CONTEMPORARY COLLECTION
Next Gen Sliding Patio Door Installation Instructions

Thank you for choosing Weather Shield Windows and Doors. These instructions will cover a typical installation of a patio door with an integral nailing fin. Instruction may not be right for all installations due to specific building conditions. Consult a contractor or architect for recommendations.

Important: Please read completely before you begin.

WARNING	**WARNING**
Doors can be extremely heavy. To avoid injury, use appropriate lifting techniques and adequate number of people to carry and install the product. Mechanical lifting assistance may be needed for larger panels and glass. Failure to do so can result in injury or damage to product or property.	Special care must be taken with units with protective glass film applied. **DO NOT** remove protective film near flammable materials. Static charge created when removing the film can ignite flammable materials or cause a shock. **DO NOT** place suction grips over film seams. Suction grips will not hold if placed over film seam to lift heavy glass or panels.
WARNING	**WARNING**
Lead-based paint may be present in older homes, and the removal of windows and doors may cause this paint to be disturbed. To decrease this risk, disposal/recycling of previously installed windows/doors must follow local regulations. In order to further minimize exposure to lead-based paint dust, please consult www.epa.gov/lead for more information.	This door is glazed with safety glass (tempered or laminated). If broken, glass must be replaced with safety glass in accordance with state and federal laws.

Tools and Supplies Needed

Tools
Measuring Tape
Level (laser level works better for larger openings)
Rubber Hammer
Power Driver
Power Drill
5/32” masonry drill bit (if on concrete slab)
Utility Knife
J-Roller
Caulk Gun

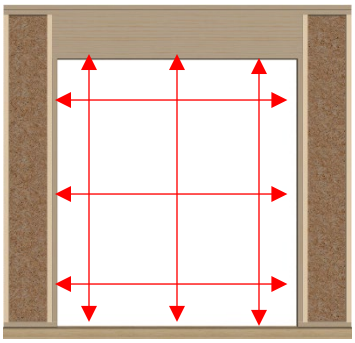
Installation Materials
4” Flashing Tape
#8 x 2” flat head screws
3/16” x 1-1/2” masonry screws
High Quality Sealant
Shims
Low-expanding foam

STEP 1 PREPARATION OF THE OPENING

For this door to properly operate, the sill must be flat and level and the opening square and plumb. Sill rollers are not adjustable to make up for unlevel framing.

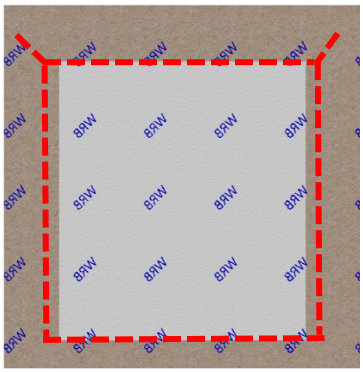
Verification of Size

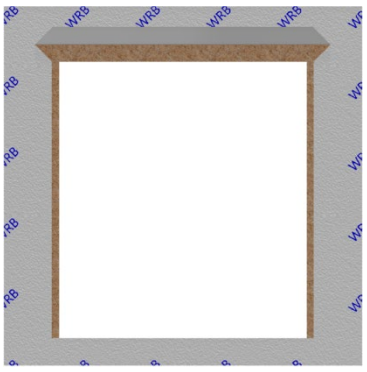
A. Make sure the door will fit in the rough opening. Measure the opening width and height in three separate places to ensure the framing is not bowed. Opening size should be ¾” larger in width and ½” larger in height than the door frame.
B. Verify the opening is plumb, level and square.
C. Make sure the sill area is free from debris



Rough Opening Preparation (WRB installed)

A. Cut the Weather Resistant Barrier (WRB) even with the opening horizontally at the head and sill. At each side cut the WRB 2” past the jambs. This will allow the nailing fin to mount directly to the sheathing.
B. At the head make a 45 degree 6” long cut at each corner. Fold the WRB flap up at the head and temporarily tape it above the opening.

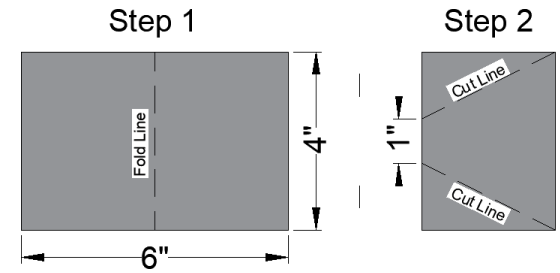




Creating Sill Flashing

Sills can be flashed by using a sill pan system or by creating sill flashing using flashing tape. Below describes the later method.

A. Create corner guard flashing by cutting two 6” lengths of 4” flashing tape. Fold each of the 6” pieces in half and cut the folded corners to create a bowtie shape corner guard (**Fig. 1-A**).
B. Remove backing and apply a guard to each of the sill corners. Half of the guard will cover the jamb and sill and the other half will be folded over the exterior sheathing (**Fig. 1-B**).
C. Cut two pieces of 6” flashing tape 12” longer than the rough opening width.
D. Apply the tape to the sill, covering approximately 3” of the sill and extending 6” up each side (**Fig 1-D**).
E. Fold the remaining flashing out onto the exterior sheathing and roll smooth to remove any air pockets and to promote adhesion (**Fig 1-E**).
F. In the same fashion apply the second piece of flashing tape overlapping first by a minimum of 1”. Tape should come within ¼” of the interior door frame. If the wall depth is larger, additional tape may be required.



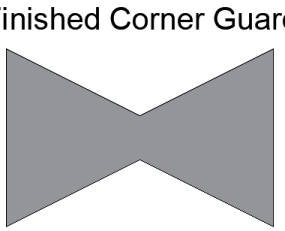


Fig. 1-A

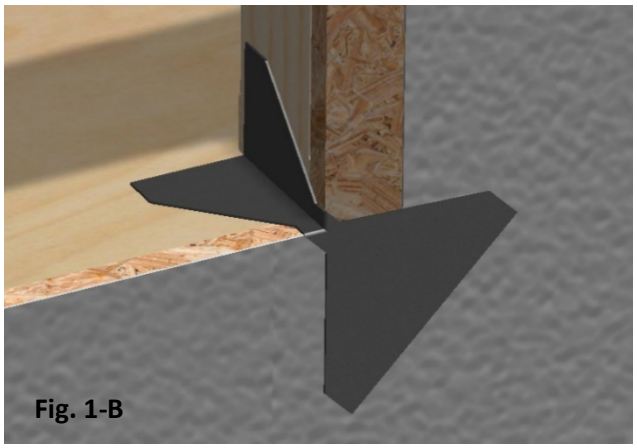


Fig. 1-B

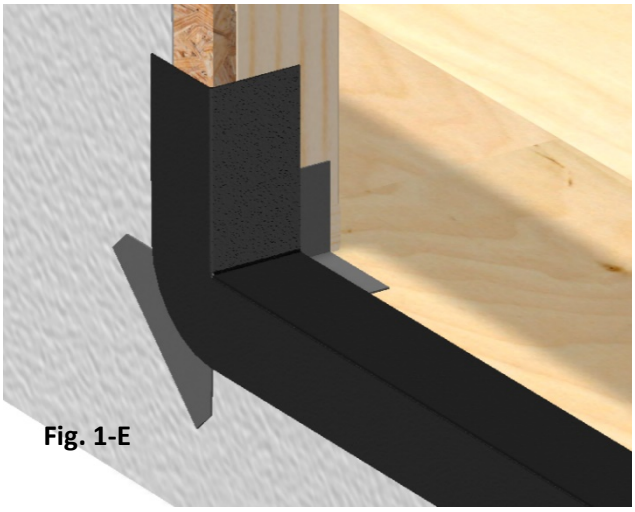


Fig. 1-E

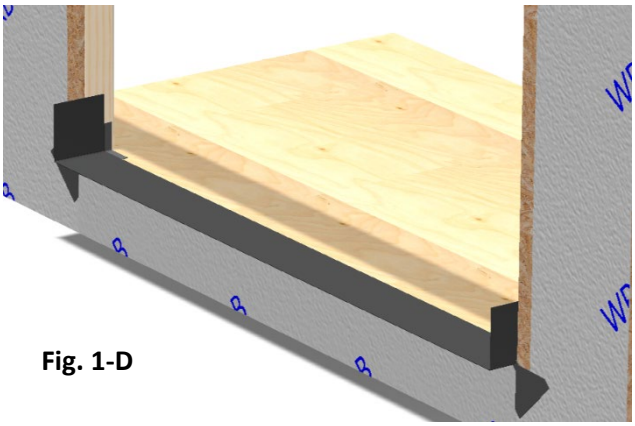


Fig. 1-D

STEP 2 SETTING AND FASTENING THE DOOR

NOTE: If your door frame is not factory assembled, refer to the K.D. Frame Assembly instruction at the back of these instructions.

Setting and Fastening the Door

A. Run three rows of continuous 3/8" beads of 100% silicone or polyurethane sealant on the subfloor where the sill will sit. Make sure the inside bead is 1" away from the edge of the sill. Continue each bead 6" up the side jamb (**Fig 2-A**).

B. Apply a continuous 3/8" bead of sealant to the jamb and head nailing fins. Keep sealant in line with the pre-punched nailing fin holes.

C. Starting with the sill, place the door frame in the opening making sure to firmly seat the sill in the sealant. Center the door in the opening and tilt the door into position. DO NOT slide the door into the opening for this will damage the sealant lines.

D. Level the sill, if necessary, add flat shims as needed to correct any issues.

E. Drive two fasteners, one through each end of the top nailing fin.

F. Measure the exterior frame from corner to corner to check for square (**Fig 2-F**).

G. Check the door for plumb, level and square. Shim as needed to correct frame.

H. Continue fastening through the nail fin holes using #8 x 2" flat head screws. Position screws 4" from each corner and every 4"-8" on center.

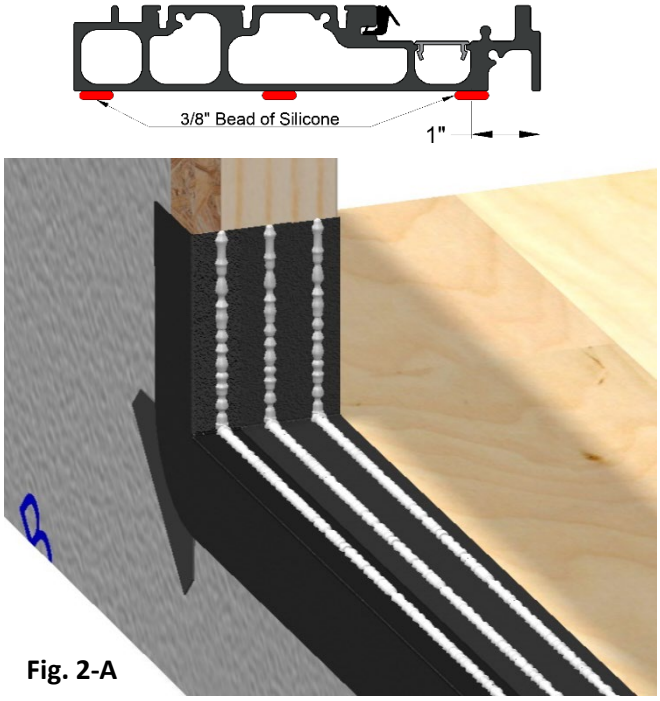


Fig. 2-A

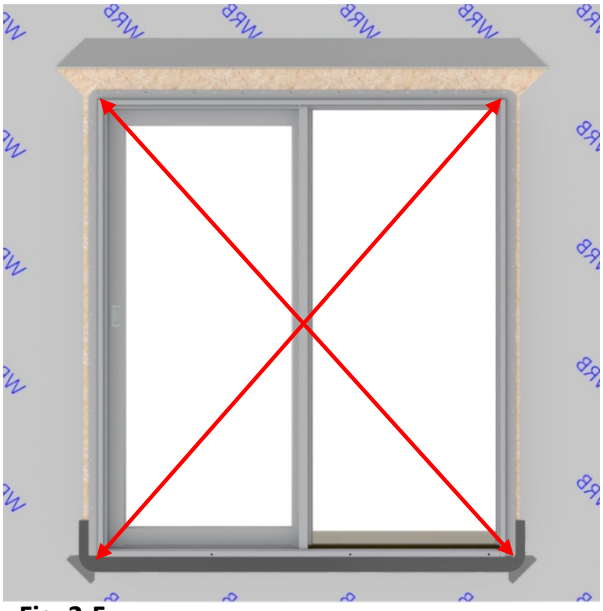


Fig. 2-F

STEP 2 SETTING AND FASTENING THE DOOR (Continued)

For door widths over 8'-0"

I. For larger door widths it is recommended to fasten through the sill and head jamb at 3 places (6" from each end and in center). Active panel must be out of the frame to add these screws.

J. For head jamb fastening use provided #10 x 3" flat head screws. Drill pilot holes before applying screws. Shim at all screw locations. (**Fig. 2-I**)

K. Press on wood screw cover after screws are installed. Tap in with a wood block if needed.

Wood screw cover must be in place prior to the installation of the fixed panel.

L. For sill fastening use provided screws (3/16" x 2-1/4" concrete screws). Predrill holes and fill each hole with silicone before installing screws. (**Fig 2-L**)

M. Install sill screw cover in sill track to conceal screws.

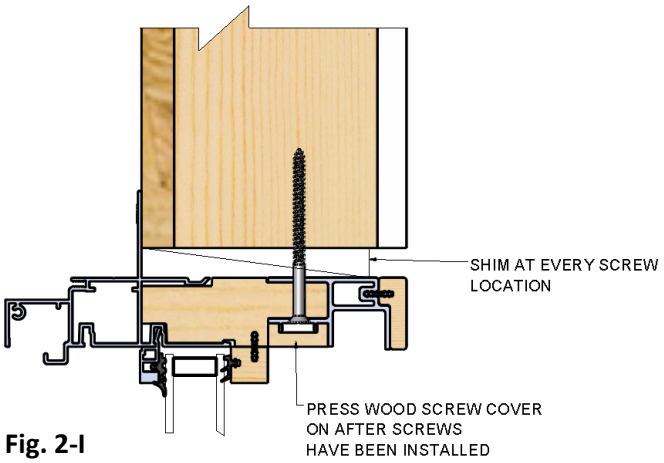


Fig. 2-I

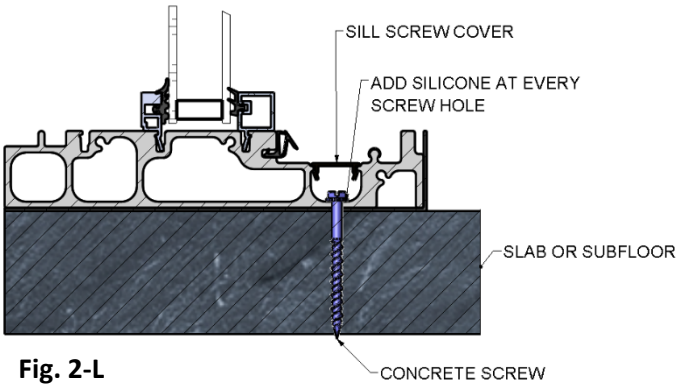


Fig. 2-L

STEP 3 FLASHING THE OPENING

Flashing the Opening

A. Cut two lengths of flashing tape equal to the rough opening jamb height plus 5” (**Fig. 3-A**).

- Remove the backing of the tape and apply over the nailing fin and the Weather Resistant Barrier keeping centered on the jamb.
- Roll the tape smooth with a J-roller to eliminate bubbles and to promote adhesion.

B. At the head cut one piece of flashing tape equal to the width of the door opening plus 10” (**Fig. 3-B**).

- Remove the backing and apply over the head nailing fin extending past the jamb flashing by at least one inch.
- Roll the tape smooth with a J-roller to eliminate bubbles and to promote adhesion.

C. Fold the head jamb WRB flap back over the head jamb flashing. Tape the diagonal seams with WRB tape or flashing tape (**Fig. 3-C**).

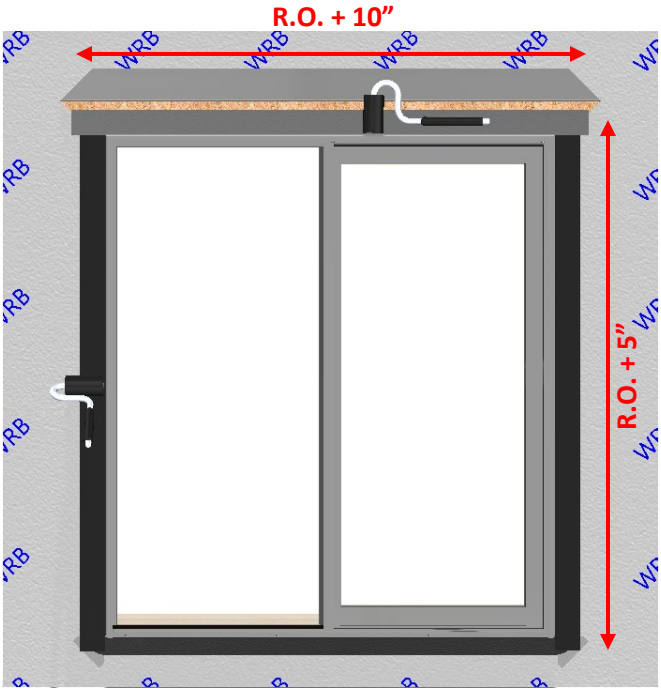


Fig. 3-A / Fig. 3-B

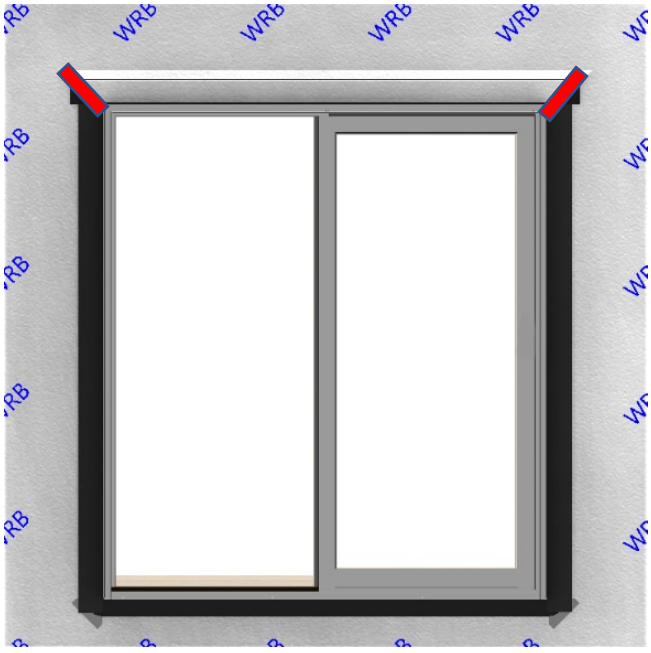


Fig. 3-C

STEP 4 INSULATING AND SEALING THE OPENING

Insulating and Sealing the Opening

A. Insulate and seal the gap between the rough opening and the door frame using either loose fill fiberglass insulation or low-expansion polyurethane foam. NOTE: If using foam, make sure to use a brand that is recommended for doors and windows.

B. For polyurethane foam, insert the nozzle or straw between the rough opening and the window to the back of the nailing fin. Apply a continuous bead around the sides and head. Only fill the void half the depth of the jamb to allow for expansion. (**Fig 4-B**).

Fig. 4-B

STEP 5 FIXED LITE GLASS INSTALLATION

Fixed Lite Glass Installation (K.D. Direct Set Version Only)

With the door frame installed into the wall, the insulated glass unit can now be installed into the frame.

A. Place the provided flexible glass shims on the sill shelf that supports the glass. Place 4" in from each end and spaced every 10" (**Fig. 5-A**).

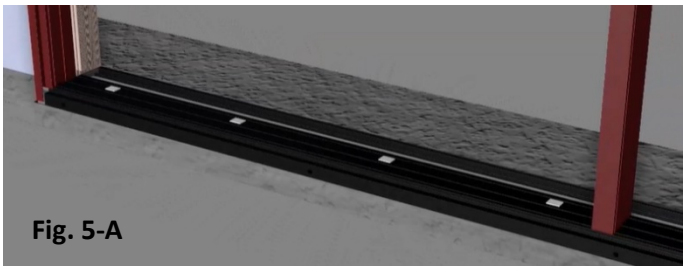


Fig. 5-A

B. Using glass lifting suction cups, set the glass in place by guiding the top into place behind the screen track first, then set glass down on the glass shims being sure that it is seated tightly against the inside stop weather-strip (**Fig. 5-B**).

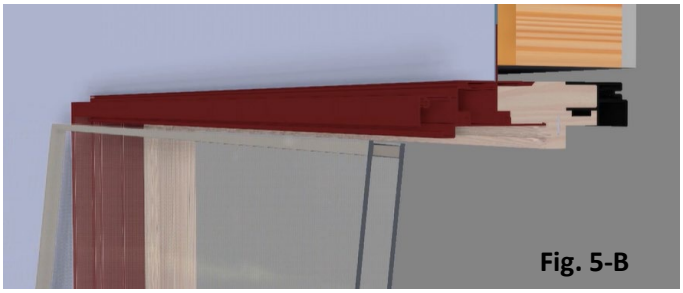


Fig. 5-B

C. Center the glass in the opening add shims around the perimeter as needed.

D. Apply a continuous 1/8" bead of silicone under the bead (**Fig 5-D**).

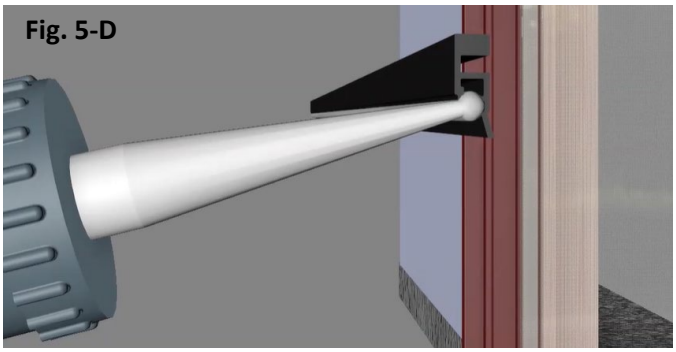


Fig. 5-D

E. Tap bead into place using a wood block to prevent damaging the painted surface (**Fig 5-E**).

F. Install the head bead next, then the side exterior bead. The head and sides do not require silicone under them.

G. Inset the exterior rubber seal by inserting it in between the glass and the exterior stops. Be sure to keep the corners tight and add a small amount of silicone at each corner of the rubber seals (**Fig 5-G**). *Tip: Glass cleaner sprayed on the panel will help it slide in easier.*

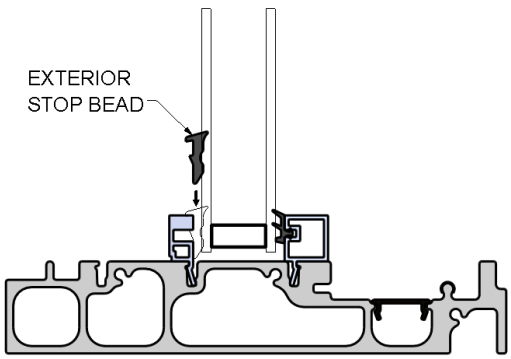


Fig. 5-G

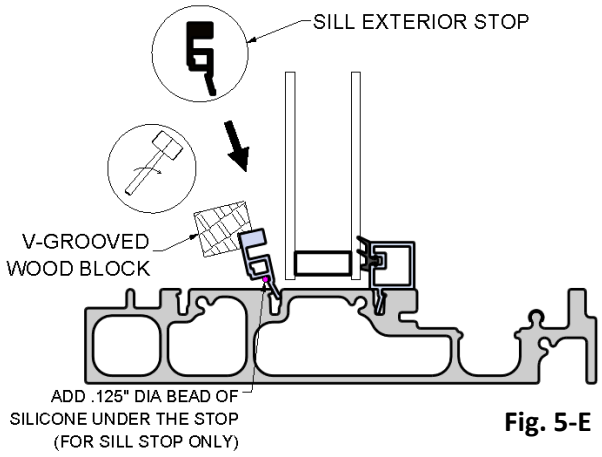


Fig. 5-E

WEATHER SHIELD.
WINDOWS & DOORS

STEP 6 STATIONARY PANEL INSTALLATION

Panel Installation (Stationary)

This step is for panel set doors that were shipped with a K.D. frame and the panels loose. Stationary panel should be installed from the exterior.

A. Rotate the installation clip at the top of the fixed panel so that it hangs out over the edge of the panel. Attach the clip with the (4) provided screws (**Fig 6-A**).

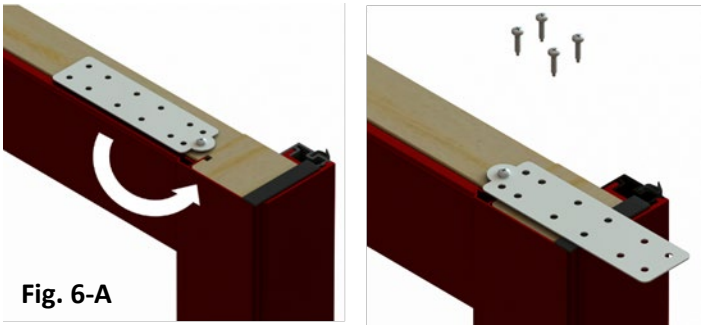


Fig. 6-A

B. Install the stationary panel from the exterior starting with the head inserted first. Make sure the rib on the bottom of the panel seats into the slot on the sill and the panel is tight to the jamb pocket.

C. Apply a continuous 1/8" bead of silicone under the exterior metal bead (**Fig 6-C**).

D. Tap bead into place using a wood block to prevent damaging the painted surface (**Fig 6-C**).

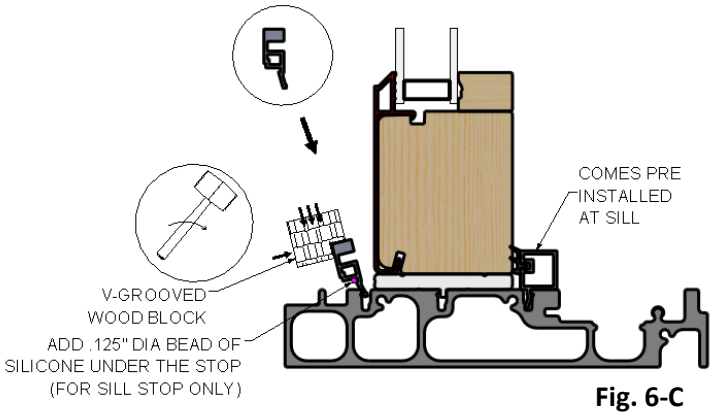


Fig. 6-C

E. Install the head bead next, then the side exterior bead. The head and sides do not require silicone under them.

F. With the beads installed, next Insert the exterior rubber seal by inserting it in between the panel and the exterior stops. Be sure to keep the corners tight and add a small amount of silicone at each corner of the rubber seals (**Fig 6-F**). *Tip: Glass cleaner sprayed on the panel will help it slide in easier.*

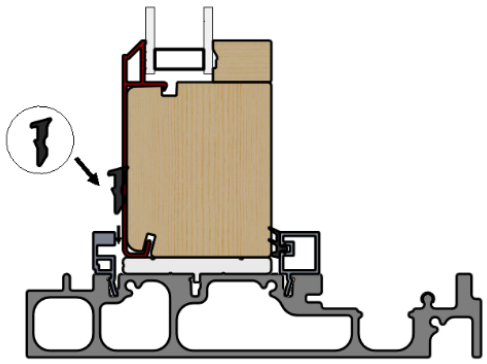
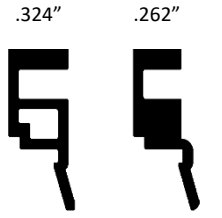


Fig. 6-F



NOTE: All KD door kits include two sets of beads. The thinner, *Extra Clearance* bead is to be used only if the standard beads are too tight to allow the insertion of the rubber gaskets. Do not mix beads of different thickness.

STEP 6 STATIONARY PANEL INSTALLATION (Continued)

G. With the panels tight to the jamb, add (4) #8 x 1/2" Pan head screws into the installation strap up into the head jamb (**Fig. 6-G**).

H. Install the aluminum head stop by first adding a bead of silicone to the outside hook edge (**Fig. 6-H**).

I. Snap the head stop in place by inserting the exterior hook edge in first and then rotate the stop into position (**Fig. 6-I**).

J. Using a block of wood and a rubber hammer, carefully pop the cover into place. Keep the block close to the inside edge to avoid denting the cover.

K. A black plastic end cap covers the joint between the end of the fixed panel and the sill. Before applying the cap, fill the grooves in the sill with silicone (**Fig 6-K**).

L. Apply the plastic cap by peeling off the tape backing and inserting the taps into the three grooves in the sill.

M. Slide the cap into place making sure the plug on the cap slides into the groove on the metal stop. Press firmly to ensure adhesion of the tape (**Fig 6-L**).

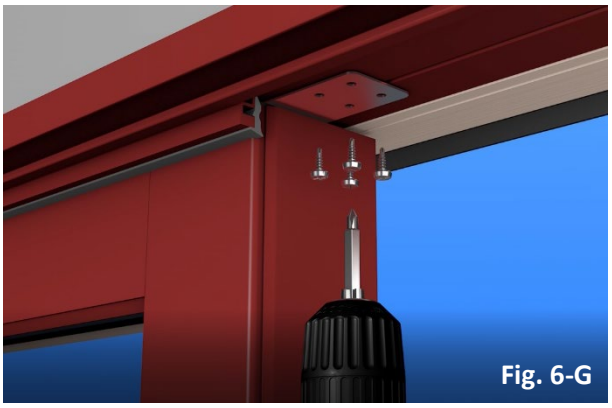


Fig. 6-G

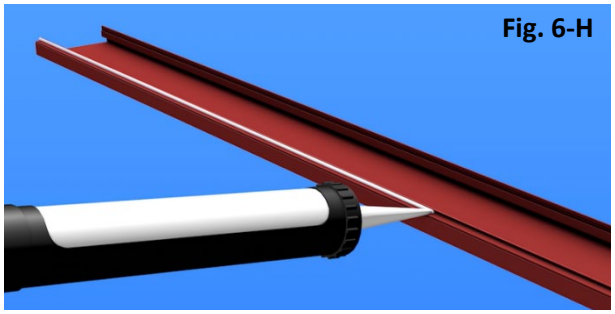


Fig. 6-H

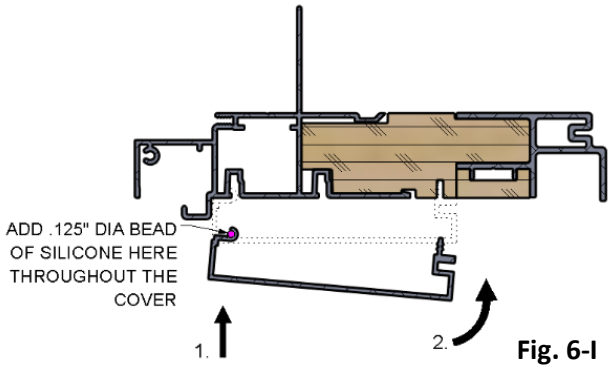


Fig. 6-I

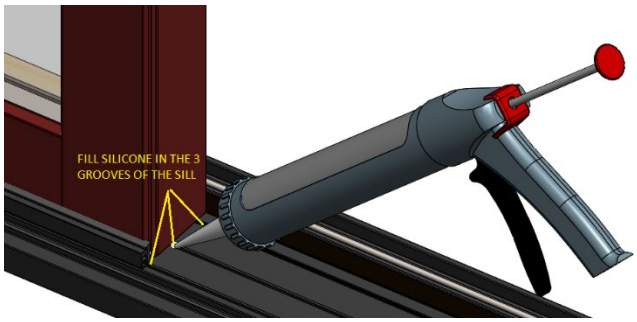


Fig. 6-K

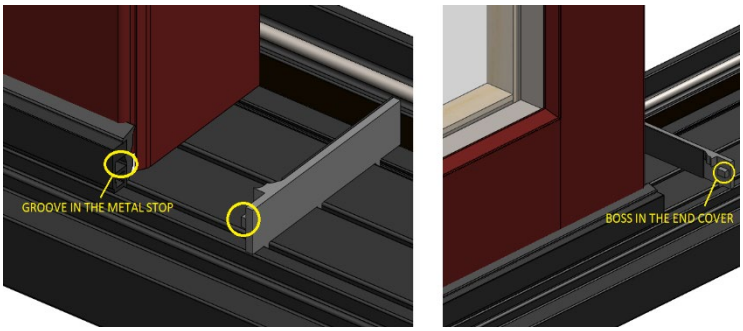


Fig. 6-L

STEP 7 ACTIVE PANEL INSTALLATION

The active panel is to be installed after the stationary panel or direct set glass is installed.

A. On K.D. frame doors the primary door weather-seal will need to be inserted before the active panel can be installed. The weather-seal is one long piece that is notched at each corner. The end to end splice should be at the center of the head jamb.

B. Start at one of the upper corners with the notch closest to the end of the weather-seal. Work corner to corner to make sure the corner joints are positioned properly then work the straights into the kerf.

C. Add a small amount of silicone between the back of the weather-strip and the frame corners. Be sure not to get any silicone onto the sealing face of the weather-strip. The silicone's purpose is to hold the corners into the proper position.

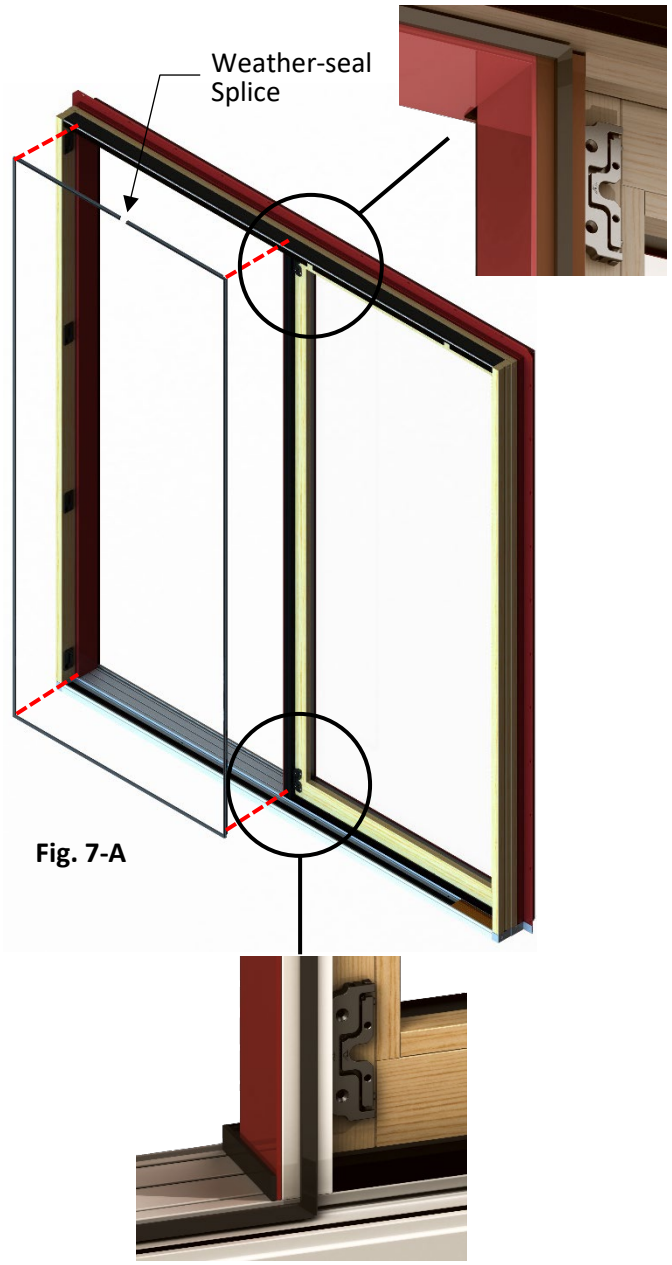


Fig. 7-A

Panel Installation

D. Verify the active panel is in the unlocked position (**Fig. 7-D**). If the panel is locked, use the provided construction handle to unlock the hardware.

Fig. 7-D

STEP 7 ACTIVE PANEL INSTALLATION (Continued)

E. Lift the panel into position and set the bottom rollers on to the sill track from the interior (**Fig 7-F**) and tilt in so that that the top rollers are aligned with the access notches in the head track (**Fig 7-G**). Make sure the rollers are on the stainless track to prevent damage to the sill.

F. Slide the door closed.

G. Install the head wood inside trim to cover the access holes (**Fig. 7-H**).

H. Install the rubber sill bumper into sill track (**Fig. 7-I**).

I. Install the head bumper so that it contacts the top roller at the same time as the sill bumper stops the panel in the fully open position.

J. Install handle and exterior pull per instructions provided with the handle set.

Fig. 7-F

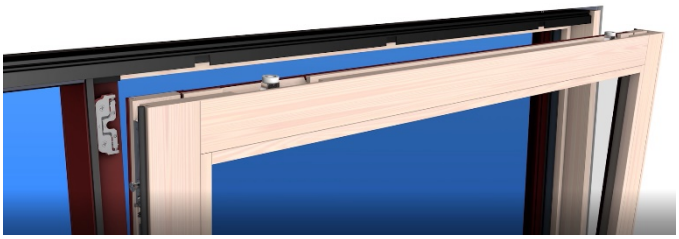


Fig. 7-G

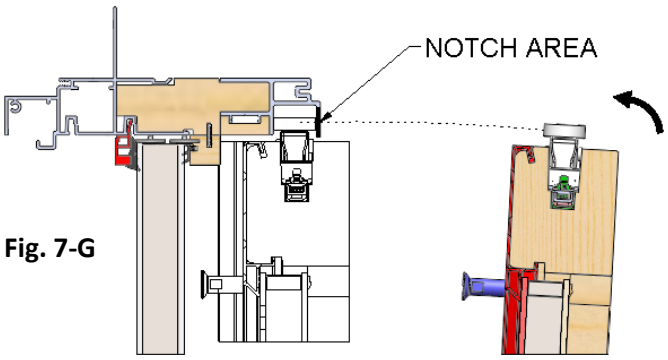


Fig. 7-G

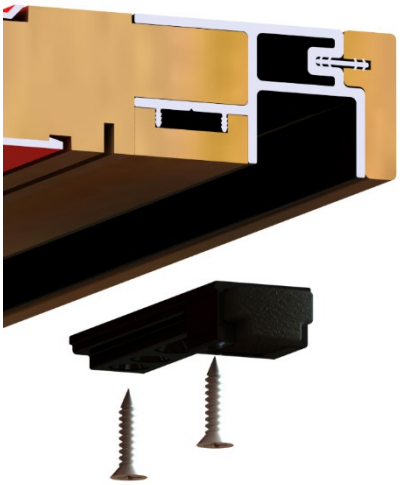


Fig. 7-J

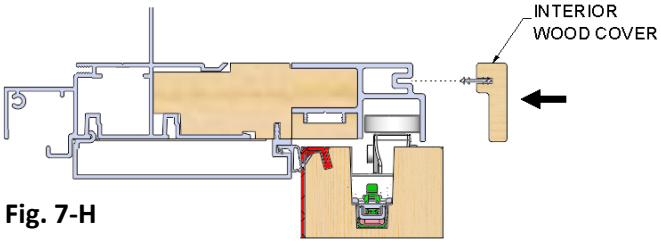


Fig. 7-H

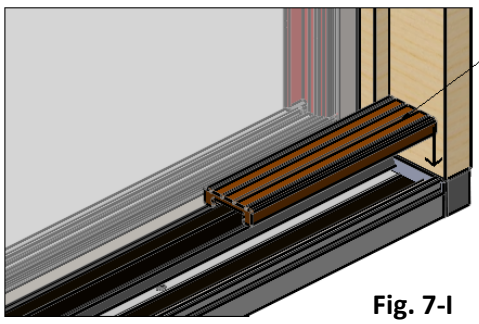


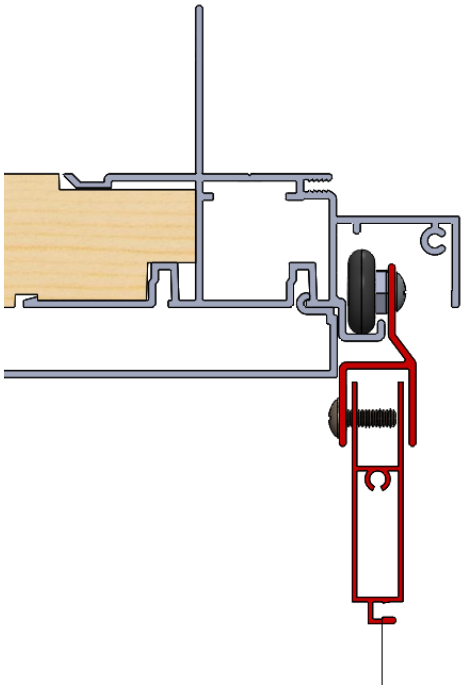
Fig. 7-I

STEP 8 SCREEN DOOR INSTALLATION

A. The standard screen on this door is a top hung sliding screen. For retractable screen installation please see separate installation instructions that are packaged with that screen.

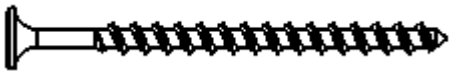
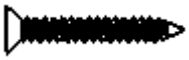
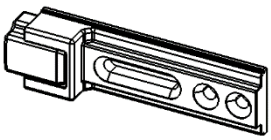
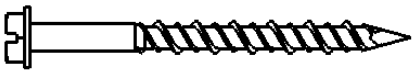
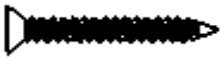
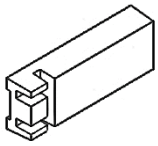
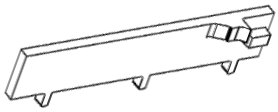
B. Install the screen by inserting the top rollers up into the head screen track area and hook the wheels on to the track.

C. Install the screen keeper on the side jamb with the screws provided.



KNOCK DOWN (KD) FRAME ASSEMBLY INSTRUCTIONS

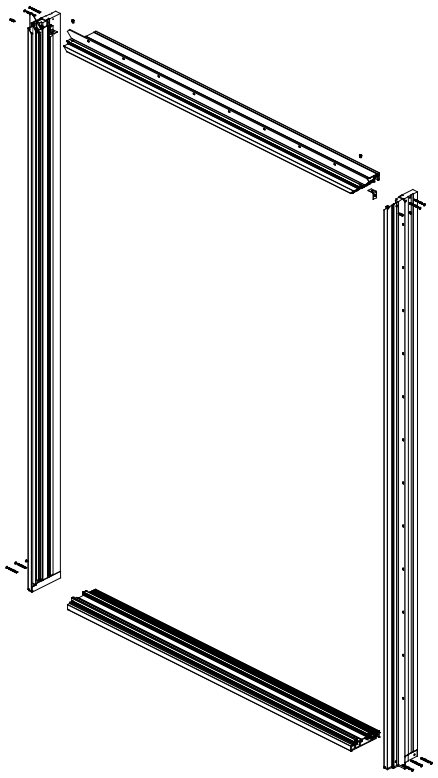
ASSEMBLY HARDWARE PACK COMPONENTS

 Frame Corner Screws Qty. 10 - #8 x 2-1/2” Flat Head #971083	 Frame Screen Track Corner Screw Qty. 2 - #6 x 1” Flat Head #982107	 Head Panel Bumper Stop Qty. 1/ Panel - #1302113
 Head Jamb Installation Screws Qty. 4 - #8 x 3” Drywall Screw #971533	 Stationary Panel Clip Installation Screws Qty. 4 - #8 x 1/2” Self-Drilling #1012262	 Flexible Glass Shim Qty. 10 - #760169
 Sill Installation Screws Qty. 4 – 3/16” x 2-1/4” Concrete Screw #1303080	 For Panel Set Doors Only Stationary Panel Clip Installation Screws Qty. 4 - #8 x 1-1/4” Pan Head #960076	 For Direct Set Doors Only Direct Set Post Cover Qty. 2 or 4 - #1300557
 For Panel Set Doors Only Fixed panel End Cap Cover Qty. 2 (1) Left and (1) Right		

Assembling the Frame

Larger doors that cannot ship due to their excessive size and weight will be shipped with the frames knocked down (KD). These frames will need to be assembled on site. Make sure the you have adequate room to assemble the full door frame.

A. Lay parts out on the floor or elevated on sawhorses. Use cardboard or other padding to protect them from damage.



KD FRAME ASSEMBLY INSTRUCTIONS (Continued)

Head to Jamb Assembly

B. Starting with the assembly of the side jambs to the head jamb. The head jamb will have a corner key preinstalled into it. Temporarily remove the screw from the part of the corner key that is not installed in the head jamb. Fill the ends of the aluminum clad profiles with silicone from the foam plug out to the end of the aluminum (**Fig. B**). Make sure there is a slight amount of overfill on each assembly to ensure adequate coverage to the adjoining piece.

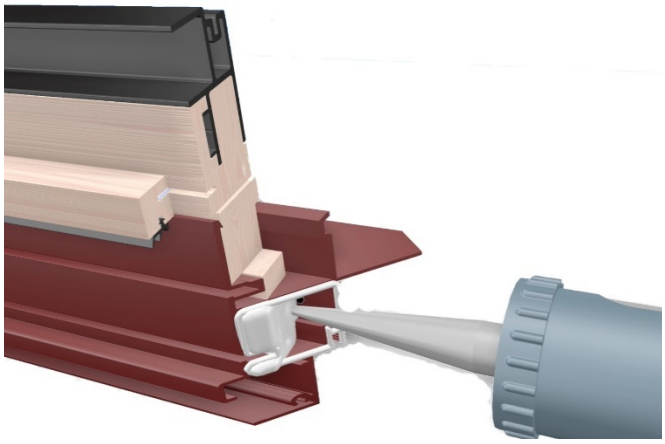


Fig. B

C. Position side and head jamb assemblies together with the corner keys properly aligning as shown (**Fig. C**).

Fig. C

D. While holding the corner as tight as possible. Install the (2) #8x2-1/2" Phillips Flat head screws into the predrilled holes in the top of the side jamb and fasten them into head jamb. Keep the corner tight and square while installing the screws (**Fig D**).

E. Install the #6x1" Phillips Flat Head Screw in the hole in the aluminum clad on the side jamb screen track and continue to screw into the screw boss in the aluminum clad on the head jamb assembly. Make sure that the miter corners come completely together and there is no squeeze out left on the clad.

Fig. D

F. Install the #8x1/2" flat head screw that you removed from the corner key into the side clad holes that aligns with the key.

If assembling a door with a direct set fixed panel, follow Direct Set Post Assembly instructions.

For standard fixed panel configurations, move on to the Sill to Jamb Assembly step.

KD FRAME ASSEMBLY INSTRUCTIONS (Continued)

Direct Set Post Assembly (Direct Set Version Only)

G. The installation of the post should start with the attachment to the head. The end of the post that installs to the head will have an additional notch than the end at the sill (**Fig G**).

H. The direct set post bracket will come attached to the head jamb and the sill.

I. For the post to slide freely over the bracket, the screw attaching the keeper will need to be temporarily removed. Remove the screw and slide the post over the bracket (**Fig. I**).

J. With the post tight to the head, reinstall the screw through the keeper.

K. With the post secure apply the black plastic direct set post cover by peeling off the tape backing and pressing into place making sure to align the cover kerf with the post kerf (**Fig. K**).

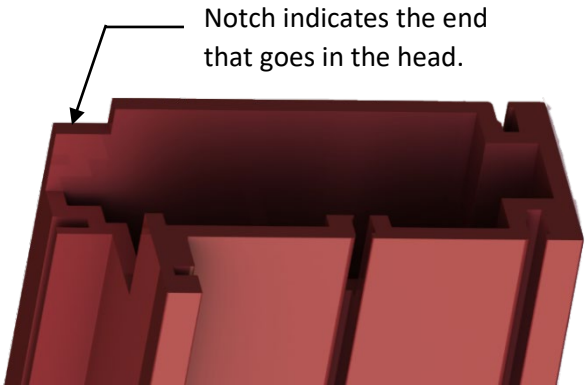


Fig. G

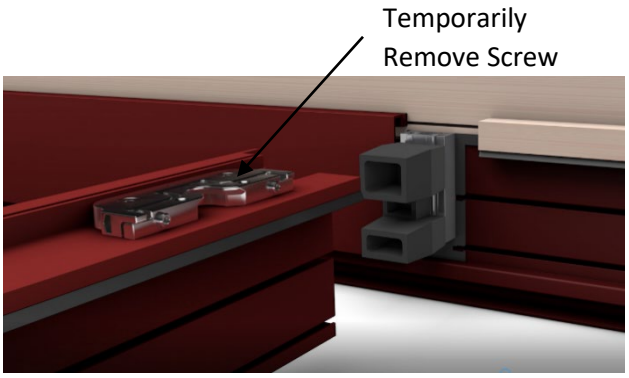


Fig. I

Fig. K

Sill to Jamb Assembly

L. Apply silicone to the end of the sill (**Fig. L**). Install the sill assembly in-between both side jambs.

M. For **Direct Set Assembly,** make sure to line up connector with the post. Temporarily remove the keeper screw to allow the post to slide over the bracket. With the post tight to the sill, reinstall the screw through the keeper. With the post secure apply the black plastic, direct set post cover by peeling off the tape backing and pressing into place making sure to align the cover kerf with the post kerf (**Fig. M**).

N. Install (3) #8 x2-1/2" Phillips Flat head screws into the side jamb and continue into the sill assembly. Keep the corner tight and square while installing the screws. Repeat for both sill corners (**Fig. N**).

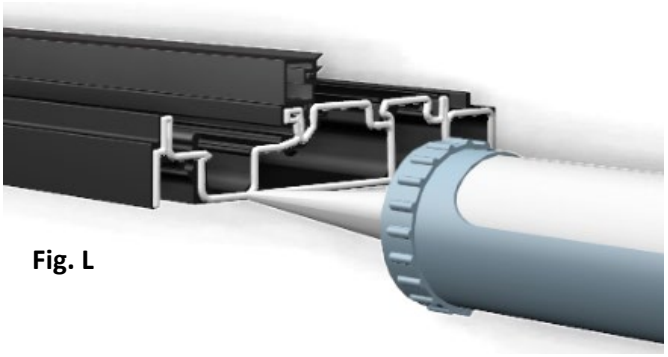


Fig. L

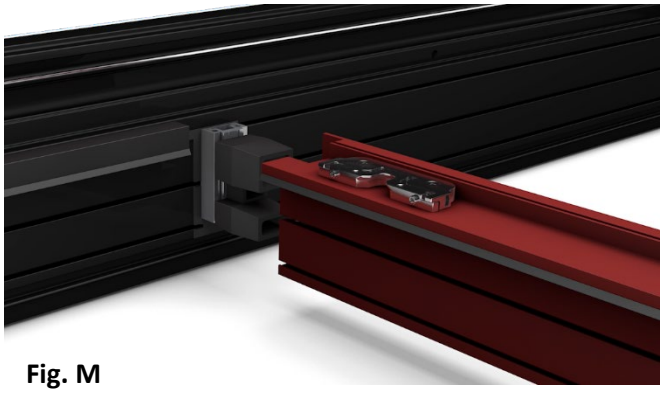


Fig. M

Fig. N

ADJUSTMENTS

The roller system on the operating panels do not allow for adjustment up or down however the lock points and mullion keepers can be adjusted to improve engagement.

Mullion Keeper Adjustments

- The Keepers on the interlock or post that engage the pin will self-center up and down, but the in and out can be adjusted by means of the (2) 2.5mm Allen screws (**Fig. 1**).
    - If the panel stops short of reaching the jamb, adjust the interlock keepers by tightening the adjustment screws with the 2.5mm Allen key included with the installation pack.
    - If the interlocks have too much play in the panel loosen the screws.

Fig. 1

Mullion Locking Pin Adjustments (Fig. 2)

- The pins located on the fixed panel or fixed mullion post can be adjusted by unscrewing the pins. When the pins are completely screwed tight the door will have the most compression on the weather seals. If the operation of the handle is too hard, unscrew the pins slightly to release the compression until the operation is improved.

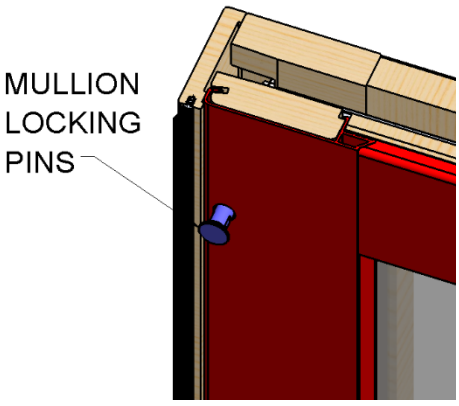


Fig. 2

ADJUSTMENTS (Continued)

Locking Cam Adjustments

- The locking points on the edge of the hardware are cam shaped and can be adjusted to both extend further into the keepers and to apply pressure on the weather-strip (**Fig. 3**). If using pliers be sure not to damage the protective coating on the lock pins as this could cause the lock to develop surface rust.
    - To gain more pressure against the weather-strip adjust the cam so that the pin hole is positioned to away from the weather-strip.
    - To create less pressure, adjust so that the pin hole in the cam is closer to the weather-strip.
    - Adjusting the Cam Up and Down can also affect the fit to the keepers if the lock point is rubbing against the keeper.
    - After adjustments have been made to the mullion keeper and the lock points the door should lock smoothly. If there is any clicking noise coming from the lock when the door handle operated, it is indicating that there is too much pressure being applied. Continue to work on adjustments until the clicking is gone and the door operates smoothly.
    - If adjustments are not achieving smooth operation loosen each of the locking pins at the mullion by a maximum of 2 turns. This will reduce compression at the mullion and reduce strain on the hardware.

Locking Cam Adjustment Chart

V cam	Adjustment distance	Gasket-compression adjustment / mm	Height adjustment / mm
	90° 90°	±0.8 mm	±0.2 mm
	180° 180°		±0.4 mm
	270° 270°	±0.8 mm	±0.6 mm
	360° 360°		±0.8 mm

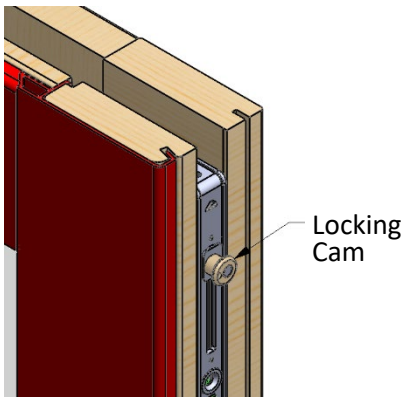
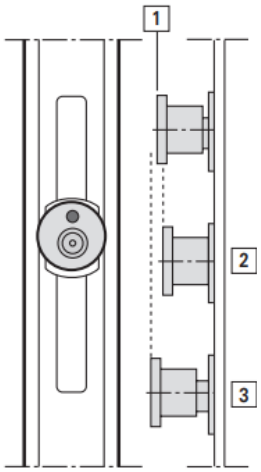


Fig. 3



[1] 0 = initial position

[2] -0.8 mm max. adjustment

[3] +0.8 mm max. adjustmen

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KD FRAME ASSEMBLY

SCAN ME

GLASS AND PANEL INSTALLATION

SCAN ME