes for attaching handles. There are left and right fixed panels. Determine one from the other by placing the weep holes at the bottom and to the exterior. The side of the panel with the interlock needs to be toward the center of the door. To install the first fixed panel, start with the panel placed between the fixed panel supports, and lift the top into the exterior track in the head (Fig. 16). Swing the bottom of the panel in and place it onto the fixed panel support as shown (Fig. 17). Slide panel on fixed panel support and into jamb (Fig. 18), making sure it is fully seated in the jamb. The exposed vinyl on the panel should measure 2-13/16" from the side jamb leg when the panel is fully seated (Fig. 19).

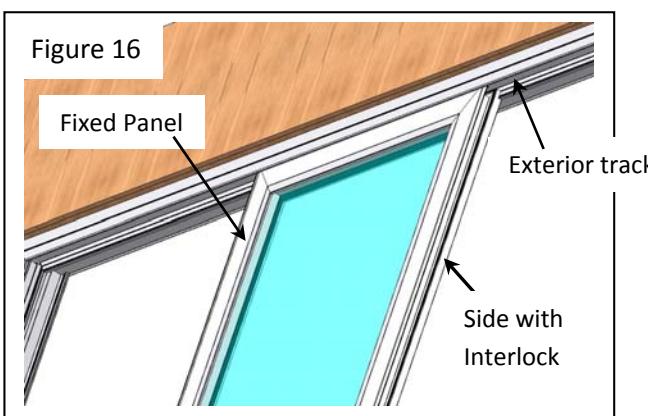


Figure 16

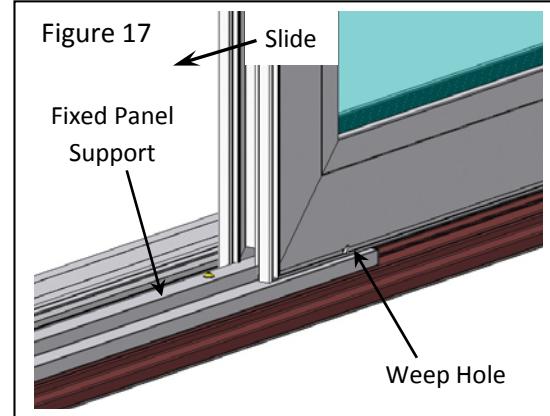


Figure 17

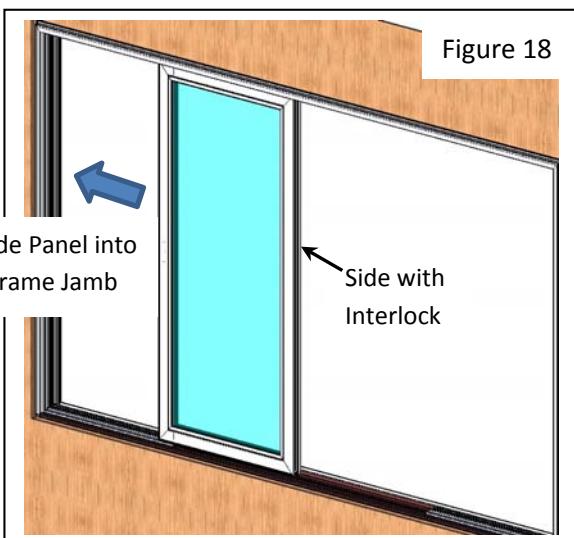


Figure 18

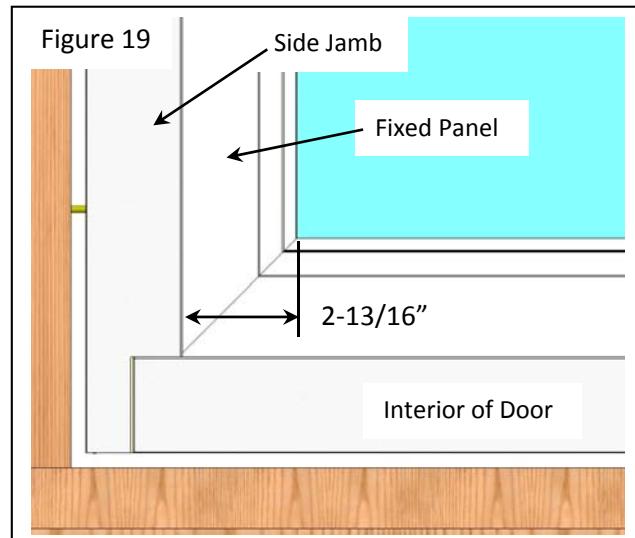


Figure 19

14) Push the end cap into the end of the fixed panel support as shown (Fig. 20). It might be necessary to lift the panel slightly. There should be no gap between the cap and the panel support when the cap is fully seated. While holding the cap in, drive a #8 x $\frac{3}{4}$ " Flat Head screw into the hole in the end cap (Fig. 21). NOTE: The end cap is shown without the finseal pads for clarity.

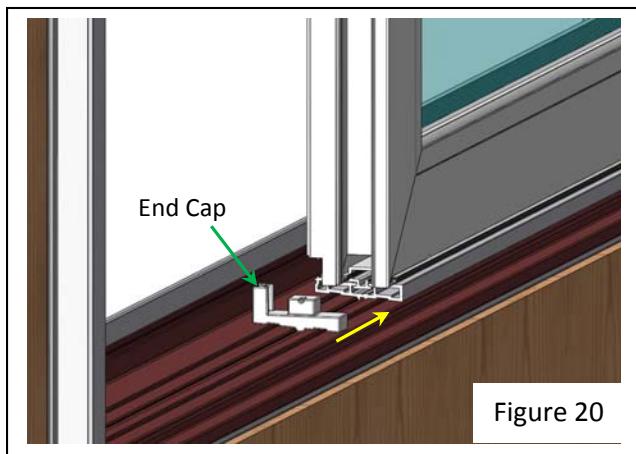


Figure 20

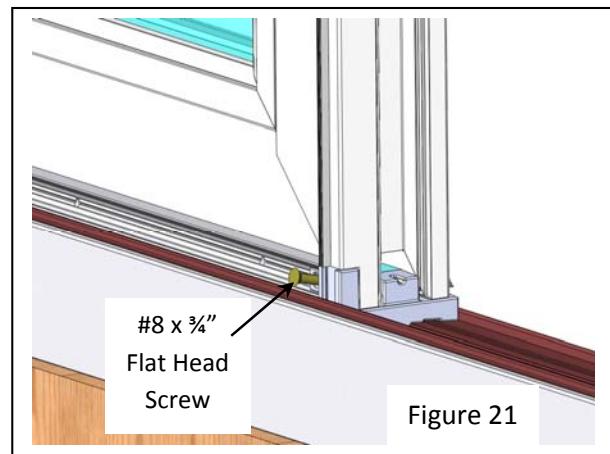


Figure 21

15) Drive six #8 x 1-1/8" Flat Head screws into the pre-punched holes at the bottom of the fixed panel support as shown (Fig. 22). Screws are meant to be driven at a slight downward angle. After screws are installed, snap the cover strip into the fixed panel support to hide the screws (Fig. 23). Start the strip at the end with the end cap and work towards the side jamb end.

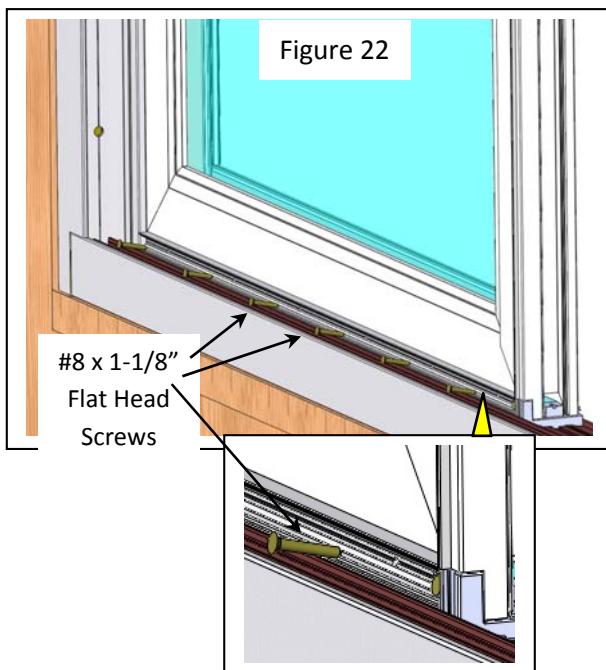


Figure 22

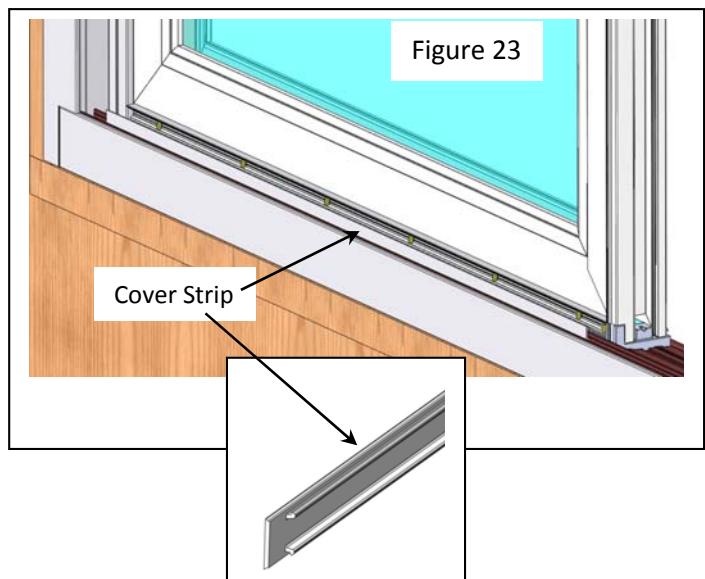


Figure 23

16) Place the aluminum bracket into the groove at the top of the fixed panel as shown (Fig. 24). The tab on the bracket should be placed at the top of the panel to space the panel the correct distance from the frame head. Install two #8 x $\frac{3}{4}$ " Flat Head screws through the bracket into the panel. Check the panel again near the top for full engagement into the side jamb (2-13/16"). With the panel fully seated, install two #8 x $\frac{3}{4}$ " Flat Head screws through the bracket and into the head.

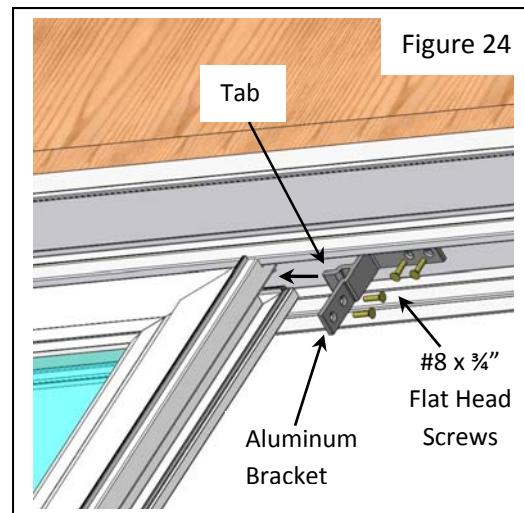
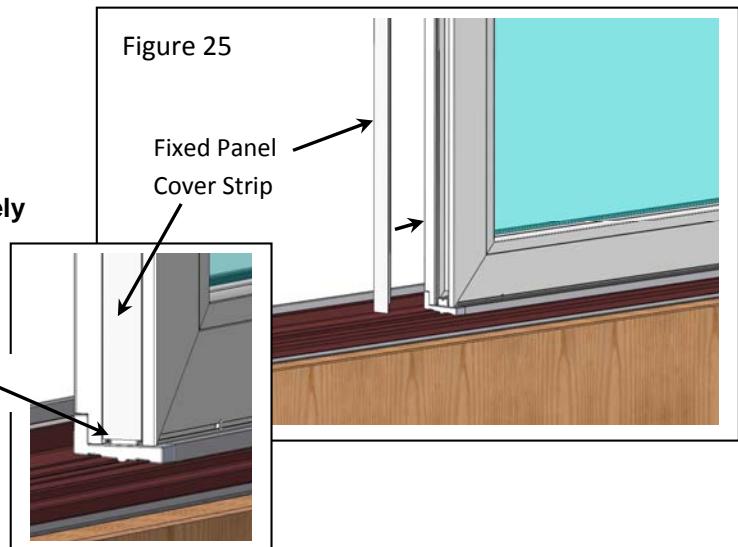


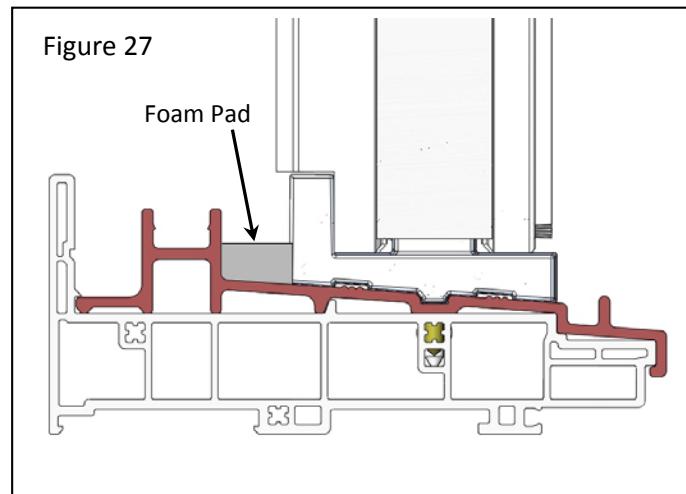
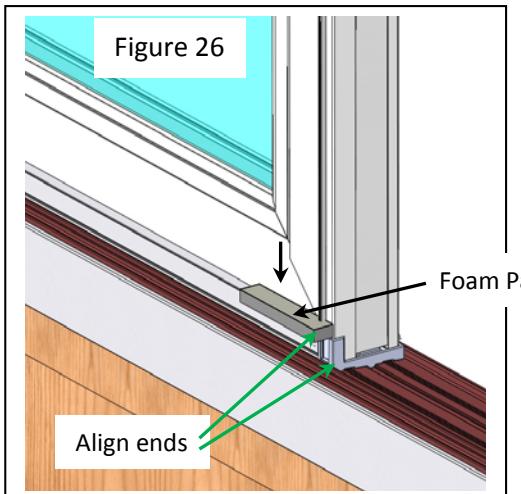
Figure 24

17) Position the fixed panel cover strip approximately $1/8"$ above the bottom of the panel and snap the strip into the panel as shown (Fig. 25). Start the strip at the bottom and work the snaps towards the top.

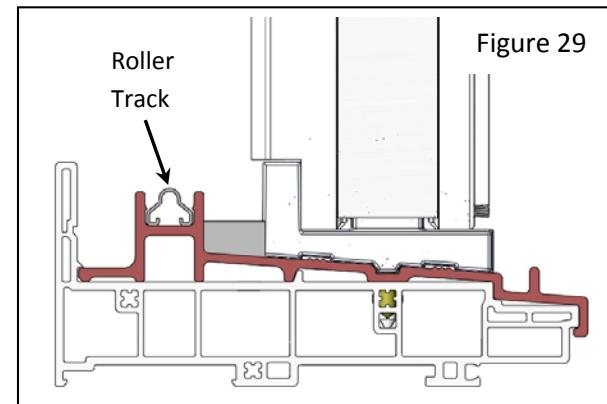
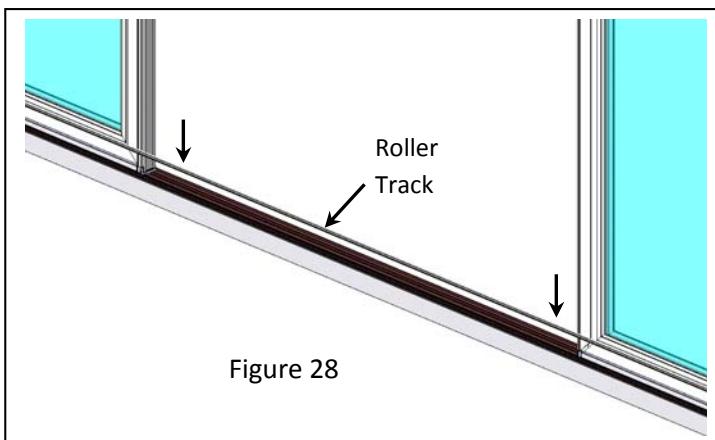


18) REPEAT STEPS 12 THROUGH 16 TO INSTALL THE SECOND FIXED PANEL INTO THE OTHER SIDE OF THE FRAME.

19) Peel the backing from one of the rectangular foam pads and place the pad onto the fiberglass sill, between the fixed panel support and the tower of the fiberglass cover, with the adhesive side down (Figs. 26 & 27). The end of the pad should align with the end of the fixed panel support end cap as shown. Press the foam pad down firmly. Install the second foam pad at the end of the other fixed panel in the same manner.

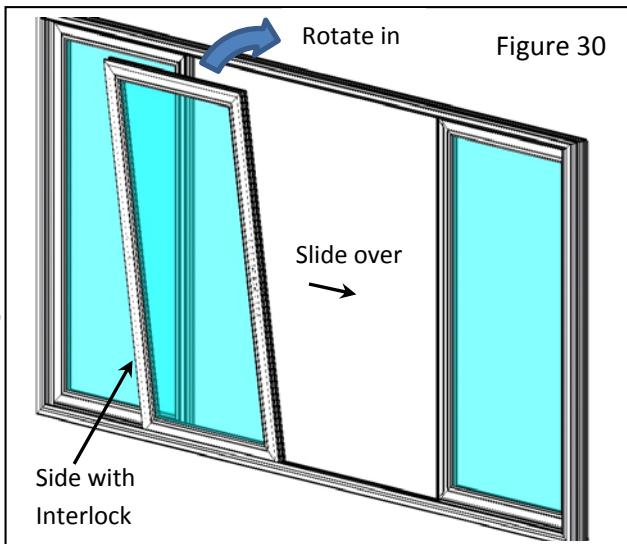


20) Install the steel roller track into the pocket in the tower of the fiberglass sill cover (Fig. 28). The roller track should be oriented as shown (Fig. 29) when installed correctly.



21) There are left and right operating panels. Distinguish one from the other by comparing which side of the panel the interlock is on in relation to the bottom of the panel (with the weep holes to the exterior). To install the first operating panel, lift the panel from the interior and set the rollers onto the roller track in the fiberglass sill cover, making sure the panel overlaps the installed fixed panel some (Fig. 30). Rotate the panel into the head, and slide it toward the center of the door until the interlock on the operating panel is fully engaged with the interlock on the fixed panel.

IMPORTANT: BE SURE TO NOT LET GO OF THE PANEL UNTIL THE INTERLOCKS ARE FULLY ENGAGED. PANEL CAN EASILY FALL OUT OF FRAME UNTIL THE PANEL RETAINER IS INSTALLED



22) REPEAT STEP 20 TO INSTALL THE SECOND OPERATING PANEL ON THE OTHER SIDE OF THE DOOR. BE SURE THAT THE OPERATING AND FIXED PANEL INTERLOCKS ARE FULLY ENGAGED BEFORE LETTING GO OF THE PANEL!

23) Place the panel retainer into the head, between the side jambs and over the operating panels as shown (Fig. 31). Rotate the retainer up into the head until it is seated. Be sure the rib in the head goes between the fingers on the retainer as shown (Fig. 32). Install #8 x 7/8" Flat Head screws into the pre-punched holes in the retainer and up into the head. Start with the screws at the two ends and then open the operating panels and install remaining screws.

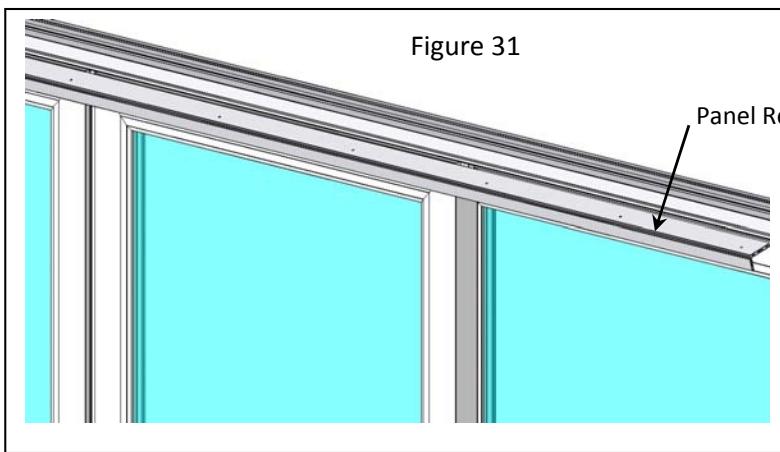


Figure 31

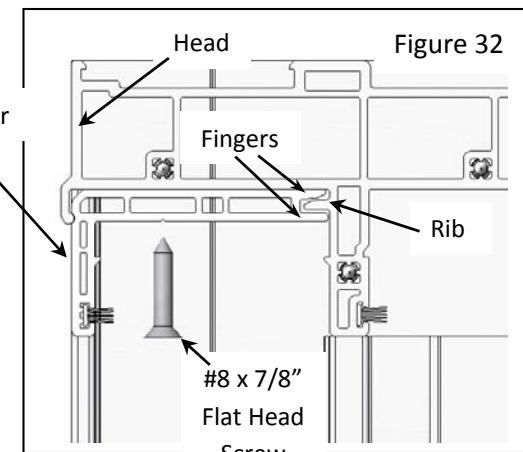
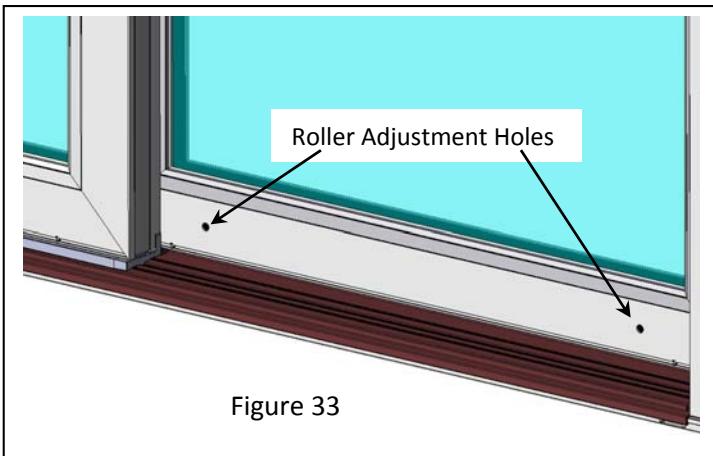
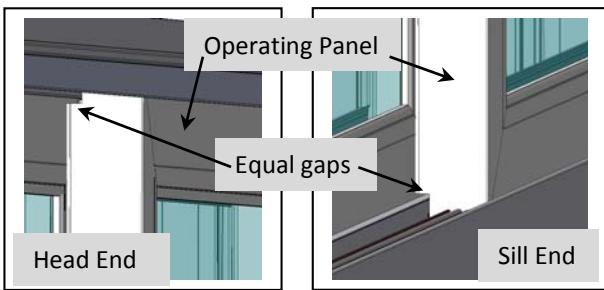
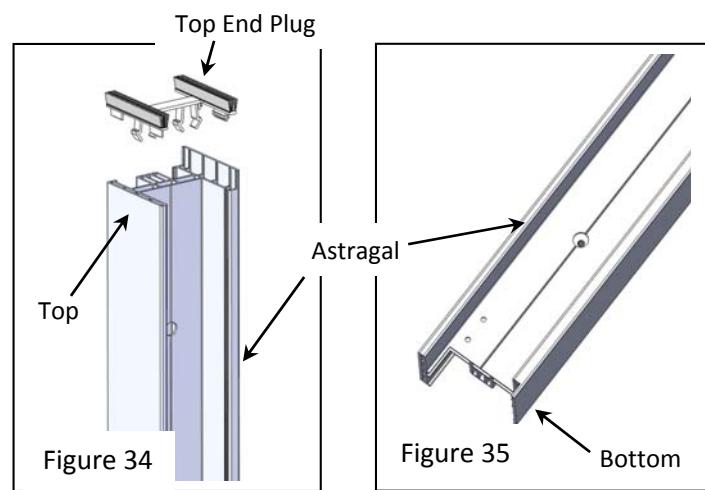


Figure 32

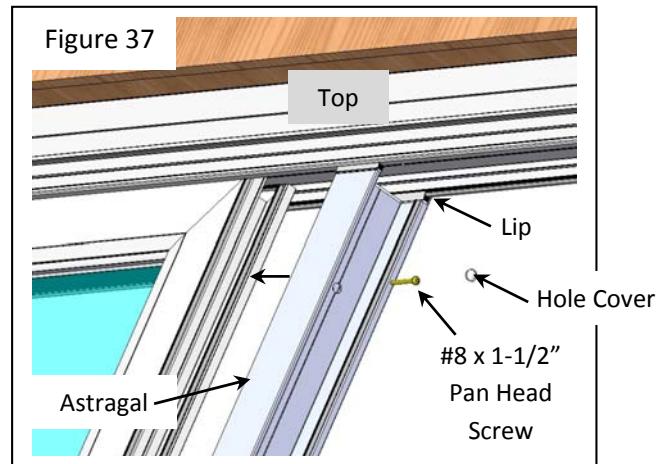
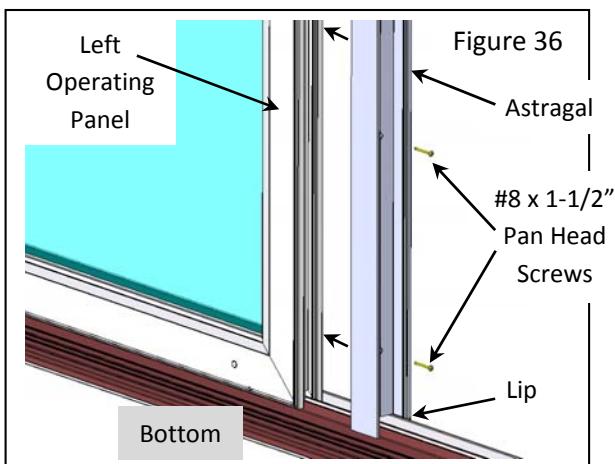
24) Adjust the height of the rollers using a Phillips screwdriver until the operating panels are centered from top to bottom (gaps between the interlocks and head and sill are approximately equal), and the handle sides of the panels are parallel with each other. Lifting or temporarily shimming the panels will make adjustment easier. Check the operation of the panels to see if any further adjustments are necessary. After final adjustment, install color matched hole covers in the adjustment holes (Fig. 33).



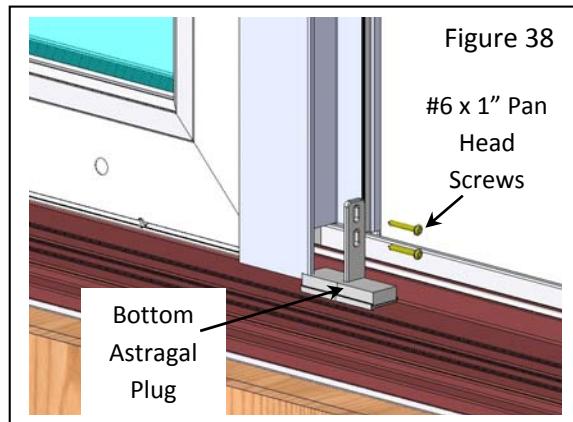
25) Insert the top end plug into the top end of the astragal as shown (Fig. 34). End plug will only fit one way. The bottom of the astragal is shown for comparison purposes (Fig. 35).



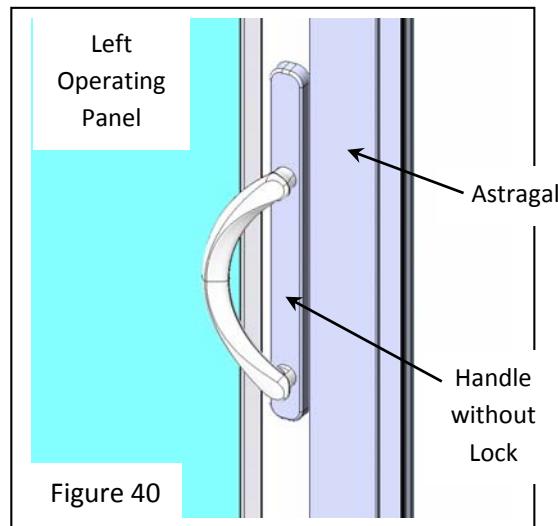
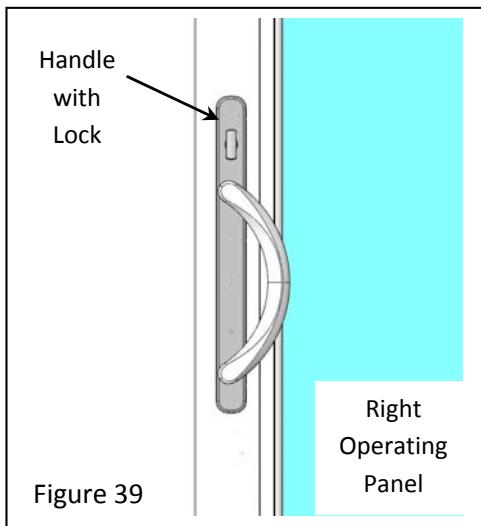
26) Install the astragal onto the LEFT operating panel. The astragal must be installed on the left panel (when the door is viewed from the exterior). It cannot be turned over and installed on the right panel. Be sure to orient astragal correctly for top and bottom. The astragal should be centered top to bottom with clearance on each end so that the left panel is free to open and close. There are lips on both ends of the astragal that will overlap the frame at the head and sill on the interior (Figs. 36 & 37). Install six #8 x 1-1/2" Pan Head screws, securing the astragal to the panel. Install hole covers to hide the screw heads.



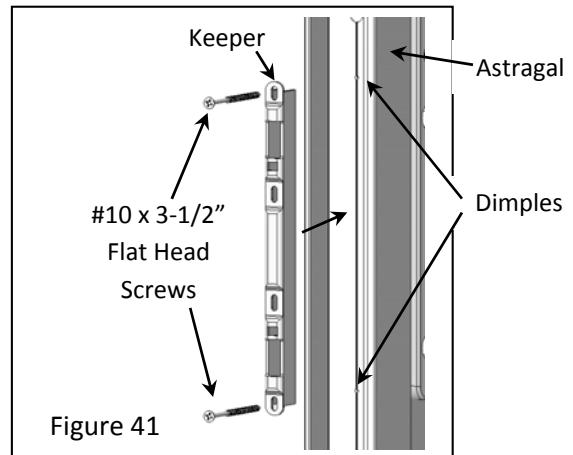
27) Attach the bottom astragal plug to the astragal as shown (Fig. 38), using two #6 x 1" Pan Head screws in the pre-drilled holes in the astragal. Before tightening screws, adjust end plug so that the bottom of the plug glides on the fiberglass sill cover when the left panel is opened and closed.



28) Install the handle assembly with the lock on the right operating panel (without the astragal) (Fig. 39). Refer to the instructions in the handle set package. Install the handle assembly without lock onto the left operating panel (with the astragal) (Fig. 40).



29) Install the keeper to the astragal using #10 x 3-1/2" Flat Head screws. Install the top and bottom screws first, aligning the keeper so that the screws align with the dimples on the astragal (Fig. 41). Close the right operating panel and verify that the mortise will lock and unlock properly to the keeper. It might be necessary to adjust the keeper up or down by loosening the screws, adjusting, and re-tightening. Once the keeper is adjusted properly, install the two remaining #10 x 3-1/2" screws through the keeper and into the astragal.



30) Snap the side jamb track covers into the interior tracks of both jambs as shown (Fig. 42). Place the end of the cover with the cutout down so the cutout clears the tower on the fiberglass sill cover.

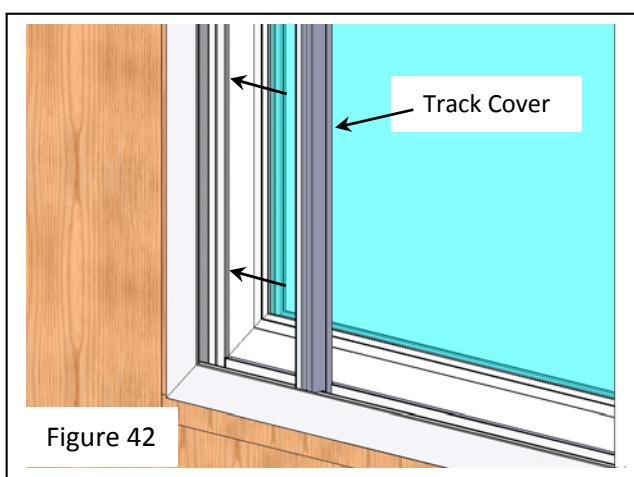
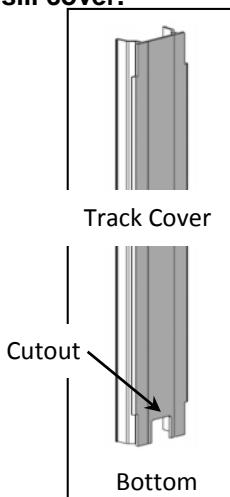


Figure 42



Track Cover

Cutout

Bottom

31) Snap the head track cover into the exterior track in the head, between the fixed panels as shown (Fig. 43).

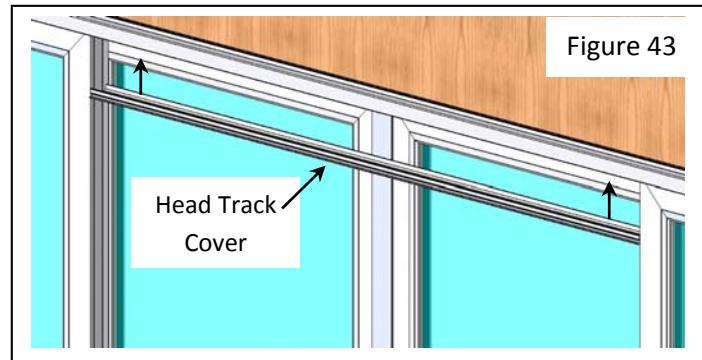


Figure 43

32) Install the panel stops (located in the handle hardware box) into the head at each end as shown (Fig. 44). Place the end of the stop against the interior track cover in the side jamb and drive two #8 x 1-1/2" Flat Head screws.

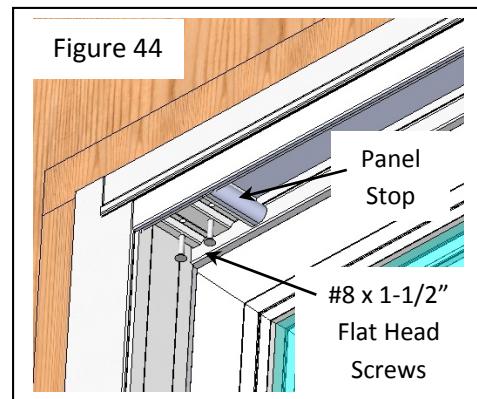


Figure 44

33) Install the aluminum top hung screen roller rail into the screen track in the head as shown (Figs. 45 & 46). The rail needs to be centered in the frame head, so measure to locate the center of the head and align with the center of the rail. Once positioned, install #8 x 3/8" Pan Head screws into all the pre-punched holes in the rail and up into the head.

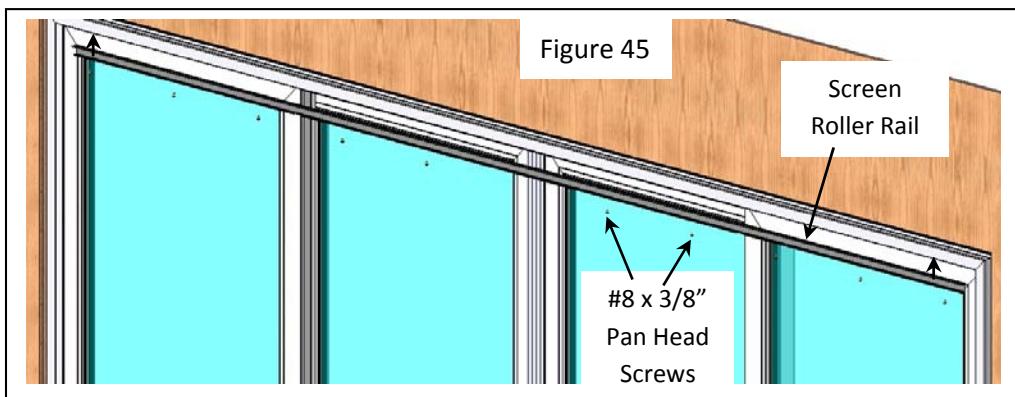


Figure 45

Screen
Roller Rail

#8 x 3/8"
Pan Head
Screws

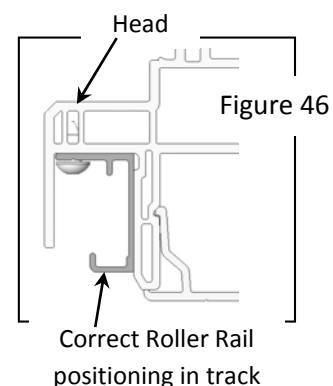


Figure 46

Correct Roller Rail
positioning in track

34) Install the center screen stop into the screen track in the head as shown (Fig. 47). Match the holes in the screen stop with the holes in the screen roller rail and install two #8 x 1/2" Pan Head screws.

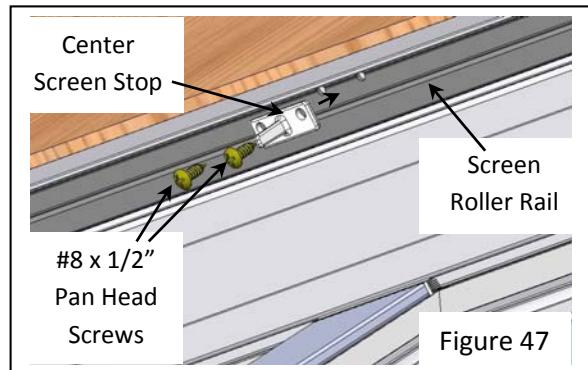


Figure 47

35) Distinguish the right hand screen from the left hand screen. With the roller wheels on the screen at the top and facing inward toward the door panels, note the latch handle location on the screen. Both the right hand and left hand screens should have the handle on the side of the screen toward the center of the door (not at the side jamb). Place the top of the left hand screen up into the screen track, aligning one roller wheel with the notch in the roller track, and the other wheel off the edge of the track as shown (Fig. 48). Lift the screen up onto the track, and swing the bottom in until the guides on the bottom of the screen engage the rib on the fiberglass sill cover as shown (Fig. 49). While moving the screen toward the center of the door, lower it onto the roller track, keeping both bottom guides engaged on the rib. Install the right hand screen at the other side of the door in the same manner.

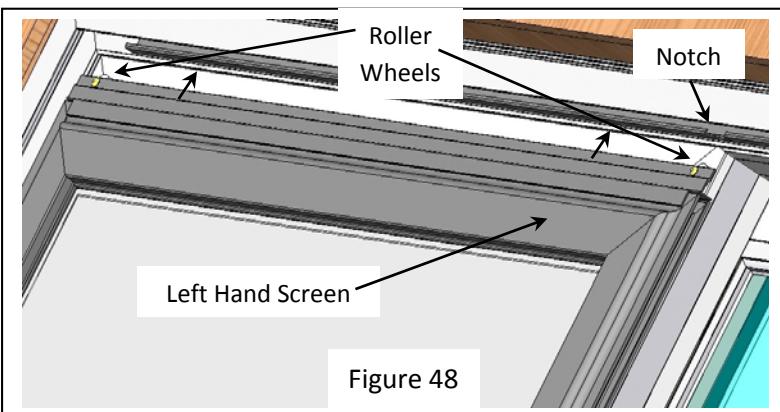


Figure 48

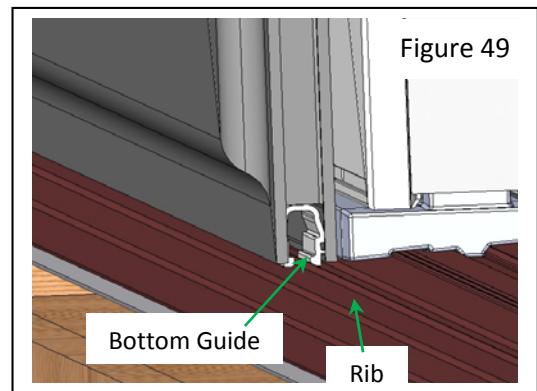


Figure 49

36) Install Screen Bumper Stops (located in the handle hardware box) into the screen track in the head at both ends of the frame as shown (Fig. 50). Be sure the barb on the stop is positioned toward the door panels. The stop should be positioned against the track wall in the side jamb. The heights of the screens might need adjusting. To adjust the height, loosen the two screws at the top of the screen on the interior, adjust in the slotted holes, and re-tighten (Fig. 51). The screens should glide smoothly while keeping the engagement of the bottom guides on the rib at the sill, but the guides should not rub on the fiberglass.

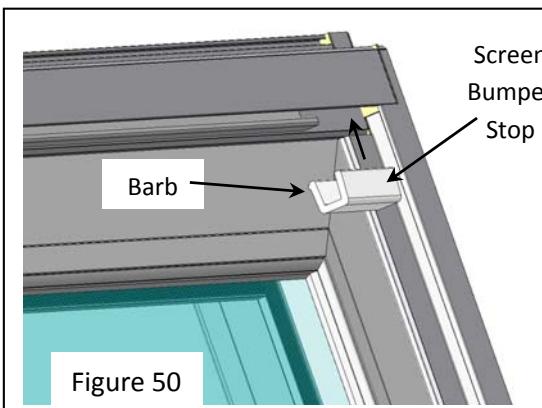


Figure 50

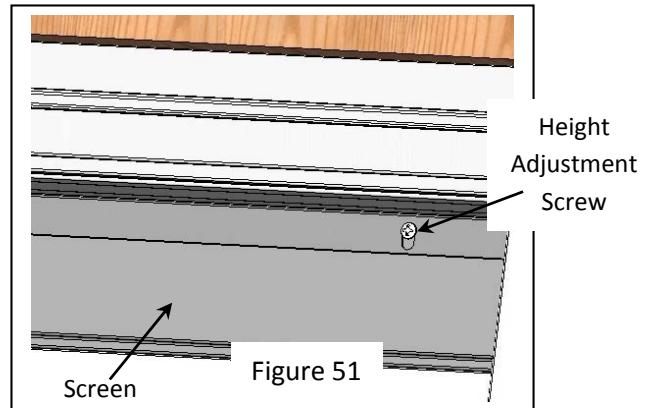
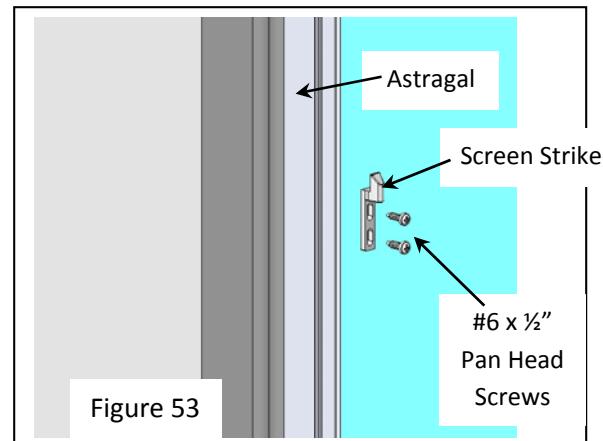
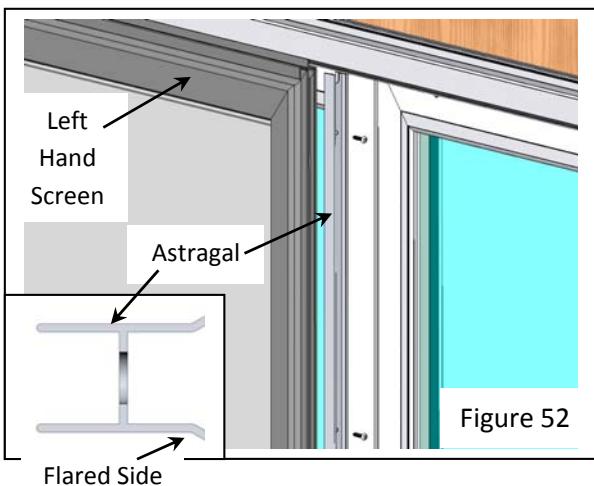
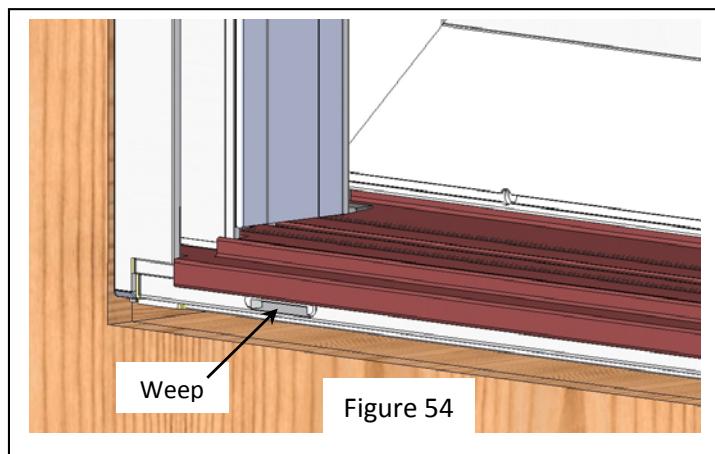


Figure 51

37) Install the aluminum astragal to the left hand screen as shown, aligning the bottom of the astragal with the bottom of the screen frame. Be sure to install with the flared side of the astragal facing toward the right hand screen. Fasten the astragal to the left hand screen with six #8 x 1" Self-Drilling screws (located in the screen hardware package), through the pre-drilled holes in the astragal (Fig. 52). Close both screens together and mark the location for the Screen Strike (located in screen hardware package) on the astragal. Pre-drill two 7/64" holes into the astragal at the screw locations. Install two #6 x 1/2" Pan Head Screws (in the screen hardware package), securing the strike to the astragal (Fig. 53). Make final height adjustments to the strike so that the latch on the right hand screen engages the strike when closed.



38) Finish off the installation of the door's exterior by caulking around the perimeter of the door using a premium silicone caulk. Do not leave any gaps where water or outside elements can penetrate into the home. Pay close attention to not caulk over weeps when caulking across the sill (Fig. 54).



39) Finish off the installation of the door's interior by insulating between the door frame and the opening. Do not over pack the insulation or the frame could become bowed or twisted. Use of spray foam is acceptable as long as it meets AAMA 812 specifications. If gaps between the frame and opening are less than 1/8", insulation may not be required. When this occurs, Simonton recommends an exterior and interior seal to create a dead air space.

40) Remember: The homeowner is the final inspector. Clean the door well and remove all debris from the job site. Be sure the homeowner is familiar with the proper operation of door.