

PALISADES S90 SERIES BI-FOLDING DOOR AND WALL SYSTEM



IMPORTANT: Please read these instructions completely before you start installation. The Palisades Door System is a unique operational system that requires precision and attention to detail during installation. To ensure proper door operation, the Top and Bottom Roller Tracks must be perfectly aligned to each other and every component of the frame must be installed square, plumb and level.

NOTE: This manual covers the Installation, Operation, Maintenance, and Warranty of the Palisades System. It is to be used by the Installer for installation and kept by the Owner for reference. Replacement parts should be ordered **ONLY** from C.R. Laurence.

TABLE OF CONTENTS

GUIDELINES FOR ALL INSTALLATIONS	3
CONFIRM YOUR SHIPMENT	4
SITE PREPARATION	5
FASTENER SPACING	6
FLUSH SILL INSTALLATION (Optional)	7
COMPENSATION CHANNEL INSTALLATION	8
Install Top Compensation Channel	8
Cut and Install Side Compensation Channels	8
RAISED SILL INSTALLATION	9
Install Raised Sill	9
MAIN FRAME INSTALLATION	10 - 12
Place Main Frame Top Track	10
Place Jambs	10
Secure Jambs	11
Secure Top Track	11
Final Adjustments	12
FRAME SPLICING INSTALLATION (OPTIONAL)	13
DOOR GLAZING	14 - 16
Determine Bracing Direction	14
Determine Shim Thickness	14
Glass Installation	15
Bracing and Spacing Shim Installation	15
Glass Stop and Gasket Installation	16
DOOR INSTALLATION	17 - 19
Operating Catches	17
Installing Hinge Pins	17
Installing Auxiliary Handles (Out Swing Systems Only)	17
Install First Panel	18
Install Second Panel	18
Install Third Panel with Roller and Bottom Guide	18
Roller Installation	19
Bottom Guide Installation	19
Install Remaining Panels	19
DOOR HANDLE INSTALLATION	20
FINAL ADJUSTMENTS	21
Check Door and Handle Operation	21
Check Latching Panel	21
Secure All Hinge Pins	21
Seal Perimeter for Exterior Installations	21
OPERATION	22 - 23
Operating Systems with Swing Door Attached to Folding Doors	22
Operating Systems with Folding Doors Only (without Swing Door)	23
Operating Systems with Floating Panels	23
CARE AND MAINTENANCE	24
LIMITED WARRANTY	25

GUIDELINES FOR ALL INSTALLATIONS

IMPORTANT: READ COMPLETE INSTRUCTIONS BEFORE BEGINNING INSTALLATION. INSTALL AS RECOMMENDED; OTHERWISE, THE UNIT MAY NOT FUNCTION PROPERLY AND ANY WARRANTY, WRITTEN OR IMPLIED, WILL BE VOID.

REVIEW CONTRACT DOCUMENTS: Check Shop Drawings, Installation Instructions, Architectural Drawings, and Shipping Lists to become thoroughly familiar with the project. The Shop Drawings take precedence and include specific details for the project. Note any field verified notes on the Shop Drawings prior to installing. The installation instructions are of a general nature and cover most conditions.

CHECK ARRIVING MATERIALS: The system is fabricated specifically for your order and shipped with all necessary components. Not included are screws, bolts, shims, etc. to anchor the unit to the rough opening. The frame includes compensation channels for jambs, top tracks. Flush Sill models do not include Sub Sills. Compensation Channels and Flush Sills are shipped long for field cutting. All other frame components are cut to size. Frame is to be assembled during installation. Panels are factory assembled with or without glass. In most cases, all hinges, weather stripping, multiple locking, and flat handles are factory installed to the panels and frame components. Some loose parts will be shipped separately. Be sure to locate and store in a safe place until needed.

Upon receipt, inspect the shipment to ensure it is in good condition and all components are included. Ensure system configuration and size match initial order and included Shop Drawings. Note that Shop Drawings are viewed from interior.

INSTALLATION: The installation of the Palisades System requires a working knowledge and experience in the use of tools, equipment and methods necessary for the installation of aluminum doors, windows, storefronts and/or partitions. This practice assumes a familiarity with preparing a proper and structurally sound opening, proper anchorage, waterproofing, caulking and sealing and assumes an understanding of the fundamentals of building construction that affect the installation of large aluminum door systems. Use a trained installer with experience in installing these kind of systems. Precise measuring equipment should be used during installation. All materials are to be installed plumb, level, and true.

BUILDING CODES: As regulations governing the use of glazed windows, doors, storefronts and/or partitions vary widely, it is the responsibility of the building owner, architect, contractor or installer to insure that products selected conform to all applicable codes and regulations, including federal, state and local. C.R. Laurence assumes no obligation or responsibility whatsoever for failure of the building owner, architect, contractor or installer to comply with all applicable laws and ordinances and safety and building codes.

SURROUNDING CONDITIONS: For better performance it is recommended that all dead loads such as upper levels, roof, etc. be constructed before a unit is installed. Any exterior system should be installed under an overhang, or with other similar protection.

Properly flash and waterproof around the perimeter of the opening, especially at the sill. Make sure you seek proper professional advice for the appropriate construction needed for your particular application. Do not install unit in structures that do not allow for proper management/drainage of moisture.

A qualified engineer or architect should be used to determine the proper construction details and header to be used in your particular application. Customer is responsible to check to comply with applicable codes for maximum gap space allowed, especially in high wind areas, and correct opening size.

IMPORTANT: Because of the large opening sizes and the weight and movement of the panels, any application should take into consideration the following:

The structural integrity of the header is critical for proper operation. Vertical deflection of the header under full live and dead loads should be the lesser than 1/16". Structural support for lateral loads (both wind load and when the panels are stacked open) must also be provided.

HANDLING MATERIALS: Store in a clean and dry location and protect against defacement or damage, especially to the edges of panels. It is important that during the construction phase the unit be kept closed, covered and protected from damage. During this phase, a unit is often subject to the most extreme conditions from all types of construction operations that can permanently damage and destroy it. A unit can be damaged by cement splatter, tar, paint, weld splatter, falling objects, construction dust, sand blasting, etc. Do not use the large opening of an installed system for easy ingress and egress by tradesmen.

CONFIRM YOUR SHIPMENT

This Palisades Door System is fabricated specifically for the dimensions of your order. The Compensation Channels are shipped approximately 3" (76 mm) oversize for field cutting.

Consult the included Shop Drawings when checking your shipment. Lay the components on a clean, flat surface in the position they are to be installed. Dry fit the parts, double check measurements against your opening and inspect for damage. NOTE: For orders with multiple units, do not mix and match panels and frames, even if two units are exactly the same.

If you notice damaged or missing parts, or have any questions, please contact the C.R. Laurence Technical Sales Department immediately at (800) 421-6144. Refer to the order number shown on your Packing List.

NOTE: Doors Will Not Function Properly if Any Part of the Main Frame is Not Level and Plumb or the Top and Bottom Roller Track are Not Perfectly Aligned.

IMPORTANT: It is critical to install Top Compensation Channel and Sub Sill level and plumb. Ensure the Raised Sill, Jambs and Top Track are installed level and plumb. Align Top and Bottom Roller Tracks.

Check Small Parts

Check Packing List to determine which parts are required for your installation. Locate and store loose parts in safe place until needed.

All Installations:

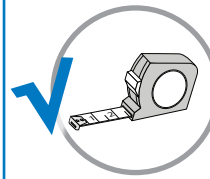
- ✓ Shop Drawings ✓ Hinge Stile Gasket ✓ Hinge Pins
- ✓ Installation Manual ✓ Hinge Pin Tool (for Hinge Pin Installation)

Non-glazed Installations:

- ✓ Setting Blocks ✓ Glazing Gasket

Select Installations:

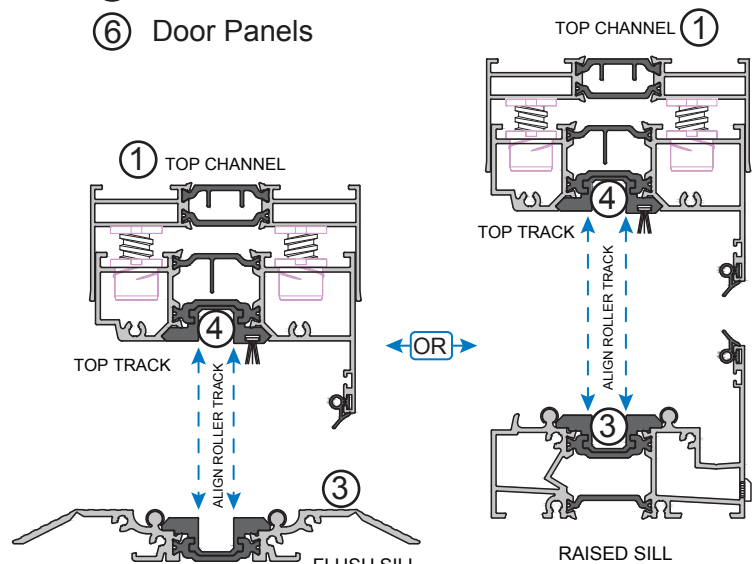
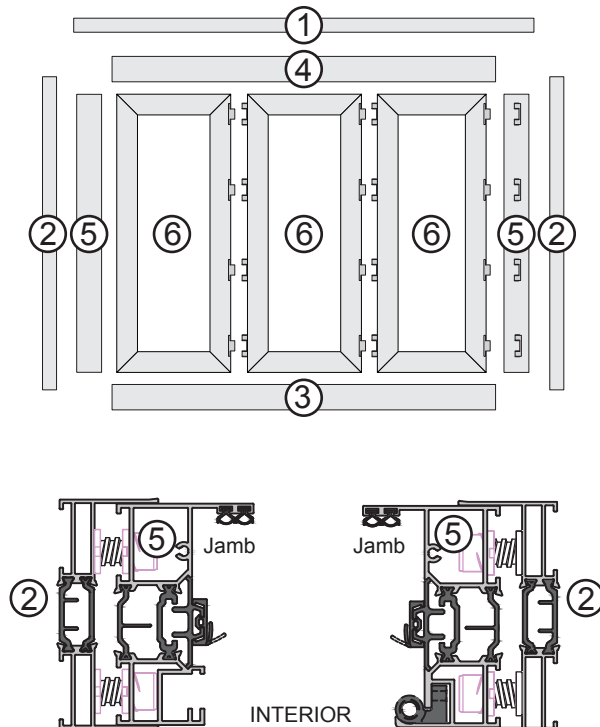
- ✓ Vinyl Track Gasket (Spliced Top and Bottom Tracks Only)
- ✓ Weep Hole Covers
- ✓ Lock Handle ✓ End Dams ✓ Swing Panel Holder



Before you begin, check to ensure nothing is missing or damaged. Lay components on clean, flat surface. Measure components and compare to details on your Shop Drawings.

General Order of Assembly

- ① Top Compensation Channel
- ② Side Compensation Channels
- ③ Raised Sill or Flush Sill
- ④ Top Track
- ⑤ Jambs
- ⑥ Door Panels



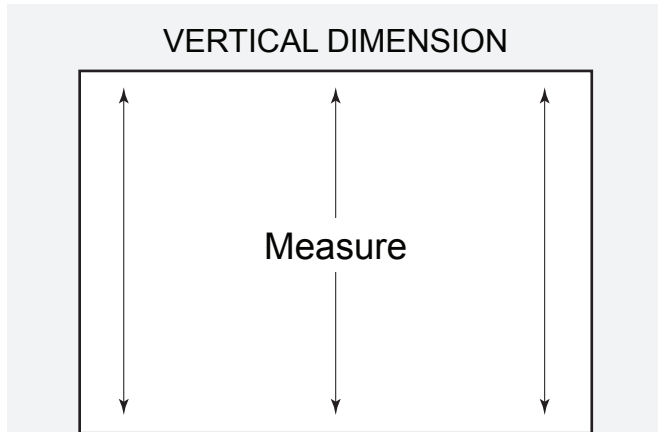
See next page for detail

NOTE: Units are available with Raised or Flush Sills. Refer to Shop Drawings for details on your installation.

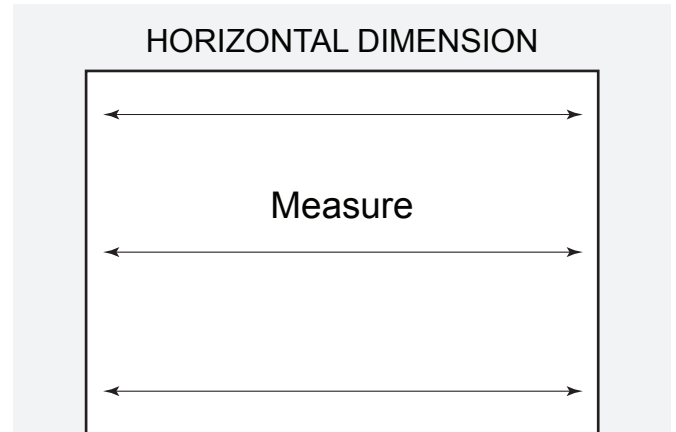
SITE PREPARATION

Check the Rough Opening

Verify that the rough opening is square and plumb as possible. Compensation Channels for use at head and jambs are supplied with your order to assist in problematic openings. We recommend installation of Compensation Channels to a maximum of 1/4" (6 mm) out of plumb or level. If opening is out more than this, these Channels should be shimmed to be within this maximum.



Measure top to bottom at left, center, and right to confirm proper height.



Measure side to side at top, middle and bottom to confirm proper width.

Verify Floor and Header Condition

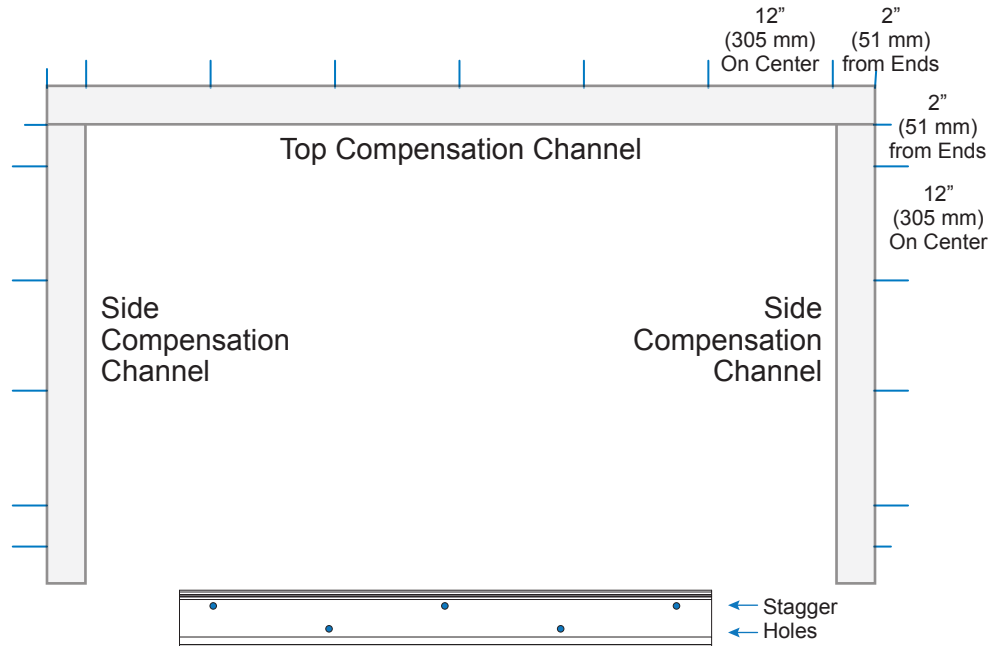
The floor and header surface of the rough opening should be clean and in good condition. For better performance and protection, any exterior system should be installed under an overhang, or with other similar protection.

Flush Sill configurations require a recessed groove in the floor. Ensure it is straight and level. For exterior installations, a trench drain is required for proper drainage. A completely weather-tight seal is not possible with this sill and some air/water infiltration will occur.

Raised Sill configurations attach directly to the floor. In exterior applications the Sill must be level for proper drainage.

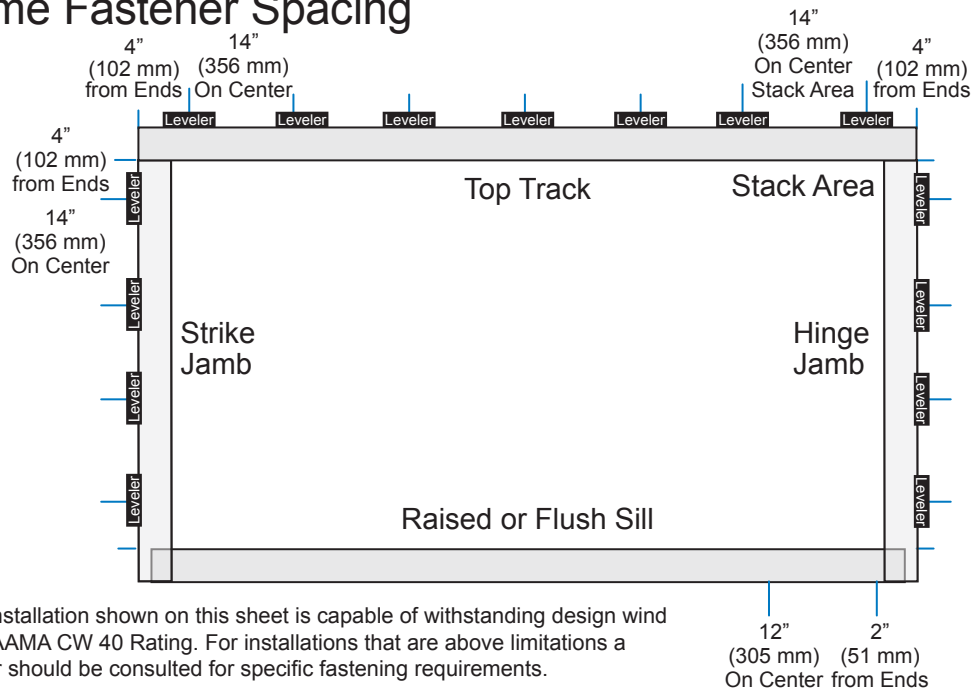
FASTENER SPACING

Compensation Channel and Sub Sill Fastener Spacing



IMPORTANT: Use fasteners appropriate for substrate. Stagger fastener holes to prevent Compensation Channel and Sub Sill from twisting.

Main Frame Fastener Spacing



NOTE: Fastener installation shown on this sheet is capable of withstanding design wind load pressure for AAMA CW 40 Rating. For installations that are above limitations a structural engineer should be consulted for specific fastening requirements.

IMPORTANT: Levelers are factory installed at Jamb and Head. Fasten at each Leveler location with #10 fasteners appropriate to carry load. Do not overtighten fasteners. This can damage frame and interfere with door operation.

THE DOORS WILL NOT FUNCTION PROPERLY IF ANY PART OF THE FRAME IS NOT PERFECTLY SQUARE, LEVEL AND PLUMB. CONSTANTLY CHECK DURING INSTALLATION.

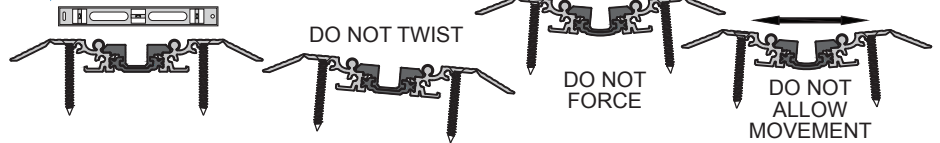
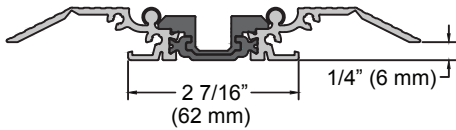
FLUSH SILL INSTALLATION (OPTIONAL)

IMPORTANT: Ensure required recessed groove is straight and level. Use fasteners appropriate for substrate. Shim at fasteners to ensure the Sill does not move. For exterior installations, a trench drain is required for proper drainage. Do not continue installation until sill is flat and level, does not tilt inward or outward and does not move from side to side.

Note proper orientation of Flush Sill.



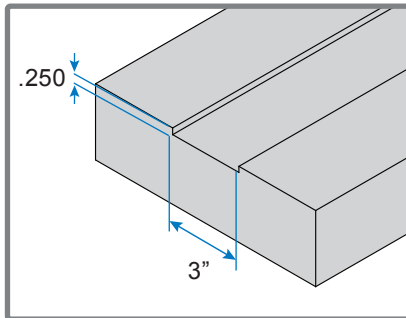
Sill must be straight, flat and level. Install securely.



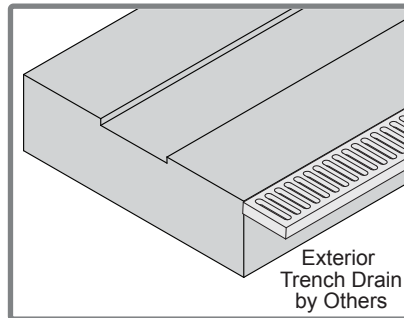
Do not overtighten fasteners. This can cause the sill to bow and/or distort and interfere with door operation. Clean cuttings from drill holes and any other debris from track.

NOTE: A completely weathertight seal is not possible and some air/water infiltration will occur.

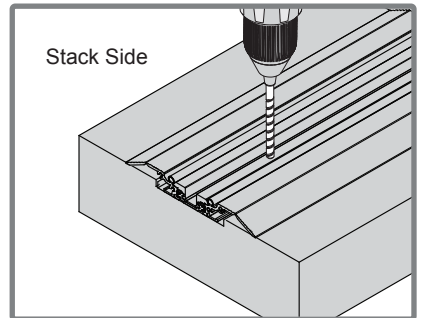
Prepare straight, level groove in floor.



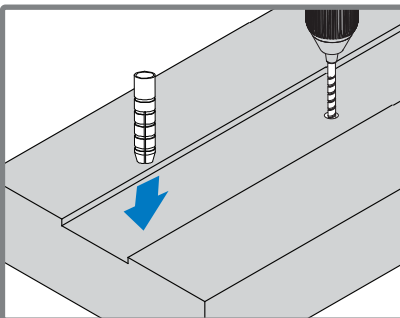
NOTE: Install drainage system for Exterior Installations.



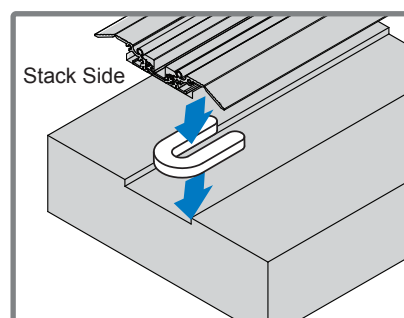
Use Sill as template to drill pilot holes for anchors.



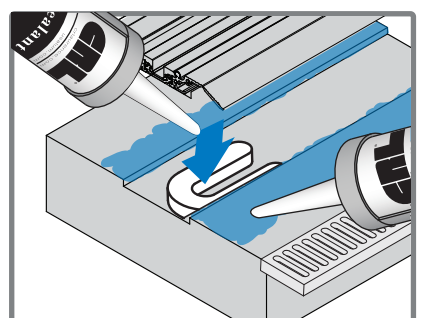
Remove Sill to drill holes and install anchors.



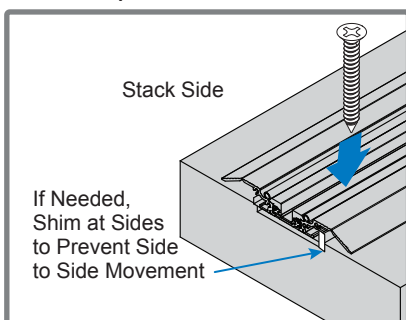
Shim at all anchor points.



NOTE: Apply silicone under Sill for Exterior Installations.



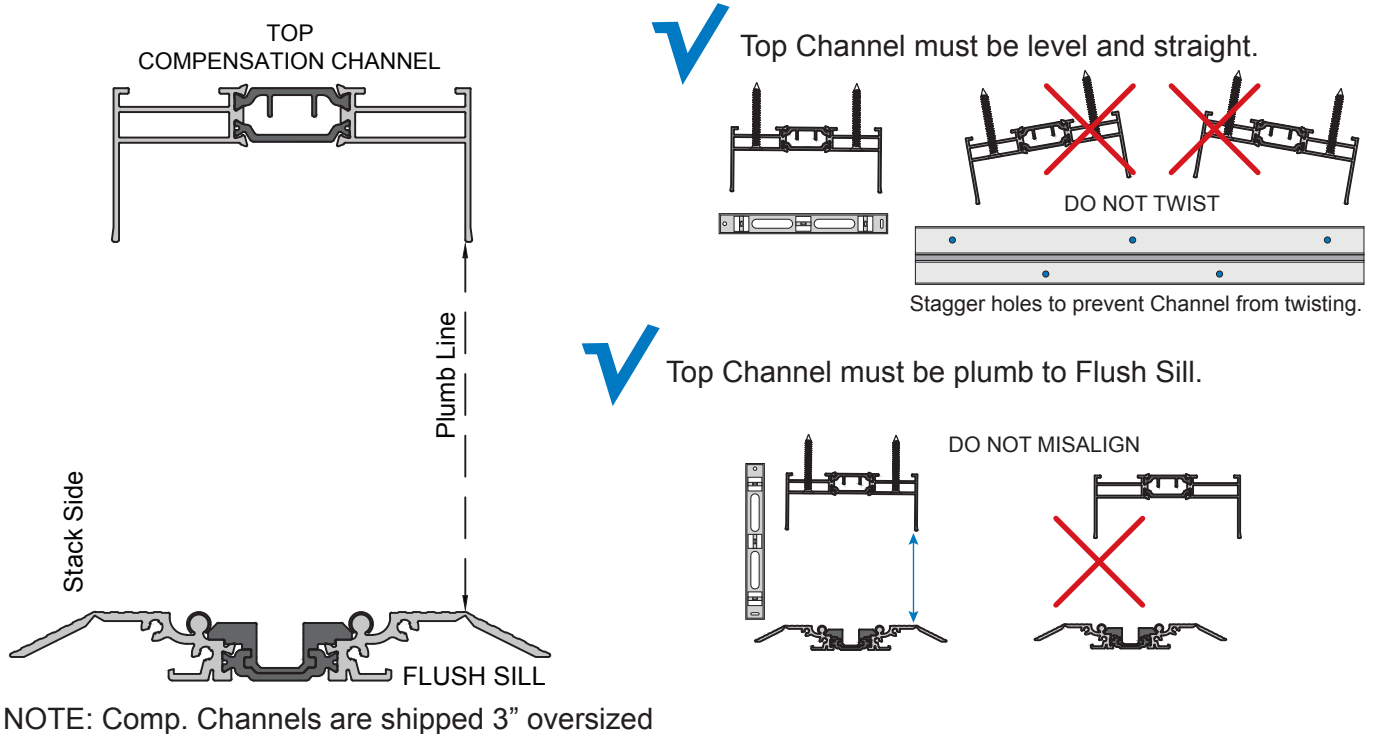
Secure but do not over tighten. Shim to prevent movement.



COMPENSATION CHANNEL INSTALLATION

Install Top Compensation Channel

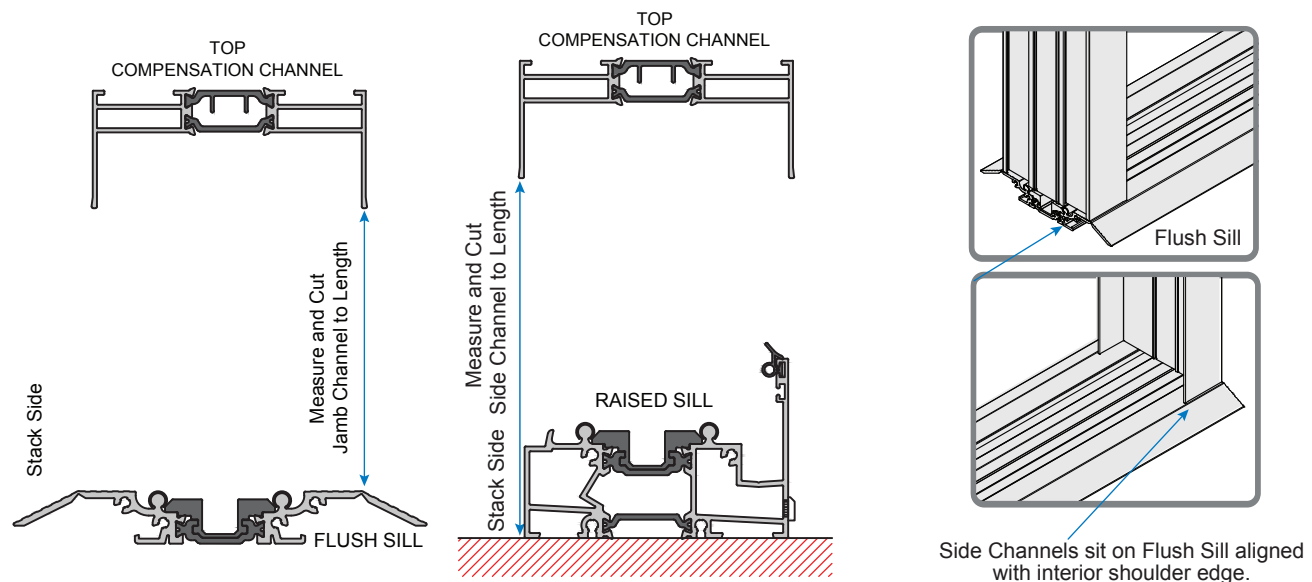
IMPORTANT: Ensure Top Compensation Channel is level, flat and straight. Plumb to Sub Sill or Flush Sill. Use fasteners appropriate for substrate.



Cut and Install Side Compensation Channels

Measure from bottom of Top Compensation Channel to top of either Flush Sill or bottom of rough opening. Cut and install Side Channels as above. NOTE: Seal Channels at butted joints before installing main frame.

IMPORTANT: Do not continue installation until Side Channels are flat and level, and in the same planes as the Top Channel and Flush Sill.

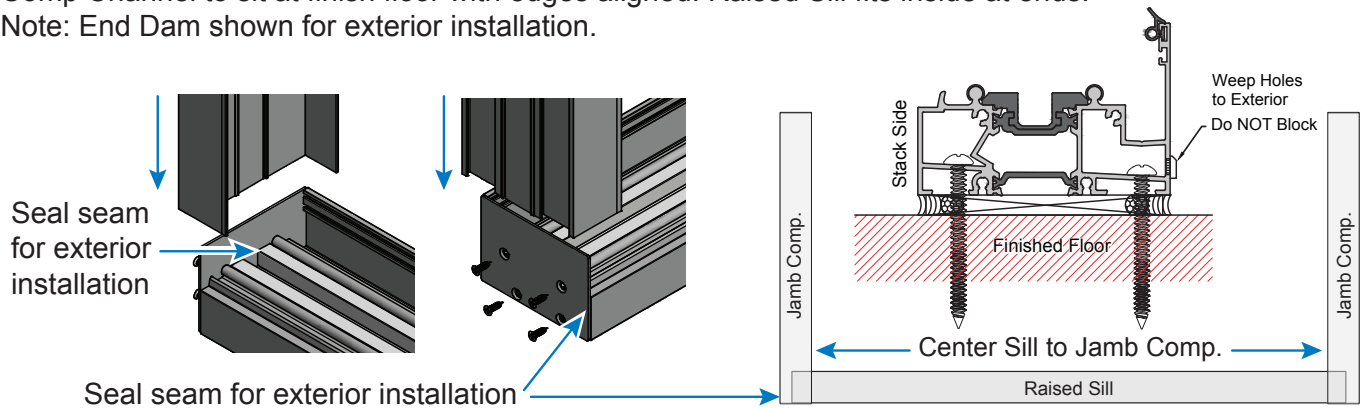


RAISED SILL INSTALLATION

Install Raised Sill

IMPORTANT: Use fasteners appropriate for substrate. For exterior installations, install End Dams and seal seams. Do not overtighten fasteners. This can cause frame to bow and/or distort and interfere with door operation. Ensure Sill is flat and level and does not tilt inward or outward. Clean cuttings from drill holes and any other debris from track.

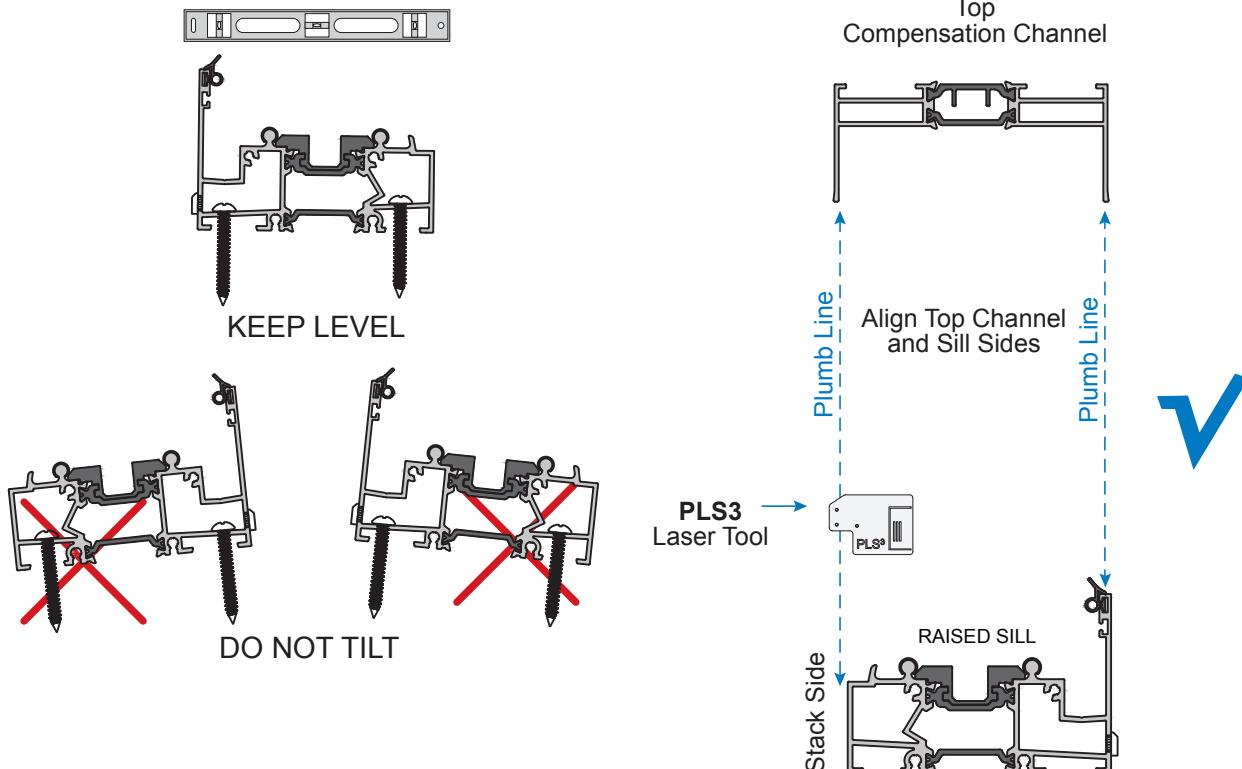
Comp Channel to sit at finish floor with edges aligned. Raised Sill fits inside at ends.
Note: End Dam shown for exterior installation.



Center Raised Sill between Jamb Comp. Channels and secure with #10 fasteners appropriate for substrate. Install on flat leveled finished floor. If installed on rough floor shim flat leveled.



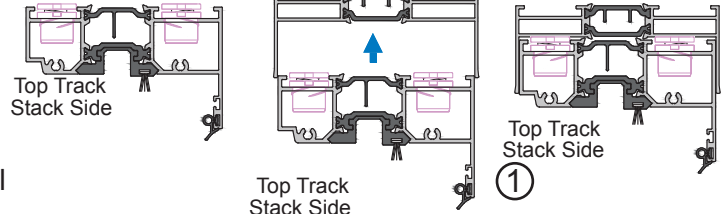
Raised Sill must be flat and level. Do not overtighten fasteners. Ensure sill is plumb to top comp. channel. See page 8 for drawing.



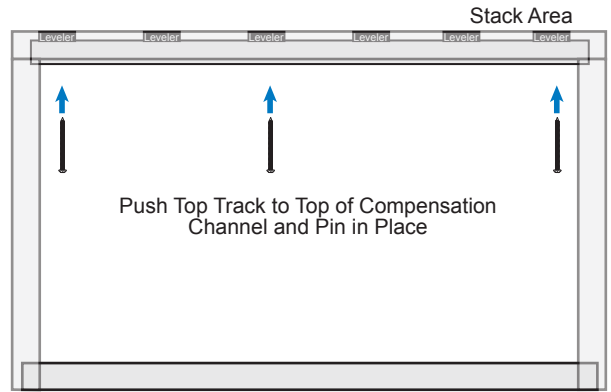
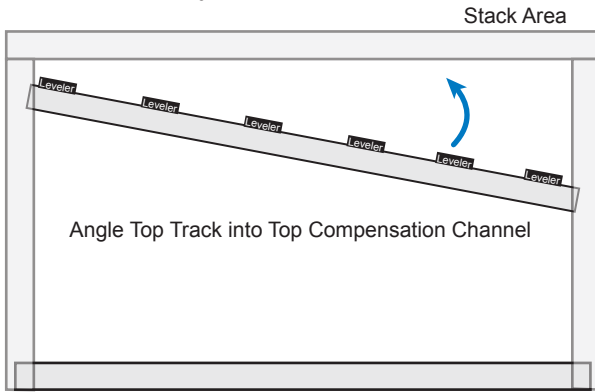
MAIN FRAME INSTALLATION

Place Main Frame Top Track

Note proper orientation of Top Track.

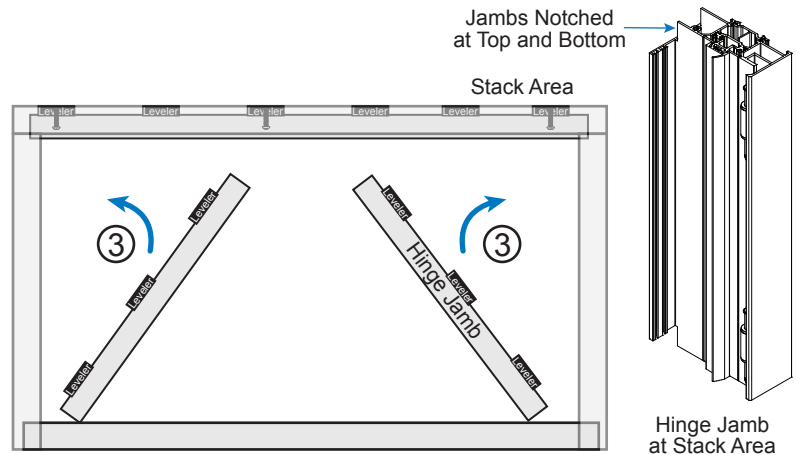
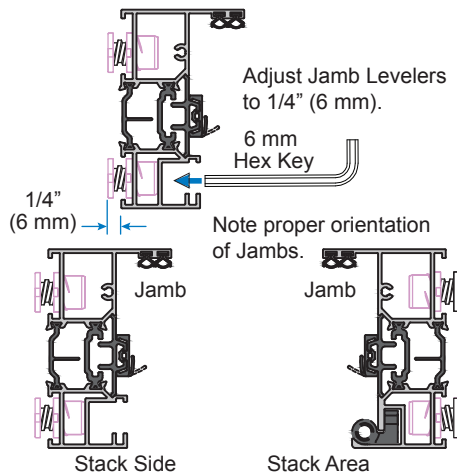


- ① Carefully angle Main Frame Top Track into Top Compensation Channel. Push to top of Channel and temporarily pin with three screws.



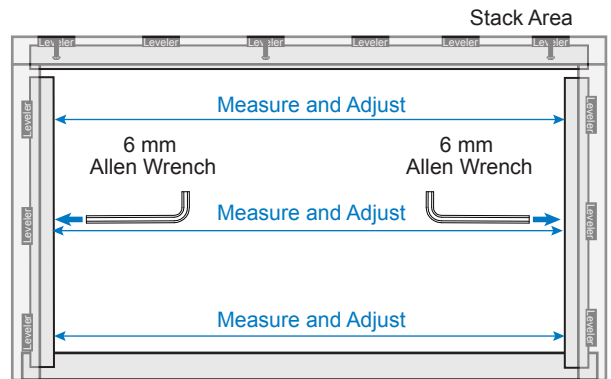
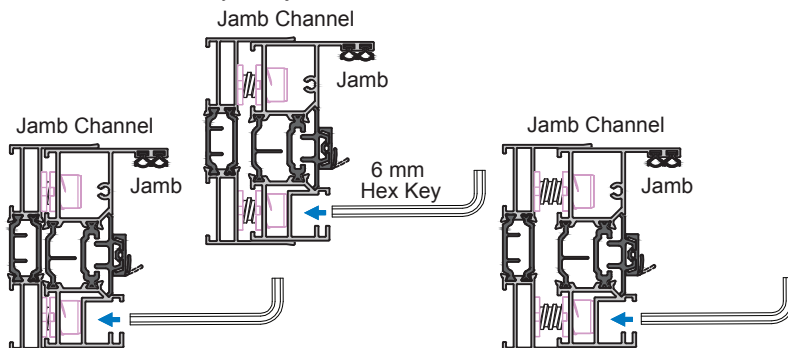
Place Jambs

- ② Angle Jambs into Side Compensation Channels. Hinge Jamb is located at Stack Area. Rest Jamb bottoms on top of Sill.



- ③ Measure opening at top, middle, and bottom and compare to opening measurement on Shop Drawings. Adjust Levelers as needed.

Use 6 mm Hex Key to Adjust Jamb Levelers as Needed.



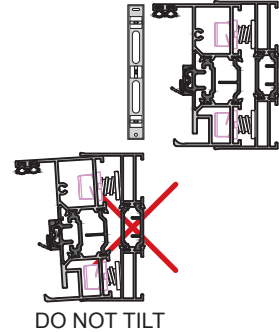
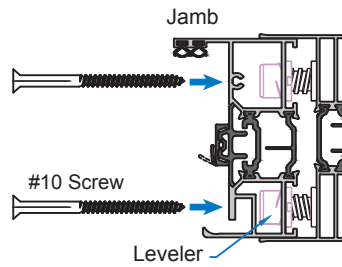
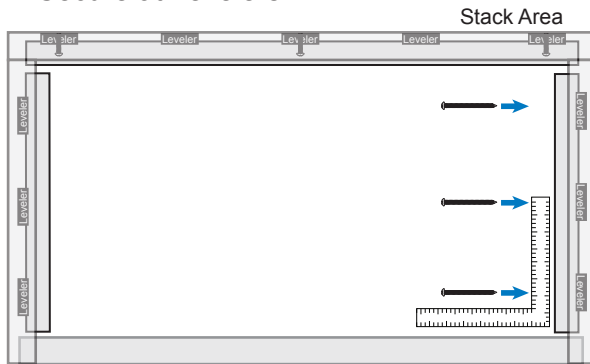
MAIN FRAME INSTALLATION (CONTINUED)

Secure Jamb

- ④ Ensure Hinge Jamb is square, level and plumb.
Secure at Levelers.

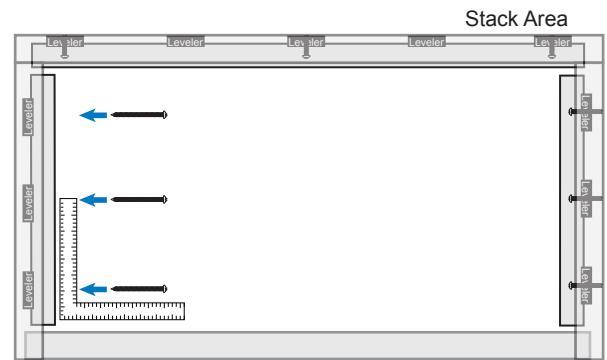
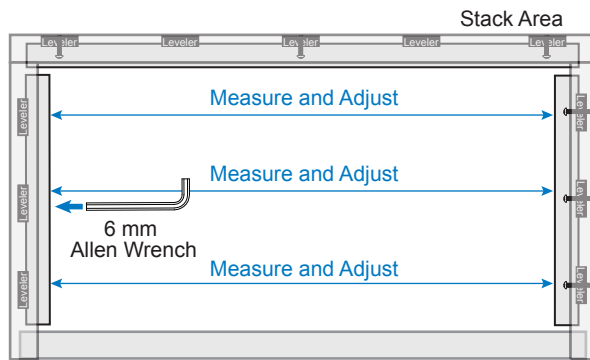


Jamb must be level and plumb.



NOTE: Insert #10 fasteners appropriate for substrate into center of Levelers to secure. Do not overtighten fasteners.

- ⑤ Double check measurements against shop drawings. Make sure Jamb is plumb and square.
Secure at Levelers. Do not overtighten fasteners.

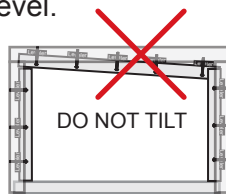
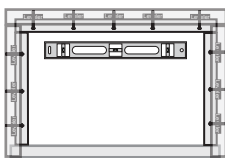


NOTE: Final lateral adjustments may be required after panels are installed.

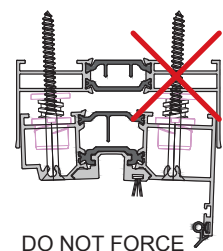
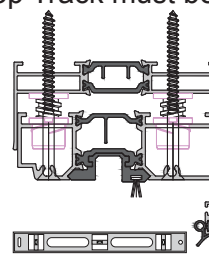
Secure Top Track



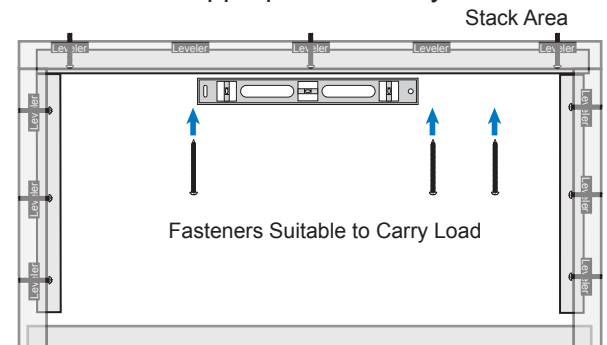
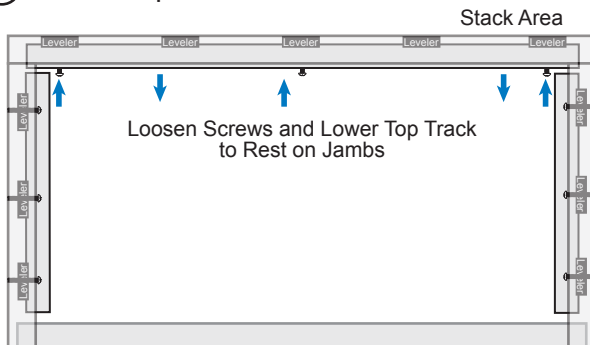
Top Track must be level.



Top Track must be flat.



- ⑥ Lower Top Track so it rests on Jamb. Level and secure with fasteners appropriate to carry the load.



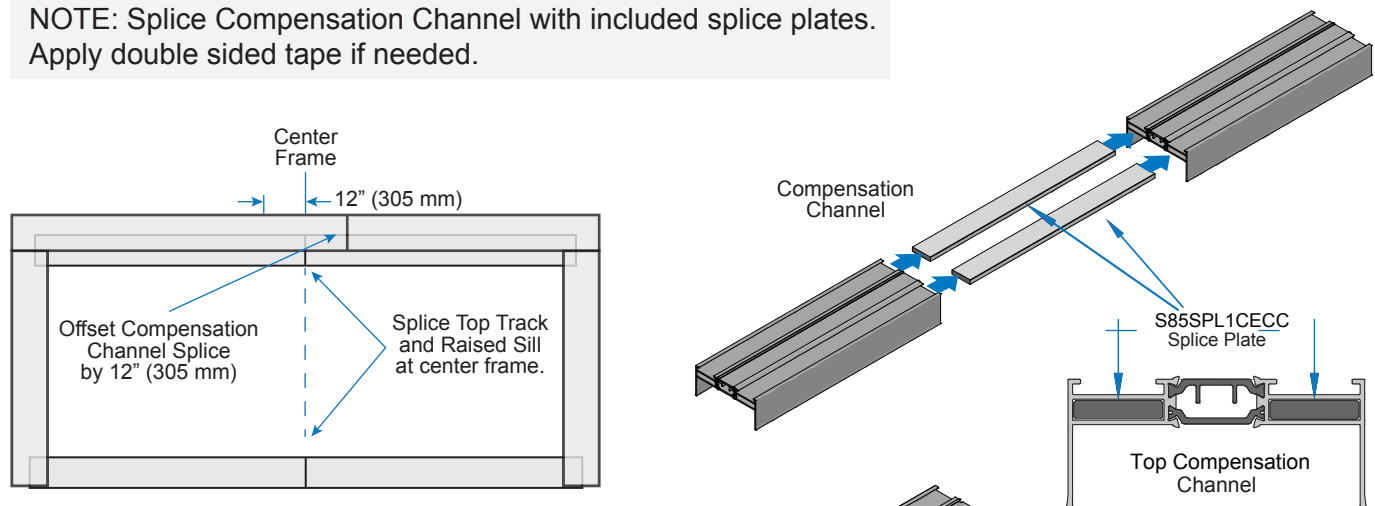
Final Adjustments

FRAME SPLICING INSTALLATION (OPTIONAL)

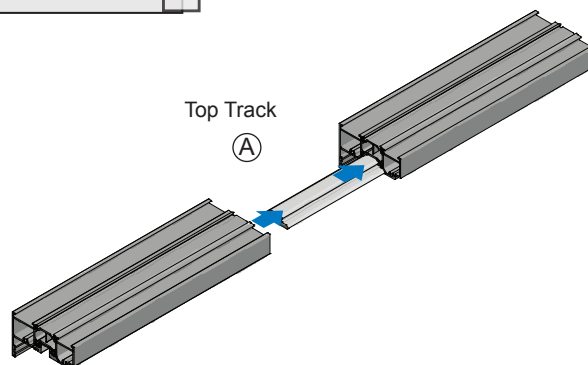
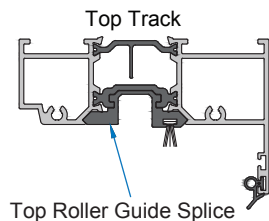
Compensation Channel Splicing

Maximum length before splice is 250" (6350 mm). Splice Top Track, Raised Sill and Flush Sill. Offset Compensation Channels splice by 12" (305 mm). Follow installation procedures and order shown in this manual.

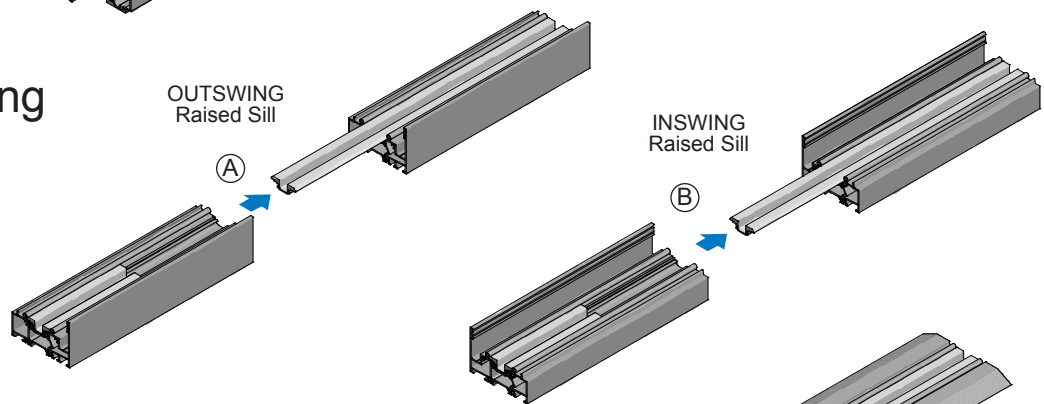
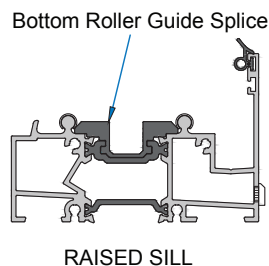
NOTE: Splice Compensation Channel with included splice plates. Apply double sided tape if needed.



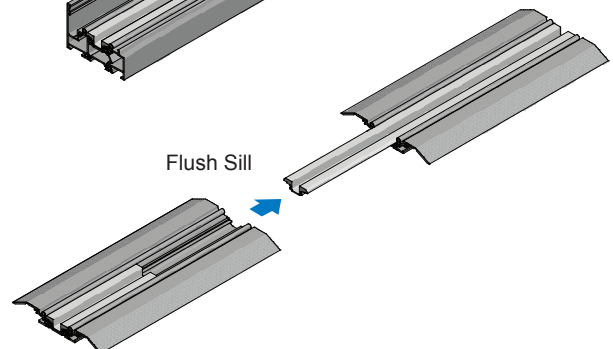
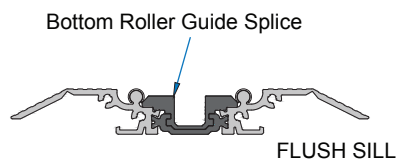
Top Track Splicing



Raised Sill Splicing



Flush Sill Splicing



DOOR GLAZING

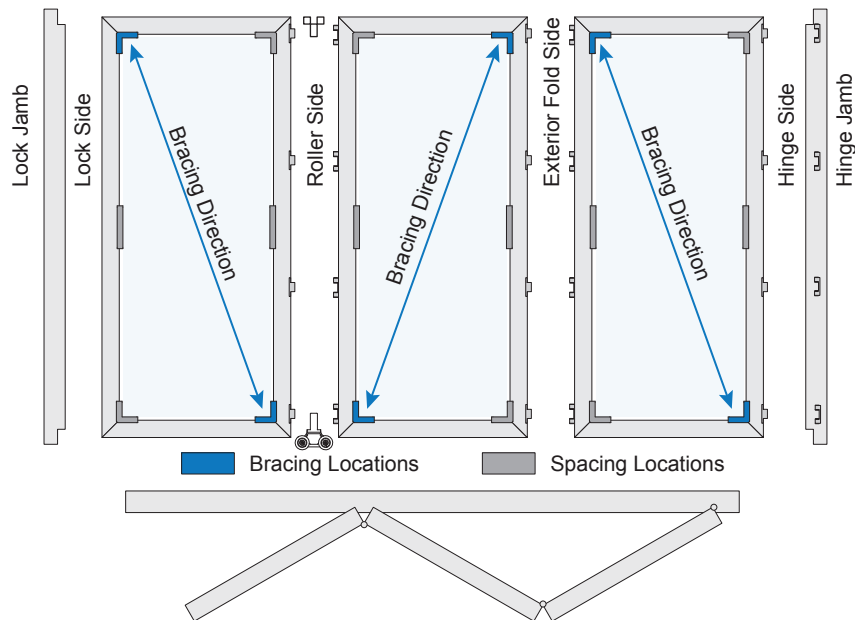
Your Palisades Door System has been engineered for a specific size glass panel. Review your Shop Drawings to determine the correct dimensions.

Determine Bracing Direction

The glass panel acts as a structural element of the Palisades Door so proper installation is crucial. To hold the door square and avoid sagging, brace the glass diagonally. Refer to diagram below and position shims in bracing locations to distribute weight to hinge side where it is supported. Then install shims at spacing locations to provide rigidity and prevent glass movement.

IMPORTANT: Glass is a structural part of the Palisades Door System so proper installation is essential. Correct bracing is required for proper door function. Observe glass fit and bracing location for each door.

NOTE: Flat Shims are combined with Corner and Side Shims to properly space and brace glass in frame. Use included Shims only. Corner Shims are factory installed.

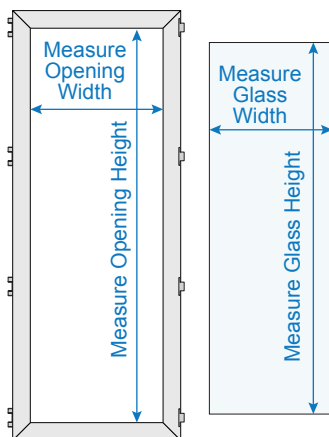


Determine Shim Thickness

Calculate shim thicknesses to use at bracing locations for each door.

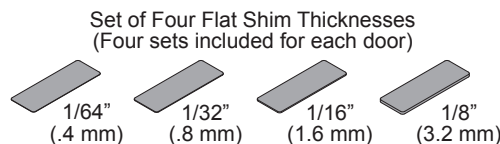
Top and Bottom Shims = Opening Height minus Glass Height divided by two.

Side Shims = Opening Width minus Glass Width divided by two.

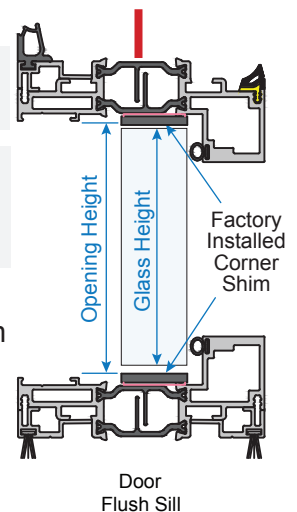


IMPORTANT: Use included Shims ONLY. Panels should fit snugly but not be forced. With insulated glass, both panes must be supported evenly. Do not obstruct drainage holes.

Two Side Shims and four sets of Flat Shims in various thicknesses are included for each panel. Install Side Shim as spacer at vertical. Combine thicknesses of Flat Shims with Side and Corner Shims to obtain required thickness to properly brace panels.



Two Side Shims for Verticals.



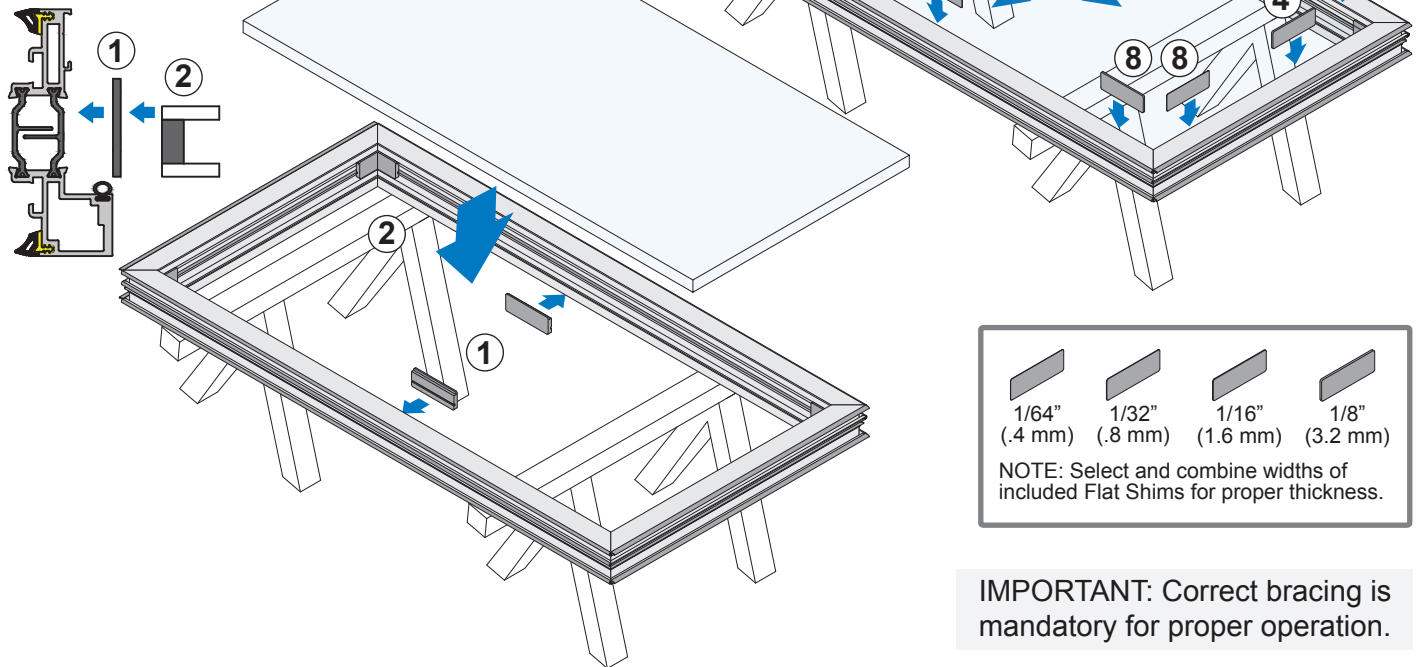
NOTE: Include Factory Installed Shim in calculations.

DOOR GLAZING (CONTINUED)

Glass Installation

Lay door frame flat with glass cavity facing up.

- ① Place Side Shims at verticals.
- ② Place glass in frame.
- ③ Center glass.

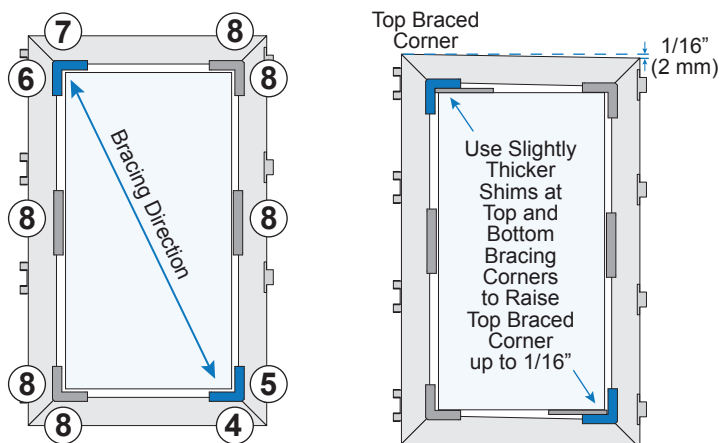


IMPORTANT: Correct bracing is mandatory for proper operation.

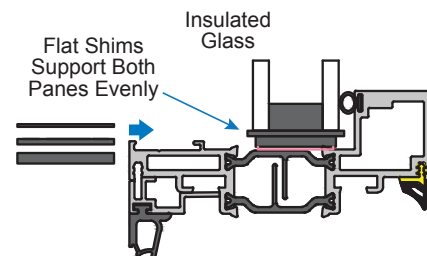
Bracing and Spacing Shim Installation

Begin shimming at bracing corners to keep door square. Use thickness calculated on Page 14 and install in order shown below. Then shim in spacing locations to provide rigidity and prevent glass movement.

To compensate for sagging when installed, push the frame slightly out of square with thicker shims at top and bottom bracing corners to raise top braced corner up to 1/16" (2 mm) higher.



Position Shims to support glass edges.






NOTE: 1/16" Flat Shim shown for glass placement only.

NOTE: When installed, the doors pull down slightly due to weight and the out of square doors become almost even. If there are any issues with door operation, shim thickness needs to be adjusted. Doors must be braced correctly for proper operation.

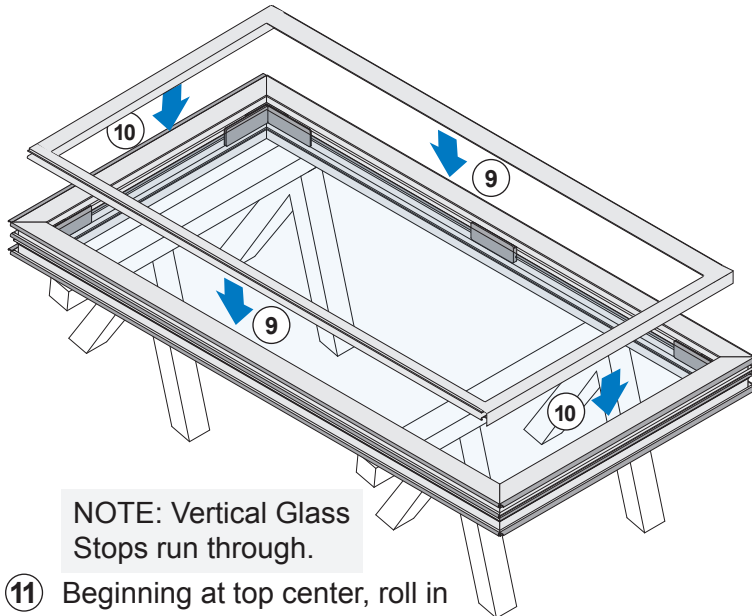
DOOR GLAZING (CONTINUED)

Glass Stop and Gasket Installation

NOTE: Refer to chart for correct combination of Gasket and Glass Stop for glass size. WH416 Wedge Gasket used with all stops. 1" IGU shown in illustrations.

Glass Size	Glass Stop		Wedge Gasket
1" IGU (25 mm)	Horizontal	Vertical	 WH416
	 S85GLHV	 S85GLHV	

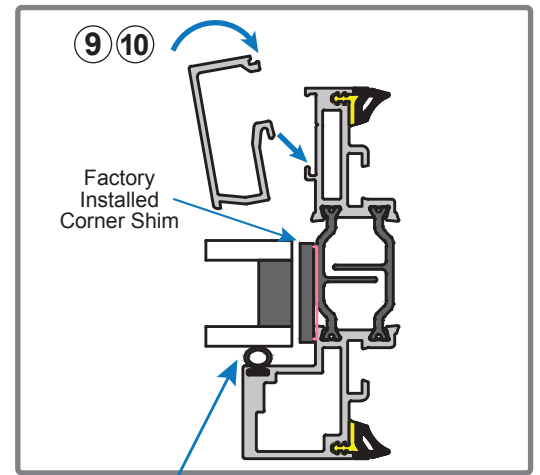
- ⑨ Install Top and Bottom Glass Stops.
- ⑩ Install Side Glass Stops.



NOTE: Vertical Glass Stops run through.

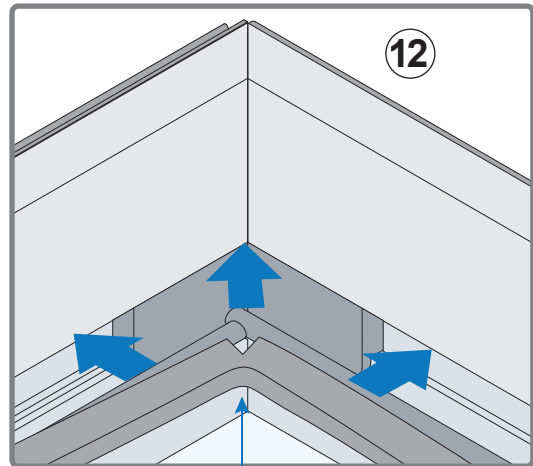
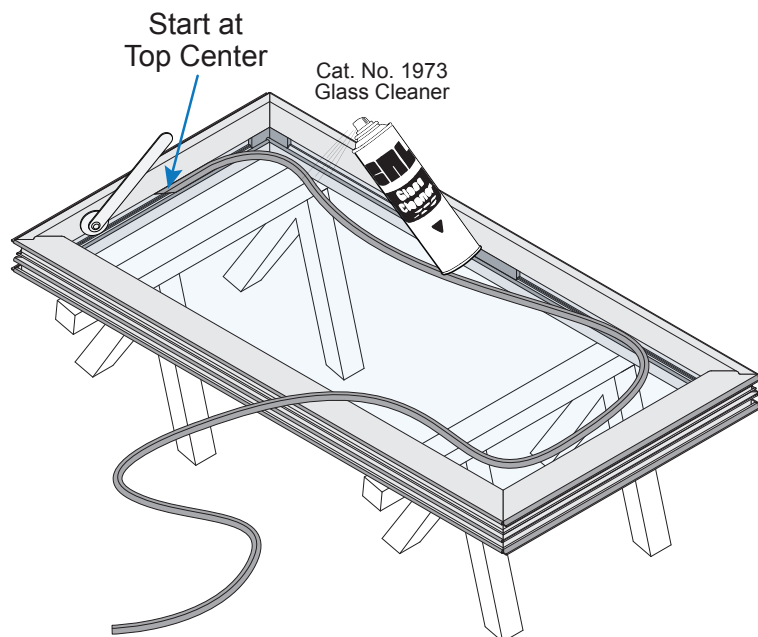
- ⑪ Beginning at top center, roll in Glazing Gasket. Notch gasket at corners.

Hook Glass Stop and snap into place.



Factory Installed Bulb Gasket

NOTE: Spray with Cat. No. 1973 to prevent gaskets from binding.



Notch Gasket at Corners.

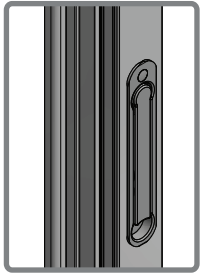
NOTE: Do not stretch gasket when installing. It should be cut approximately 1/8" (3 mm) longer per foot and squashed in to allow for gasket shrinkage.

DOOR INSTALLATION

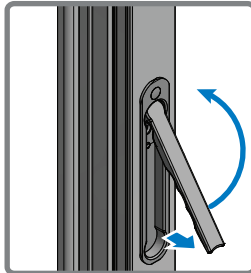
Operating Catches

Catches are factory installed on the inside of the installation. The Catch activates bolts into the top and bottom track to lock the doors in closed position.

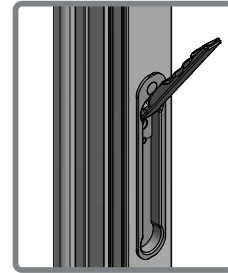
The Catch Handle faces down in closed position. Pull handle out toward you to angle away from the plate when rotating into open or closed positions. Rotate handle to face up position to unlock during installation.



Catch Handle faces down when locked.



Lift Handle away from plate to rotate up into unlocked position.

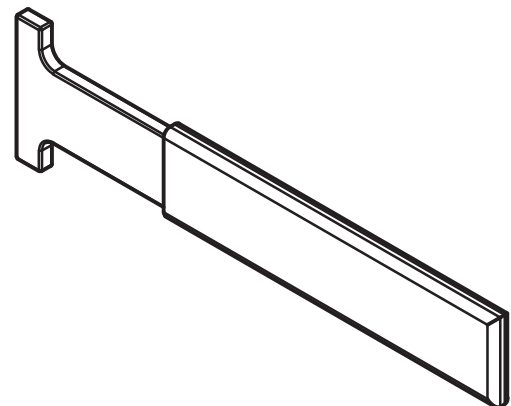
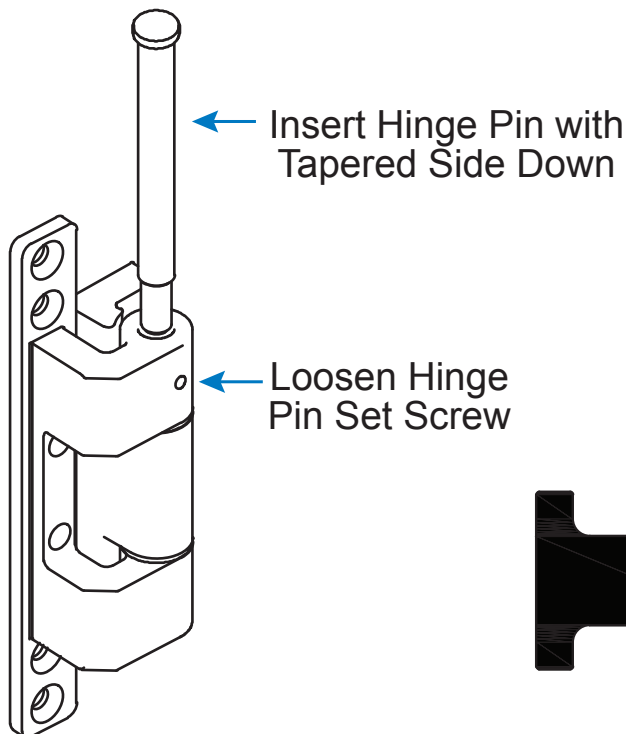


Catch Handle faces up when unlocked.

NOTE: Do not use Catch Handles to pull doors open. Vertical glass stops have built in handles. Install panels with Handles facing up in unlocked position. Two Catches, one controlling the top bolt and the other controlling the bottom, are used on very tall panels.

Installing Hinge Pins

Hinge Pins are used at all hinges except where the Rollers or Guides are installed. Loosen hinge pin set screws. Insert hinge pins into hinges with tapered side down. Do not ever force. When installation is finished, secure using hinge pin set-screws.



Hinge Pin Tool

Note: Use included tool to lightly tap tapered hinge pins into location. Do not use excessive force to set pins as this will damage doors.

DOOR INSTALLATION (CONTINUED)

① Install First Panel With Catch Post

Refer to Shop Drawings for type, location, and orientation of each door panel. Start with door number one at the Hinge Jamb. The door panels are also numbered in the order of installation.

Align door hinges with hinges on the frame at a 45 degree angle and insert Hinge Pins at all hinges. Do not force. Hinge Pins are secured using included hinge pin set screws after all doors are installed and final adjustments are made.

② Install Second Panel

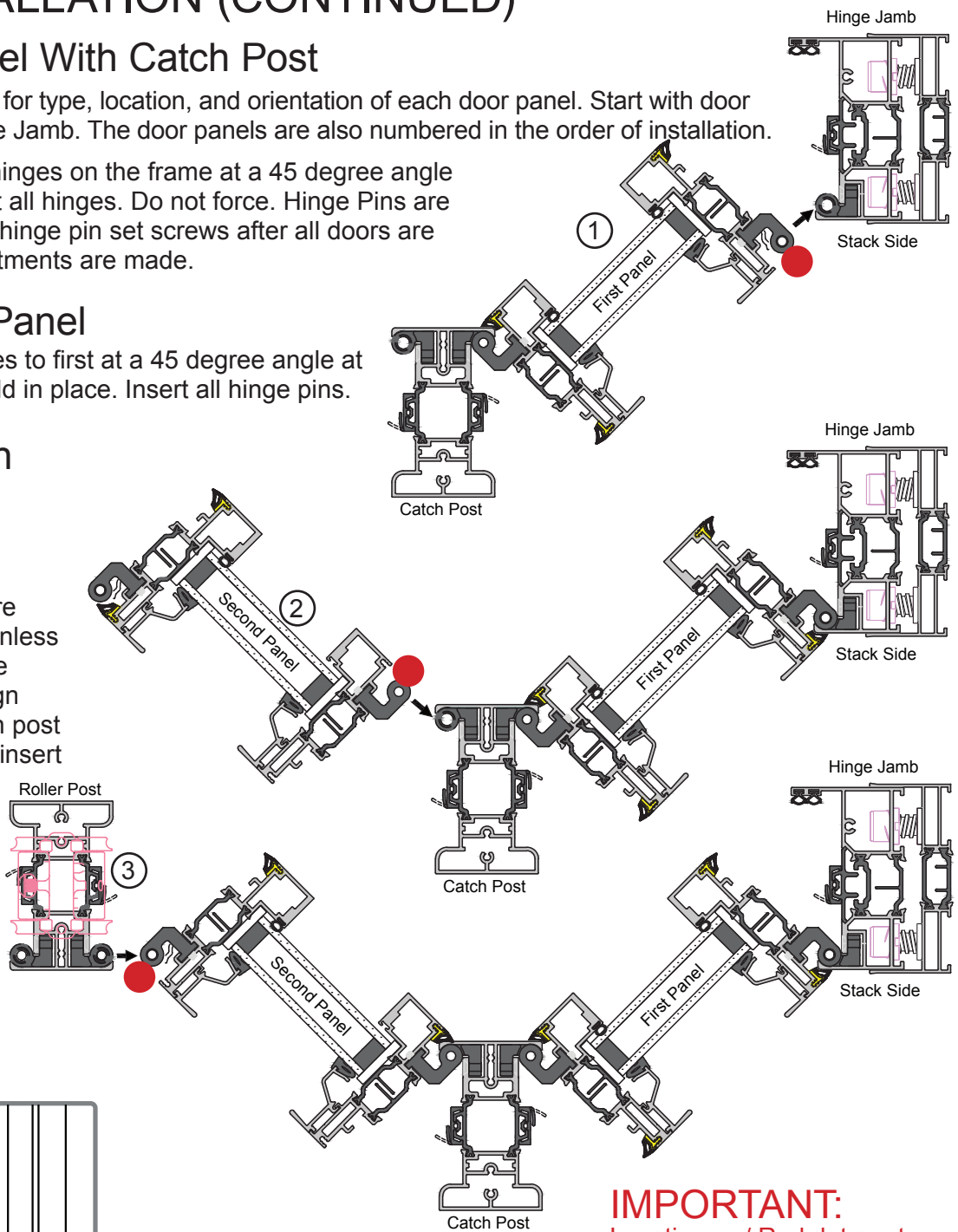
Align second door hinges to first at a 45 degree angle at level height. Shim to hold in place. Insert all hinge pins.

③ Install Post With Bottom Rollers and Top Guide

Angle post into top and bottom tracks. Make sure bottom rollers sit on stainless steel track and top guide sits in guide groove. Align second door hinges with post at 45 degree angle and insert all hinge pins.

④ Install Remaining Panels

Repeat instructions for second and third panels to install remaining panels.



Completely Insert Hinge Pins.

IMPORTANT:

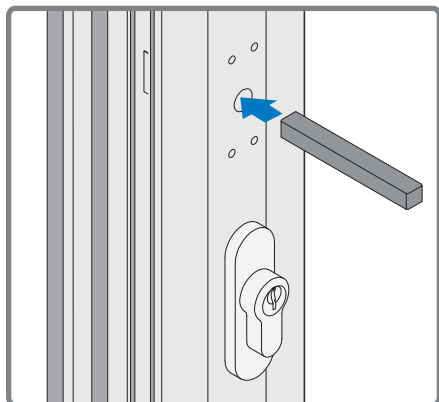
Locations w/ Red dot are to have gasket installed after panel installation.



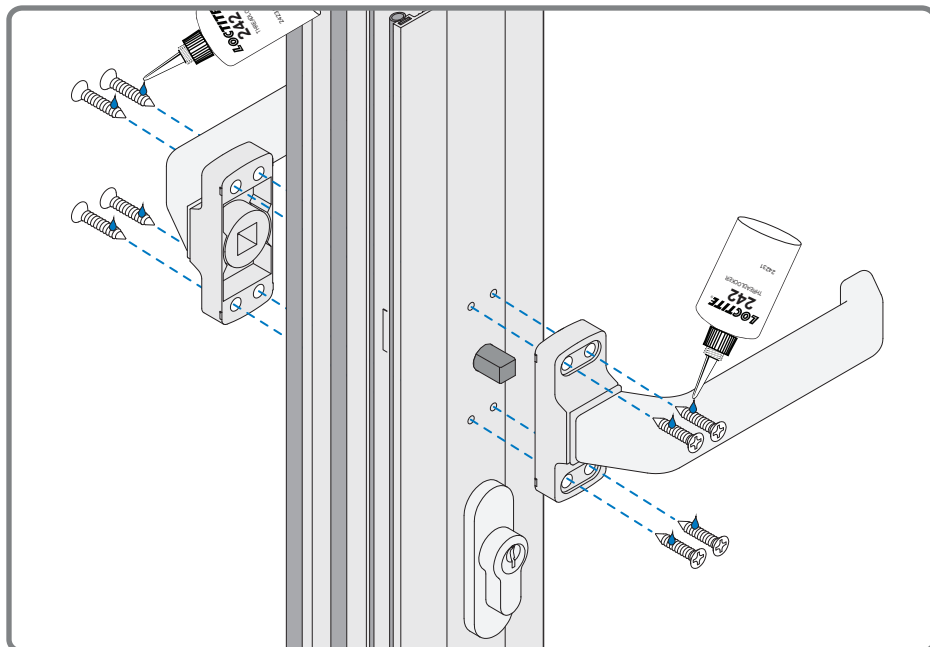
DO NOT USE
EXCESSIVE FORCE

DOOR HANDLE INSTALLATION

Insert Actuator Post through hole in door.

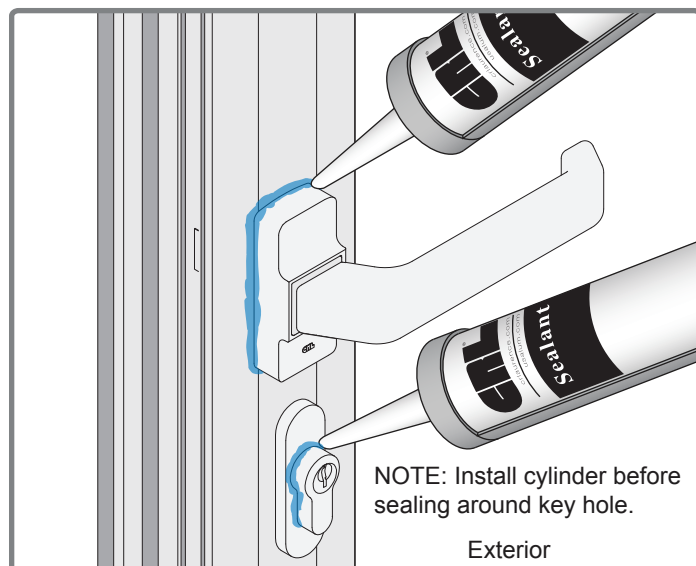


Install Handles on each side with included screws.

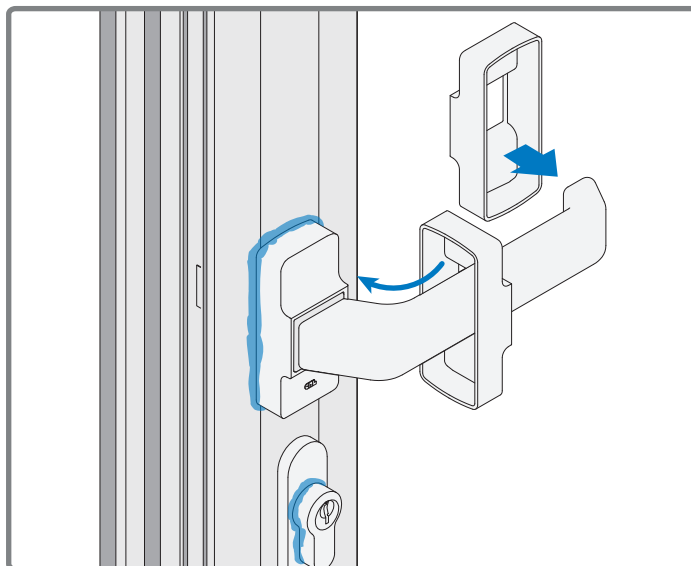


* Loctite® is recommended on all screw threads during final assembly.

Seal and tool handle base and key hole at exterior.
(Required for exterior applications.)



Fit cover over end of handle, slide to base and snap into place. Repeat to install cover on each handle.



FINAL ADJUSTMENTS

Check Door and Handle Operation

Open and close all the doors to ensure they function properly. Also check that the handles and locks move freely and make any adjustments if necessary. Failure to adjust the doors for proper operation will put stress on the lock and cause damage.

Check Latching Panel

Ensure the latching panel engages properly with the strike jamb. If you need to adjust the gap between panel and jamb, refer to Page 9 to adjust the levelers as needed for proper clearance. Ensure the jamb is plumb and insert the screws again.

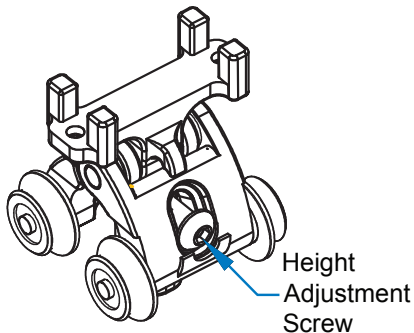
Secure All Hinge Pins

Secure all hinge pins by tightening hinge pin set screws.

Roller height adjustment:

Top guide should have a max top clearance of 3/16". Turn adjustment screw clockwise to lift post. This is necessary to adjust clearance.

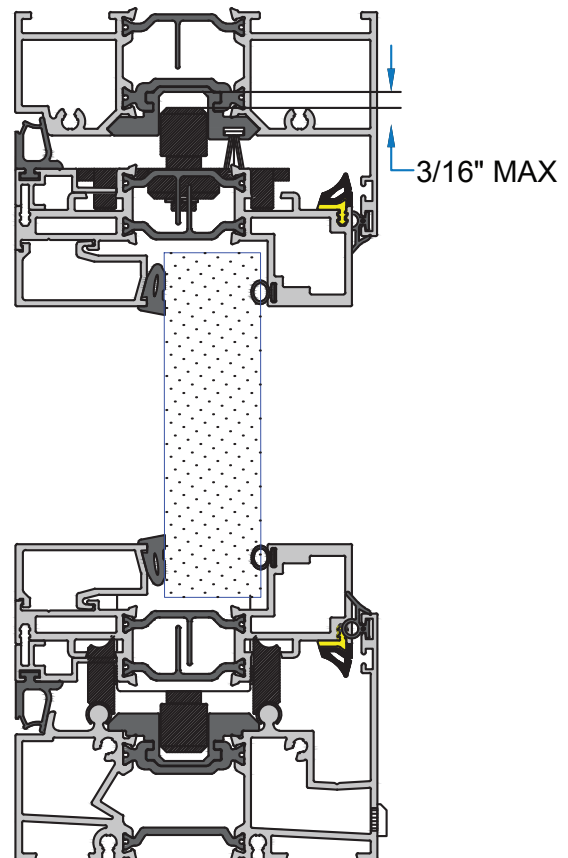
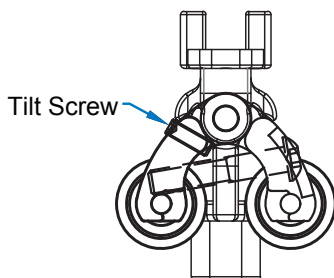
Bottom Roller



Roller tilt screw:

Post can be slightly tilted towards stock jamb if gap adjustment is needed. Raise height adjustment up and twist set screw clockwise.

Bottom Roller



Seal Perimeter for Exterior Installations

OPERATION

IMPORTANT: The doors open and close smoothly when operating properly. Do not force the system. Contact a qualified technician if your doors are not functioning correctly.

WARNING: Do not place fingers between panels when opening or closing doors. Physical harm may occur. Do not allow children to play with doors. Follow the operating procedure for your system.

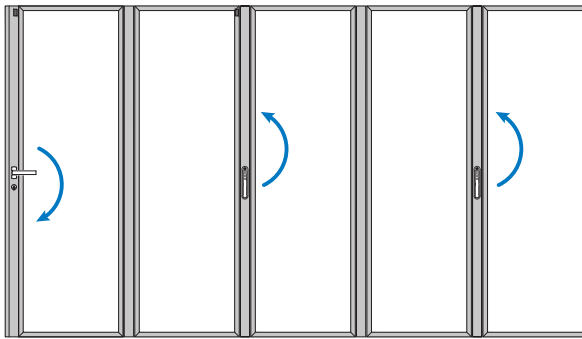
NOTE: Panels must be opened and closed in a specific order that depends on the system configuration. Follow correct operating procedure for one of three system configurations shown on these two pages.

Operating Systems with Swing Door Attached to Folding Doors

Opening Door Panels

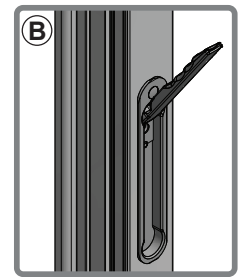
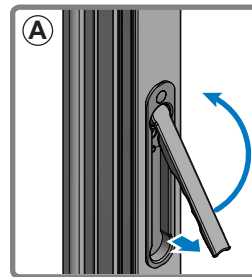
NOTE: Units require user to apply enough force to compress gaskets. For outswing user is to use vertical glass stop handles to pull inwards. For inswing user is to apply light force above catch handle to compress top gaskets.

- ① Unlatch Swing Panel and rotate all Catch Handles to retract Bolts from the top and bottom track.

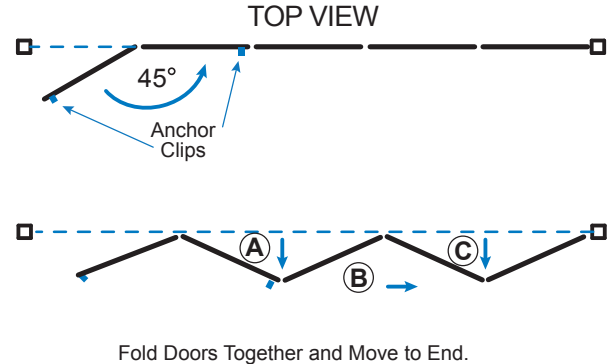
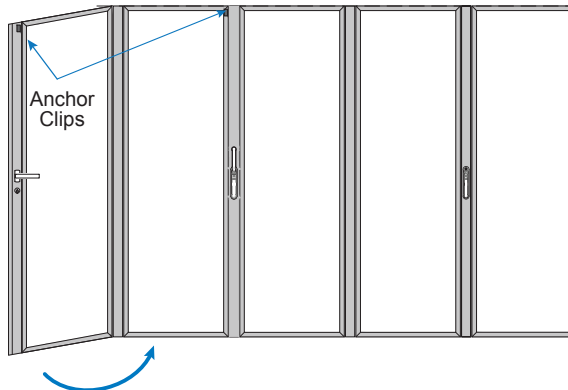


Lift Catch Handle away from plate to rotate up into unlocked position.

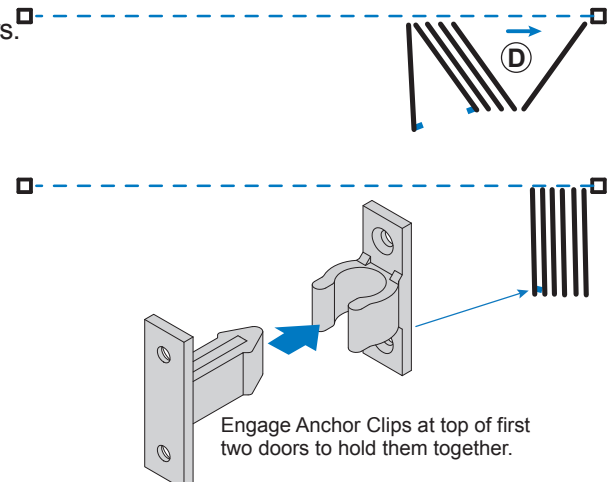
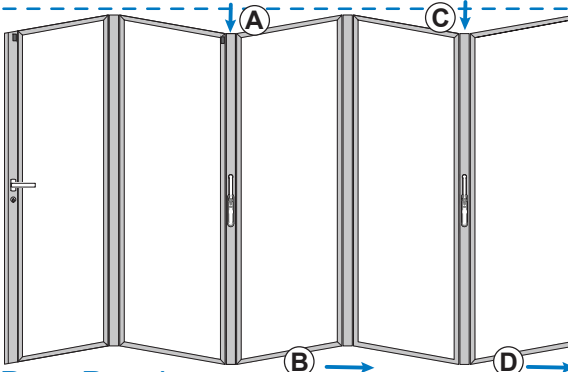
Catch Handle faces up when unlocked.



- ② Open Swing Panel into second panel 45 degrees.



- ③ Fold third door away from track and slide with first two doors. Repeat until all doors are folded together at one end.



Closing Door Panels

Follow steps above in reverse order to close panels.

OPERATION (CONTINUED)

IMPORTANT: The doors open and close smoothly when operating properly. Do not force the system. Contact a qualified technician if your doors are not functioning correctly.

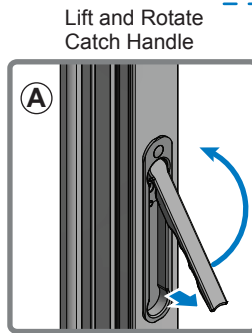
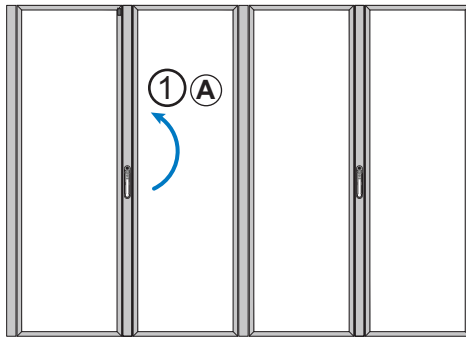
WARNING: Do not place fingers between panels when opening or closing doors. Physical harm may occur. Do not allow children to play with doors. Follow the operating procedure for your system.

NOTE: Panels must be opened and closed in a specific order that depends on the system configuration. Follow correct operating procedure for one of three system configurations shown on these two pages.

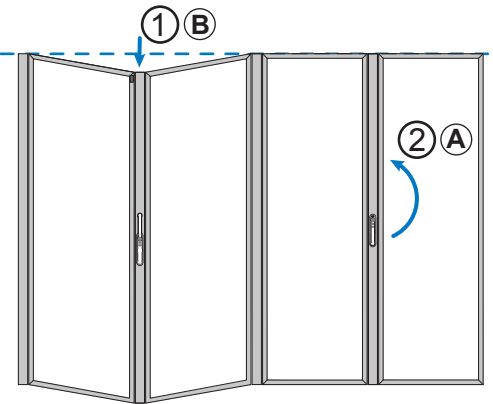
Operating Systems with Folding Doors Only (without Swing Door)

Opening Door Panels

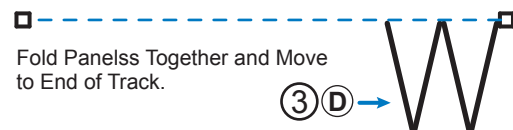
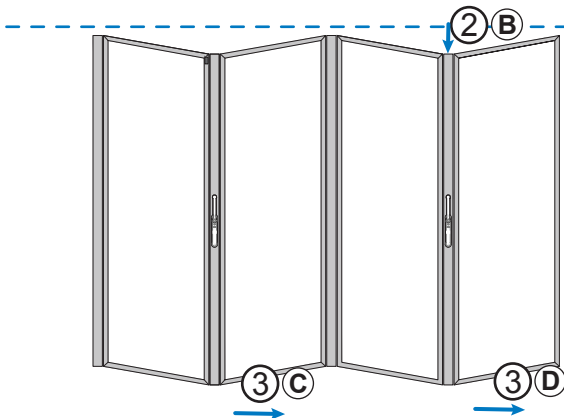
- ① Turn Catch Handle to retract Shoot Bolts from top and bottom track on first pair of panels. Fold doors from track.



- ② Retract Shoot Bolts from next pair of panels and fold away from track.



- ③ Slide first pair of panels together and continue moving folded pairs to end.



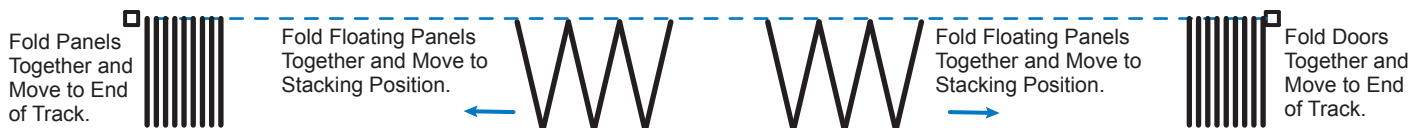
Closing Door Panels

Follow steps above in reverse order to close panels.

Operating Systems with Floating Panels (Even Numbered Panels Only)

Opening Door Panels

Floating Panels are generally used in large openings that exceed maximum folding sets. Follow steps above to fold panels on either side of Floating Panels into stacking position. Then repeat same process beginning with primary pair of each set of Floating Panels.



Closing Door Panels

Follow steps above in reverse order to close panels.

CARE AND MAINTENANCE

NOTE: The Palisades System must be correctly installed or it will not function properly, causing abnormal stress on components and lead to premature failure.

Your system should be easily operated. The doors should not bind or drag on the floor and locking points should engage smoothly. When the doors are closed, the reveal between panels and head, and between panels and sill should be consistent with no daylight seen from the inside.

As soon as you notice any problems, have them corrected by a qualified technician. A qualified technician may need to adjust the system periodically to compensate for any building movement or settlement.

Proper Operation

Panels should be opened and closed in the proper order and manner shown in the Operation section of this manual. Locking points should be gently opened and closed and not forced. If force is necessary, contact a qualified technician to adjust your system.

General Maintenance

Routine maintenance is required to maintain the appearance and safe operation of your system. Wash and inspect your system on a regular basis following these guidelines. Have a qualified technician replace worn or damaged components or perform any necessary repairs.

FRAME PERIMETER: Check the top track for signs of deflection or bowing in the middle. It should have little or no sag as you look down the length from one end to the other. Tighten and replace fasteners as needed. Inspect the exterior perimeter seal. Replace old, loose caulking and seal any gaps with a good quality sealant.

TOP TRACK: Inspect inside the top track for debris. Small obstacles can damage both the track and rollers, resulting in rough or noisy operation. Clean the inside surface of the track with a small brush or damp cloth and vacuum cleaner fitting.

BOTTOM TRACK: Remove debris and other foreign bodies that have dropped into the sill track immediately to prevent damaging the guides. Ensure all weep holes are clean and clear of any obstructions. Do not allow standing water in the track.

ALUMINUM COATING: Exposed surfaces should be cleaned regularly. Wash with soap or mild detergent and warm water followed by rinsing with clean cold water and wipe dry. Do not use aggressive alkaline or acid cleaners. Any chips or scratches must be repaired immediately with proper touch up paint.

GASKETS: Check gaskets for proper seating and condition. Remove dust and any deposits from gaskets and lubricate with a silicone spray applied to a soft cloth.

ROLLERS, GUIDES, BRACKETS AND HINGES: Wipe exposed surfaces with warm soapy water and a soft rag, and then rinse clean and wipe dry. Apply Cat. No. SP295 Dry Lubricant to all surfaces and remove excess with clean cloth.

HARDWARE: All hardware, hinges and handles should be periodically cleaned with a soft cloth and mild cleanser. Rinse clean and wipe dry. Ensure all fasteners are tight and in good condition.

FREQUENCY: These maintenance procedures need to be performed as often as necessary to prevent deterioration in the installed environment. As a guide, if a window or door requires washing then wash and inspect the hardware. At the minimum we recommend washing and inspecting your system every 6 months in general environments and every 3 months in marine and industrial environments.

Environments within one mile of a seacoast can be extremely corrosive and extra care should be taken to maintain your system. Open and close completely a system at least once a week and inspect all surfaces. Do not allow salt or sand to build up on surfaces. Wash and inspect your system at least once a month, more frequently as needed.

LIMITED WARRANTY**A CRH COMPANY****Limited Warranty****Palisades Bi-Folding Glass Wall Products**

CRL warrants for a period of **three (3) years** from the date of invoice that its Palisades Bi-Folding Glass Wall Products shall be free from defects that substantially impair product operation or performance, provided that the materials are used in an appropriately designed application and are installed and maintained in strict accordance with all applicable safety codes, building standards and **CRL** recommendations.

This Warranty will not apply if it is determined that the products have been installed and maintained in a manner that is not in conformity with the instructions and guidelines set forth by **CRL** for proper installation and maintenance, alterations, modifications, neglect, fire, war, flood, earthquake, and other acts of God.

CRL's sole responsibility to provide a remedy under this Warranty shall be limited to either a refund of the purchase price of the product, or to repair or provide a replacement of the product. The refund, repair, or replacement shall constitute the limit of **CRL's** liability and obligation for any material defect or defect in workmanship in the product. **CRL** reserves the exclusive right to select any one of the above mentioned remedies.

This Warranty is exclusive, and **CRL** makes no other warranty, express or implied, including without limitation, any implied warranty of merchantability or fitness for a particular purpose. In no event shall **CRL** be liable under any legal theory (including but not limited to contract, negligence, strict liability in tort, or warranty of any kind) for any indirect, special, incidental, consequential, or exemplary damages (including, but not limited to, lost profits).

C.R. Laurence Co., Inc.
2503 E. Vernon Avenue, Los Angeles CA 90058
crlaurence.com