CASCO SLIDING PATIO DOOR

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR TWO PANEL UNITS

- SP PRIMED WOOD
- PP PRIMED WOOD
- CP ALUMINUM CLAD WOOD
- FP FRENCH ALUMINUM CLAD WOOD

SUPPLEMENTARY INSTRUCTIONS FOR:

- FOUR PANEL OXXO UNIT
- STATIONARY SIDELIGHT UNIT
- MULLING INSTRUCTIONS
- TROUBLESHOOTING AIR/WATER INFILTRATION
- FINISHING INSTRUCTIONS
- PREPARING THE ROUGH OPENING

ASSEMBLY TOOLS NEEDED

NOTE: PREFINISHING OF ALL COMPONENTS PRIOR TO ASSEMBLY IS RECOMMENDED, BUT NOT NECESSARY EXCEPT FOR TOP AND BOTTOM OF STATIONARY PANEL (SEE STATIONARY PANEL INSTALLATION).

NOTE: IT IS IMPORTANT TO SAFELY REMOVE OLD PRODUCT AND TO MANAGE THE DISPOSAL OF HARMFUL MATERIALS PROPERLY.

- Window & Door products can be heavy. Always take precautions and have an adequate number of personnel available to prevent damage and injury.
- Follow safety instructions provided by power tool manufacturer for equipment used in the removal and installation of widow and door products.
- Structures built prior to 1978 may contain leaded paint products. Visit www.epa.gov/lead for information about managing lead paint waste.

RECYCLING AND/OR DISPOSAL OF REMOVED DOORS OR WINDOWS

Contact local authorities or waste management companies for proper recycling and/or disposal of removed window or patio door.
PART 1: ASSEMBLY OF DOOR UNIT

FRAME ASSEMBLY

1. Lay frame parts out on clean and level surface.

2. Apply silicone caulking at ends of head jamb around the cladding and wood components as shown. This will allow significant enough coverage for a complete seal.

For wood brickmould unit go to step 6

3. Insert metal corner keys into head aluminum brick moulding as shown.

4. Slide the ends of the key into the corresponding slot in the aluminum side brick moulding.
5. Insert screws to join header securely to side jambs.

6. Pre-drill holes through header into side jamb.

7. Attach header to side jambs using the screws provided for each corner. Remove excess caulking material. Fill any voids in mitered aluminum with caulk.

For wood brickmould unit do not apply caulk to exterior visible surfaces. This will prevent paint from adhering to wood.
8. Apply full 1/4” bead of silicone caulk along sill end plug as shown. This will ensure silicone will spread out sufficiently to prevent water from infiltrating through seam between sill and side jamb.

9. Caulk bottom of center parting stop as shown.

10. Attach sill to side jambs using the screws provided with the sill. Be sure the screen track on the sill lines up with the center of the screen channel on the side jamb and that no sealant has come in contact with the weep doors. If the weep doors fail to open & close freely proper draining of the sill will not occur.

For wood brickmould unit skip step 11

11. Fasten nailing fin to header and side jambs as shown. Nailing fins push into groove in aluminum extrusion.

END OF FRAME ASSEMBLY INSTRUCTIONS
DO NOT RACK DOOR FRAME

- Damage to seals and to sill may occur.
- If delivering to job site be sure frame is protected.
INSTALLATION OF DOOR FRAME INTO ROUGH OPENING

STEPS:
1. PREPARING THE ROUGH OPENING
2. NAILING FIN INSTALLATION
3. INSTALLATION OF FRAME INTO OPENING (STATIONARY PANEL PRE-INSTALLED IN FRAME)
4. INSTALLATION OF ACTIVE OPERATING PANEL
5. INSTALLATION OF LOCKING HARDWARE AND HANDLE
6. ADJUSTMENT OF TANDEM DOOR ROLLERS
7. SLIDING SCREEN INSERTION

INSTALLATION TOOLS

WOOD SEALER
SILICONE CAULK & CAULKING GUN
DRILL/SCREWGUN
6' BUBBLE LEVEL
FRAMING SQUARE
FLASHING TAPE
FLAT HEAD SCREWDRIVER

PERSONAL SAFETY REQUIRED!

CAUTION
Wear Ear Protection.
Wear head protection
LIFT PROPERLY
1. PREPARING THE ROUGH OPENING

- **SQUARE**
  Make sure rough opening is square. Rough opening should be no less than 1/2" wider and 1/4" taller than outside dimension of frame.

- **PLUMB**
  Jambs must be plumb and straight. Use plumb bob or level to check that top of jamb is not tipped in or out in relation to bottom. Door will not seal evenly along weatherstrip.

- **SUB-FLOOR FLAT, LEVEL**
  Sub-flooring under door must be clean, dry, flat, level, and smooth. Failure to ensure this may result in improper operation of the door and water & air infiltration.

**FAILURE TO FOLLOW THE ABOVE STEPS MAY RESULT IN:**
- EXCESSIVE AIR AND WATER INFILTRATION
- PROBLEMS WITH THE OPERATION OF THE DOOR

**MANUFACTURER IS NOT RESPONSIBLE FOR:**
- DAMAGE RESULTING FROM IMPROPER INSTALLATION
- ENVIRONMENTAL CONDITIONS BEYOND THE TESTED RANGE
- INADEQUATE DRAINAGE SITUATIONS

1. Apply flashing tape to the frame opening beginning 6" up from floor, down across floor and 6" up the other side.

2. Generously apply sealant to subfloor before tilting assembled frame into opening.
FRAME INSTALLATION

3. Center frame in opening.

4. Allow the sill to overhang the sill flashing. The sill will shed water from the door more efficiently.

4. Shim and level head and sill being absolutely certain neither are bowed up or down at center.

5. Shim side jambs to ensure proper operation and sealing of door. Place bottom shim within 2" of bottom of jamb to ensure that seal between jamb and sill will not be damaged.

6. Check frame once again to be sure it is plumb and square before proceeding.

7. Tack frame to opening allowing to make adjustments after door panels have been installed.

8. DO NOT DRILL OR SCREW THROUGH SILL!
STATIONARY PANEL INSTALLATION

1. Once handing of door has been determined, caulk the area of the sill that the stationary panel will rest including the joint of the sill and side jamb on the stationary side and side jamb to the top of the jamb.

2. Seal top and bottom of stationary panel with wood sealer. Steps 11 & 12 prevent water from deteriorating and discoloring stationary panel.

3. Insert “L” Bracket behind edge cladding at top of stationary panel as shown. (For non-clad door attach “L” Bracket after step 6)

4. From the exterior lift the stationary panel inserting the top of the panel first. Place the top of the panel into the outside half of the jamb.

5. Swing the bottom of the panel toward the interior and set onto caulked area of sill as close to stationary jamb as possible.

6. Slide the stationary panel firmly into the jamb pocket. This is a good time to make certain that your jambs are plumb and square and that your sill is flat as the stationary panel is square.
7. Attach security brackets at top and bottom of stationary sash at side jamb as shown with four screws provided.

8. Drill hole through head cladding through “L” Bracket. Attach “L” Bracket to head jamb. For wood non-clad unit attach with screws through both head jamb and sash.

9. Caulk bottom edge of stationary sash at joint between sash and sill.

OPERATING PANEL INSTALLATION

1. Remove inside head vinyl stop with screwdriver.

2. Insert tandem rollers in pockets on bottom of operating panel and attach with screws provided.

3. Insert bottom of operating panel into sill between pile weatherseals. This will insure the wheels will engage with the stainless steel track. Tilt panel into frame and roll door into vertical position in side jamb. BE CERTAIN THAT DOOR IS IN CLOSED POSITION. OPERATING PANEL MAY FALL OUT OF FRAME TO INTERIOR AND CAUSE DAMAGE, SERIOUS INJURY, OR DEATH.

4. Reattach head vinyl stop. It is now safe to operate door.
INSTALLATION OF LOCKING HARDWARE AND HANDLE

Description of Lock.
- Lock mechanism to be inserted into door panel by installer.
- Handle set to be attached after lock is installed.
- Features two locking points.
- Strike plate to be attached to jamb using the locator device.

1. Insert lock into edge of door panel with screws provided.
2. Attach handle set per instructions packaged with hardware.
3. Activate the lock by depressing the button on the face of the lock and simultaneously flipping the thumb lever on the interior handle. This will place the hooks in the lock position.
4. Place locator device onto lock between the locking hooks. The notches in the end will line up under the hooks. Be sure the location device is pointing straight out and not off to one side or the other.

CORRECT LOCATION OF THE STRIKE IS CRITICAL

5. With the location device in place close the door with enough force to put two corresponding marks into the locking side jamb.
6. Align strike plate mounting holes with the two marks made in the side jamb. Attach with the screws provided.
7. It is not necessary to adjust the lock at this time. You must first adjust the rollers at the bottom of the door for proper alignment making sure the edge of the door and the jamb are parallel (See step #6). This ensures that the lock will engage properly with the strike plate.

Continued......
Sometimes it is necessary to adjust the lock to engage the lock hooks into the strike plate. This is done with a standard flat screwdriver in locations shown. There is one adjustment location for each lock hook. The adjustments increase the “reach” of the lock or decrease the “reach” of the lock. The necessity to do this often depends on the installation Note: It is very important to line the strike plate properly. Failure to do so may force the door out of alignment and will not seat properly in the jamb.

Check:
- Panel closes flush into jamb so lock is as close as possible to strike.
- Strike is properly centered in relation to lock.
- Lock “hooks” are not extended enough to catch strike.
- Lock “hooks” not extended too far. (If extended too far the “hooks” will come in contact with the wood jamb behind the strike plate)

**DOOR ROLLER ADJUSTMENT**

1. With a standard flat screwdriver remove the adjustment hole covers on the bottom rail of the operating door panel.
2. To ensure proper weather sealing capability and operation of the door and hardware be sure to adjust door rollers so that:
   a. Edge of door panel containing lock is parallel to the locking side jamb.
   b. Vertical door stiles of operating door and stationary door are parallel with each other.

Note: If both of these conditions are not met check frame to ensure that it is square. Check the sill to make sure it is flat.
The purpose of the wind load stabilizer bar is to improve the doors structural performance. The bar also helps stabilize the door when it is the partially open position.

1. Open operating panel fully and insert wind load stabilizer bar above operating panel as shown. Note long leg is toward interior.

2. Attach wind load stabilizer bar with screws provided.

Install screen per instructions attached to screen.

Once it has been determined that the door is operating properly finish nailing frame to opening.
TROUBLESHOOTING GUIDE

AIR/WATER INFILTRATION SLIDING PATIO DOOR

THIS CONDITION IS CAUSED BY IMPROPER INSTALLATION OF UNIT

1. SILL NOT FLAT OR LEVEL

   DOOR PANELS CANNOT SEAL TO EACH OTHER AND TO FRAME

   • TO CHECK LAY STRAIGHT EDGE ON SILL

2. SIDE JAMBS BOWED IN

   TOO MUCH INSULATION OR OVERSHIMMING CAUSING JAMBS TO PUSH SASH PAST CENTER

   • TO CHECK MEASURE ACROSS FRAME AT CENTER AND AT BOTTOM (OR TOP)

3. FRAME OUT OF SQUARE

   SQUARE SASH TOO WIDE FOR FRAME

   • TO CHECK MEASURE FRAME DIAGONALLY BOTH MEASUREMENTS SHOULD BE THE SAME

POTENTIAL AIR LEAK POINTS
ASTRAGAL

The sliding panel you wish to operate most often will be called the primary active panel. The sliding panel which will be operated less often is called the secondary active panel. The astragal is attached to the secondary active panel as the primary active panel must lock to it. Since the astragal is reversible you may designate which panel is primary and which will be secondary.

1. With the three screws provided attach the astragal to the secondary panel in the position shown. The inside edge of the astragal should be flush with the inside face of the secondary active panel. The top and bottom of the astragal should be even with the top and bottom of the panel.
2. Insert the flush bolt into the slot provided at the top of the astragal.
3. Attach the foot bolt mechanism to the bottom of the secondary panel.
4. Attach the two position strike plate for the foot bolt to the sill.
5. Align and attach the strike plate to the astragal with the screws provided. Adjustments to the latch hook and strike plate can be made for the proper locking position.

STABILIZER BAR INSTALLATION

The vinyl stabilizer bar stabilizes the active panels in the frame. This must be attached to the header after the panels have been installed in the frame.

1. Fully open both panels.
2. Place vinyl stabilizer bar on header as shown. The long leg of the bar should be placed against the inside stop at point A.
3. Locate center hole on bar at center of unit and attach bar to header with the screws provided.
4. Attach strike plate for astragal flush bolt to notched area on stabilizer bar at center of unit. If flush bolt does not engage in strike make sure frame is square.

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FOUR PANEL OXXO UNIT assembly continued

SCREEN STOP
Place screen stop in center of header inside of screen track to prevent screens from sliding past the center of the unit.

END OF SPECIAL INSTRUCTION FOR FOUR PANEL OXXO UNIT.

MULLING DOOR UNITS TOGETHER

STEP #1
Install one unit into opening per installation instructions.

STEP #2  USE SILICONE CAULK
Apply silicone caulk along side jamb cladding of primary unit outside of the nailing fin groove in the cladding from top to bottom.

STEP #3
Install unit to be mullled to primary unit into opening per installation instructions. Position second unit to primary unit as shown. Shim where needed and attach to opening by nailing fin provided.

STEP #4  USE SILICONE CAULK
Apply silicone caulk into accessory grooves in cladding on outside of jambs to be mullled. This will secure mull clip and prevent water penetration.

STEP #5
Attach mull clip provided into accessory grooves. Gently tap mull clip into place using a wood block and hammer.
FOLLOW INSTRUCTIONS 1 THRU 13 IN CASCO SLIDING PATIO DOOR:
PART 1: ASSEMBLY OF DOOR UNIT
FRAME ASSEMBLY AND FRAME INSTALLATION

STATIONARY SIDELIGHT

1. Before inserting stationary panel into frame be certain to caulk along top of sill as shown above that the contact point along the entire bottom of the sash is sealed. Place bead of caulk along inside plane of channel on frame (C) of both head and sides.

STATIONARY PANEL INSTALLATION

2. Insert the stationary sidelight panel into the frame. This is done by placing the bottom of the panel on the caulked top of the outside half of the sill. Tip the top of the stationary panel into position in the jamb.

DO NOT WALK AWAY FROM PANEL. HOLD SECURELY. FAILURE TO DO SO MAY CAUSE DAMAGE, SERIOUS INJURY, OR DEATH.

4. Immediately secure the panel in the frame by nailing the side stops in place with finishing nails. Secure the head stop in place with finishing nails also.

END OF INSTRUCTION FOR STATIONARY SIDELIGHT
FINISHING INSTRUCTIONS

INSTALLATION OF THIS PRODUCT IS NOT COMPLETE UNTIL ALL EXPOSED WOOD SURFACES HAVE BEEN SEALED. FAILURE TO DO SO WILL RESULT IN POOR PERFORMANCE, INTRUSION OF MOISTURE INTO THE WOOD FIBER, AND DETERIORATION OF THE PRODUCT.

FAILURE TO PROPERLY FINISH THIS PRODUCT WITHIN 30 DAYS OF INSTALLATION MAY VOID THE WARRANTY.

EXPOSED WOOD SURFACES INCLUDE:

- ALL FOUR EDGES OF EACH DOOR PANEL
- INSIDE OF LOCK ROUTES, ROLLER POCKETS (SLIDING DOORS)

USE ONLY HIGH QUALITY MATERIALS THAT SEAL THE WOOD. REGULAR REFINISHING MAY BE NECESSARY

PINE IS A SOFTWOOD

FAILURE TO USE A PRESTAIN AND/OR APPLYING STAIN UNEVENLY MAY CAUSE A BLOTCHY APPEARANCE WHICH CANNOT BE COVERED UNDER WARRANTY.

FAILURE TO INSTALL AND FINISH DOOR UNITS PROPERLY WILL VOID WARRANTY.
A WORD ABOUT CONDENSATION

If condensation appears on this product or any other window product it is most likely not the fault of the door or window.

Water will condense on any cool surface. The cause of condensation is air saturated with too much humidity. When this happens, air cannot hold the excess humidity. It gets rid of it by condensing it on the most convenient cool surface.

Causes of excess humidity:
- Normal breathing
- Cooking
- Showering
- Watered plants
- Appliances—Dishwashers, washing machines, dryers
- Poorly insulated crawl spaces
- New construction—moisture from concrete, other building products.

Corrective Measures:
- Make sure your humidifier is in working order
- Vent all appliances
- Vent attic and crawl spaces
- Cover the earth in your crawl space with a vapor barrier
- Run exhaust fans while cooking or bathing
- Ventilate forced air heat with outside air
- Store firewood outside
- Exchange air

Appropriate Humidity levels at 70º F:

<table>
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<tr>
<th>Outside temp:</th>
<th>15% Maximum Relative Humidity</th>
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<tbody>
<tr>
<td>-20ºF or less</td>
<td>15%</td>
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<tr>
<td>-20ºF</td>
<td>20%</td>
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<tr>
<td>-10ºF</td>
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<tr>
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Remember: If you see condensation on windows and doors there may be moisture where you cannot see it. This may cause serious problems.