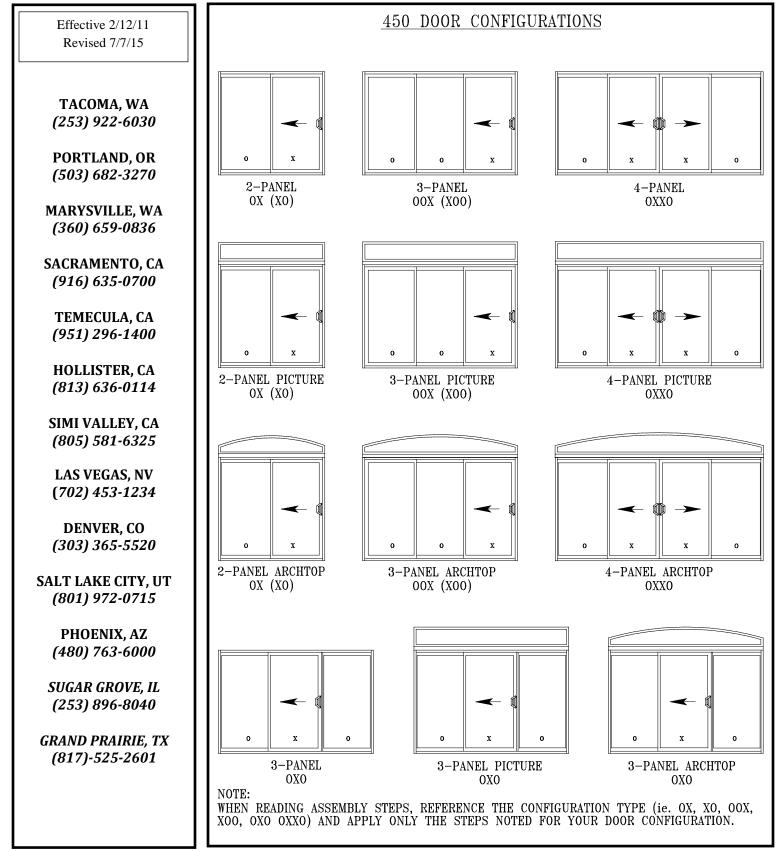


450 SERIES SLIDING GLASS DOOR ASSEMBLY AND INSTALLATION INSTRUCTIONS



450 KD DOOR PARTS LIST

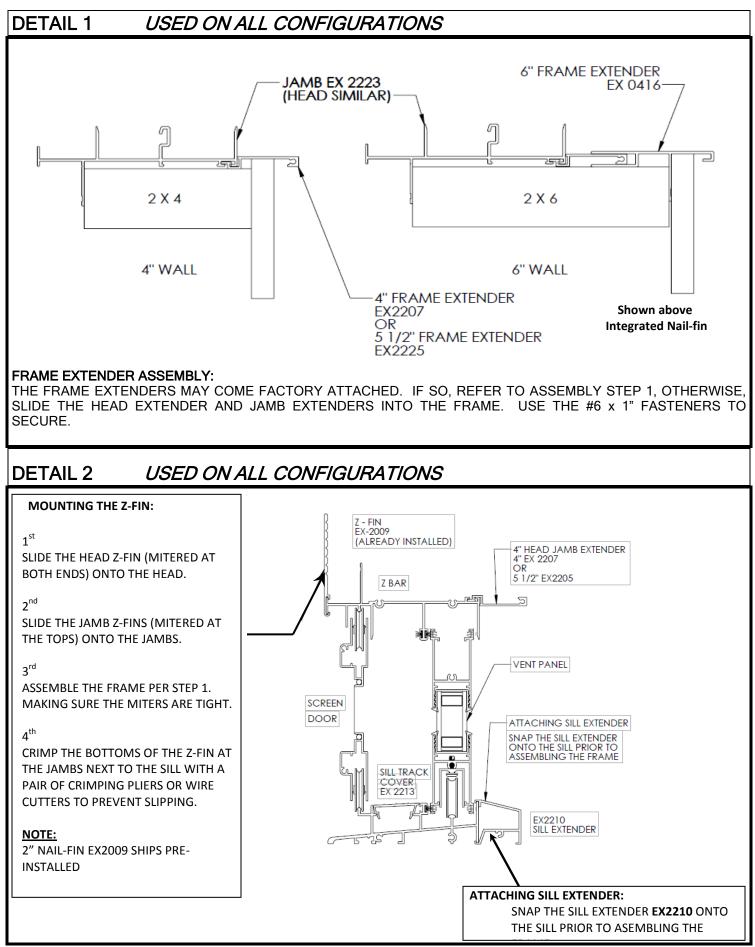
IMPORTANT:

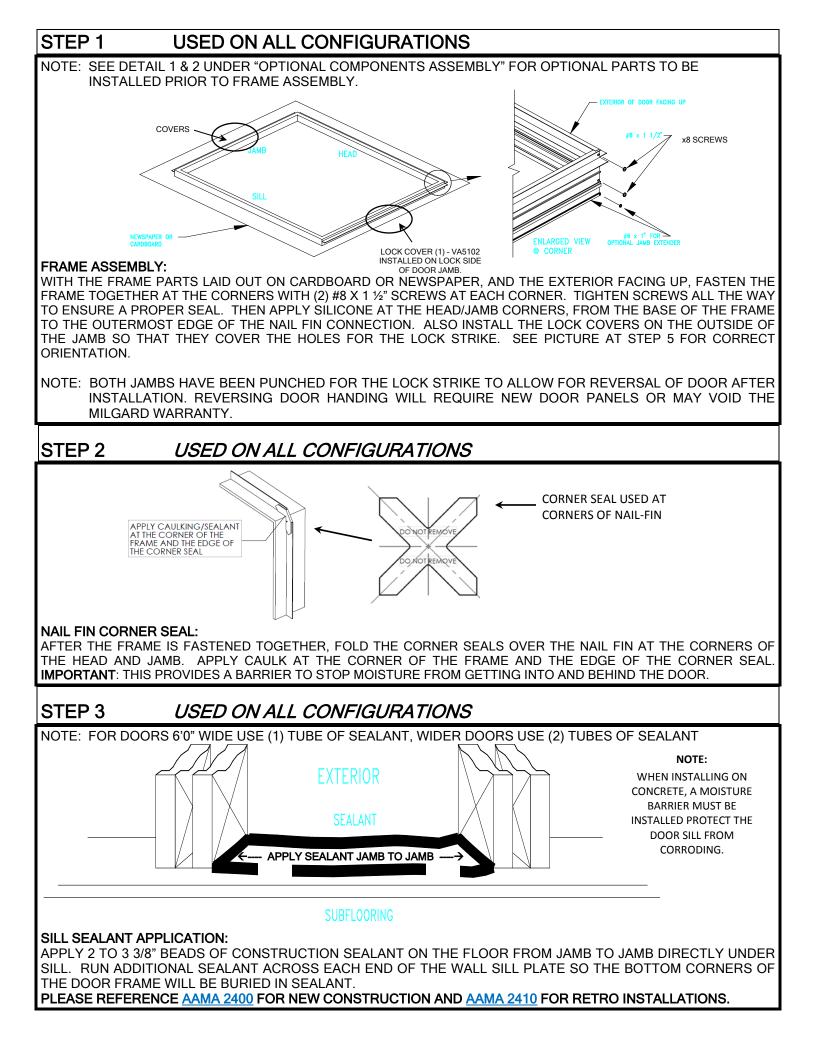
BEFORE STARTING THE INSTALLATION OF THE DOOR, PLEASE READ THROUGH THE INSTRUCTIONS. VERIFY THAT YOU HAVE THE REQUIRED PARTS FOR YOUR DOOR CONFIGURATION AND ANY OPTIONAL PARTS THAT MAY BE REQUIRED FOR YOUR PARTICULAR INSTALLATION. IF YOU ARE USING OPTIONAL PARTS FOR YOUR DOOR CONFIGURATION, REFER TO THE "OPTIONAL COMPONENTS ASSEMBLY" ON THE FACING PAGE FOR INSTRUCTION PRIOR TO STARTING.

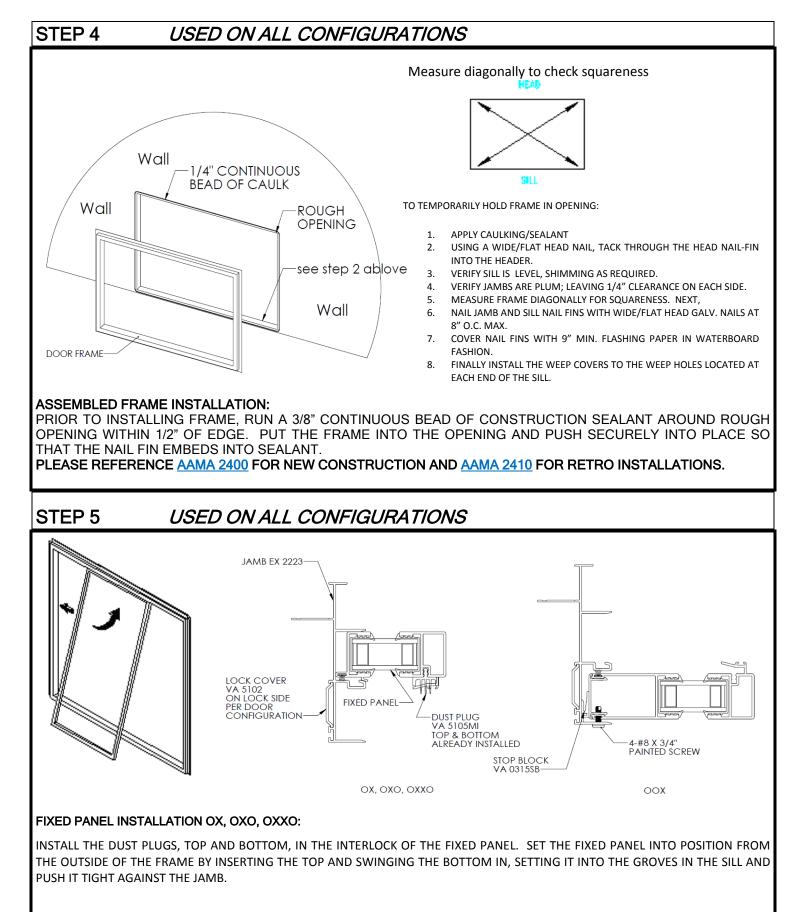
NOTE: IN THE FOLLOWING STEPS TO ASSEMBLY, THE OX AND OOX CONFIGURATION INSTRUCTIONS SHOWN ARE THE SAME FOR THE XO AND XOO CONFIGURATIONS.

REQUIRED PARTS		OPTIONAL PARTS					
	SILL - EX2230 QTY = 1-OX, OOX, OXO, OXXO		4" FRAME EXTENDER - EX2207 OR EX225 QTY = 3-OX, XO, OXO, OXXO				
	HEAD - EX2222 QTY = 1-OX, OOX, OXO, OXXO		6" FRAME EXTENDER - EX0416 QTY = 3-XO, OX, OXO, OXXO				
	JAMB - EX2223 QTY = 2-OX, OOX, OXO, OXXO		SILL EXTENDER - EX2210 QTY = 1-XO, OX OXO, OXXO				
(Shipped Installed)	LOCK STILE COVER - EX2212 QTY = 1-OX, OOX, OXO, 2-OXXO		3 PANEL ADAPTER EX9042 & EX2223 QTY = 1-OXO, 1 OOX				
	NAIL-FIN CORNER SEAL (Do Not Remove) - LA0218MM QTY = 2		FASTENERS				
E.	SILL TRACK COVER - EX2213 QTY = 1-OX, OOX, OXO, OXXO	((////////////////////////////////////	<u>ox</u> 2	<u>00x</u> 2	<u>oxo</u> 2	<u>oxxo</u> 2
(Shipped Installed)	DUST PLUG - VA5105MI QTY = 1-OXO, 2-OXXO, 3- OOX	(∫### #8 x ½" (PAINTED)	10	5	19	15
	SASH BUMPER - HA0165MI QTY = 1-OX, OOX, OXO, 2-OXXO	ĺ					
	JAMB RETAINER CLIP - EX2208 QTY = 1-OX, 3-OXO, 2-OXXO		#8 x ¾"	1	5	4	2
la l	FIXED PANEL L-CLIP - FA0210CP QTY = 2-OX,OOX, 3-OXO, 4-OXXO	((8	8	8	8
	SILL WEEP COVER - IM0522CV QTY = 2-OX, 3-OOX & OXO, 4-OXXO (greater than or = to 12' wide)		#8 x 1-1/2"	2	2	2	2
	LOCK COVER - VA5102 QTY = 2-OX, OOX, OXO, OXXO	((+/////////////////////////////////////				
	STOP BLOCK - VA0315SB QTY = 2-OOX		#8 x 2-1/2"				

OPTIONAL COMPONENTS ASSEMBLY







FIXED PANEL INSTALLATION OOX:

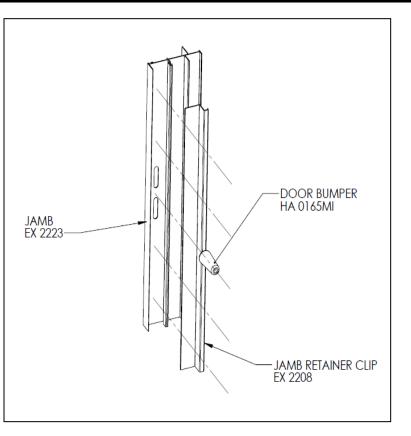
INSTALL THE DUST PLUGS, TOP AND BOTTOM, IN THE INTERLOCK OF THE FIXED PANEL. INSERT THE STOP BLOCKS IN THE TOP AND BOTTOM OF THE JAMB WHERE THE FIXED PANEL BUTTS AGAINST. SET THE FIXED PANEL INTO POSITION FROM THE INSIDE OF THE FRAME BY INSERTING THE TOP AND SWINGING THE BOTTOM IN, SETTING IT INTO THE GROVES IN THE SILL AND PUSH IT TIGHT AGAINST THE JAMB.

STEP 6

USED ON OX, OXO, OXXO; FOR OOX, PROCEED TO STEP 7

SECURING FIXED PANEL TO JAMB:

- 1. USING ONE PIECE FIXED PANEL RETAINER CLIP, PROVIDED, SECURE THE FIXED PANEL.
- 2. INSTALL THE RETAINER CLIP WITH (4) #8 X 1/2" SELF TAPPING SCREWS PROVIDED IN THE DOOR KIT AS SHOWN. CENTER THE DOOR STOPPER BETWEEN THE HEAD AND JAMB.
- 3. ATTACH CLIP USING THE #8 X 3/4" SELF TAPPING SCREWS.
- 4. REFER TO CONFIGURATION DIAGRAMS ON THE LAST PAGE FOR ALL DOOR STOP PLACEMENTS.

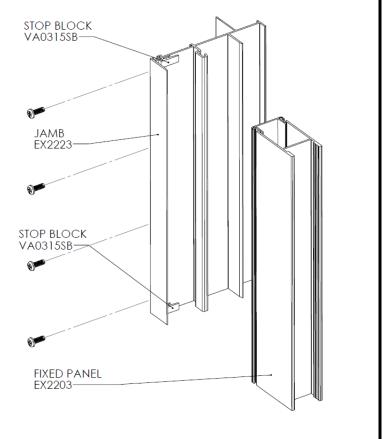


STEP 7

USED ON OOX ONLY; OTHER CONFIGS PROCEED TO STEP 8

SECURING FIXED PANEL TO JAMB:

- 1. INSTALL STOP BLOCKS AT THE TOP AND BOTTOM OF FRAME JAMB USING A PIECE OF TAPE TO HOLD THEM IN PLACE.
- 2. SLIDE THE FIXED PANEL AGAINST THE STOP BLOCKS.
- 3. USE (4) #8 x 3/4" SCREWS TO SECURE FIXED PANEL TO FRAME.



STEP 8

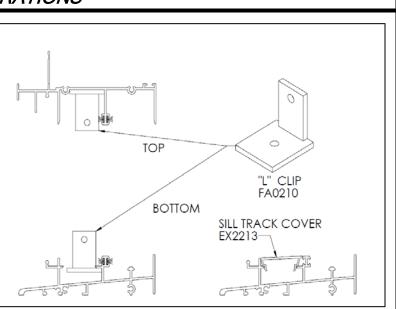
USED ON ALL CONFIGURATIONS

L-CLIP INSTALLATION:

INSTALL AN L-CLIP AT THE TOP OF EACH FIXED PANEL BY TURNING THE BASE TOWARDS THE CENTER OF THE DOOR AND FASTEN TO THE HEAD AND STILE WITH (2) $\#8 \times 1/2''$ SCREWS.

INSTALL AN L-CLIP AT THE BOTTOM OF EACH FIXED PANEL BY TURNING THE BASE UNDERNEATH THE STILE **AND PUSHING IT AS FAR TO THE INSIDE AS POSSIBLE AND LIFTING UPWARD AS SHOWN SO THAT IT HOOKS IN THE SILL.** FASTEN THROUGH THE FLANGE TO THE **STILE** WITH (1) #8 x 1/2" PAINTED SCREW.

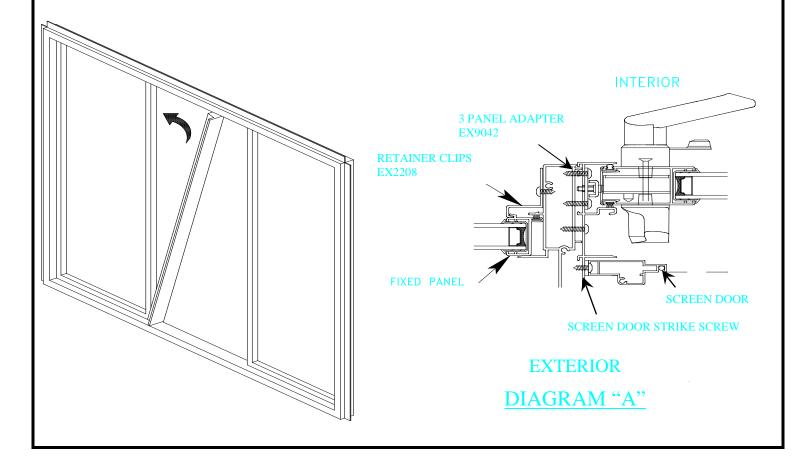
*DO NOT FASTEN BOTTOM L-CLIP TO THE SILL!



STEP 9 USED ON OXO ONLY; OTHER CONFIGS PROCEED TO STEP 10

3-PANEL ADAPTER INSTALLATION:

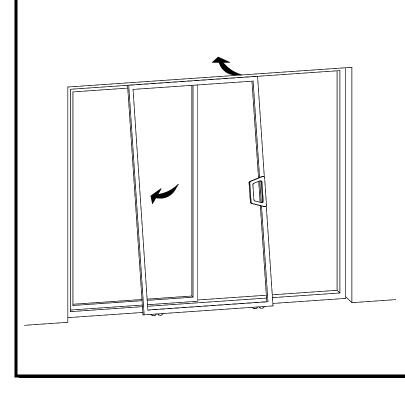
ONCE BOTH FIXED PANELS ARE SECURED INTO PLACE, TAKE THE 3-PANEL ADAPTER ASSEMBLY (SEE DIAGRAM "A") AND ORIENT AS SHOWN. ANGLE THE BOTTOM INTO THE SILL FIRST AND ROTATE THE TOP INTO PLACE. PUSH TIGHT AGAINST THE PANEL. NEXT, FASTEN THE ONE PIECE RETAINER CLIP, PER STEP 6 (REPLACE THE 1 1/2" SCREWS WITH 1/2" SELF TAPPING SCREWS), TO THE ASSEMBLY. FASTEN THE TOP ONLY OF THE ASSEMBLY TO THE HEAD SIMILAR TO STEP 8.

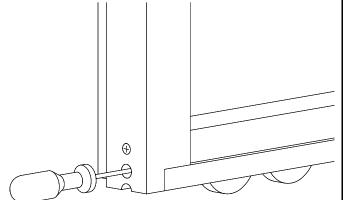


STEP 10 USED ON ALL CONFIGURATIONS

VENT PANEL INSTALLATION:

- 1. SET VENT PANEL INTO POSITION FROM INSIDE OF FRAME BY INSERTING TOP FIRST AND SWINGING IN BOTTOM.
- 2. OPERATE VENT PANEL TO VERIFY ROLLERS ARE CORRECTLY RIDING ON TRACK; SHOULD SLIDE SMOOTHLY.
- 3. INSERT #2 PHILIP SCREW-DRIVER INTO HOLES AT EACH BOTTOM END OF VENT TO ADJUST HEIGHT OF VENT PANEL.
- 4. ADJUST SO LOCK STILES PARALLEL JAMB AND INTERLOCKS. ON A 4-PANEL OXXO DOOR, ADJUST BOTH VENT PANELS SO THAT THE LOCK HANDLES AND INTERLOCKS LINE UP.



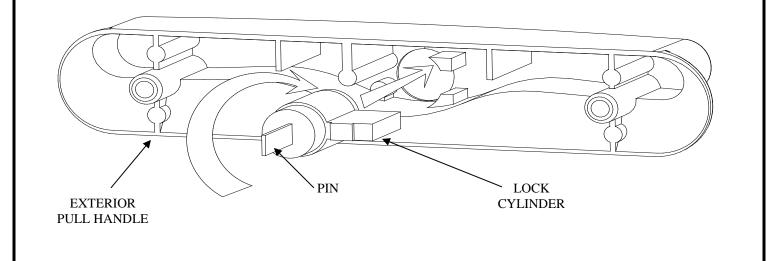


TO RAISE CORNER: TURN CLOCKWISE TO LOWER CORNER: TURN COUNTERCLOCKWISE

STEP 11 FOR KEYED LOCKS ONLY (OPTIONAL) - ALREADY INSTALLED

INSTALLING THE LOCK KEY CYLINDER:

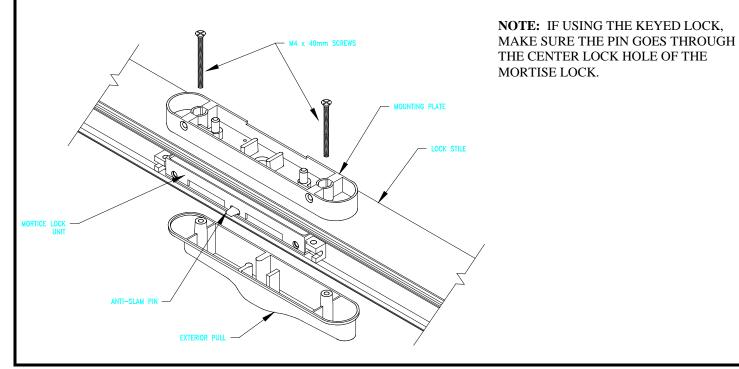
- 1. TRIM THE PIN DOWN SO THAT IT PROTRUDES 5/8" FROM THE END OF THE CYLINDER.
- 2. HOLDING THE LOCK CYLINDER SO THE PIN IS FACING YOU (AS SHOWN), TURN PIN ALL THE WAY CLOCKWISE UNTIL IT STOPS.
- 3. ORIENT THE LOCK CYLINDER TO THE EXTERIOR PULL HANDLE AS SHOWN, AND INSERT LOCK CYLINDER AS SHOWN. MAKE SURE THE PIN IS STILL ROTATED ALL THE WAY CLOCKWISE.



STEP 12 USED ON ALL CONFIGURATIONS - ALREADY INSTALLED

DOOR LOCK INSTALLATION:

PLACE THE MORTISE LOCK UNIT INTO THE LOCK STILE MAKING SURE THAT THE LOCK IS SITTING SQUARELY IN THE LOCK CAVITY. USING THE EXTERIOR PULL AND MOUNTING PLATE, ASSEMBLE AS SHOWN. PLACE THE TWO M4 × 40MM COUNTERSUNK SCREWS THROUGH THE MOUNTING PLATE AND SCREW THEM INTO THE EXTERIOR PULL. BEFORE TIGHTENING SCREWS, INSTALL THE LOCK STYLE COVER.



STEP 13 USED ON ALL CONFIGURATIONS

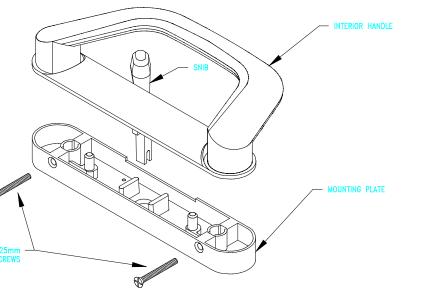
DOOR HANDLE INSTALLATION:

PLACE THE SNIB THOUGH THE MOUNTING PLATE AND INTO THE CENTRAL SQUARE IN THE LOCK UNIT. ENSURE THAT THE SNIB IS SITTING FULLY IN THE LOCK UNIT.

NOTE: THE SNIB CAN BE INSTALLED IN TWO DIFFERENT POSITIONS. PRESS IN THE ANTI-SLAM PIN AND CHECK THE OPERATION OF THE LOCK TO ENSURE THAT THE SNIB IS IN THE CORRECT POSITION BEFORE CONTINUING. ALSO, IF USING A KEYED LOCK, THE SNIB MUST FIT OVER THE PIN, THEREFORE THE PIN MUST BE CENTERED IN THE LOCK HOLE BEFORE THE SNIB CAN BE INSERTED PROPERLY.

PLACE THE INTERIOR HANDLE ONTO THE MOUNTING PLATE AS SHOWN. ENSURE THAT THE SNIB FITS CORRECTLY INTO THE UNDERSIDE OF THE INTERIOR HANDLE AND THAT THE HANDLE FITS FULLY ONTO THE MOUNTING PLATE. PLACE THE TWO COLOR MATCHED M4 x 25mm COUNTERSUNK SCREWS IN THE TWO HOLES IN THE SIDE OF THE MOUNTING PLATE AND TIGHTEN.

THE LOCK AND HANDLE ARE NOW INSTALLED. PRESS IN ANTI-SLAM OPERATION OF THE LOCK BEFORE CONTINUING.

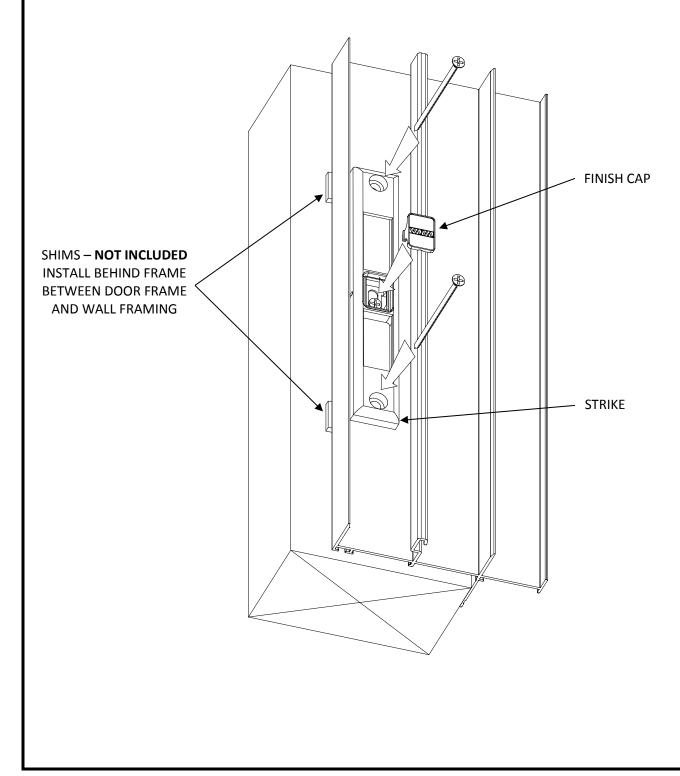


STEP 14 USED ON OX, OOX, OXO ONLY

STRIKE AND LOCK ADJUSTMENT:

THE CENTER ADJUSTING SCREW, STRIKE, AND FINISH CAP ARE PROVIDED IN THE HARDWARE PACK.

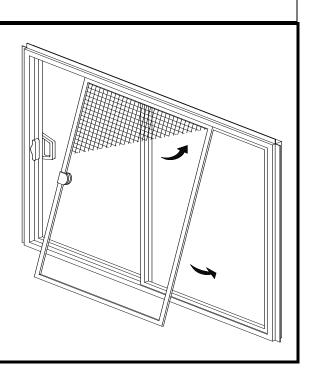
- 1. WITH PANEL ADJUSTED; ENGAGE LOCK BEAKS. IN LOCK JAMB, CENTER STRIKE WITH LOCK BEAKS.
- 2. HOLD STRIKE INPLACE AND SECURE STRIKE USING SUPPLIED SHORT CENTER SCREW.
- 3. TIGHTEN THE CENTER SCREW, BEING CAREFUL NOT TO OVER TIGHTEN.
- 4. CHECK TO MAKE SURE THE DOOR LOCKS PROPERLY.
- 5. THEN INSERT SHIMS BETWEEN THE WALL AND THE DOOR FRAME UNDER THE STRIKE AS SHOWN.
- 6. NEXT, INSERT THE TWO 2-1/2" SCREWS INTO THE TOP AND BOTTOM HOLES OF THE STRIKE.
- 7. FINALLY, INSTALL THE FINISH CAP OVER THE CENTER SCREW.



STEP 15 USED ON ALL CONFIGURATIONS

SCREEN INSTALLATION:

- 1. POSITION THE SCREEN SO THE LOCK HANDLE IS ON THE INSIDE TOWARDS THE LOCK JAMB ON OX AND OOX, AGAINST THE 3-PANEL ADAPTER ON OXO MODELS, AND FACING THE OPPOSITE SCREEN ON OXXO MODELS.
- 2. STANDING OUTSIDE, LIFT THE SCREEN INTO THE CHANNEL AT THE HEAD AND SWING THE BOTTOM IN AND ONTO THE SCREEN ROLLER TRACK AT THE SILL.
- 3. STARTING WITH THE BOTTOM, ADJUST ALL FOUR CORNERS BY INSERTING A PHILIP SCREWDRIVER IN THE ADJUSTMENT HOLE AND TURNING CLOCKWISE TO RAISE THE WHEELS. (AT THE INTERLOCK SIDE, IT WILL BE NECESSARY TO FIRST PEEL BACK THE SOFT VINYL BUG STRIP TO GET TO THE ADJUSTMENT SCREWS.)
- 4. WHEN COMPLETED, THE SCREEN JAMB SHOULD BE PARALLEL WITH THE JAMB AND INTERLOCK.



REVERSING THE 450 DOOR

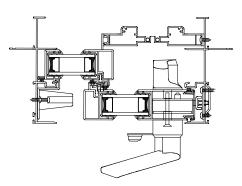
ANY REVERSING OF DOOR HANDING NOT PERFORMED BY A MILGARD EMPLOYEE MAY VOID THE MILGARD WARRANTY

2 PANEL: XO OR OX MODELS - 6' 8" AND 6' 10":

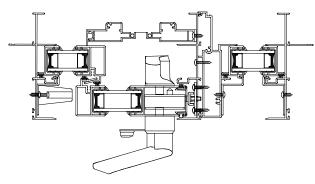
- 1. REMOVE THE VENT PANEL
 - ADJUST WHEELS AT EACH END OF THE PANEL UP INTO RAIL FOR CLEARANCE.
 - LIFT PANEL UP INTO THE HEAD AND PULL THE BOTTOM OUT OF THE SILL TOWARDS THE INTERIOR OF THE BUILDING.
- 2. REVERSE THE ROLLERS
 - UNSCREW THE ROLLERS FROM THE BOTTOM RAIL.
 - LAYING THE PANEL ON THE INTERLOCK SIDE, RE-ATTACH THE ROLLERS ON THE OTHER END WITH A POWER DRIVER UNTIL SCREWS ARE FIRMLY SEATED
- 3. REMOVE FIXED PANEL
 - REMOVE SILL COVER WITH A FLAT HEAD SCREW DRIVER.
 - REMOVE CLIPS AT TOP AND BOTTOM OF INTERLOCK AND RETAINER CLIP AT JAMB.
 - PULL PANEL TOWARDS CENTER OF DOOR AND LIFT UP AND OUT TOWARDS EXTERIOR OF BUILDING.
- 4. RE-INSTALL FIXED PANEL
 - CARTWHEEL PANEL 180 DEGREES.
 - RE-INSTALL ON OPPOSITE SIDE OF FRAME BY REVERSING THE INSTRUCTIONS IN STEP 3
- 5. SWITCHING THE STRIKE
 - REMOVE LOCKING STRIKE FROM JAMB AND ATTACH TO OTHER JAMB IF DOOR IS ALREADY INSTALLED. IF YOU ARE ASSEMBLING THE DOOR FROM THE START SIMPLY SWITCH THE JAMBS WITHOUT REMOVING THE STRIKE.
 - RE-ATTACH THE RETAINER CLIP AND BUMPER OVER THE UNPUNCHED HOLES AT THE FIXED JAMB.
- 6. RE-INSTALL VENT PANEL
 - MAKING SURE THE ROLLERS ARE ON THE BOTTOM, AND THE LOCK IS TOWARDS THE JAMB, RE-INSTALL BY REVERSING STEP 1.
 - READJUST WHEELS TO LINE STILES U WITH THE JAMBS AND INTERLOCK AND LOCK HANDLE. ADJUST STRIKE FOR PROPER LOCK OPERATION. (SEE STEP 13).

3-PANEL: OXO MODELS - 6' 8" TO 7' 0": (DOORS OVER 7' 0" ARE NOT REVERSIBLE)

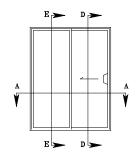
- 1. FOLLOW STEPS 1-4 ABOVE, REVERSING BOTH FIXED PANELS
- 2. CARTWHEEL THE 3-PANEL ADAPTER ASSEMBLY 180 DEGREES AND RE-ATTACH TO FIXED PANEL PER STEP #9.
- 3. FOLLOW STEP #6 ABOVE.



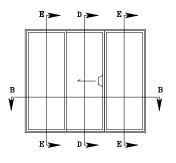
2 PANEL X0;0X HORIZONTAL SECTION A-A



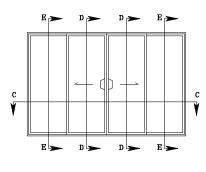
3 PANEL OXO HORIZONTAL SECTION B-B



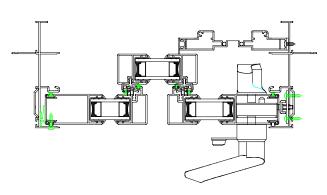
X0;0X



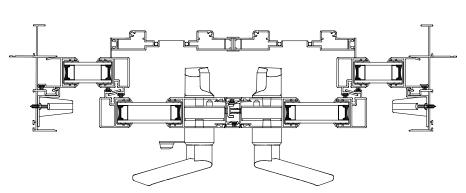




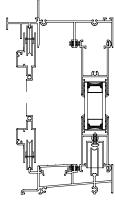




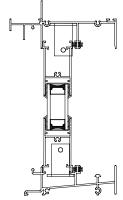
3 PANEL OOX SIMILAR TO HORIZONTAL SECTION B-B



4 PANEL OXXO HORIZONTAL SECTION C-C



VERTICAL SECTION D-D VENT (SASH) PANEL



VERTICAL SECTION E-E FIXED PANEL