

# Aluminum French Door Assembly Instructions




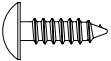


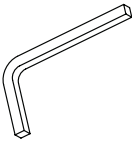

SERIES FD 650/750



**CUSTOM WINDOWS + DOORS**

Para instrucciones en español, visite: <http://bit.ly/PGTAssemblyInstructions>

# FD 650/750 Parts List

SWING DOOR (FD 650/750) HARDWARE KIT PARTS			
ITEM	PART No. & DESCRIPTION	PARTS BAG QTY.	COMMENTS
	#8 x 1" Panhead Quad	10	Screw used to assemble the Main Frame Jamb to the Main Frame Header and Sill
	Frame Assembly Screw		
	#10-24 x 2-1/2" Panhead	10	Screw used to attach the Sidelites to the I-Beam
	Machine Screw for I-Beam Assembly		
	#10-24 Nut	10	Nut used in combination with a #10-24 x 2-1/2" Screw for the attachment of the I-Beam
	Nut for I-Beam Assembly		
	#12 x 3/4" Truss Head	20	Screw used to hang prehinged slab onto the mainframe jamb
	Gear Hinge Mounting Screw		
	#12 x 1-1/2" Truss Head	6	Screw used in attaching the slab into the Main Frame through the Gear Hinge during a wood fram installation
	Gear Hinge Mounting Screw		
	#12 x 1-1/2" Panhead Tek	2	Screw used at the top of the Gear Hinge leaf to add additional support into the frame
	Gear Hinge Upper Support Screw		
 <small>NOT TO SCALE</small>	Handle	1	Metal square handle used temporarily to operate the hardware of the door prior to installation of hardware trim set
	Temporary Handle For Latch Operation		
 <small>NOT TO SCALE</small>	Plug	20	Vinyl plug used to cover the installation holes in the hinge leaf 10 WHITE 10 BRONZE
	Hinge Hole Plug At Jamb		

# NOTICE

CAREFULLY FOLLOWING THE INSTRUCTIONS IN THE PROPER SEQUENCE WILL REDUCE MISTAKES AND SAVE TIME.

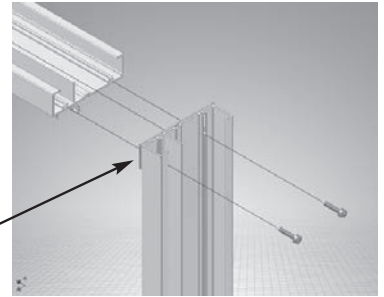
- A Parts List is provided at the front of this document for quick reference. Inspect the product and take inventory of all parts and pieces prior to installation. (ex. screws, frame, panel, etc.)
- Exploded View Reference(s) at the front of this document act as a reference for general location of parts and depict figures that are referenced when following steps outlined in these instructions.
- Carefully review these assembly instructions along with installation details contained in the AAMA Specifications, Miami-Dade Notice of Approval, or test reports, including anchorage information, if applicable.

## SECTION 1: HEAD AND SILL ASSEMBLY

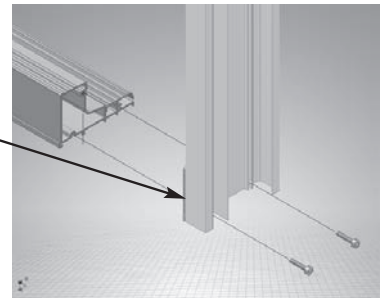
1. Layout frame parts so jambs align with the head & sill. Assemble as shown using 8"x1" sheet metal screws.

2. Make sure foam corner gasket sticks out from assembly joint after fastening screws.

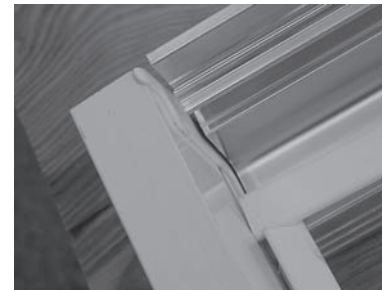
Head



Sill



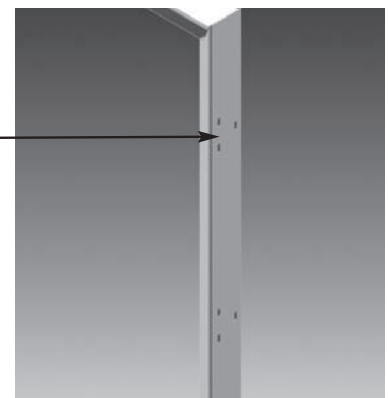
**Corner Assembly View**  
Actual view at jamb to sill assembly



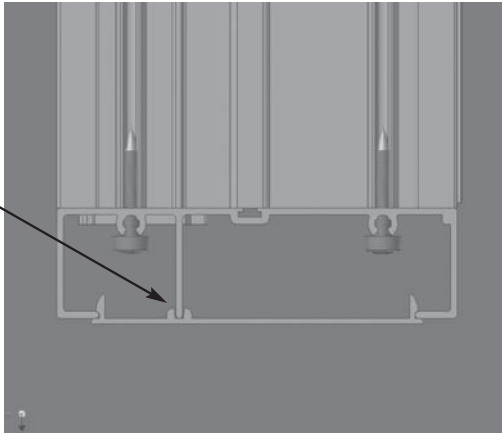
## SECTION 2: INSTALLATION PLATE

3. Installation plates are snapped into the jamb full length. The slots in the install plate should align with the install screw locations.

Installation Plate

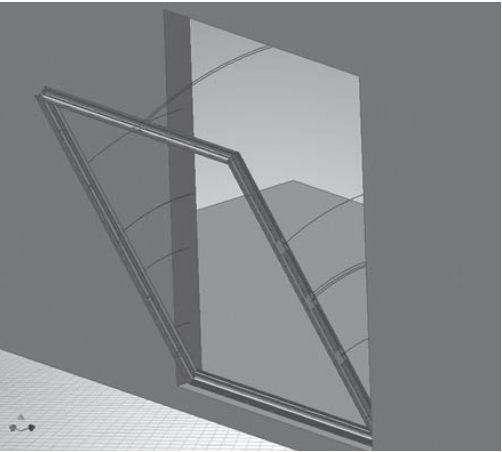


4. Cross section showing installation plate snapped in place. Make sure jamb leg projects in between two barbs in installation plate.



### SECTION 3: DRY FIT FRAME

5. Dry fitting the door before applying sealant to opening is necessary. Check to see that the reveal is uniform and no greater than 1/4" at the head, jambs or sill.

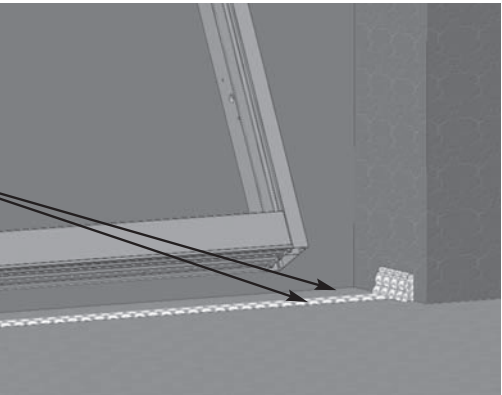


### SECTION 4: FRAME INSTALLATION

6. After frame is dry fit and there is proper clearance (See Dade N.O.A.)

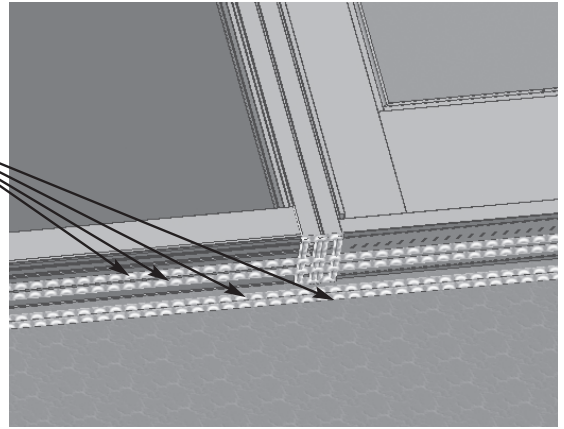
Run 2 beads of approved caulk in alignment with the 2nd & 3rd groove in the bottom of the sill and on the concrete.

Be sure that the amount of sealant will fill out the 2 cavities in the sill bottom.



## SECTION 5: SEALANT FOR SIDELITE ASSEMBLY

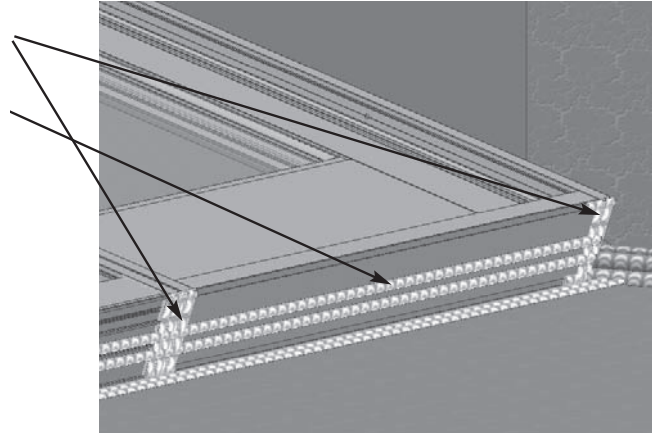
**7. Alternate View w/sidelites:** Showing 2 beads of approved caulk both in the 2nd & 3rd groove in the sill also directly applied to the concrete.



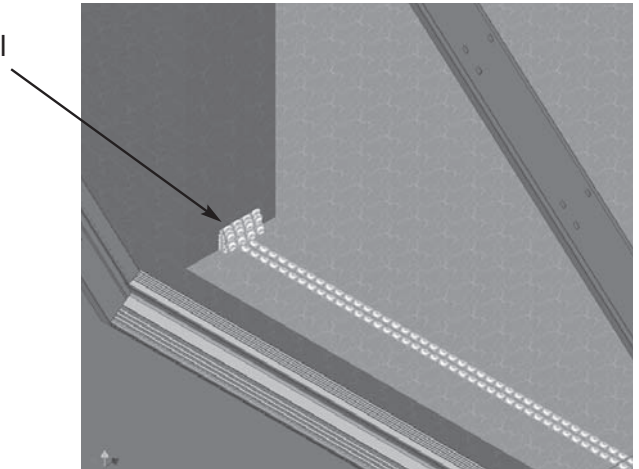
## SECTION 6: FRAME INSTALLATION

**8.** Make sure sealant is applied so that it will fill out joints between the adjoining products.

Two uniform beads shall be applied to the sidelite bottom interior and exterior.



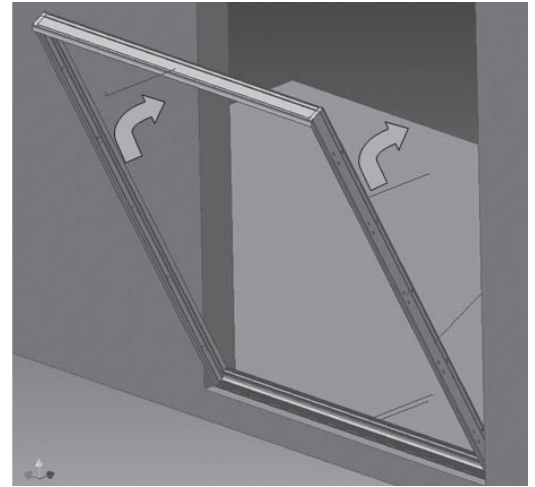
**9.** Apply enough approved sealant at the sill/jamb corner to fill out the cavity between the frame jamb and the wall.



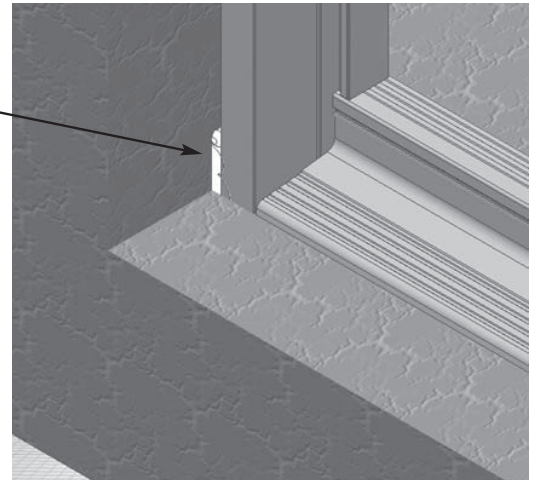
## 10. Viewed From Exterior

Swing into place.(similar to the dry fit).

Seat the sill into the sealant first. Then swing into place.



11. Note the sealant showing at the jamb. This is a good start to making a weather tight seal at the exterior of the frame.

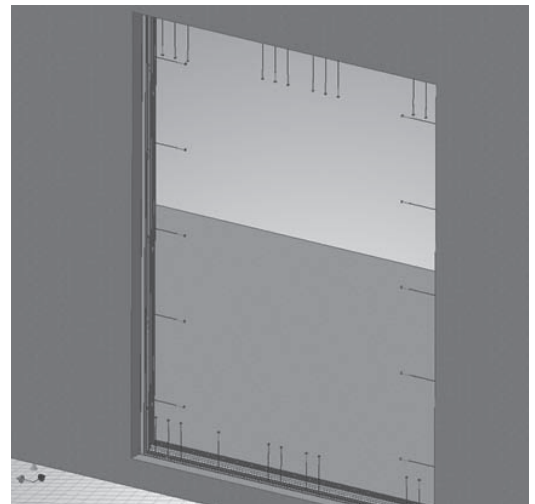


12. Locate and install anchors according to the N.O.A. requirements for location and configuration. See following views for more detailed fastening instruction.

Make sure mainframe is square & level.

**Note:** Do not fasten all concrete or wood fasteners prior to hanging the door slabs. As a general practice, tack with approximately 4-6 screws first, hang slabs, then after clearance & good door alignment is assured, drill holes and attach the remaining screws.

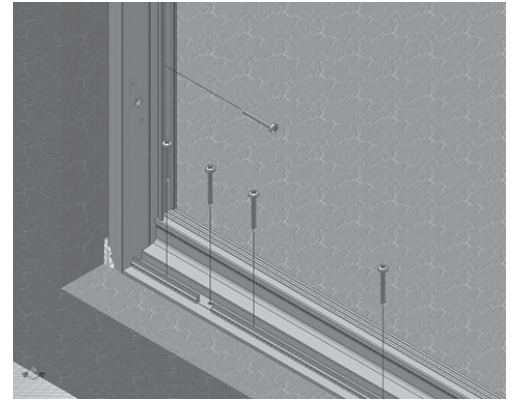
At sill remove debris and fill holes with caulk before attaching remaining screws. Seal fastener heads on all screws.



**13.** Shim and level sill first, then get jambs plumb level and true (in line with one another). Then start fastening sill and tack jambs in place. Not more than 4-6 screws to start.

**Note:** Do not over tighten the jamb, this may cause it to twist. Thus, pushing the doors together causing them to hit. Review “Hinge support screws” section below before fully tightening the jambs.

Plastic horseshoe shims work best for frame installation

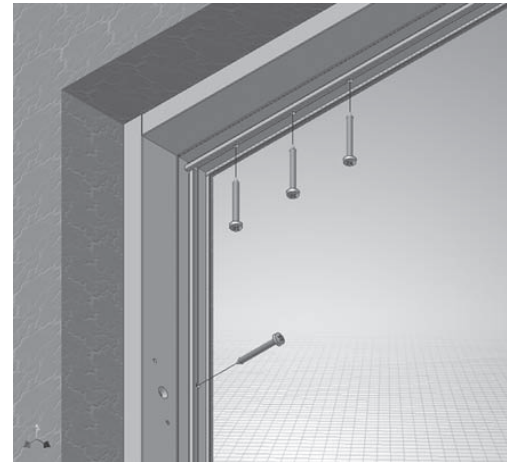


**14.** Shim behind each screw. Fasten head following jambs and sill.

**Finishing Notes:**

Be sure to install “Hinge support screws” before fully tightening jambs.

It is acceptable to use c’sink head screws for both hinge support & installation.

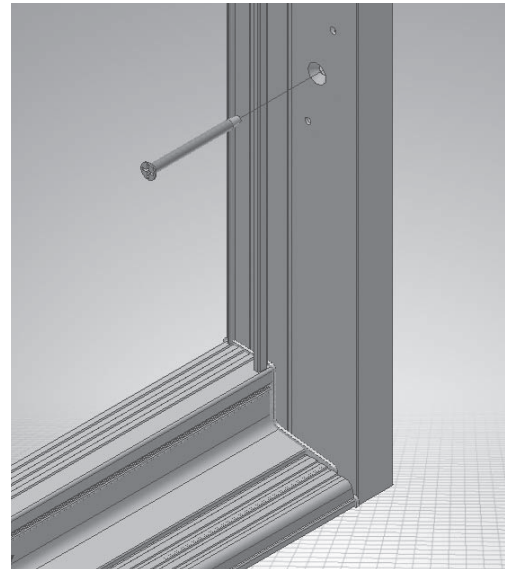


## SECTION 7: HINGE SUPPORT SCREWS

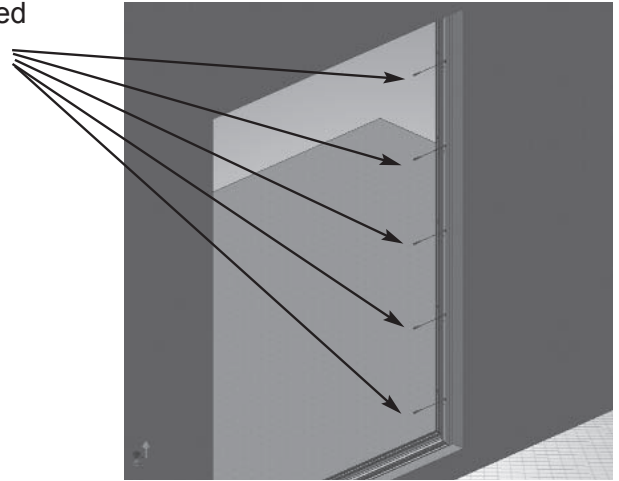
**15.** These screws are not included. Use countersink fasteners the same size as the install screws. These screws are installed to counter balance the installation screws on the opposite side of the frame. These screws will support the hinges and keep the door frame stable during operation of the door.

**Note:** Do not fasten all concrete or wood fasteners prior to hanging the door slabs. It should be a general practice to tack approximately 4-6 first, then after clearance & good alignment is assured. Attach remaining screws.

At sill remove debris and fill holes with caulk before attaching remaining screws. Seal fastener heads on all screws.



**16.** View showing all 5 hinge support screws. Screws are required in these locations for hinge support & to prevent twisting the jamb during install.



## SECTION 8: HANGING DOOR

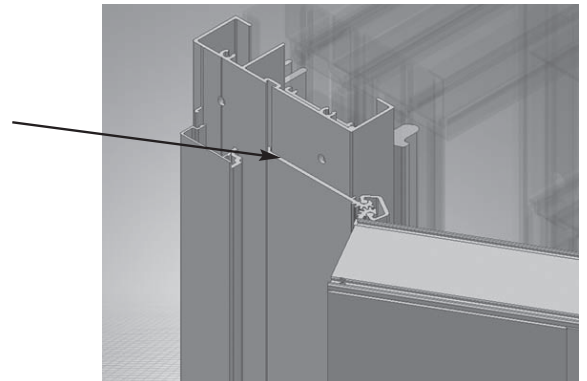
**17.** Position the door slab as shown in this view. Holding the slab in this position using glass cups will allow manipulation and engagement of the hinge leaf into the jamb (see following views for more detail).

**Note:** The weight of the door will bend the projecting sweep. Place blocks or material under door slabs to protect the sweep from damage during install. Glass cups are helpful for holding in position while screwing in place.



**18.** When maneuvering the door panel in place be sure the edge of the hinge fully engages the frame before installing #12 x 3/4" assembly screws

(See following section view for more detail).

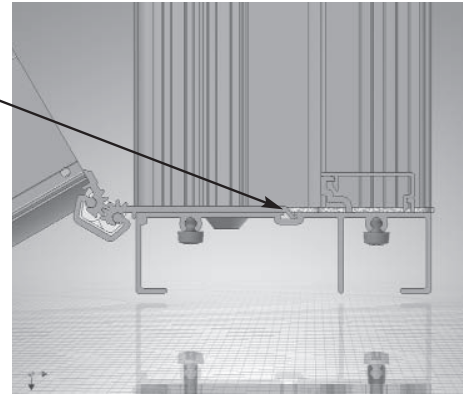




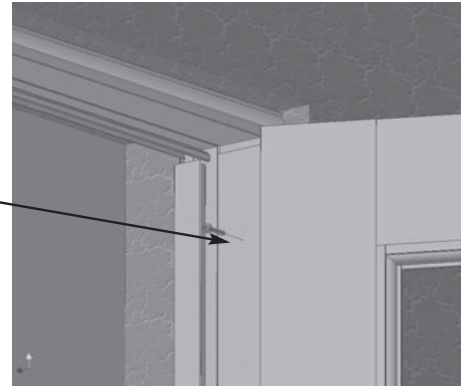
**19.** This cross section view shows how jamb hinge leaf intersects frame.

Hinges are mounted to the jamb using #12x 3/4" screws (provided)

**Note:** #12 x 1 1/2" screws are also provided. These screws will tie into the assembly I-beam or wall substrate where necessary for more hinge support.



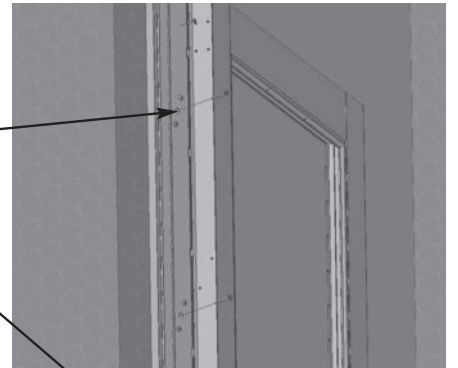
**20.** After all hinge screws are fastened, insert #12 x 1 Phil pan tek (drill point) screw at top of hinge on the jamb side. (This will prevent the hinge from flexing away during door operation.)



## SECTION 9: FINAL HINGE ADJUSTMENT

**21.** After remaining installation fasteners have been installed and all hinge screws are in, final adjustments can be made by adding and removing shims and loosening and tightening installation screws both interior and exterior.

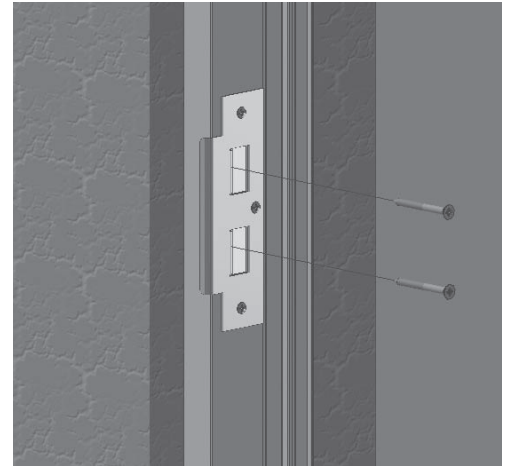
Seal fastener heads on all frame screws.



## SECTION 9: SINGLE DOOR JAMB

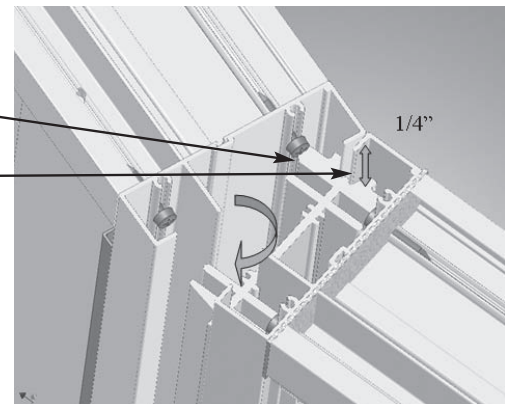
**22.** Installation Screws should be installed through the strike holes into the cup backing up the strike plate.

**Note:** This will stabilize the single door jamb, preventing other trades from bowing the jamb into the door slab



## SECTION 10: SIDELITE & SEAL I-BEAM (MULL) ASSEMBLY

**23.** First snap I-beam on to door jamb or sidelite (whichever is more convenient). This is done by first hooking the frame onto heavier I-beam side at exterior frame and snap into place as shown. Be sure I-beam is centered on jamb leaving 1/4 inch recess at each end of frame.



## SECTION 11: SIDELITE I-BEAM (MULL) ASSEMBLY

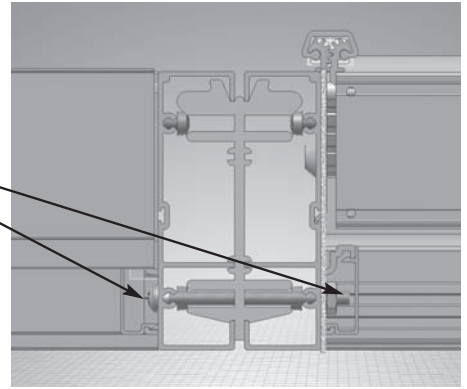
**24.** After snapping the mull bar in place. Insert 10-24 x 2½" machine screws with 10-24 lock nut through inside jamb install holes.

**Notes:** The screw are best inserted using your screw gun to thread it through the holes.



**25.** This is another sectional view showing the 10-24 x 2½” screen in place.

**Note:** The screws are best inserted using your screw gun to thread it through the holes. Be sure that the screw head is on the sidelite side (there is more space for the threaded end on the operating door side.)

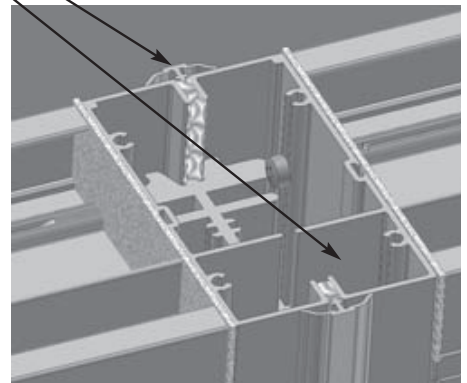
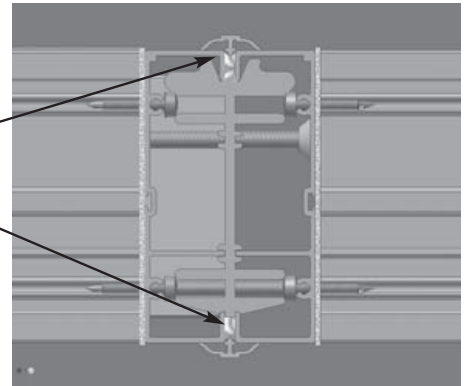


## SECTION 12: FINAL TRIM I-BEAM (MULL) ASSEMBLY

**26.** After completing sidelite assembly, the joint where the I-beam shows through must be sealed full length as shown

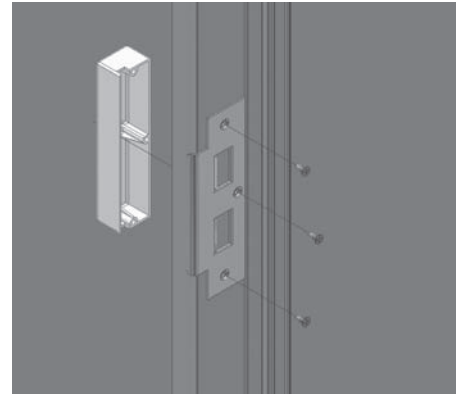
After applying sealant full length, a trim piece is applied running the full length of the joint.

**Note:** As a precautionary measure before sealing this joint. Filling the hollow cavity between the frames at the sill end, with an AAMA approved foam sealant, This will prevent water from infiltrating this area.



## SECTION 13: SINGLE DOOR JAMB AT I-BEAM (MULL)

27. Jamb backup cup must be removed when attaching to I-beam. Remove Three #8 undercut screws. Remove backup cup and replace the strike plate using the same undercut screws, taking care not to strip the holes.

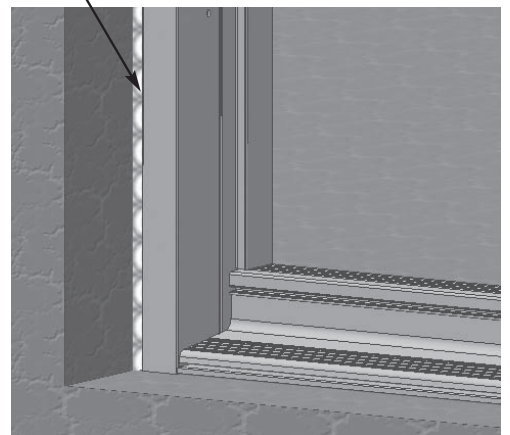
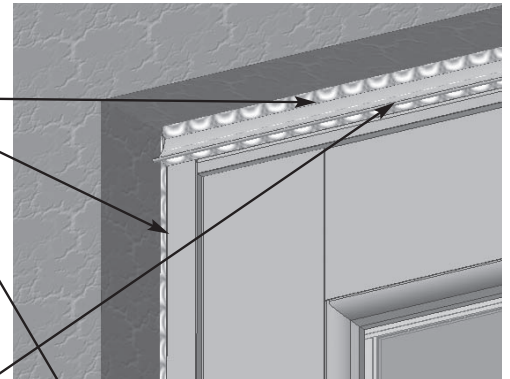


## SECTION 14: FINAL PERIMETER SEAL

28. After tightening all the fasteners and making final adjustments. Seal the full perimeter of the jamb, head and sill where it meets the wall. Use backer rod where necessary.

Seal joint between drip cap and frame.  
Seal fastener heads on all screws.

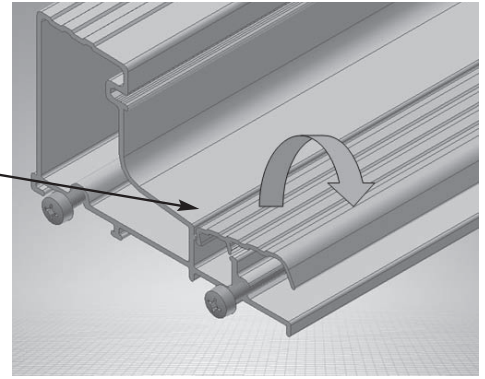
**Note:** This will not be necessary if sealant was applied to drip cap full length before snapping onto head.



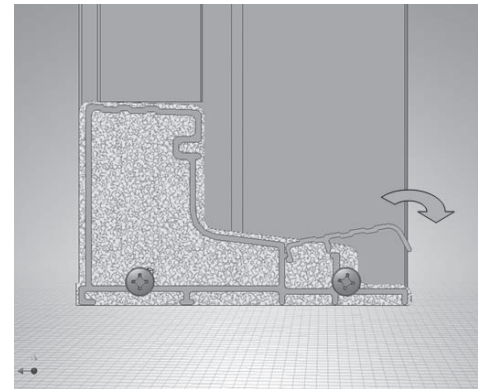
## SECTION 15: SILL COVER INSTALLATION

**29.** To install the sill cover place cover into sill so that the leading rounded edge is hooked under the rounded leg protruding from the sill.

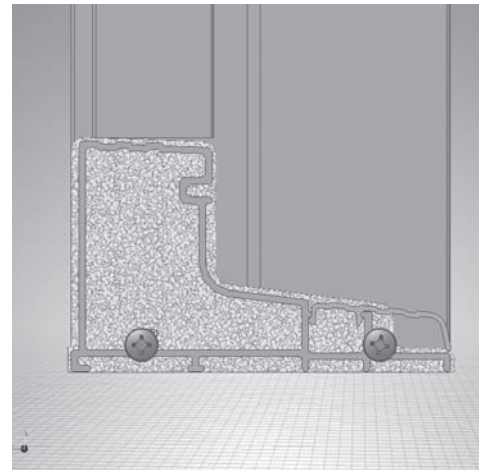
After sill is hooked under swing cover toward exterior as the arrow shows and snap into place (see following cross section for more detail).



**30.** This is an alternate end view showing how the sill cover actually intersects and snaps with the sill. A mallet or hammer with a wood block will assist in snapping the cover in place.



**31.** This view shows the sill cover in its final position.

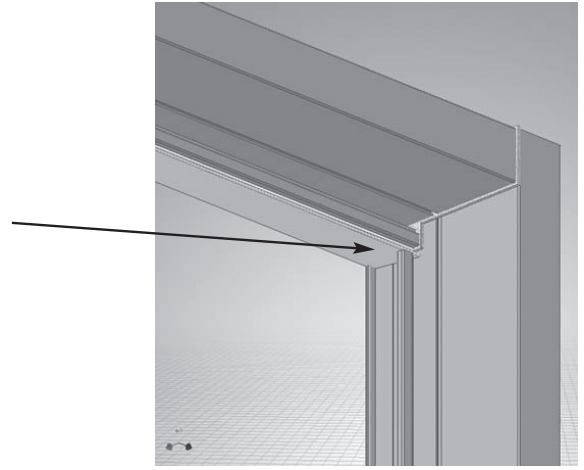


## SECTION 16: SCREW COVER AT HEAD

**32.** This view showing the insertion of the screw cover at the head.

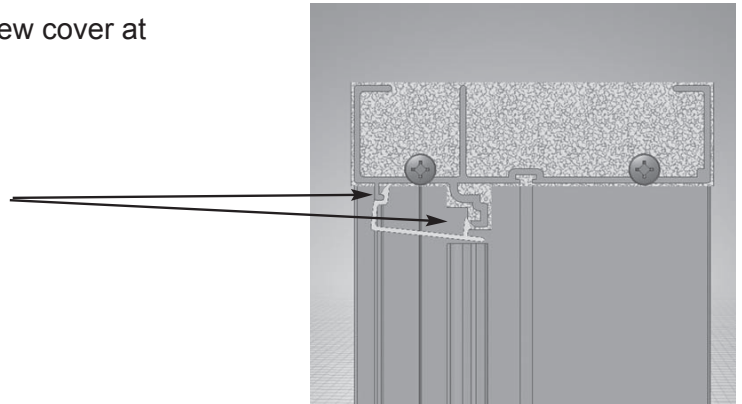
**Note:** The cover runs full length and sits on top of notch before snapping in place.

See next views for more detail.



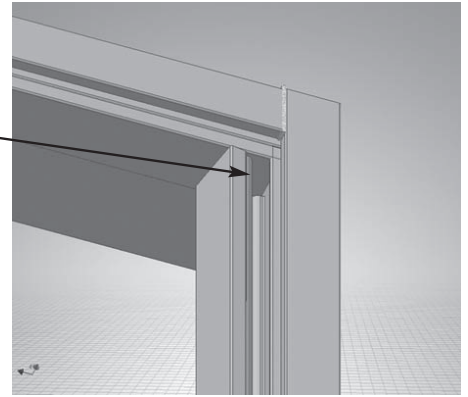
**33.** This is a cross section showing insertion of the screw cover at the head.

The cover is seated into the interior leg.  
Then snapped in place at the middle leg.



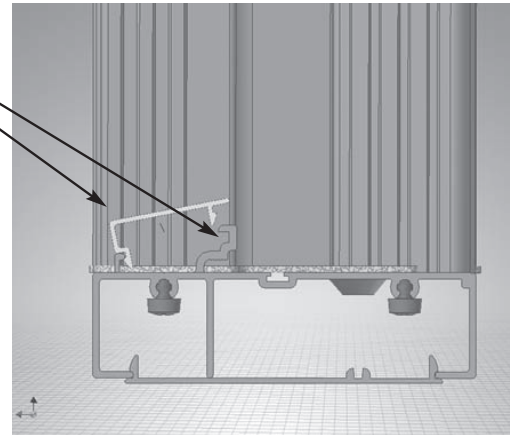
## SECTION 17: SCREW COVER AT JAMB

**34.** This view shows insertion of the screw cover at the jamb after the head is set in place.



**35.** This is a cross section showing insertion of the screw cover at the jamb. First seating into the interior leg, then snapping into the center leg as shown.

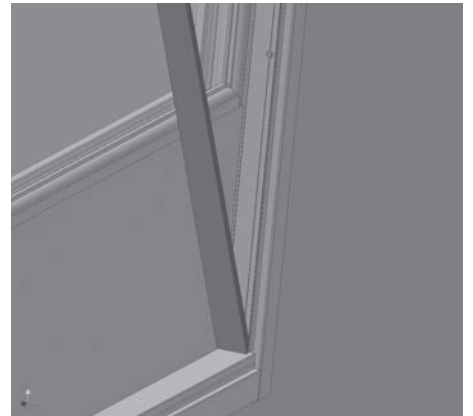
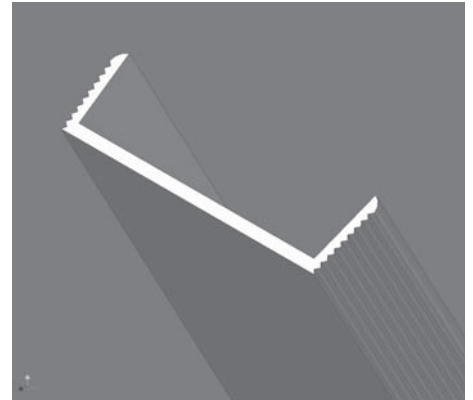
**Hint:** Holding a short 2 x 4 (approx. 18") at one end and hitting it uniformly against the screw cover will snap it into place without damage.



## SECTION 18: SCREW COVER AT NARROW SIDELITE JAMB

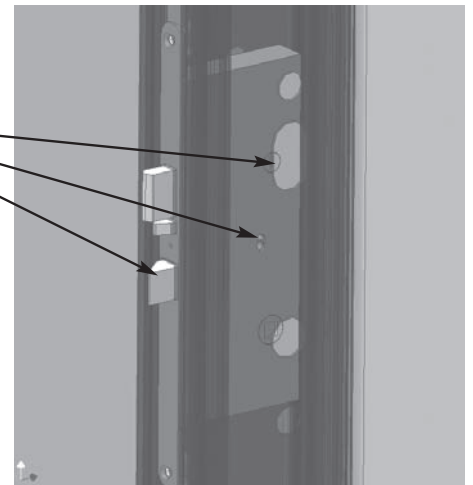
**Note:** The jambs on Narrow Sidelites have channel type screw cover that has a friction fit (see picture right).

**36.** Start at one end, head or sill, fitting the channel into the pocket shown and drive in the full length using a soft mallet or hammer and block.



## SECTION 19: REVERSING LATCH LEVER

**36.** If the latch is beveled on the wrong side, the gear latch ass'y has a switch for reversing the lock. Feed a hard wire with a pre-bent hook or large paper clip down through the oval hole and hook into switch and pull.





## SECTION 20: SHOOT BOLT GUIDE ADJUSTMENT

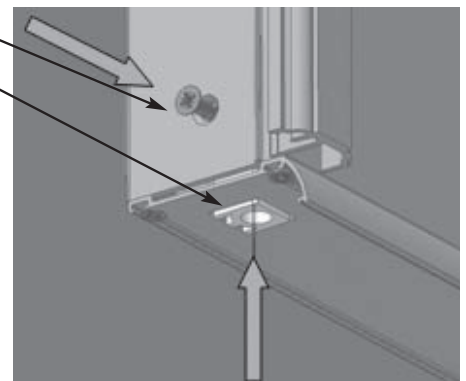
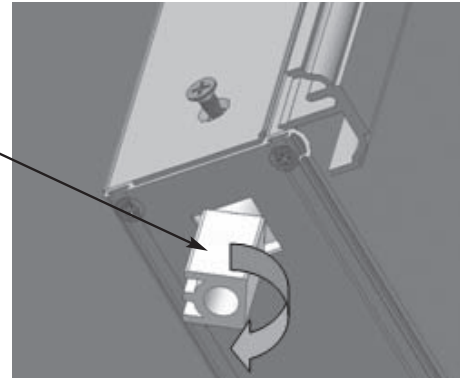
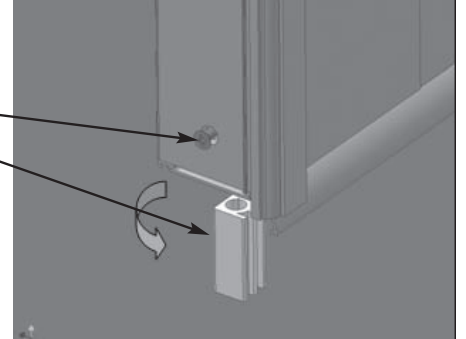
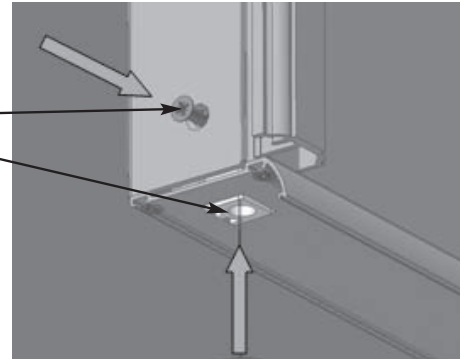
**Note:** Door slab may need to be taken off if there is not enough space under the slab.

**38.** Loosen screw approximately 1/4" to 3/8". Be careful not to back screw completely out. If this happens, reinsert to just a couple of threads. Grab hold of pin using needle nose pliers or similar tool.

**Note:** Active slab is at its loosest setting. The inactive is at its tightest setting. To loosen inactive panel, 3 serrations in the shootbolt guide must face opposite astragal. To tighten the active slab, the serrations must face opposite astragal.

**39.** Rotate pin 1/2 turn (180°). Slide back into square slot while re-aligning the rod with the hole. Allow the guidepin to project slightly (1/16") out from the sweep.

Re-tighten screw.



## SECTION 21: HARDWARE

**Note:** Door slab may need to be taken off if there is not enough space under the slab.

**40.** Lock is designed with a safety trigger (black button above the latch bolt). The door must be closed to engage this button before the deadbolt or shoot bolts can be engaged.



**41.** Lifting the handle upwards engages the shoot bolts into the head and sill of the door frame

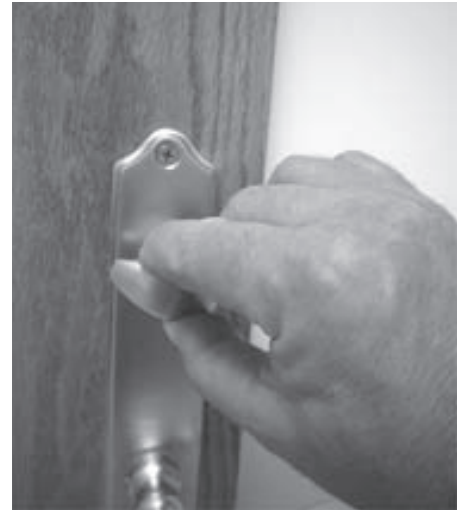


**42.** Deadbolt is engaged by rotating the thumb turn on the interior or the key on the exterior of the door



## SECTION 21: HARDWARE

**43.** Rotation of one quarter turn engages the dead bolt. When the shoot bolts and the deadbolts are properly engaged the handle will not rotate until the dead bolt is disengaged.



**44.** The dead bolt can be engaged prior the lifting the handle and engaging the shoot bolts



## **Final Work Notes**

### **FD 650 / 750**

When hanging door slab be careful not to over torque hinge screws. Stainless steel alloys are softer than conventional steel screws and the heads are prone to breakage.

Plastic horseshoe shims work best for frame installation

After tightening all the fasteners and making final adjustments. Seal the full perimeter of the jamb where it meets the wall. Use backer rod where necessary.

When sidelites are installed: Seal the joint at mull between the jambs both interior and exterior.

Recommended sub sill installation instructions for units with sidelites (Next Page)

# French Door 650/750

## Recommended Sub Sill Installation Instructions for Units with Sidelites

**The door main frame should be assembled but not installed in the opening.**

**1)** Predrill the sub sill jambs with two drill holes on each side of the jamb as shown below. Drill location is 1/2" measured down from the top and 1/2" measured in from the side. (See Figure 1)



Figure 1

**2)** Place the sub sill on the door and predrill installation holes through the sub sill.

**3)** Remove the sub sill and clean dust and metal shavings.

**4)** Run a continuous 3/8" bead of sealant along the inside edge of the sub sill (where it will meet the inside edge of the door and/or sidelite). Run a 3/8" bead on the inside of the sub sill jambs at 1/2" from the top and down the front. (See Figure 2)



Figure 2

**5)** With the door lying down, place the sub sill on the bottom of the door and attach the sub sill to the door jamb with self tappers drilled into the four predrilled holes in the sub sill jambs. These screws are used to hold the sub sill in place during installation only.

**6)** Refer to existing instructions on prefiting the door and drilling your install holes.

**7)** Just prior to installing the door, apply sealant to the bottom and sides of the sub sill as well as the floor. Run 3 beads (3/8") in groves 1,2,4 as shown. (See Figure 3)

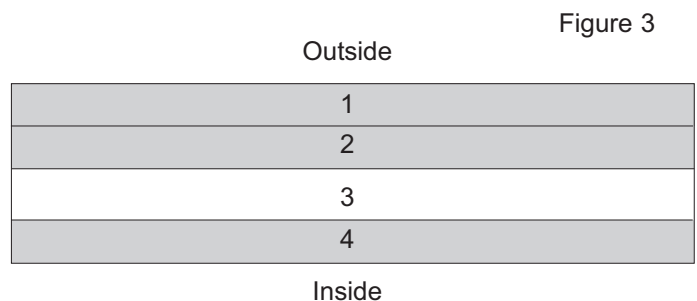
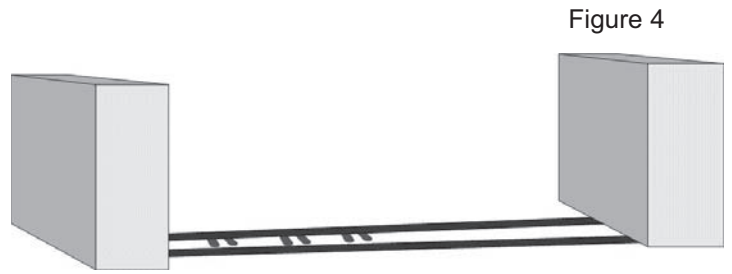


Figure 3

**8)** If shims are required for un-level floors, place the shims on the sill after the sealant has been laid. Apply a bead of sealant over the shims to ensure a watertight bedding condition. (See Figure 4)

**9.)** Apply sealant into installation holes in the threshold before inserting the fasteners. After the fasteners are inserted, cover the heads with sealant.







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03/2018 MA0200620

