

Installation and Owner's Manual

Generation 4 Folding Glass Walls by NanaWall

NW Aluminum 640 | NW Acoustical 645 | NW Reinforced 647

NW Aluminum 840 | NW Reinforced 847

NW Wood 540 | NW Acoustical 545

NW Clad 740

This Manual contains instructions on the installation, operation, maintenance, and warranty of Generation 4 Folding Glass Walls by NanaWall. This manual is to be used by the Installer for installation and is to be kept by the Owner for reference. Replacement parts can be ordered directly through NanaWall Systems.

GENERATION ™

Folding Glass Walls by NanaWall

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NanaWall[®]
Boundaries **Unbound**[®]

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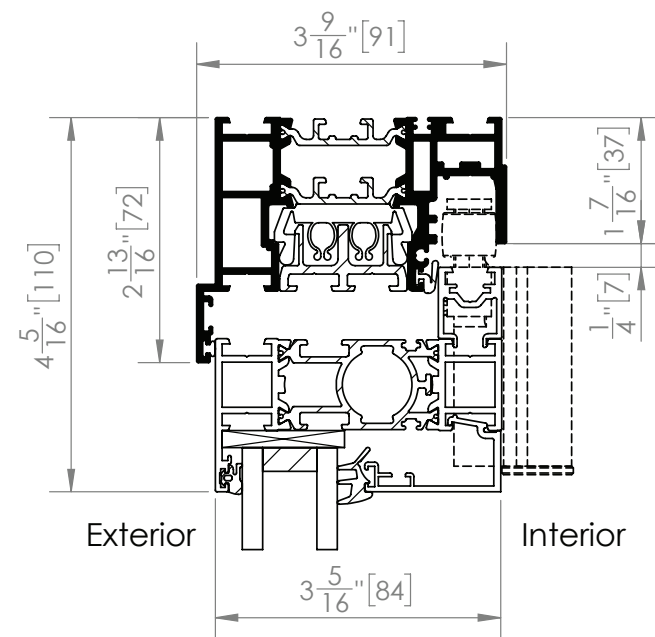
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Generation 4 Product Family

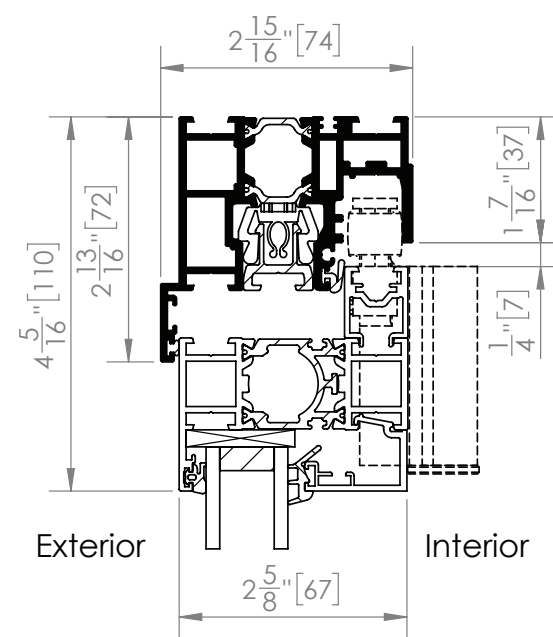
The principle of installation within the product family is the same for all Generation 4 systems (profile depth varies by system).

For comparison, below are typical head track vertical cross section details of the different systems.

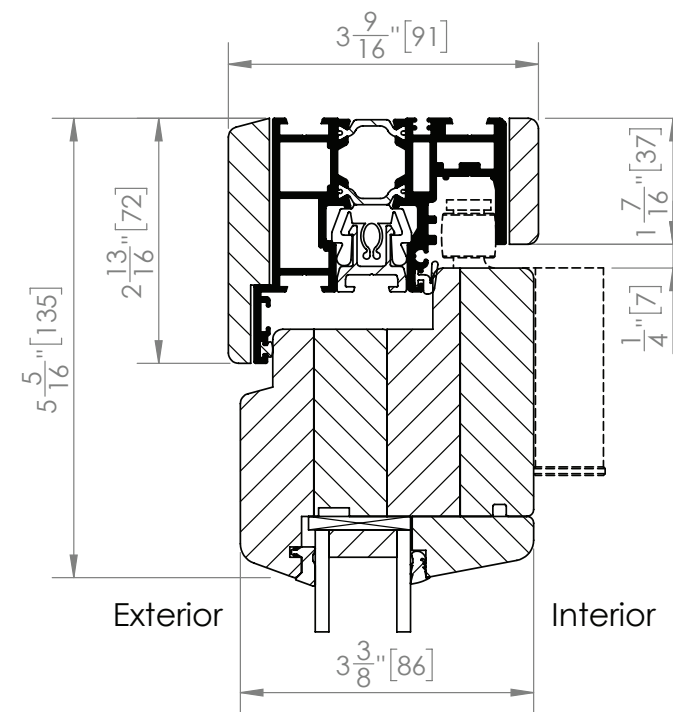
NW Aluminum 840
NW Reinforced 847



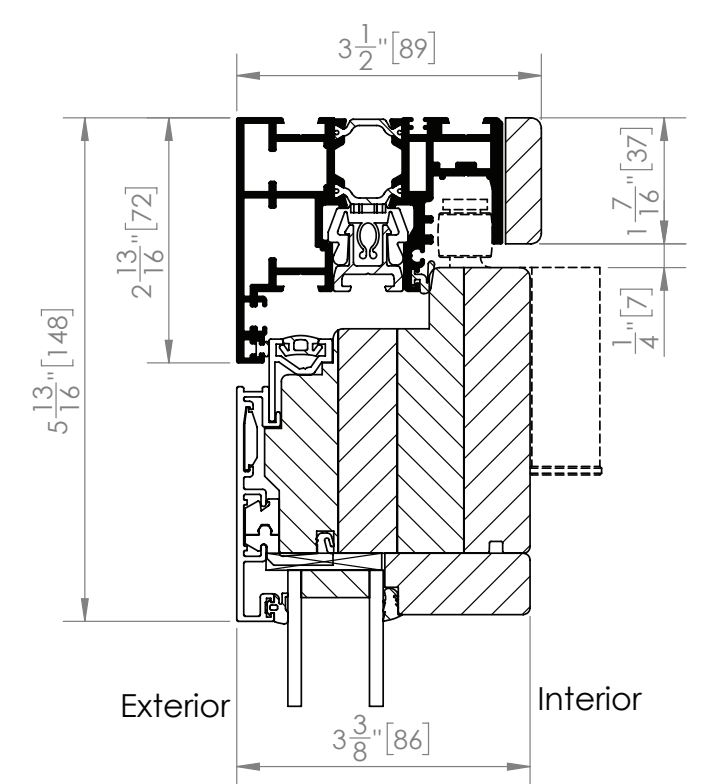
NW Aluminum 640
NW Acoustical 645
NW Reinforced 647



NW Wood 540
NW Acoustical 545



NW Clad 740



Installation Instructions

The installation of the NanaWall 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, sealing, and assumes an understanding of the fundamentals of building construction that affect the installation of large aluminum door systems.

Using an independent NanaWall Certified Installer is highly recommended. If an independent NanaWall Certified Installer cannot be used, the installer should have at least some experience in installing NanaWall systems.

IMPORTANT: Read these installation instructions before carrying out any installation work. Install as recommended; otherwise, the unit may not function properly and any warranty, written or implied, will be void.

As regulations governing the use of glazed windows, doors, storefronts, and/or partitions vary widely, it is the responsibility of the customer, building owner, architect, contractor, or installer to ensure that products selected conform to all applicable codes and regulations, including federal, state, and local. Nana Wall Systems, Inc. can assume no obligation or responsibility whatsoever for failure of the customer, building owner, architect, contractor, or installer to comply with all applicable laws and ordinances, and safety and building codes.

The Generation 4 systems are shipped with all necessary components. However, the anchoring materials, such as the correct screws, bolts, shims, and sealants required to anchor the unit in the rough opening are not part of the scope of

supply and are not provided by NanaWall. Selection of the proper anchoring materials are critical to proper installation as outlined in these instructions.

DESCRIPTION OF SUPPLIED PARTS

The frame is shipped knocked down and needs to be assembled. Panels are pre-assembled with or without glass, ready to be attached to the installed frame. In most cases, all hinges, weather stripping, multipoint locking, and flat handles are pre-attached to the panels and frame components.

Check all parts carefully before assembly. Depending on the model, some of these parts may already be pre-installed on the panels. Check that the sizes of the frame components, panel sizes, and configurations match what was ordered according to the signed product drawings that show all dimensions of the system.

An accessory box is added to the crates that contains hinge pins, rollers, various hardware parts, and printed documents. Inspect the product drawings indicating size, configuration, and labeling of the units ordered. Carefully note the information on the rough opening allowances to make sure the rough opening is prepared properly for the system to fit correctly when installed. For orders with multiple units, do not mix and match panels and frames, even if two units are exactly the same.

Below is a list of the main components supplied. Always looking from inside:

- Left side jamb (labeled L) and right side jamb (labeled R).
- Head (top) track (labeled O) and sill track (labeled U). (In some instances, the head track and sill may be in segments and require joining in the field.)
- Pre-assembled panels mean the locking mechanism with flat handles are installed on the panels.
- The number of panels depends on the unit ordered. The sequence of labeling of panels starts from the left with the left most panel labeled Panel 1 as viewed from the interior.

- If supplied unglazed, panels have to be glazed before being installed in the opening. See Glass Installation and Glazing instructions section of this document.
- For certain configurations with even number of panels to one side, there will be separate running posts.
- Upper guiding rollers and bottom rollers - one set for each pair of folding panels.

HANDLING OF COMPONENTS

1. Upon receipt, inspect the shipment to ensure it is in good condition. Any potential damage must be noted on the Bill of Lading at the time of delivery by the customer. Any shipping damage to crates and components inside must be photographed and reported to NanaWall immediately. Please email pictures with your order number to service@nanawall.com and contact the Service Department at (800) 873-5673 ext. 256.
2. Make sure that the accessory box with the hinge pins, rollers, various hardware parts, and printed documents does not get lost. Please also verify the product drawings for this order and the Installation and Owner's Manual are in the box. If these are missing, please contact NanaWall at info@nanawall.com to get these documents.
3. Store in a clean and dry location and protect against defacement or damage, especially to the edges of panels.
4. Always practice safety. Wear the appropriate eye, ear, and hand protection items, especially when working with power tools. These panels can be heavy and awkward to handle. Use appropriate assistance and safety procedures, including safe lifting techniques, to avoid personal injury and damage to product.

PREPARATION OF THE ROUGH OPENING

All rough opening spaces and allowances shown in the product drawings are meant for shimming the system to be installed perfectly plumb, level, and square. For necessary clearance and shim adjustment space, rough opening is suggested to be 3/4" wider than the unit width and 1" taller than the unit height for vertical measurements of the unit ordered (check to comply with applicable codes for maximum shim space allowed, especially in high wind load areas). It is important that the rough opening be the correct size.

Note that the outside frame height of the unit ordered is measured from the bottom of the sill and not from the finished floor. Allowance must be made in height for the portion of the sill that is below the measured finished opening. An important reference for the preparation of the rough opening is the finish floor height.

It is highly recommended to install this system in a rough opening only and return all finishes to the system frame after proper installation. The shim space around the system is required—if the system is installed into a finished opening there will be space exposed around the system that will still need to be trimmed. Under no circumstances should the system be installed on compressible substrates such as sheetrock.

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

1. 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 of L/720 of the span or 1/4". Structural support to prevent movement due to lateral loads (when the panels are closed such as windload, or other loads, and when the panels are stacked open) must also be provided. In addition, point loads for the posts supporting the header must be reinforced to prevent compression.
2. The surrounding substrates must be designed and anchored to properly transfer all loads to the main building structure.
3. A qualified engineer or architect should be used to determine the proper construction details and the header to be used in your particular application.
4. THE ROUGH OPENING SHOULD BE LEVEL, PLUMB, AND SQUARE AT ALL POINTS. There should be no unevenness or bowing. Make sure that the header, side posts, and sill are not twisted. There should be no bumps on the floor. Make sure that the finished floor around the opening is low enough to allow proper clearance for opening/closing the panels. The side posts should be in the same vertical plane and not offset to each other. The RO header and sill need to be level and parallel and the jambs should be plumb and parallel. A TRANSIT OR ROTARY LASER LEVEL AND OTHER SIMILAR PRECISE MEASURING EQUIPMENT SHOULD BE USED TO VERIFY THE ROUGH OPENING IS PREPARED PROPERLY.

5. With a recessed sill, if concrete is to be poured after the installation of the unit, the sill MUST be securely attached to the construction. If the sill is to be cast in concrete, then an expansion gap with appropriate material has to be created next to the sill.
6. With the Hybrid and Raised sills, the weep slots in the sill must be unobstructed and properly drained.
7. With a Low Profile Saddle sill, some resistance to water infiltration may be achieved by installing weep holes and drain connections to the outside. The option to install weep holes and drain connections is to be decided and provided by the project architect or customer, NOT by NanaWall.
8. For the Hybrid, Raised, and Low Profile Saddle sills, location of drain connections and flow of water is determined by others according to the surrounding conditions. See sections Weep Hole Pattern - Low Profile Saddle Sill and Suggested Typical Installation Details of this document.
9. For better performance and protection, any exterior folding system should be installed under an overhang or with other similar protection.
10. For better performance, it is recommended that all dead loads such as upper levels, roof, etc. be constructed before a unit is installed to limit the deflection of the header after installation of the door system.
11. Waterproofing and envelope details are not part of the base NanaWall installation and will be unique to each project—proper flashing, waterproofing, and envelope details around the perimeter of the opening, especially at the sill, are to be designed and completed by others. This may not be part of the scope of work from the independent NanaWall Certified Installer.

12. NanaWall systems DO NOT come with any nailing flange. Therefore, it must be confirmed that the entire opening and finished installation is prepared against any water or air infiltration beyond the system frame.
13. Make sure you seek proper professional advice for the appropriate construction, waterproofing, and building envelope details needed for your application and jurisdiction. Do not install unit in structures that do not allow for proper management / drainage of moisture.

IMPORTANT: (For Wood and Clad Systems)

Immediately upon receipt of a NW Wood 540, NW Acoustical 545, or NW Clad 740 unit, and prior to installation and exterior exposure to weather elements, all wood surfaces including all edges (top, bottom, and sides) should be completely sealed and must be protected with a good quality finish. Before installation, keep the units in a dry and clean location, store and stack them properly to avoid twisting or warping of the panels and frame components.

See Maintenance section of this manual for additional information.

IMPORTANT: To avoid future problems, check the condition on site before starting the installation. Do not install your unit until the rough opening has been correctly prepared.

INSTALLATION OF FRAME AND UNIT

For frame and unit installation, please see section Generic Installation Illustrations in this document.

FINAL STEPS

Finish any waterproofing, flashing, trim, and sealant needed around the perimeter of the opening to be designed and finished by others.

IMPORTANT: Make sure any weep holes in the sill are not blocked.

To prevent uncontrolled movement of the panels when in open position, place appropriate door holder by others as needed.

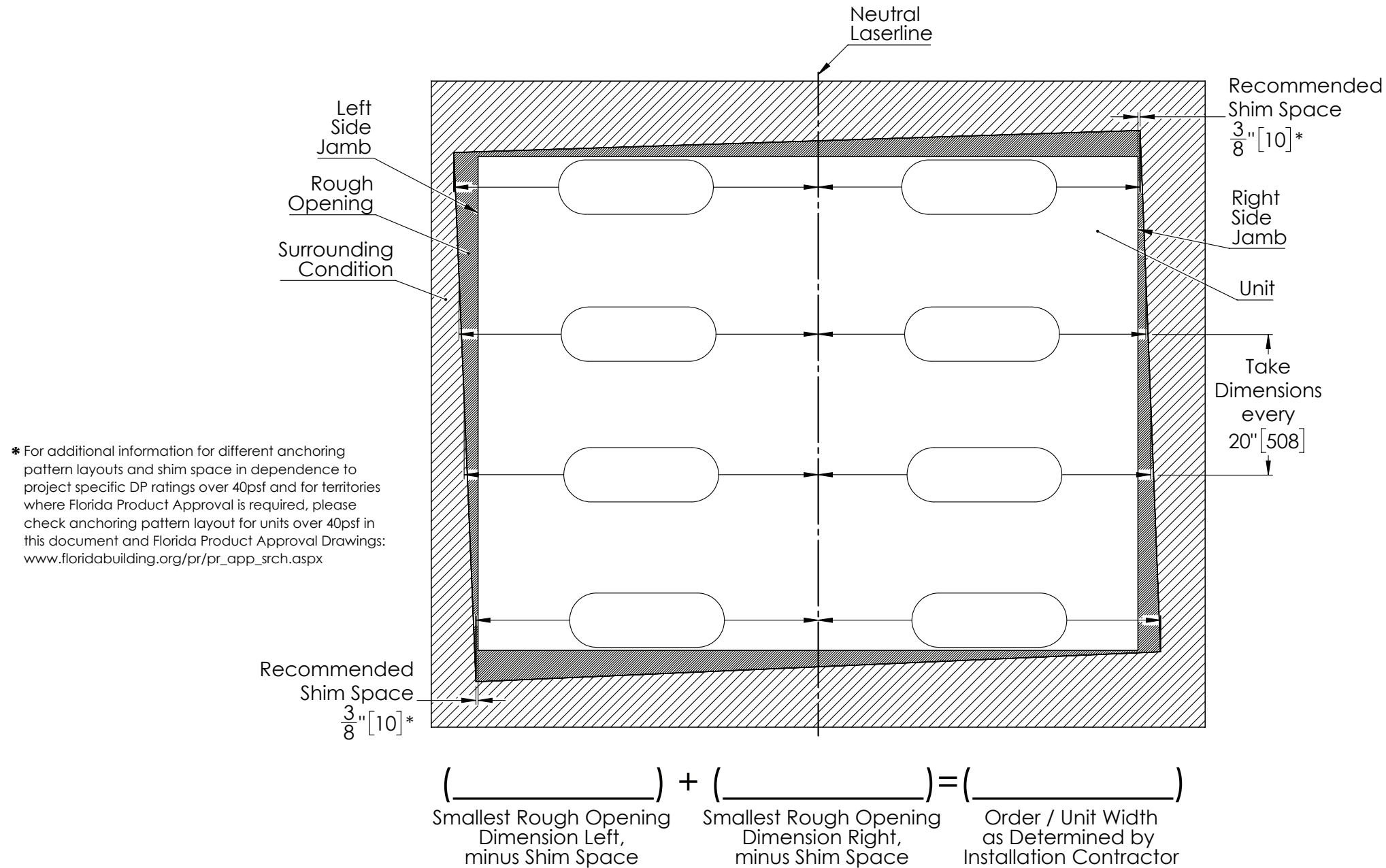
PROTECTION OF UNIT DURING CONSTRUCTION PHASE

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. All temptations to use the large opening of an installed system for easy ingress and egress by tradesmen should be resisted.

Rough Opening Preparation

HORIZONTAL DIMENSIONS

Rough Opening Field Survey Horizontal Dimensions, Inside View

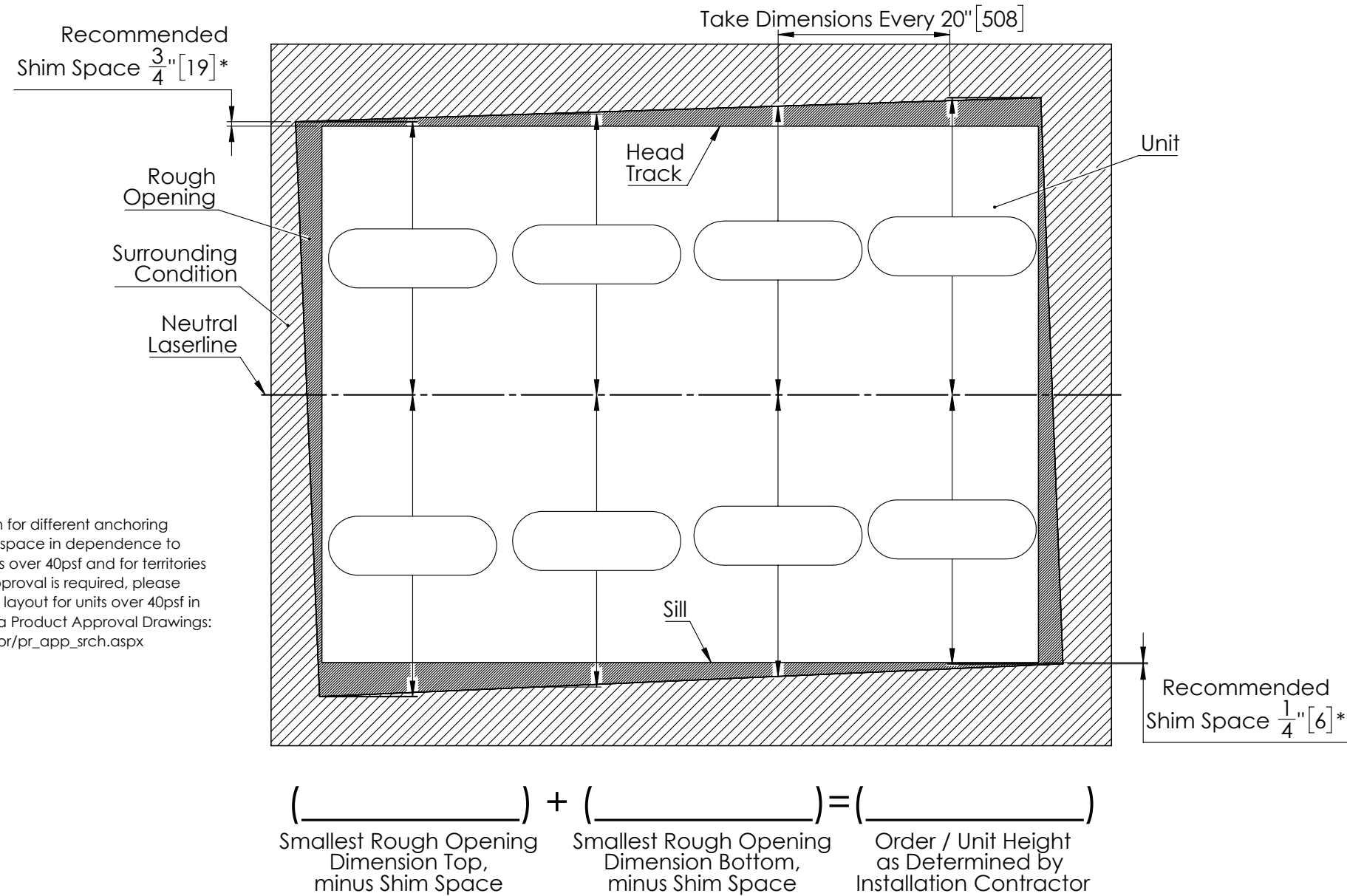


The structural integrity of the header is critical for proper operation. Vertical deflection of the header under full live and dead loads should be the lesser of L/720 of the span or 1/4" (6 mm). Depending on the size of the panels, the weight can vary from 6 lbs/ft² (30 kg/m²) for double glazed to 8 lbs/ft² (40 kg/m²) for triple glazed. Please check your specifications for your glass type and weight.

Rough Opening Preparation

VERTICAL DIMENSIONS

Rough Opening Field Survey Vertical Dimensions, Inside View



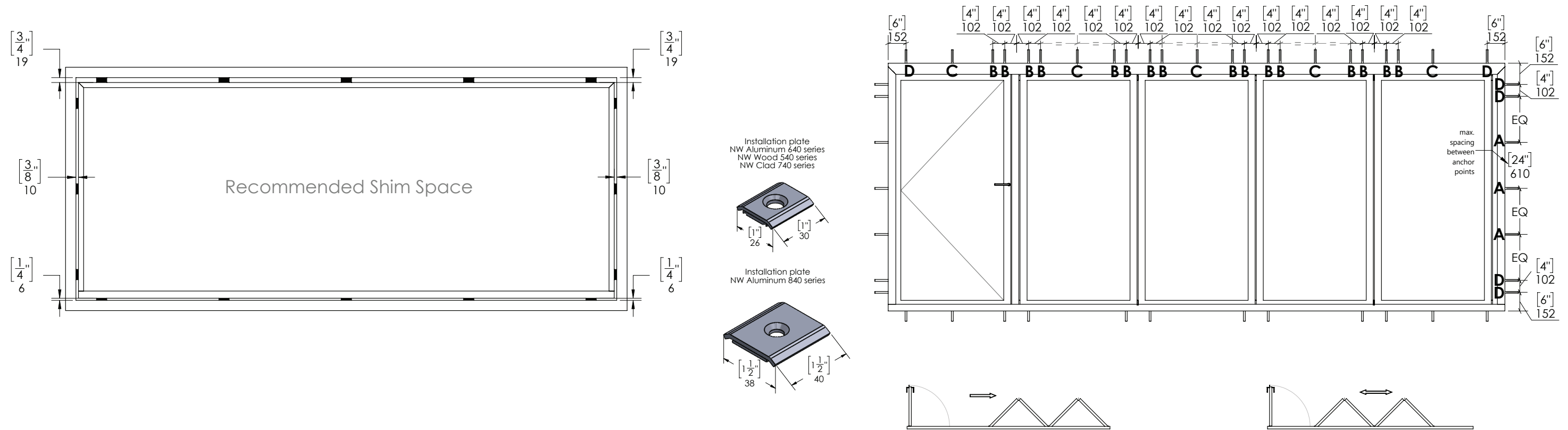
* For additional information for different anchoring pattern layouts and shim space in dependence to project specific DP ratings over 40psf and for territories where Florida Product Approval is required, please check anchoring pattern layout for units over 40psf in this document and Florida Product Approval Drawings: www.floridabuilding.org/pr/pr_app_srch.aspx

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 of L/720 of the span or 1/4" (6 mm). Depending on the size of the panels, the weight can vary from 6 lbs/ft² (30 kg/m²) for double glazed to 8 lbs/ft² (40 kg/m²) for triple glazed. Please check your specifications for your glass type and weight.

Anchoring Pattern Layout for Units with a Design Pressure Rating **Lower than 40psf**

TYPICAL 1L4R OR 1L4LR UNIT

Typical anchorage shown for a 1L4R or 1L4LR unit. (Units with panels stacking at either end of the opening.)
Please consult with your local structural engineer if additional anchoring points are needed. Each anchorage point needs to be shimmed.



Please see product drawings for your project specific unit dimensions and apply the logic of the anchoring pattern layout accordingly. Typically, we ask for 3/4" (19 mm) shim space at the head track, 1/4" (6 mm) shim space at the sill track, and 3/8" (10 mm) at each jamb. This allows for installing the system plumb, level, and square.

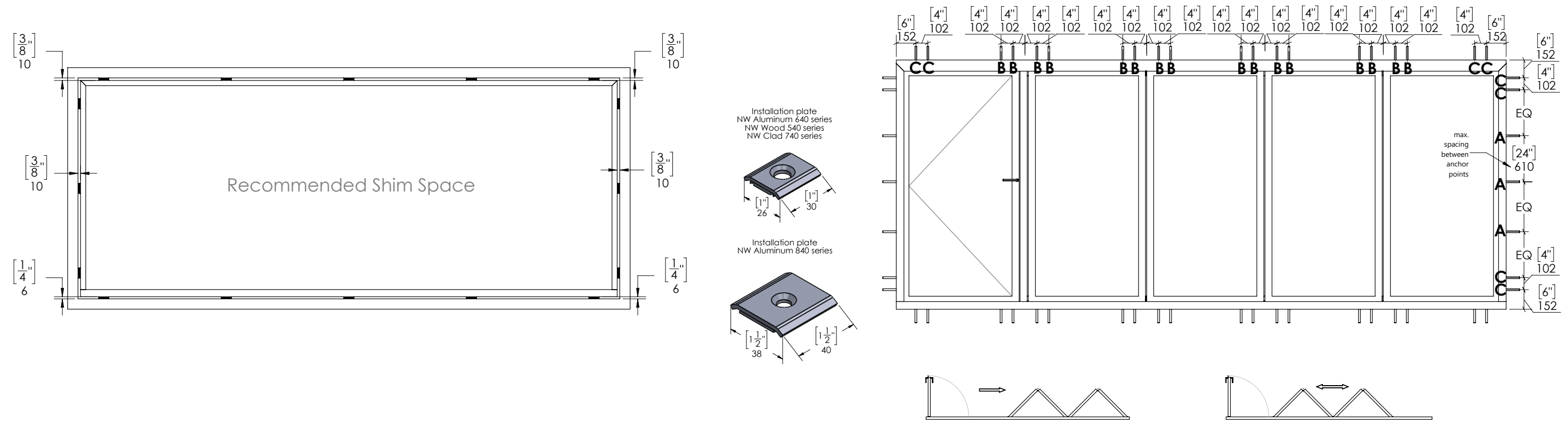
For additional information for different anchoring pattern layouts and shim space in dependence to project specific DP ratings for territories where Florida Product Approval is required, please check Florida Product Approval Drawings: www.floridabuilding.org/pr/pr_app_srch.aspx

- A** = 24" (610 mm) maximum spacing centered evenly between D. For exterior Generation 4 systems, in general, max. spacing should not exceed 24" (610 mm).
- B** = Anchorage points at head track to be two anchors at 4" (100 mm) apart and sill to be 4" (100 mm) from each side of panel meeting point.
- C** = Additional anchorage points at head track and sill in the center of the panel.
- D** = 6" (150 mm) distance from the outside unit dimension to the 1st anchor point and an additional 4" (100 mm) to the adjacent anchoring point for the side jambs.

Anchoring Pattern Layout for Units with a Design Pressure Rating **Over** 40psf

TYPICAL 1L4R OR 1L4LR UNIT

Typical anchorage shown for a 1L4R or 1L4LR unit. (Units with panels stacking at either end of the opening.)
 Please consult with your local structural engineer if additional anchoring points are needed. Each anchorage point needs to be shimmed.



Please see product drawings for your project specific unit dimensions and apply the logic of the anchoring pattern layout accordingly. Due to the higher Design Pressure Rating, we ask for 3/8" (10 mm) shim space at the head track, 1/4" (6 mm) shim space at the sill track, and 3/8" (10 mm) at each jamb. This allows for installing the system plumb, level, and square.

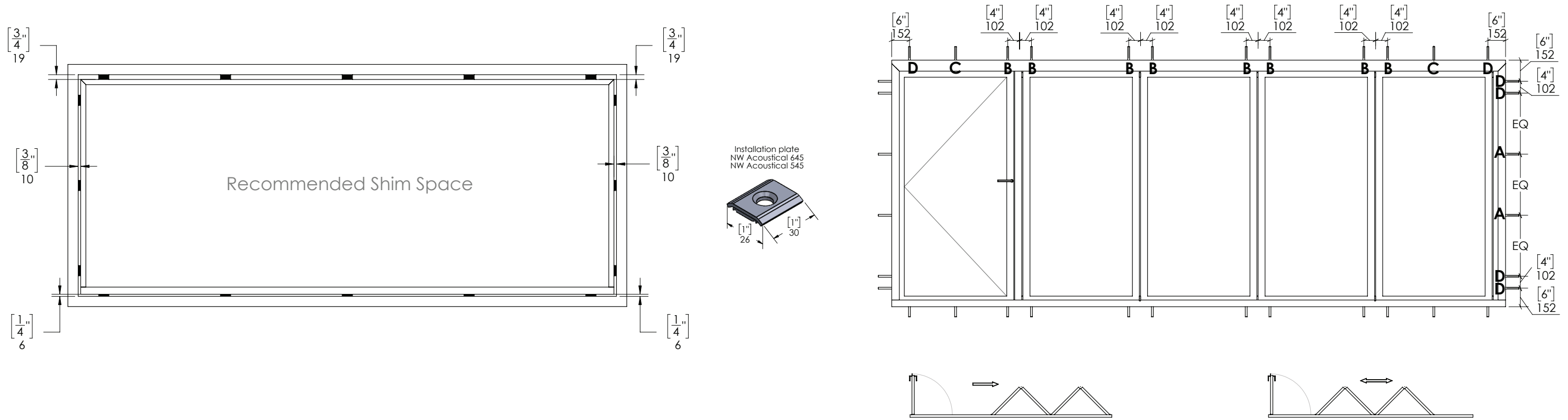
For additional information for different anchoring pattern layouts and shim space in dependence to project specific DP ratings for territories where Florida Product Approval is required, please check Florida Product Approval Drawings:
www.floridabuilding.org/pr/pr_app_srch.aspx

- A** = 24" (610 mm) maximum spacing centered evenly between C. For all the other exterior Generation 4 systems, in general, max. spacing should not exceed 24" (610 mm).
- B** = Anchorage points at head track and sill to be two anchors at 4" (100 mm) apart from each side of panel meeting point.
- C** = 6" (150 mm) distance from the outside unit dimension to the 1st anchor point and an additional 4" (100 mm) to the adjacent anchoring point.

Anchoring Pattern Layout for Units Installed in Interiors (For NW Acoustical 645 and NW Acoustical 545 only)

TYPICAL 1L4R OR 1L4LR UNIT

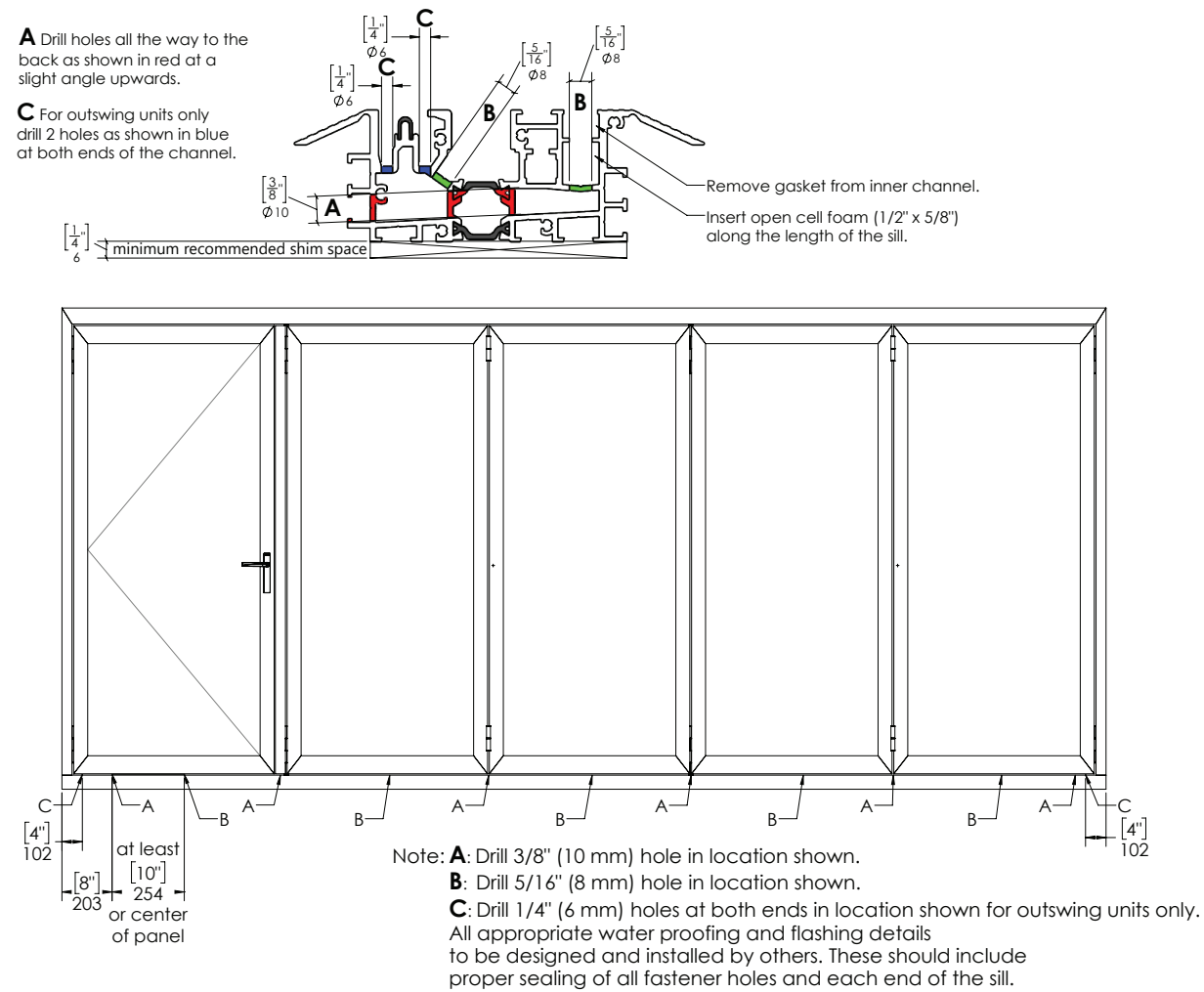
Typical anchorage shown for a 1L4R or 1L4LR unit. (Units with panels stacking at either end of the opening.)
Please consult with your local structural engineer if additional anchoring points are needed. Each anchorage point needs to be shimmed.



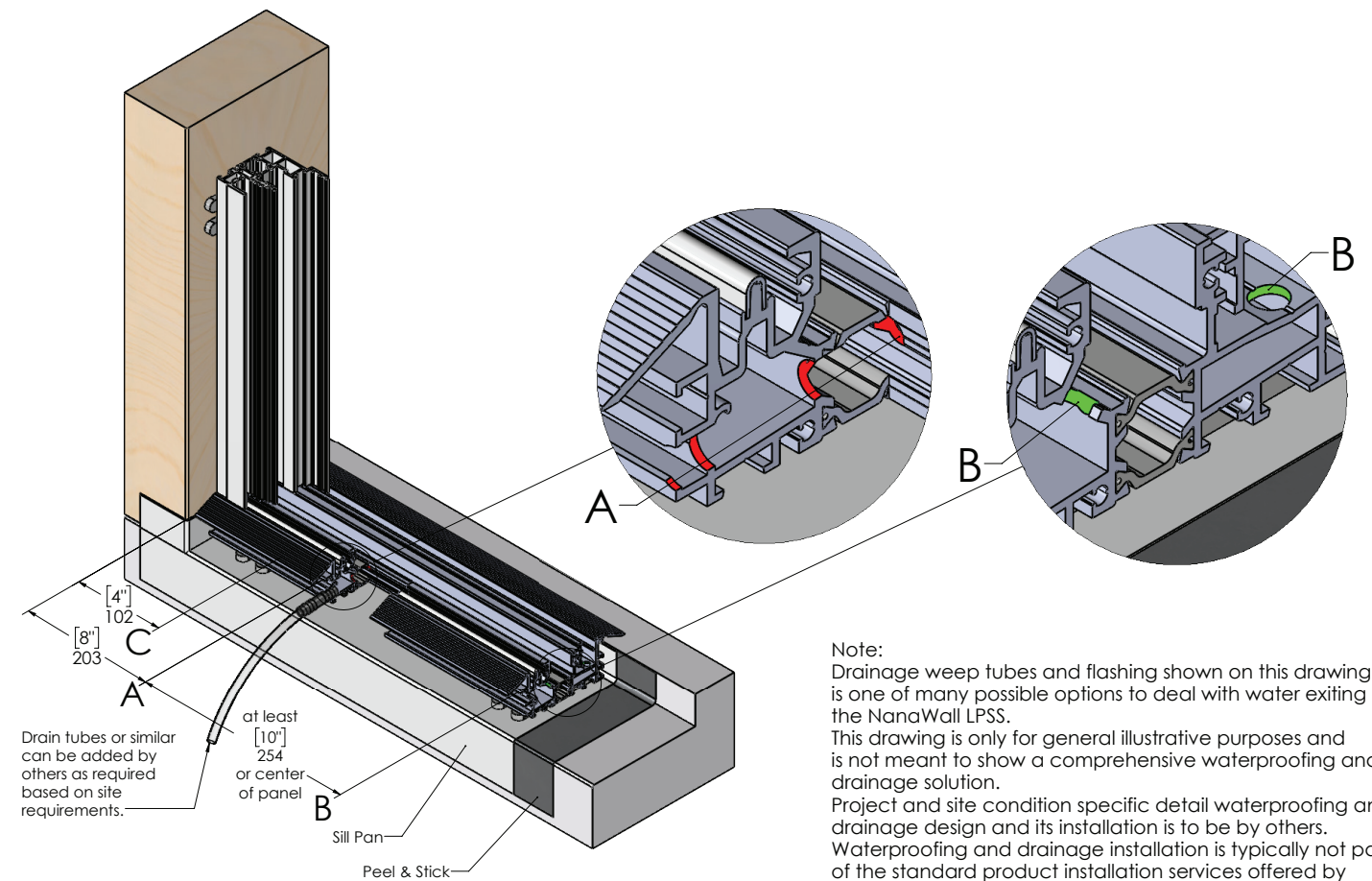
- A** = Two anchorage points equal spacing centered evenly between D.
- B** = Anchorage points at head track and sill to be 4" (100 mm) on each side of panel meeting point.
- C** = Additional anchorage points at head track and sill in the center of the panel at each end of the unit.
- D** = 6" (150 mm) distance from the end of the profile to the 1st anchor point and an additional 4" (100 mm) to the adjacent anchoring point for the side jambs.

Weep Hole Pattern — Low Profile Saddle Sill (LPSS)

Generic weep hole pattern for Generation 4 LPSS.
Drainage by others.
(For some resistance against wind driven rain.)



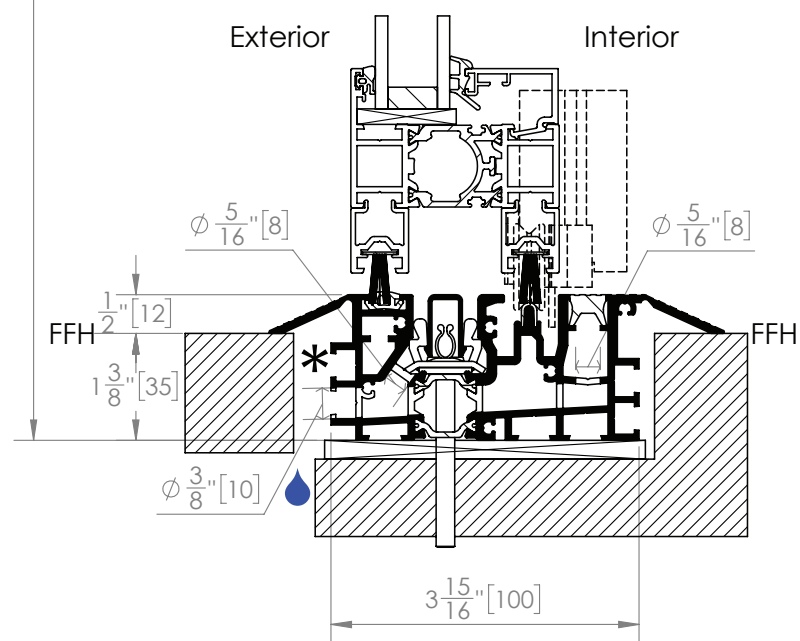
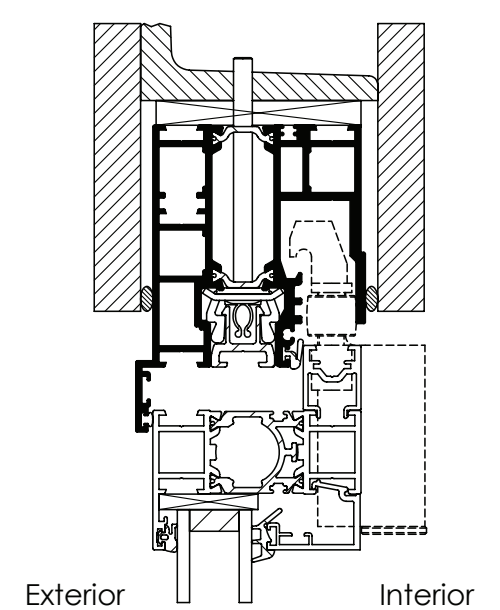
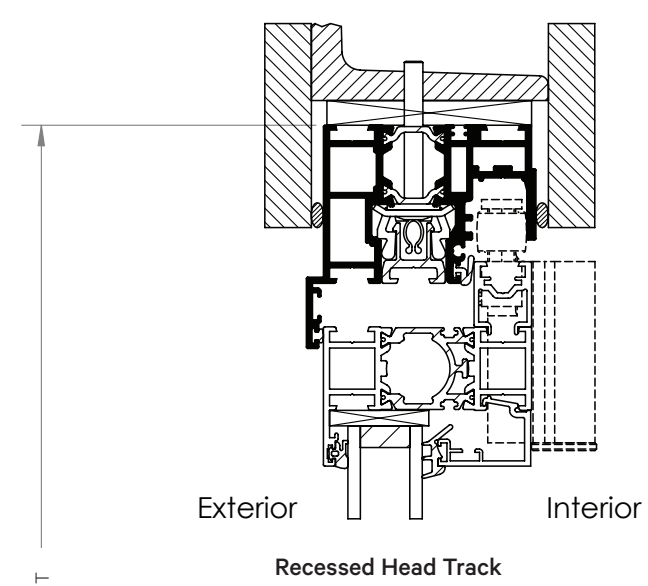
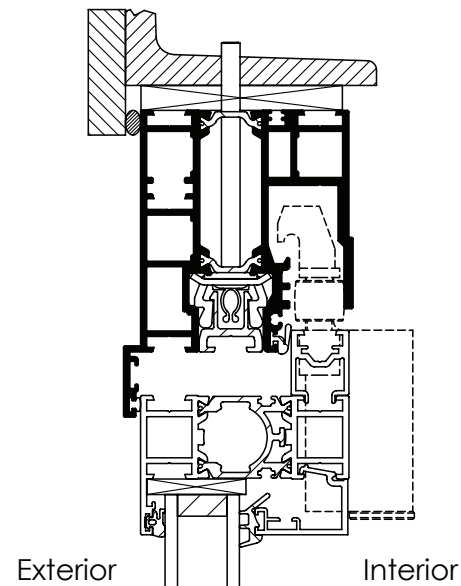
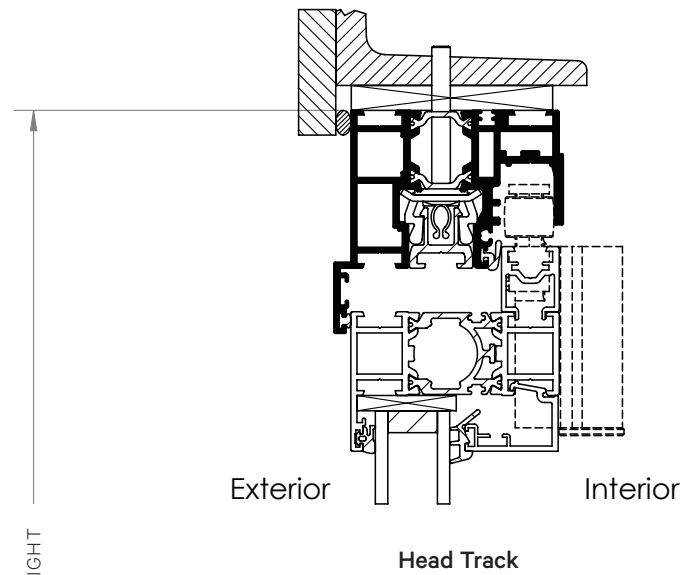
Example drainage for water exiting the weep holes from NanaWall Low Profile Saddle Sill ("LPSS") for the Generation 4 Systems.



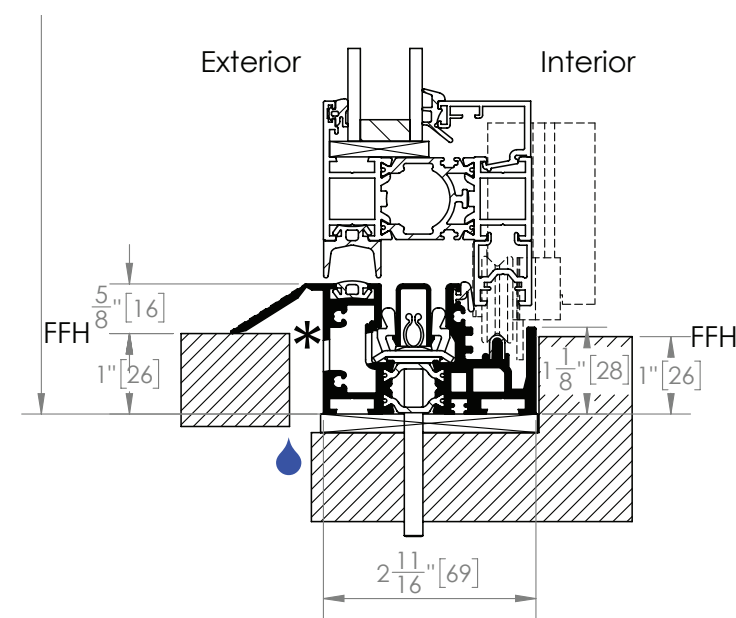
All Cross Sections Are Not to Scale and Subject to Change without Notice

Suggested Typical Installation Details — Generic Examples *(Profile depth varies by system)*

INWARD OPENING DETAILS



Low Profile Saddle Sill - Option 1
 (*Weep holes have to be unobstructed. Drainage by others is necessary for water rating. Please review the Weep Hole Pattern section of this document.)

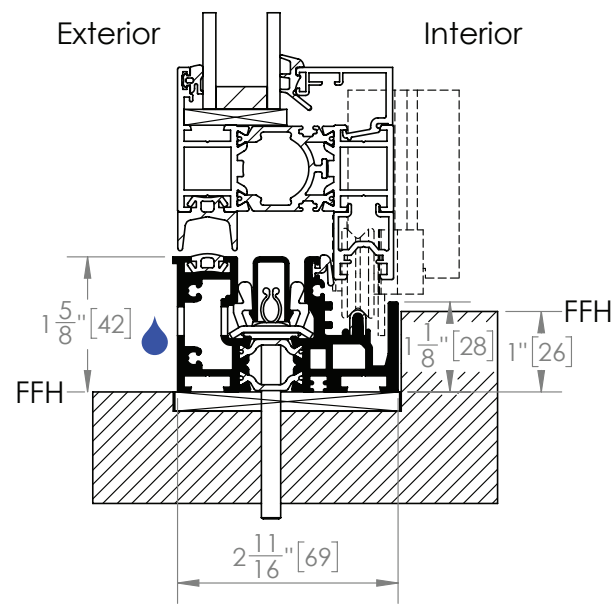


Hybrid Sill
 (*Weep slots have to be unobstructed. Details of the management of water exiting the weep slots must be designed and installed by others. If required to drain sill cavities completely, drill one additional 5/16\"/>

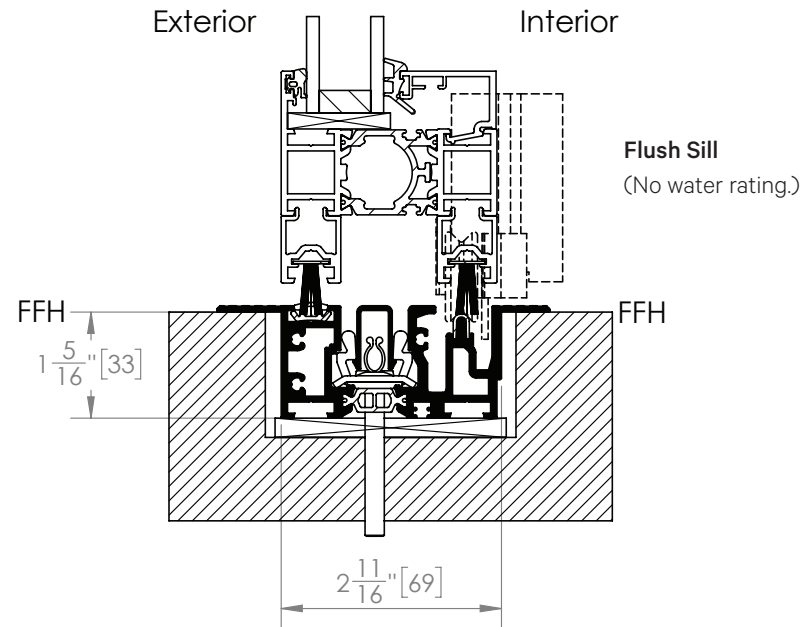
All Cross Sections Are Not to Scale and Subject to Change without Notice

Suggested Typical Installation Details — Generic Examples *(Profile depth varies by system)*

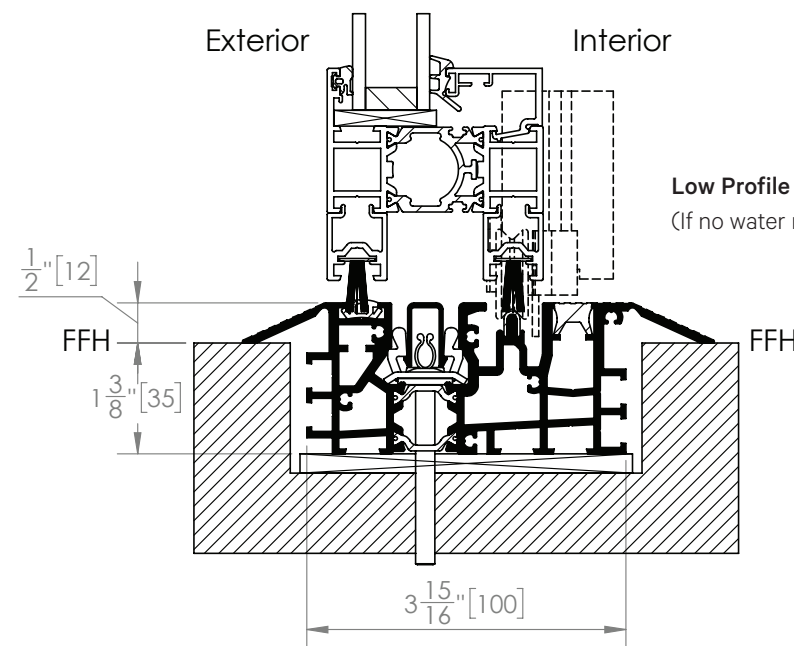
INWARD OPENING DETAILS



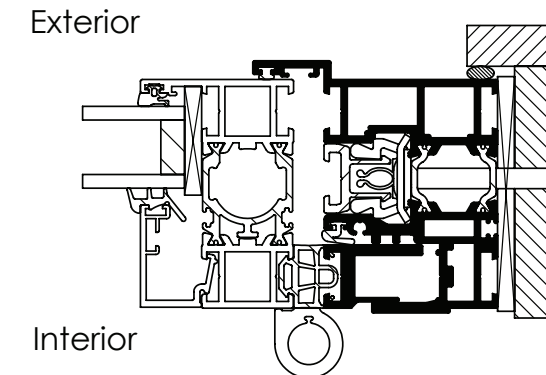
Low Profile Raised Sill
 (Weep slots have to be unobstructed. Details of the management of water exiting the weep slots must be designed and installed by others.)



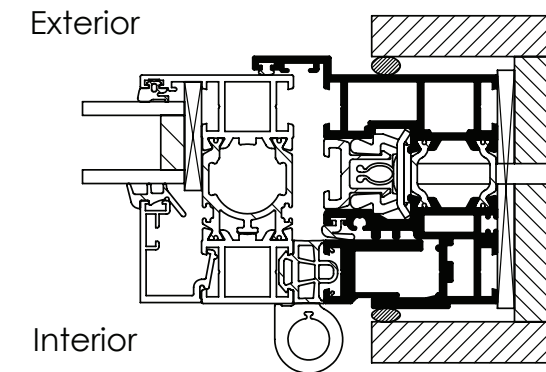
Flush Sill
 (No water rating.)



Low Profile Saddle Sill - Option 2
 (If no water rating needed.)



Panel Hinged at Right Side Jamb



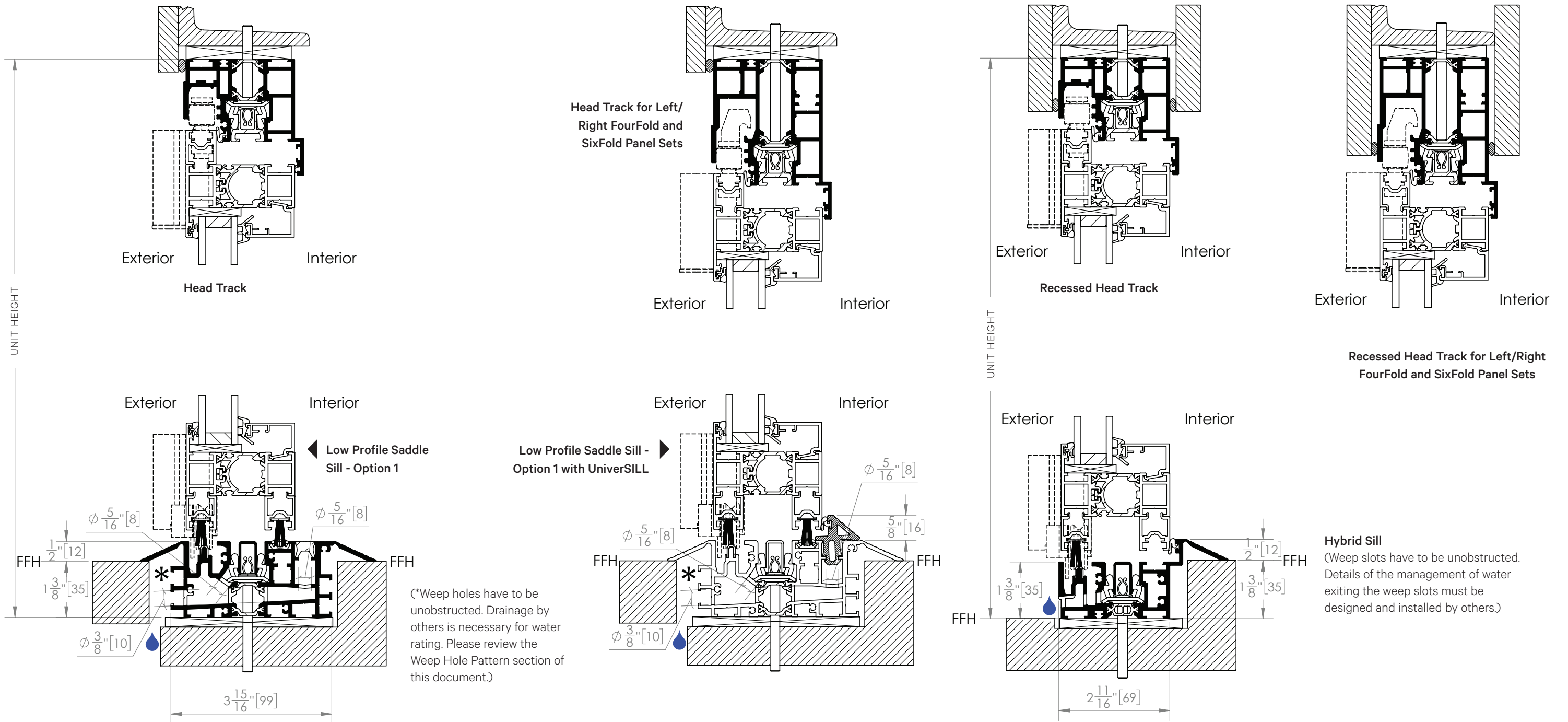
Panel Hinged at Right with Recessed Side Jamb

Suggested Typical Installation drawings shown are very general and may not be suitable for any particular installation. Product placement, fasteners, flashing, waterproofing, sealant, trim, and other details for specific surrounding conditions must be properly designed and provided by others.

All Cross Sections Are Not to Scale and Subject to Change without Notice

Suggested Typical Installation Details — Generic Examples *(Profile depth varies by system)*

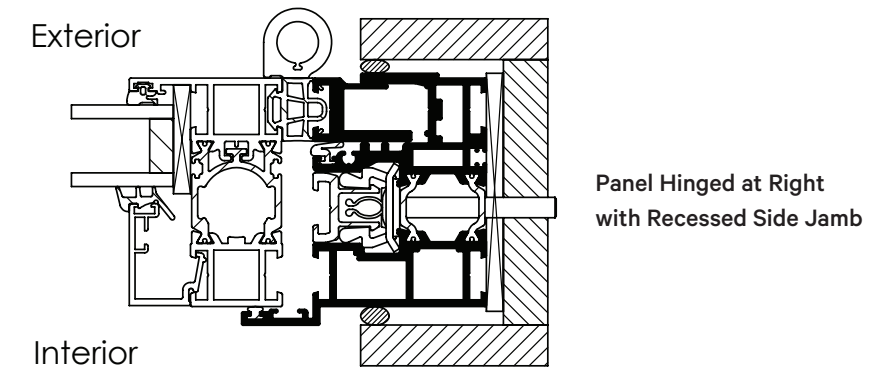
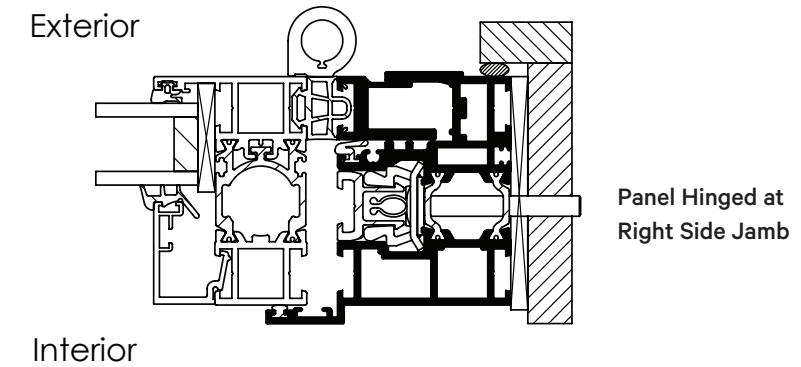
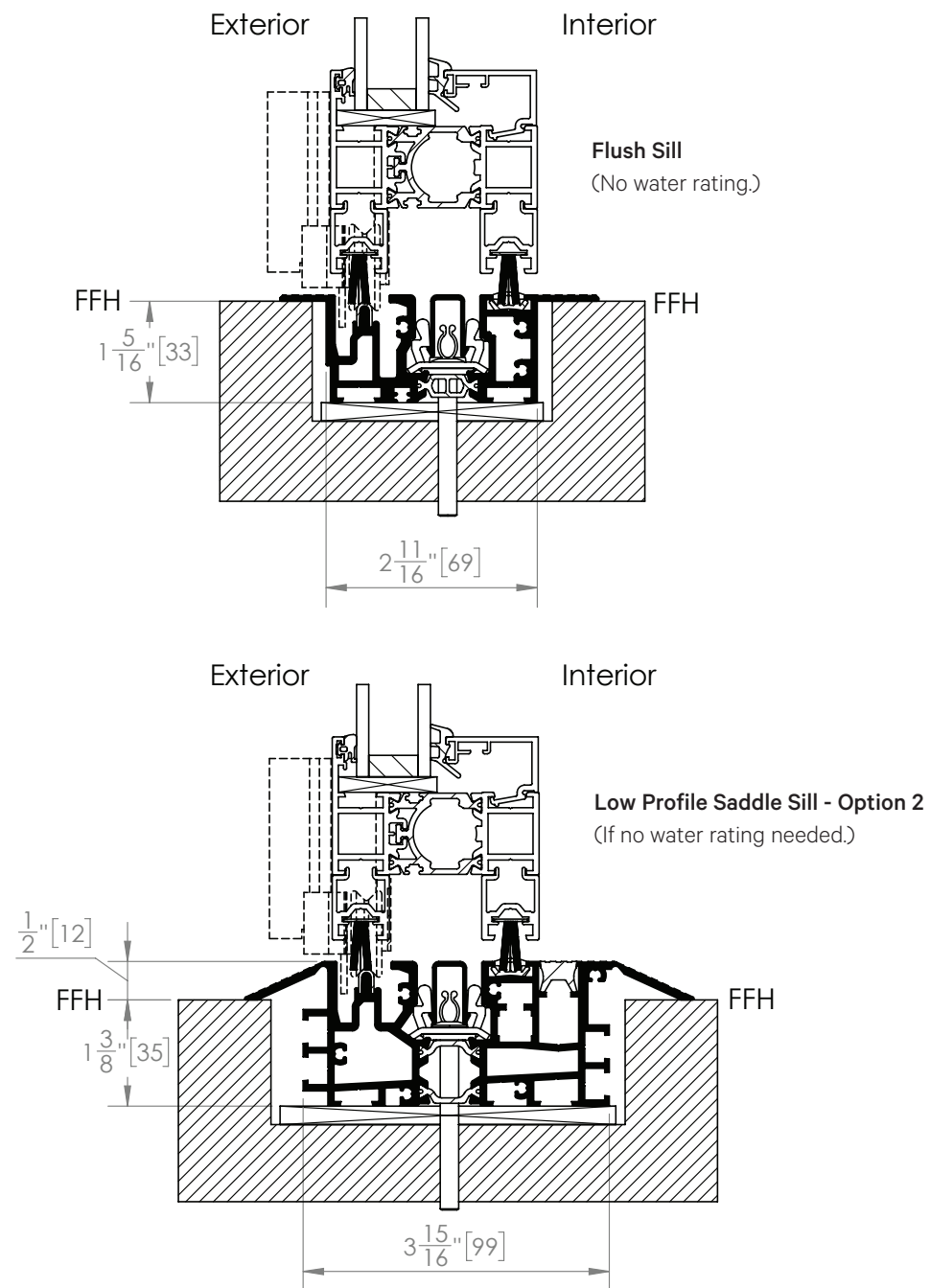
OUTWARD OPENING DETAILS



All Cross Sections Are Not to Scale and Subject to Change without Notice

Suggested Typical Installation Details — Generic Examples *(Profile depth varies by system)*

OUTWARD OPENING DETAILS

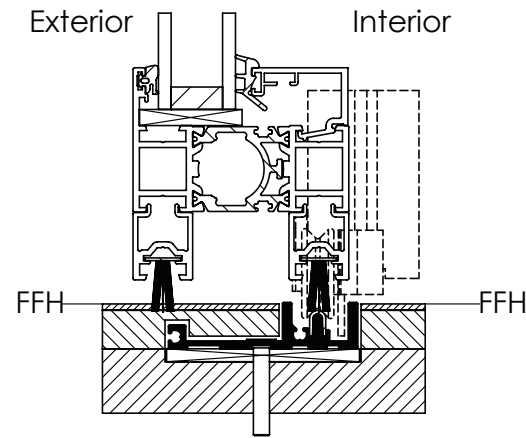


Suggested Typical Installation drawings shown are very general and may not be suitable for any particular installation. Product placement, fasteners, flashing, waterproofing, sealant, trim, and other details for specific surrounding conditions must be properly designed and provided by others.

All Cross Sections Are Not to Scale and Subject to Change without Notice

Suggested Typical Installation Details — Generic Examples *(Applies to NW Acoustical 645 and NW Acoustical 545 only)*

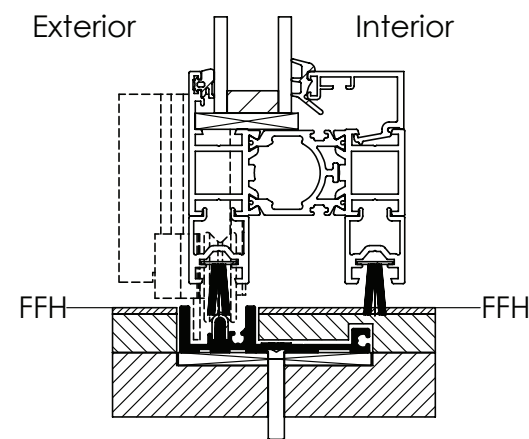
INWARD OPENING DETAILS



Minimal Surface Mounted Flush Sill

(To prevent sill deflection, shims between the anchor points should be installed and any cavities between the shims should be filled with non-expanding grout. If filling with grout is not possible, continuous shims should be placed along the entire length of the sill to provide continuous solid support and level condition.)

OUTWARD OPENING DETAILS



Minimal Surface Mounted Flush Sill

(To prevent sill deflection, shims between the anchor points should be installed and any cavities between the shims should be filled with non-expanding grout. If filling with grout is not possible, continuous shims should be placed along the entire length of the sill to provide continuous solid support and level condition.)

Suggested Typical Installation drawings shown are very general and may not be suitable for any particular installation. Product placement, fasteners, flashing, waterproofing, sealant, trim, and other details for specific surrounding conditions must be properly designed and provided by others.

Recommended Fasteners and Shims

SELECTION OF APPROPRIATE FASTENERS

Use appropriate screws or other equivalent anchorage devices depending on the adjacent substrate material and construction. Make sure they are corrosion resistant, preferably a suitable grade of stainless steel. Anchorage devices should penetrate or hold sufficiently to the opening to withstand necessary structural loading.

General recommendations for different substrates:

Wood Frame (minimum specific gravity of G=0.42):

Use #14 (1/4" diameter) wood screws with 2" minimum embedment.

Concrete (minimum compressive strength of 2,000 psi):

Use 1/4" diameter ITW Tapcons (concrete screws) with 1-3/4" minimum embedment with 1-1/2" minimum edge distance. Alternatively, 1/4" stainless steel screws with expanding anchors may be used.

Masonry (grout filled block per ASTM C90 with FM=2,000 psi minimum):

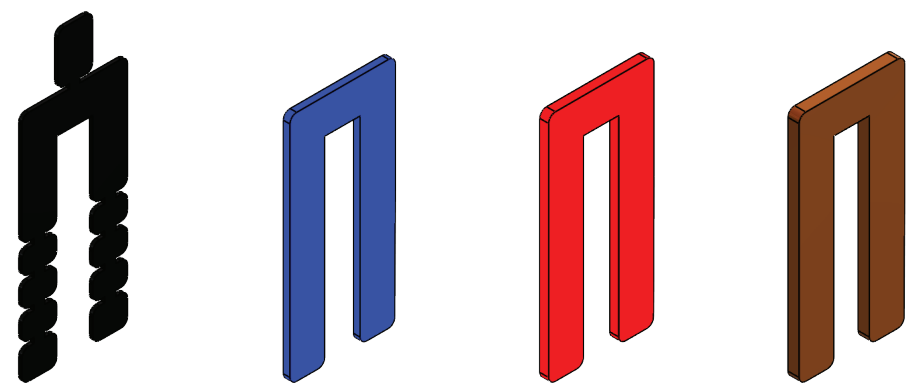
Use 1/4" diameter ITW Tapcons (masonry screws) with 1-3/4" minimum embedment with 1-1/2" minimum edge distance.

Structural Steel (minimum 1/4" thick):

Use 1/4" diameter self-tapping steel screws. Another option is to use type 410 stainless steel self-tapping screws with pre-drilled pilot holes. Another option is to use 1/4" diameter SAE 2 bolts in pre-drilled holes.

SELECTION AND USE OF INSTALLATION SHIMS

Use only hard plastic 'horseshoe' style glazier's shims that are capable of sustaining the applicable loads. Wood or rubber shims are NOT appropriate. Shims are to be installed between the system frame and the building structure at every fastener location to keep the frame components straight, level, and plumb, without any twisting.



Florida Product Approval Numbers

For Florida Product Approval units, please see additional installation requirements at https://www.floridabuilding.org/pr/pr_app_srch.aspx for each product with the following FL Product Approval numbers:

NW Aluminum 640 - FL38736

NW Reinforced 647 - FL41109

NW Aluminum 840 - FL40273

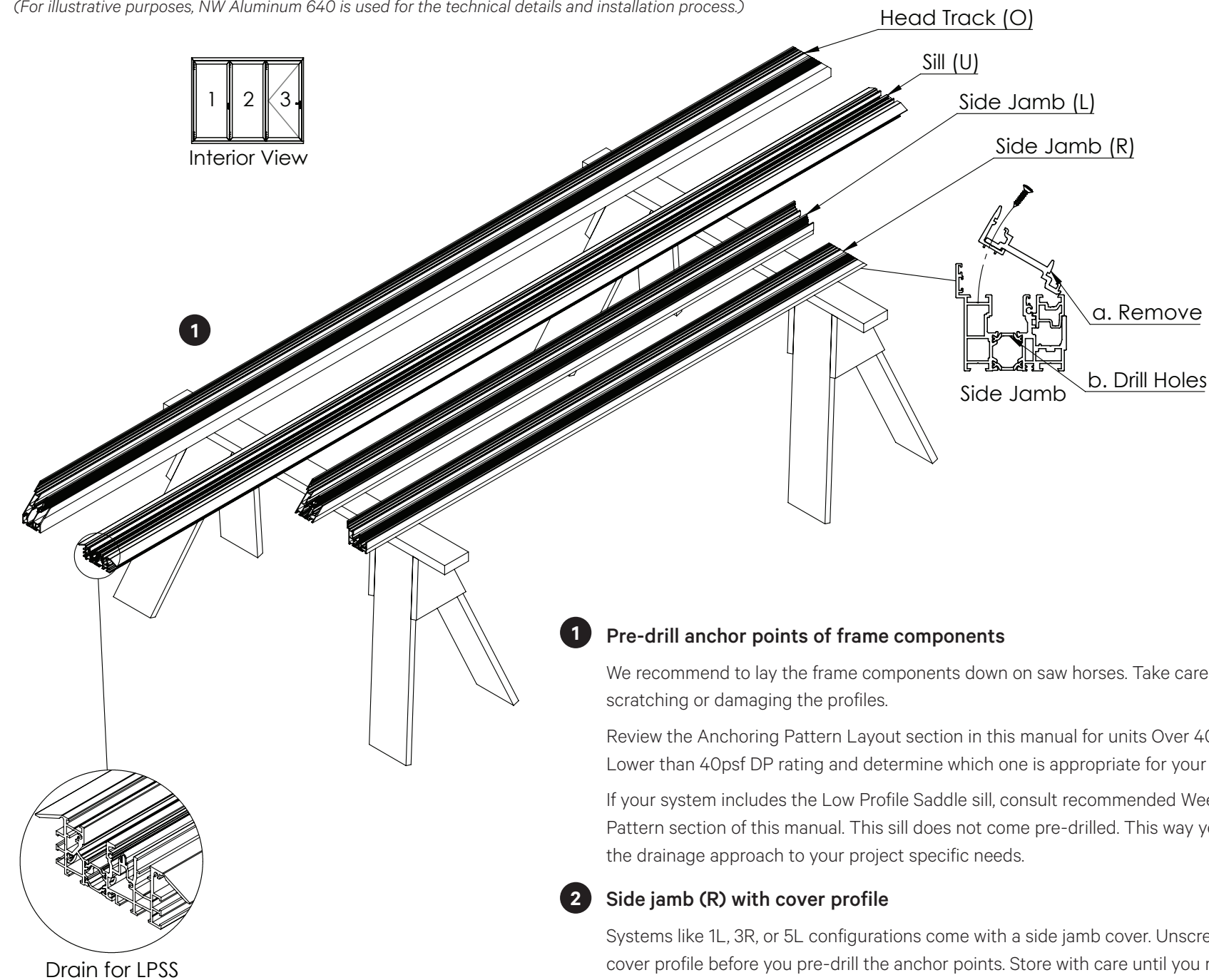
NW Reinforced 847 - FL41110

NW Wood 540 - FL41107

NW Clad 740 - FL41108

Generic Installation Illustrations

(For illustrative purposes, NW Aluminum 640 is used for the technical details and installation process.)



1 Pre-drill anchor points of frame components

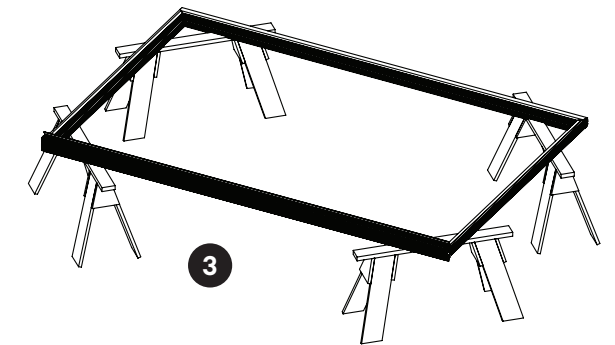
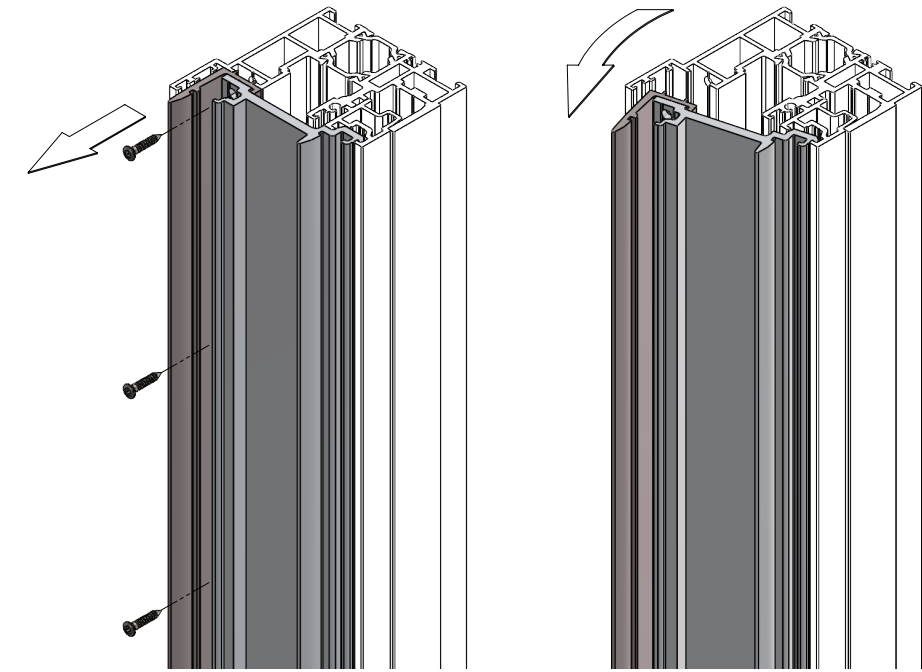
We recommend to lay the frame components down on saw horses. Take care to avoid scratching or damaging the profiles.

Review the Anchoring Pattern Layout section in this manual for units Over 40psf and Lower than 40psf DP rating and determine which one is appropriate for your project.

If your system includes the Low Profile Saddle sill, consult recommended Weep Hole Pattern section of this manual. This sill does not come pre-drilled. This way you can adjust the drainage approach to your project specific needs.

2 Side jamb (R) with cover profile

Systems like 1L, 3R, or 5L configurations come with a side jamb cover. Unscrew and remove cover profile before you pre-drill the anchor points. Store with care until you reinstall it after unit is fully installed and adjusted. Verify that additional screws are in the accessory box.



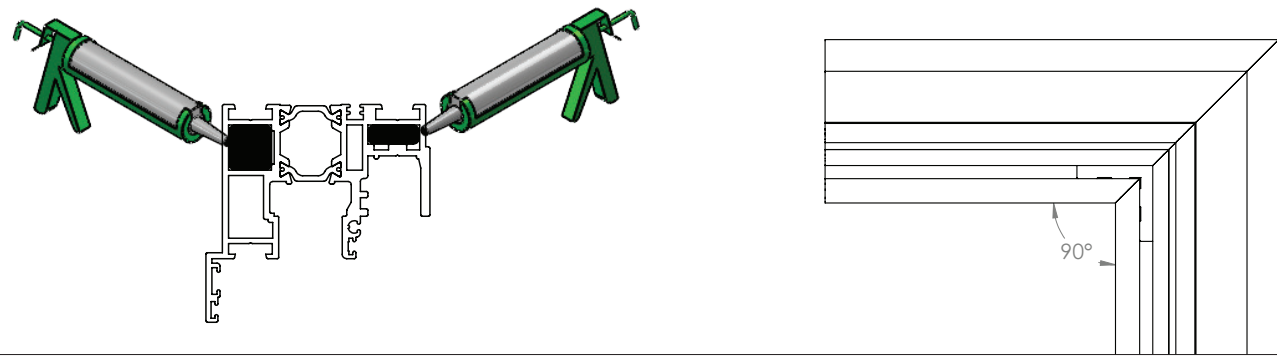
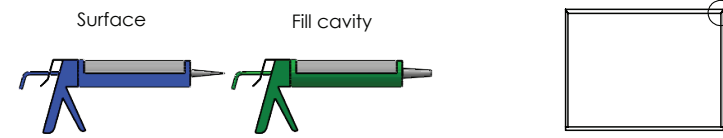
3 Frame assembly

Before assembly, make sure all shavings from drilling are removed from profile chambers. For wider systems, the head track and sill are provided in segments. Connect them first. Follow the instructions on the next pages.

Lay components flat on saw horses or the floor. Apply exterior grade sealant to all connection points between the frame components. If possible, we recommend installing the complete frame as one piece into the opening.

FRAME INSTALLATION

Standard Head Track to Side Jamb

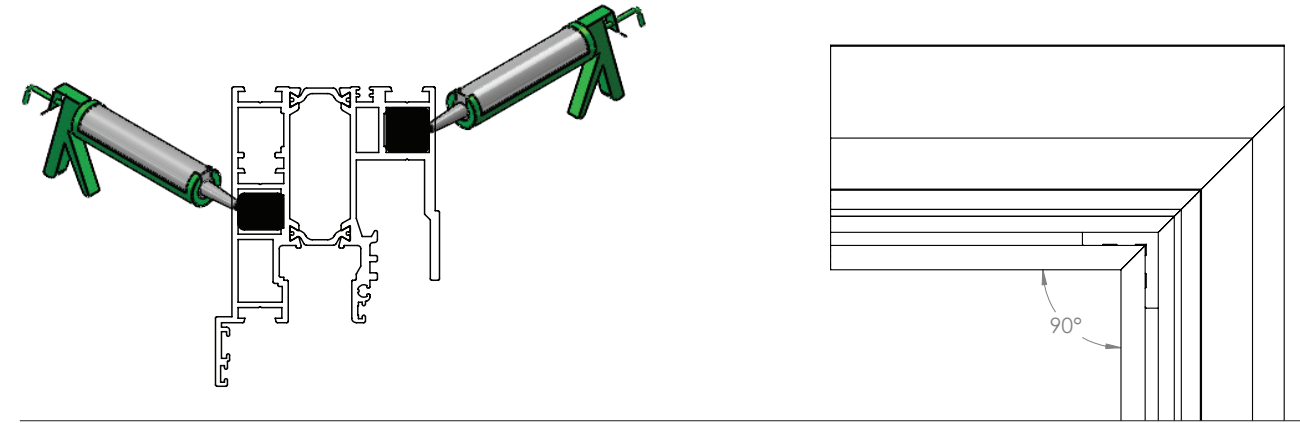
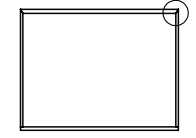


4 Add sealant to chambers of standard head track

Add exterior grade sealant into the area the splice bars are located.

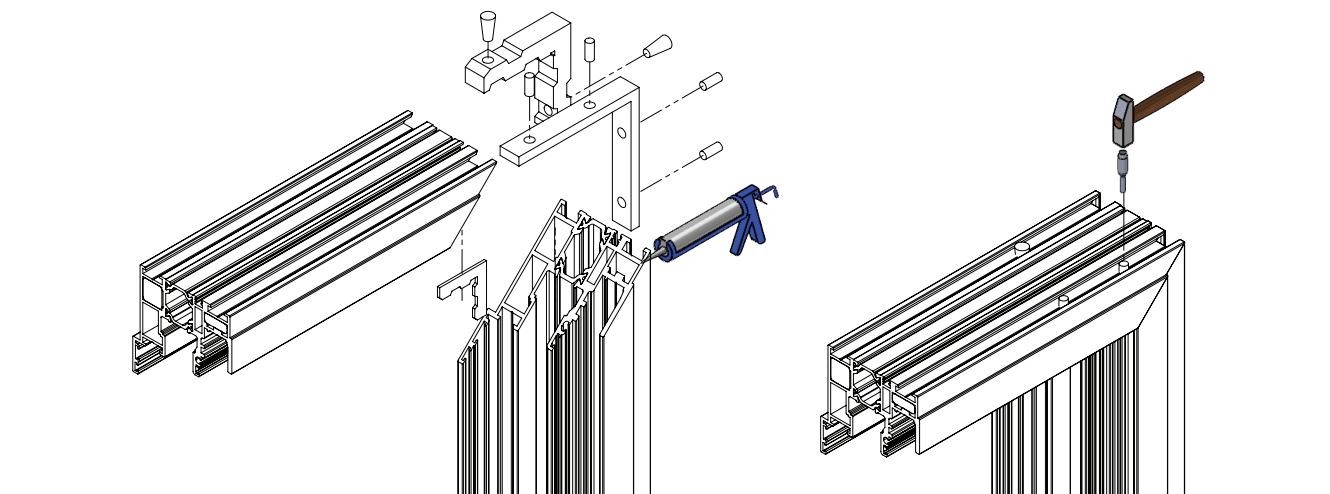
FRAME INSTALLATION

Higher Head Track for FourFold / SixFold Panels Sets to Side Jamb



6 Add sealant to chambers of higher head track

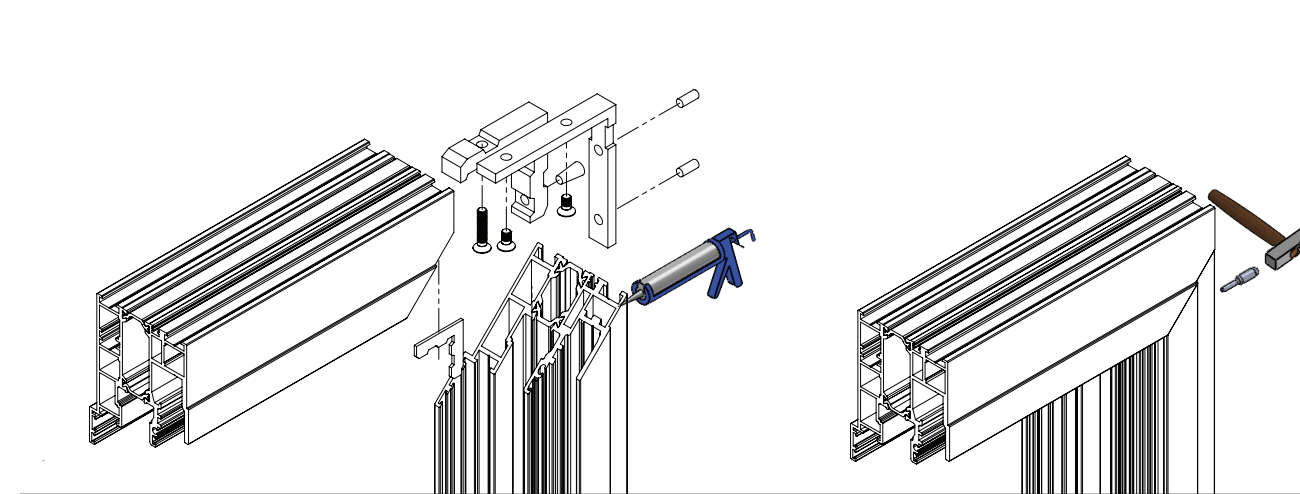
Add exterior grade sealant in the area the splice bars are located.



5 Connecting standard head track with side jamb

Apply exterior grade sealant to the cut edges before connecting. Insert the corner connectors. Connect corners with tapered pins and non-tapered pins in the pre-drilled holes. Cross mount the pins and screws to get the best torque on the miter. Align the frame pieces to create a smooth transition that is square and at a perfect 90° angle before hammering the pins all the way in. They are difficult to remove once installed.

Repeat process for other side.



7 Connecting higher head track with side jamb

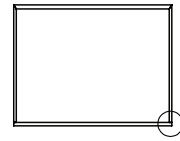
Apply exterior grade sealant to the cut edges before connecting. Insert the corner connectors. Connect corners with tapered pins and non-tapered pins or Phillips head screws (#2 screwdriver) in the pre-drilled holes. Cross mount the pins and screws to get the best torque on the miter. Align the frame pieces to create a smooth transition that is square and at a perfect 90° angle before hammering the pins all the way in. They are difficult to remove once installed.

Repeat process for other side.

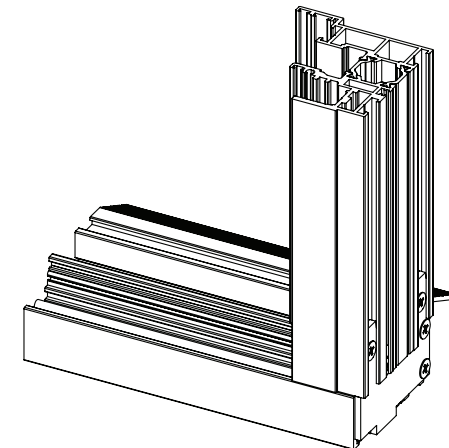
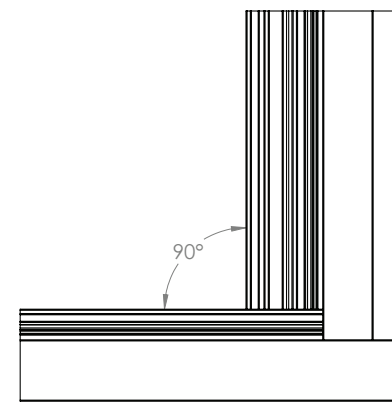
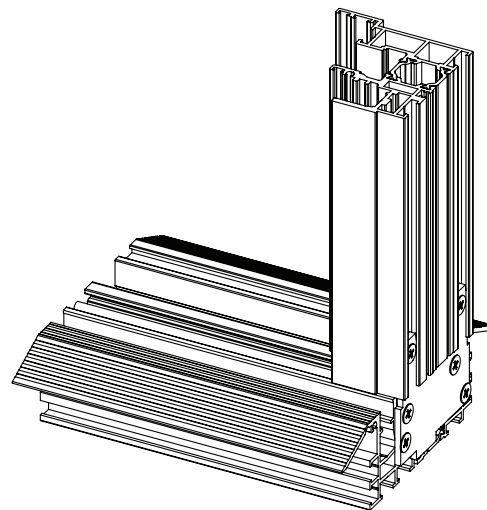
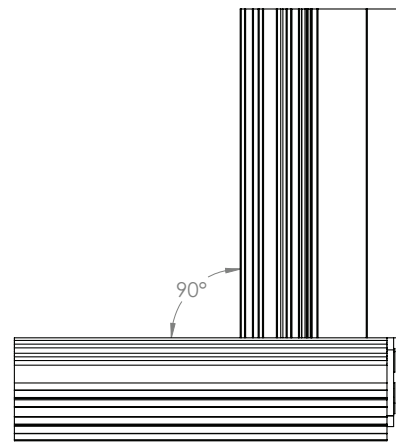
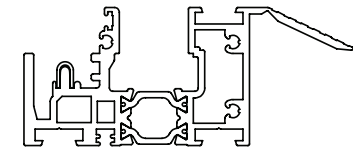
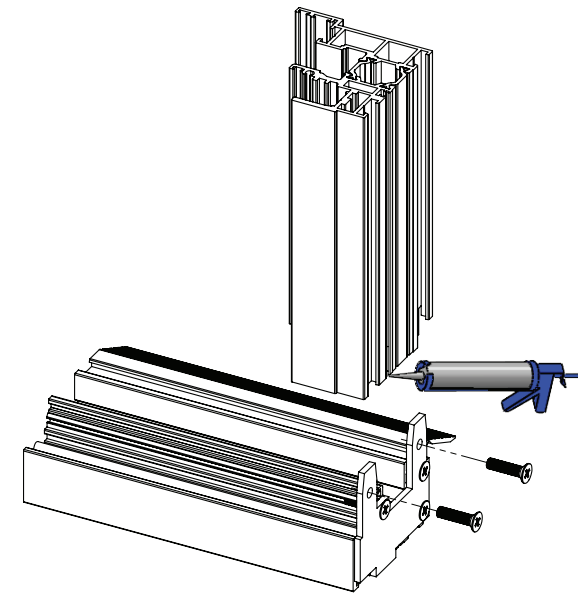
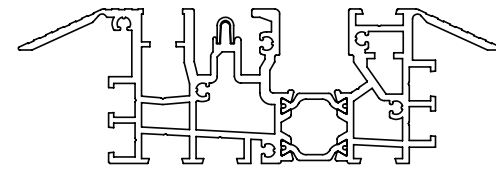
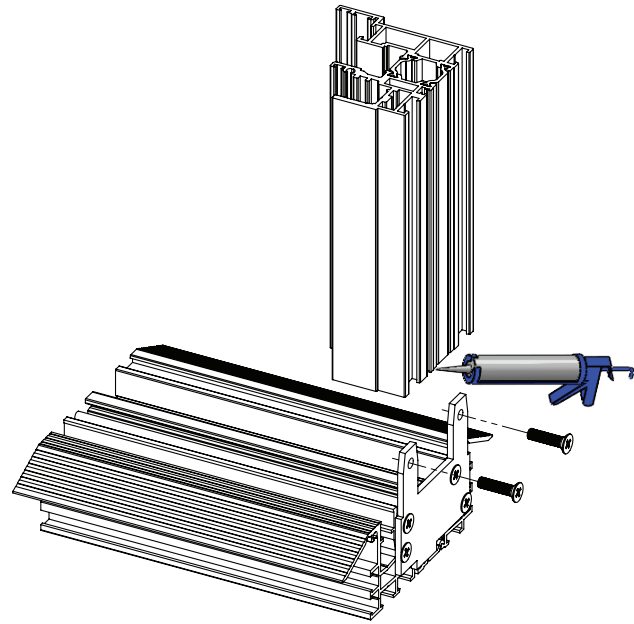
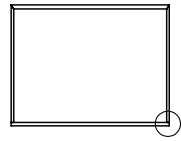
FRAME INSTALLATION

Sill to Side Jamb

Low Profile Saddle Sill



Hybrid Sill



8 Low Profile Saddle Sill

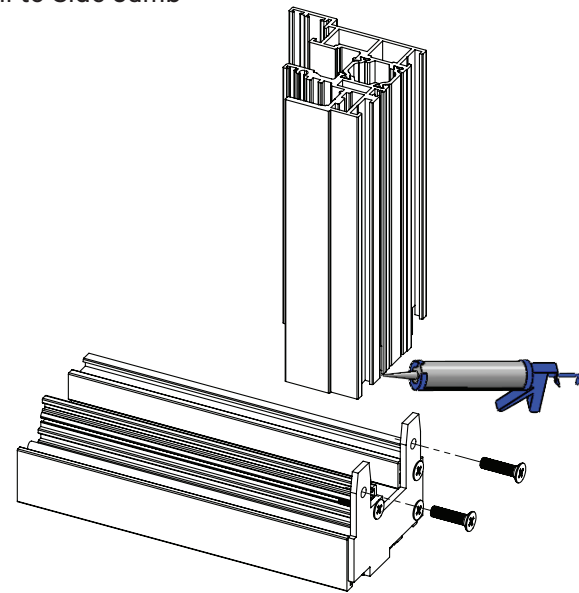
The end covers come pre-installed. Add exterior grade sealant in the area the vertical jamb connects to the end cover and screw it in place.

9 Hybrid Sill

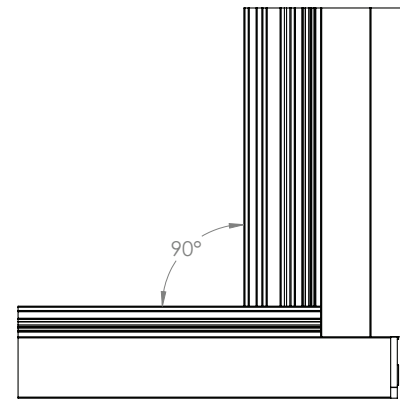
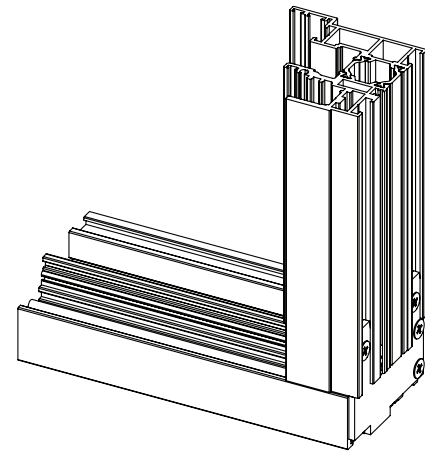
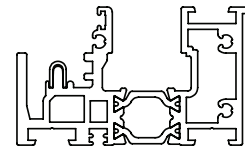
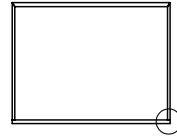
The end covers come pre-installed. Add exterior grade sealant in the area the vertical jamb connects to the end cover and screw it in place.

FRAME INSTALLATION

Sill to Side Jamb



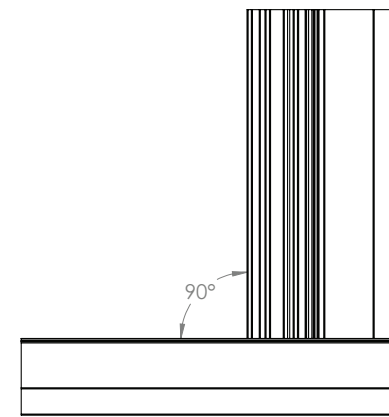
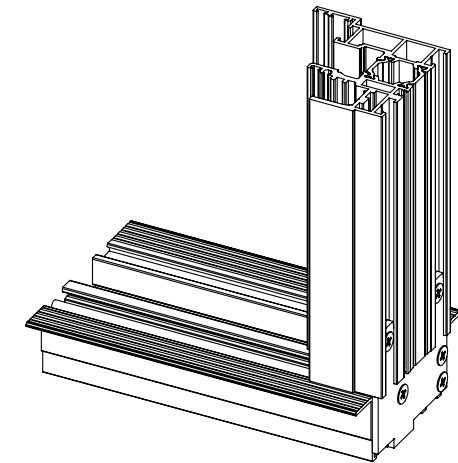
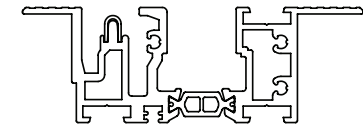
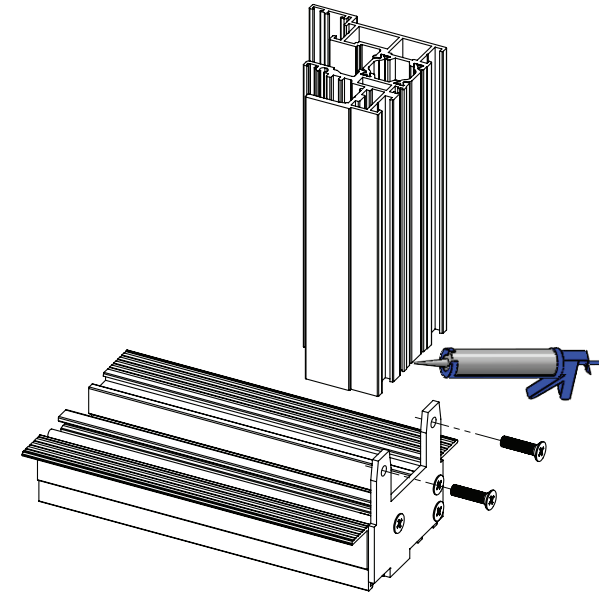
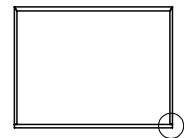
Low Profile Raised Sill



10 Low Profile Raised Sill

The end covers come pre-installed. Add exterior grade sealant in the area the vertical jamb connects to the end cover and screw it in place.

Flush Sill



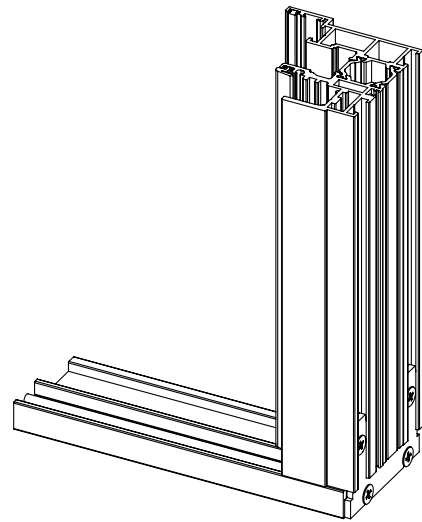
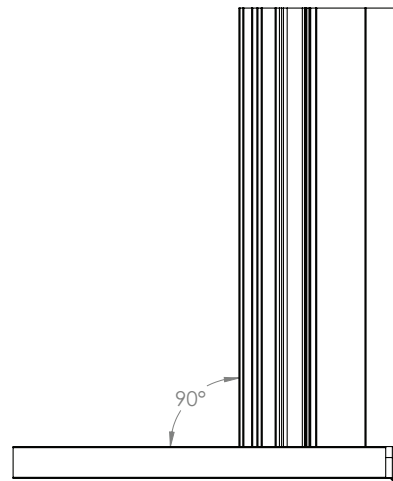
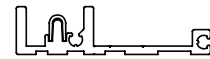
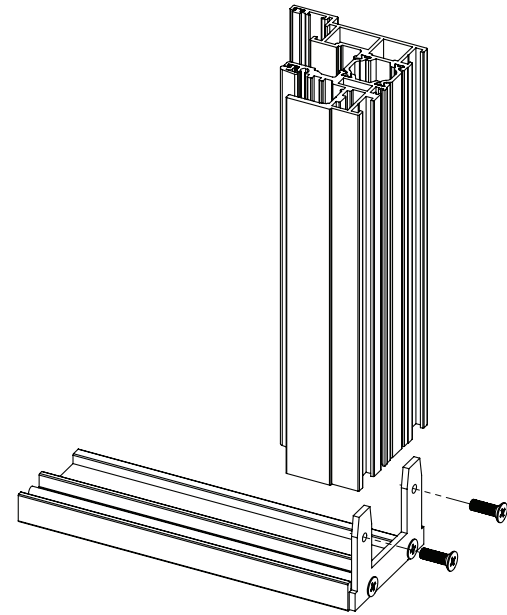
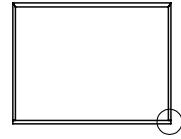
11 Flush Sill

The end covers come pre-installed. Add exterior grade sealant in the area the side jamb connects to the end cover and screw it in place.

FRAME INSTALLATION

Sill to Side Jamb

Minimal Surface Mounted Flush Sill

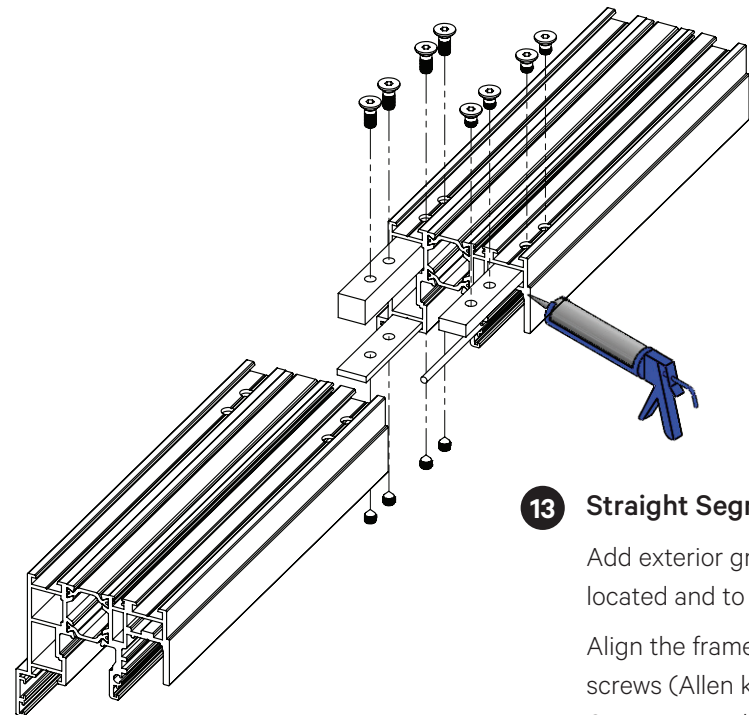


12 Minimal Surface Mounted Flush Sill

The end covers come pre-installed. Connect vertical side jamb with sill and screw it in place.

FRAME INSTALLATION

Standard Head Track Segment Attachment

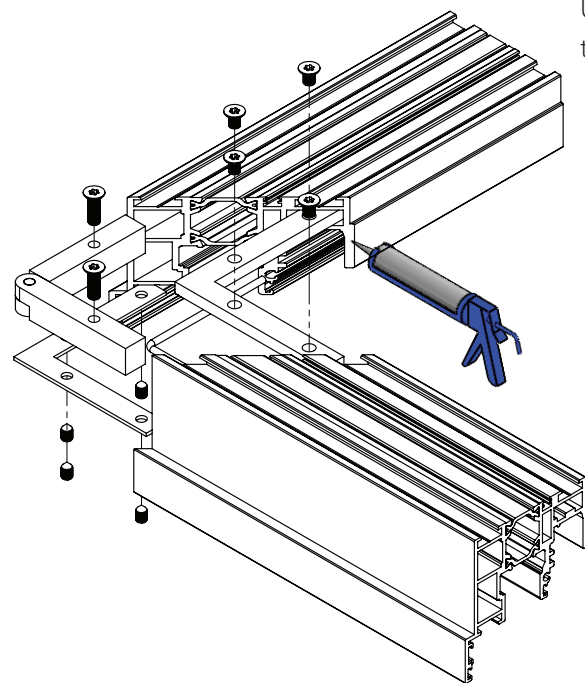


13 Straight Segment

Add exterior grade sealant to the chambers where the splice bars are located and to the cut edges of the profiles before connecting.

Align the frame pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm) or Phillips head screws (#2 screwdriver). Cross mount the screws to get the best torque on the segment.

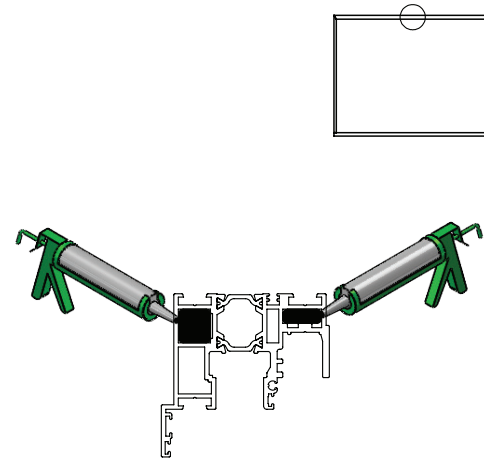
Use additional anchors 4" (100 mm) from each side of the cut edge of the segment.



14 90° Corner Segment

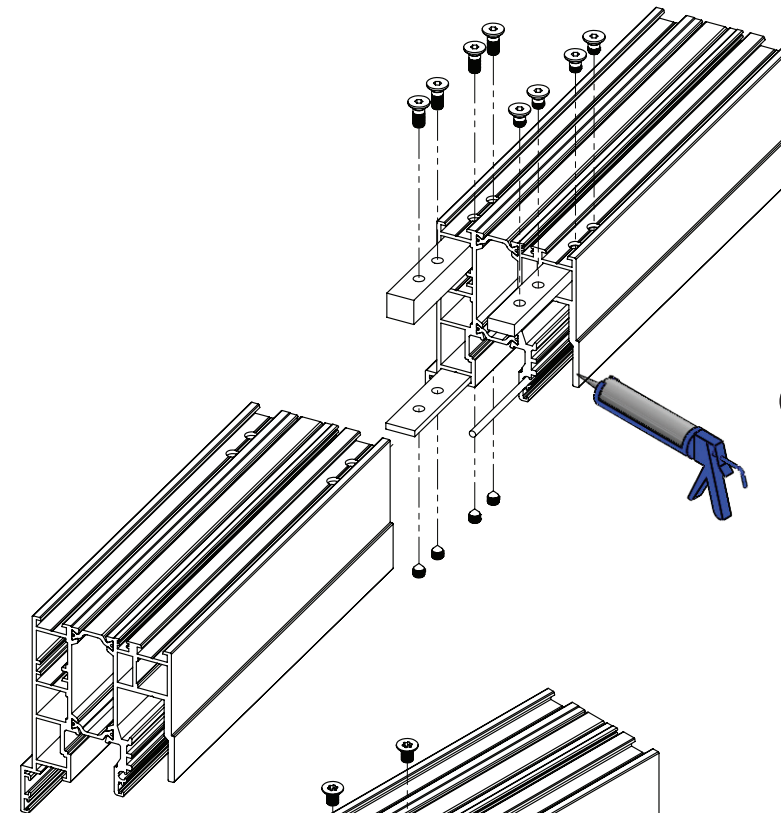
Add exterior grade sealant to the chambers where the splice bars are located and to the cut edges of the profiles before connecting.

Align the frame pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm) or Phillips head screws (#2 screwdriver). Cross mount the screws to get the best torque on the segment.



FRAME INSTALLATION

Higher Head Track for FourFold / SixFold Panels Sets Segment Attachment

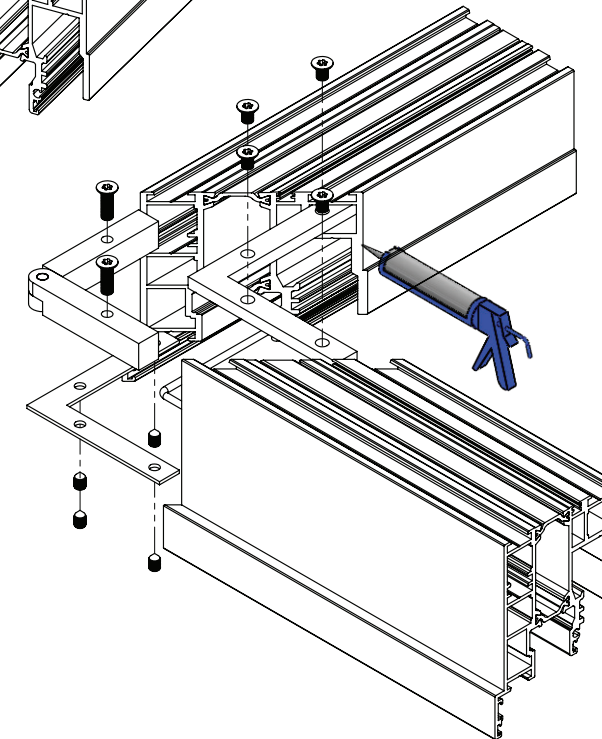


15 Straight Segment

Add exterior grade sealant to the chambers where the splice bars are located and to the cut edges of the profiles before connecting.

Align the frame pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm) or Phillips head screws (#2 screwdriver). Cross mount the screws to get the best torque on the segment.

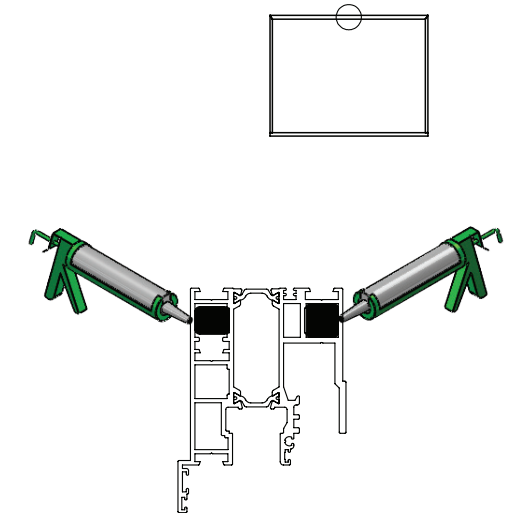
Use additional anchors 4" (100 mm) from each side of the cut edge of the segment.



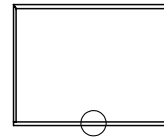
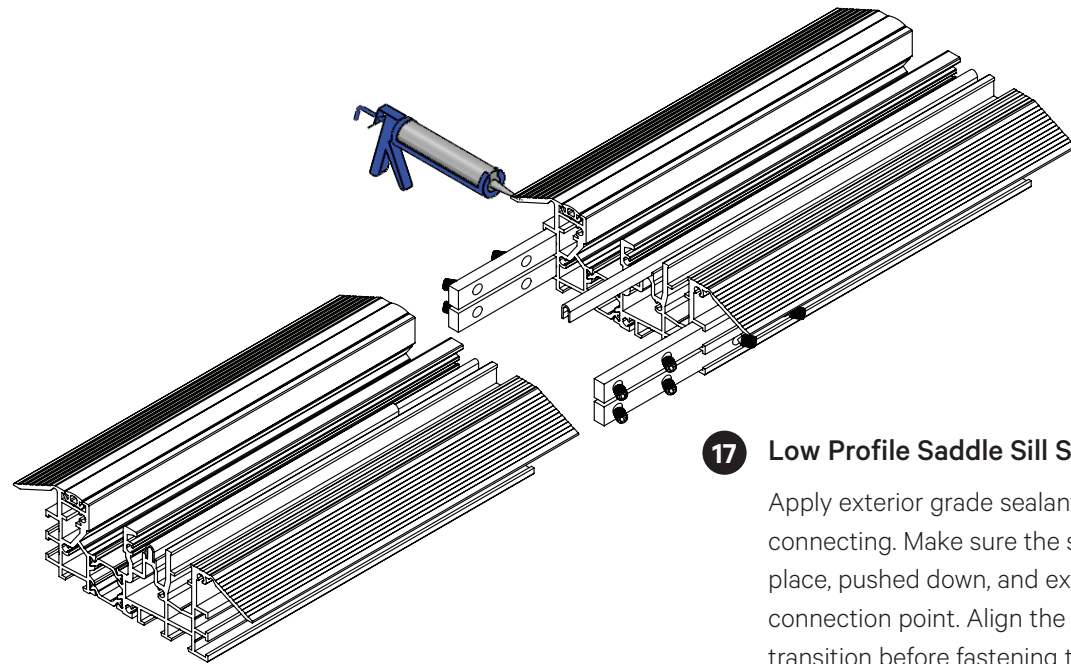
16 90° Corner Segment

Add exterior grade sealant to the chambers where the splice bars are located and to the cut edges of the profiles before connecting.

Align the frame pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm) or Phillips head screws (#2 screwdriver). Cross mount the screws to get the best torque on the segment.



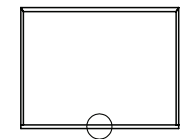
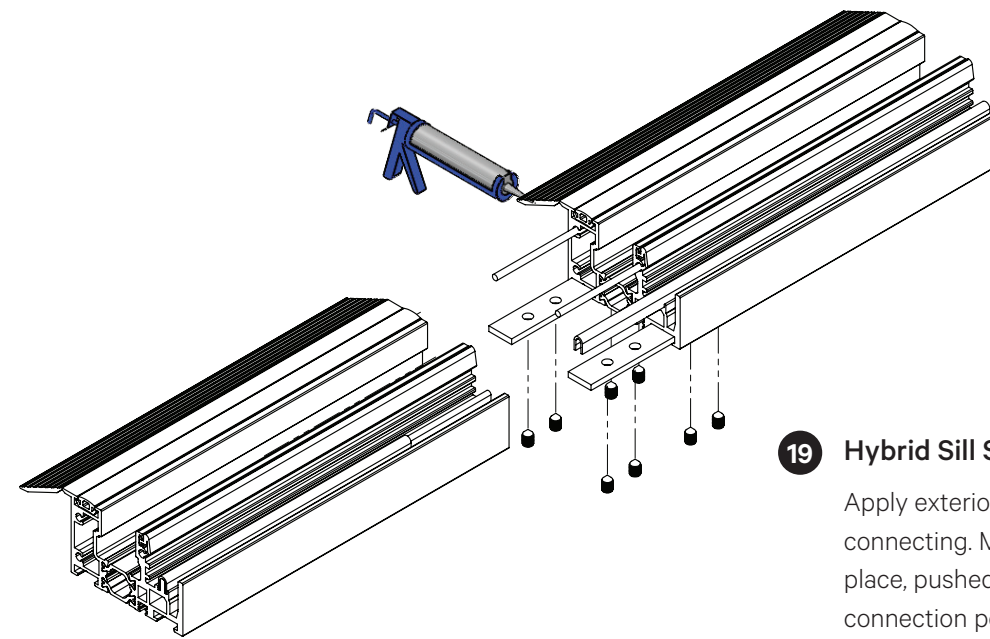
FRAME INSTALLATION
Sill Segment Attachment



17 Low Profile Saddle Sill Straight Segment

Apply exterior grade sealant to the cut edges before connecting. Make sure the stainless steel inserts are in place, pushed down, and extend approx. 2" beyond the connection point. Align the pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm). Cross mount the set screws to get the best torque on the segment.

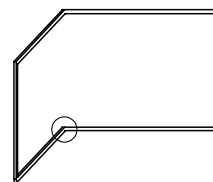
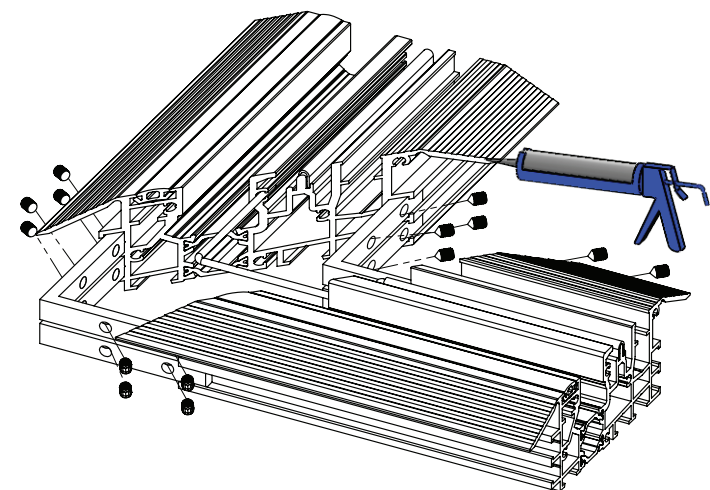
Use additional anchors 4" (100 mm) from each side of the cut edge of the segment.



19 Hybrid Sill Straight Segment

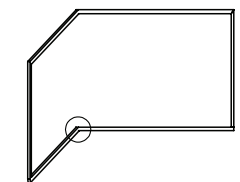
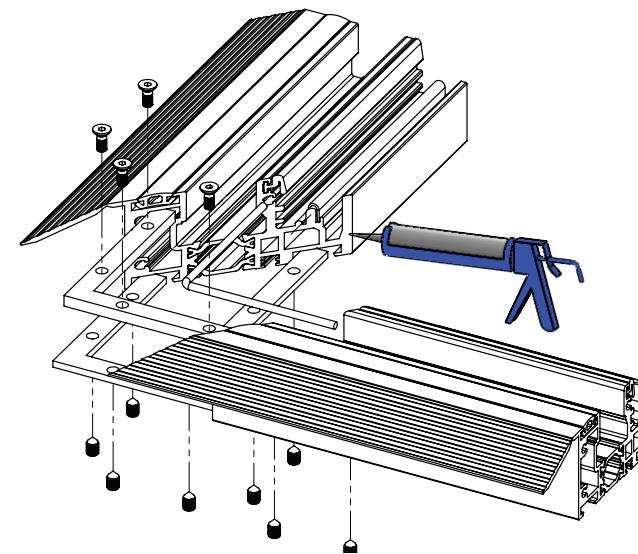
Apply exterior grade sealant to the cut edges before connecting. Make sure the stainless steel inserts are in place, pushed down, and extend approx. 2" beyond the connection point. Align the pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm). Cross mount the set screws to get the best torque on the segment.

Use additional anchors 4" (100 mm) from each side of the cut edge of the segment.



18 Low Profile Saddle Sill 90° Corner Segment

Apply exterior grade sealant to the cut edges before connecting. Make sure the stainless steel inserts are in place and pushed down. Align the frame pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm). Cross mount the set screws to get the best torque on the miter.

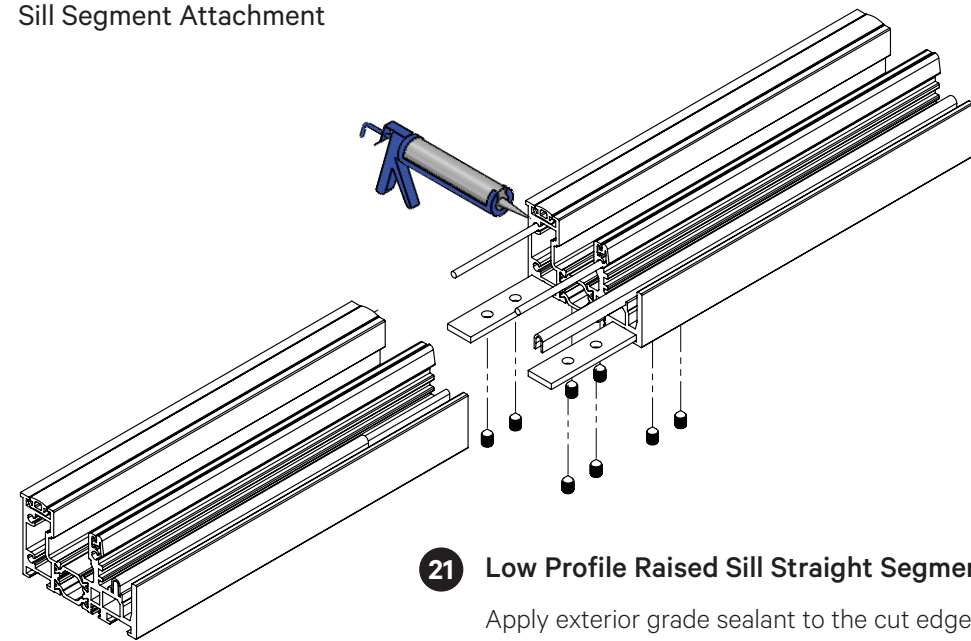


20 Hybrid Sill 90° Corner Segment

Apply exterior grade sealant to the cut edges before connecting. Make sure the stainless steel inserts are in place and pushed down. Align the frame pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm) or Phillips head screws (#2 screwdriver). Cross mount the set screws to get the best torque on the miter.

FRAME INSTALLATION

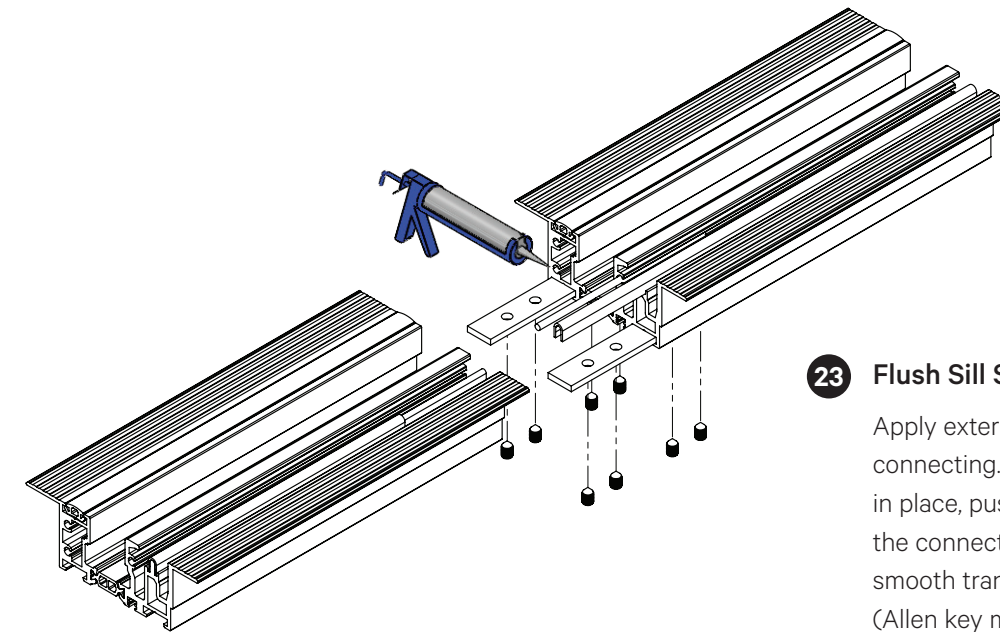
Sill Segment Attachment



21 Low Profile Raised Sill Straight Segment

Apply exterior grade sealant to the cut edges before connecting. Make sure the stainless steel inserts are in place, pushed down, and extend approx. 2" beyond the connection point. Align the pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm). Cross mount the set screws to get the best torque on the segment.

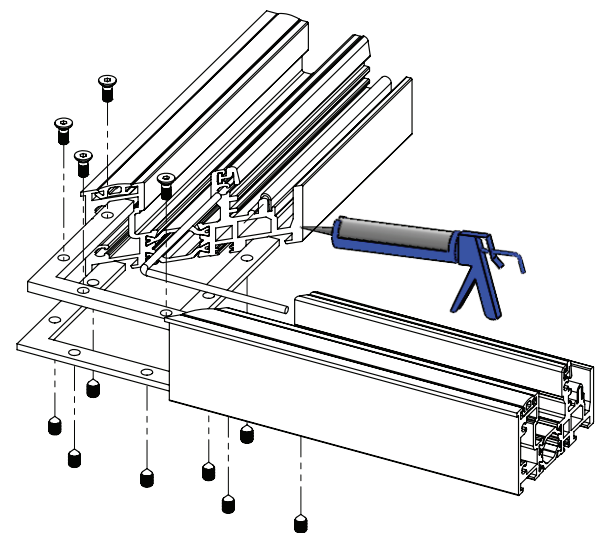
Use additional anchors 4" (100 mm) from each side of the cut edge of the segment.



23 Flush Sill Straight Segment

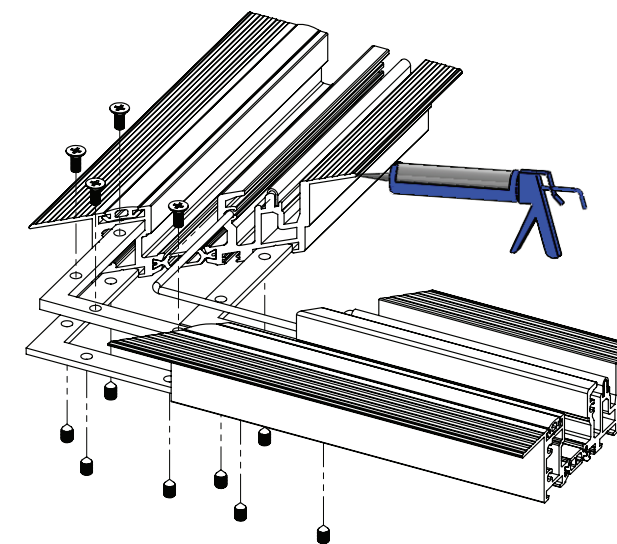
Apply exterior grade sealant to the cut edges before connecting. Make sure the stainless steel inserts are in place, pushed down, and extend approx. 2" beyond the connection point. Align the pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm). Cross mount the set screws to get the best torque on the segment.

Use additional anchors 4" (100 mm) from each side of the cut edge of the segment.



22 Low Profile Raised Sill 90° Corner Segment

Apply exterior grade sealant to the cut edges before connecting. Make sure the stainless steel inserts are in place and pushed down. Align the frame pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm) or Phillips head screws (#2 screwdriver). Cross mount the set screws to get the best torque on the miter.

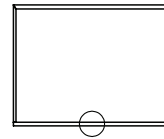
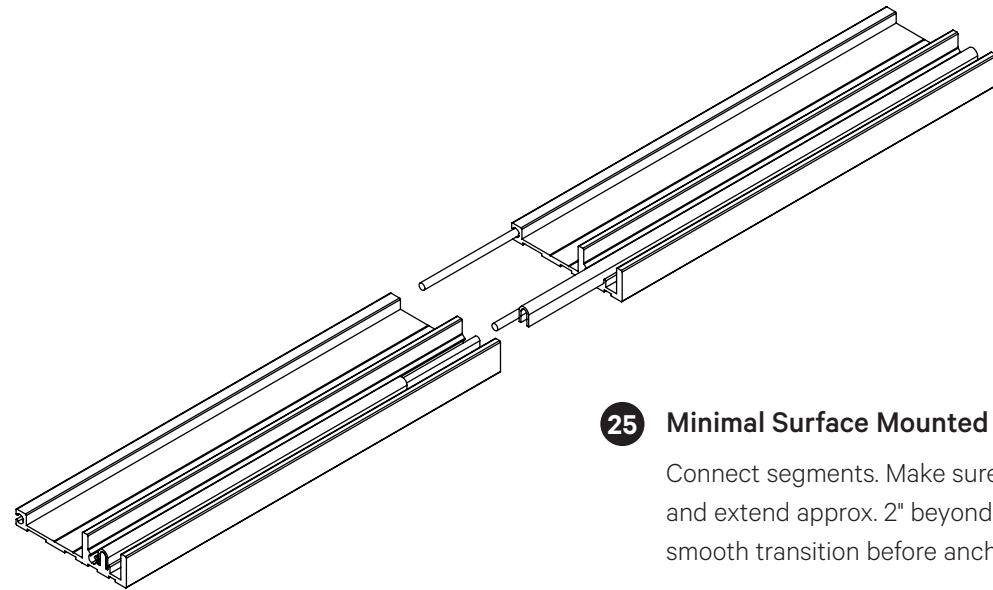


24 Flush Sill 90° Corner Segment

Apply exterior grade sealant to the cut edges before connecting. Make sure the stainless steel inserts are in place and pushed down. Align the frame pieces to create a smooth transition before fastening the set screws (Allen key metric 2.5 mm) or Phillips head screws (#2 screwdriver). Cross mount the set screws to get the best torque on the miter.

FRAME INSTALLATION

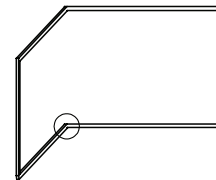
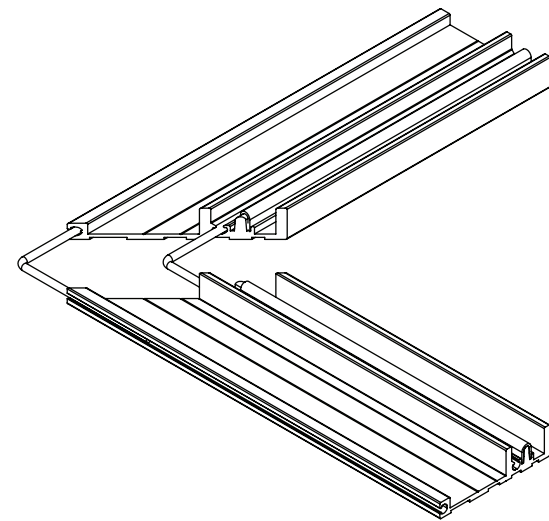
Sill Segment Attachment



25 Minimal Surface Mounted Flush Sill Straight Segment

Connect segments. Make sure that the stainless steel inserts are in place, pushed down, and extend approx. 2" beyond the connection point. Align the frame pieces to create a smooth transition before anchoring them to the floor

Use additional anchors 4" (100 mm) from each side of the cut edge of the connection point. Pay special attention to shims and cavity space between anchoring points as mentioned in the Suggested Typical Installation Details section of this manual.



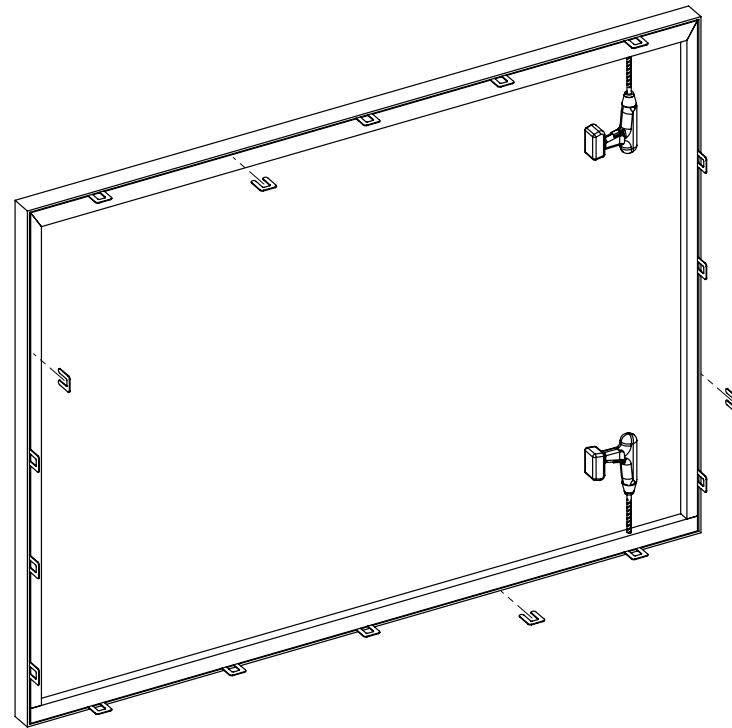
26 Minimal Surface Mounted Flush Sill 90° Corner Segment

Connect segments. Make sure that the stainless steel inserts are in place and pushed down. Align the frame pieces to create a smooth transition before anchoring them to the floor.

Pay special attention to shims and cavity space between anchoring points as mentioned in the Suggested Typical Installation Details section of this manual.

FRAME INSTALLATION

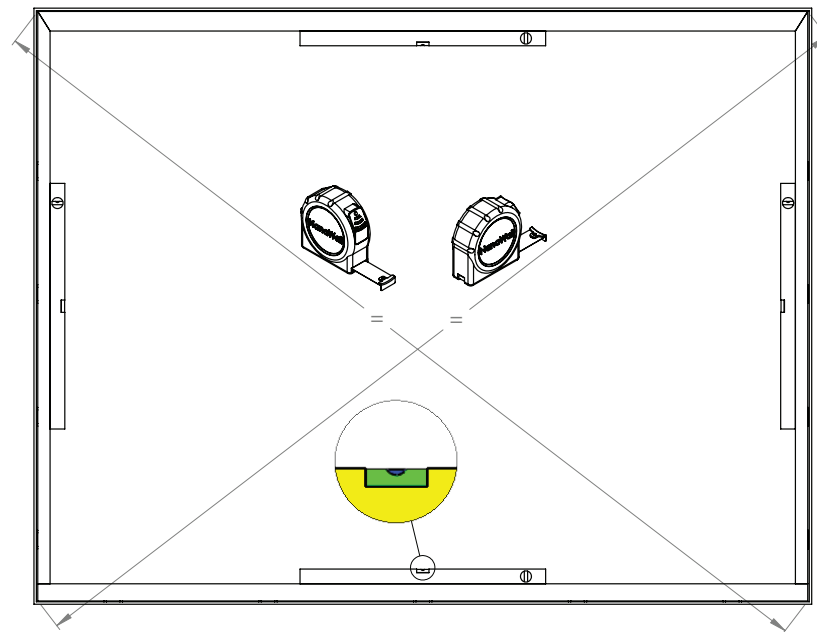
Insert Frame and Shim



27 Frame installation

Before installing the frame, refer to the product drawings for specific details related to the finished floor height. Anchor sill to the sub floor in correct relation to the finish floor. Make sure the sill is not tilted or twisted and that all weep holes are not obstructed. Make necessary adjustments to level, plumb, and square before proceeding. Shim as necessary. Anchor the side jambs to studs or walls in the same manner. Check that jambs are plumb and straight.

Anchor the head track through the pre-drilled holes and shims. Make sure the head track is level and not tilted or twisted.

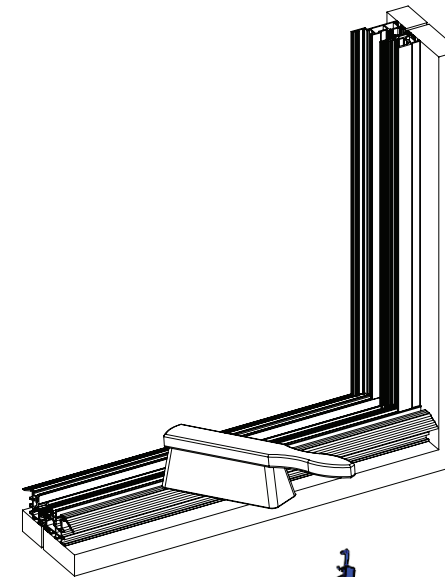
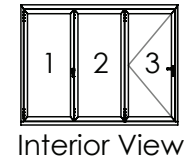


28 Plumb, level, and square

Make sure no shims are forced to ensure that frame sections are not bowed. Check frame constantly to be certain that it is level, plumb, and square. A transit level or similar precise measuring tool should be used to make these determinations.

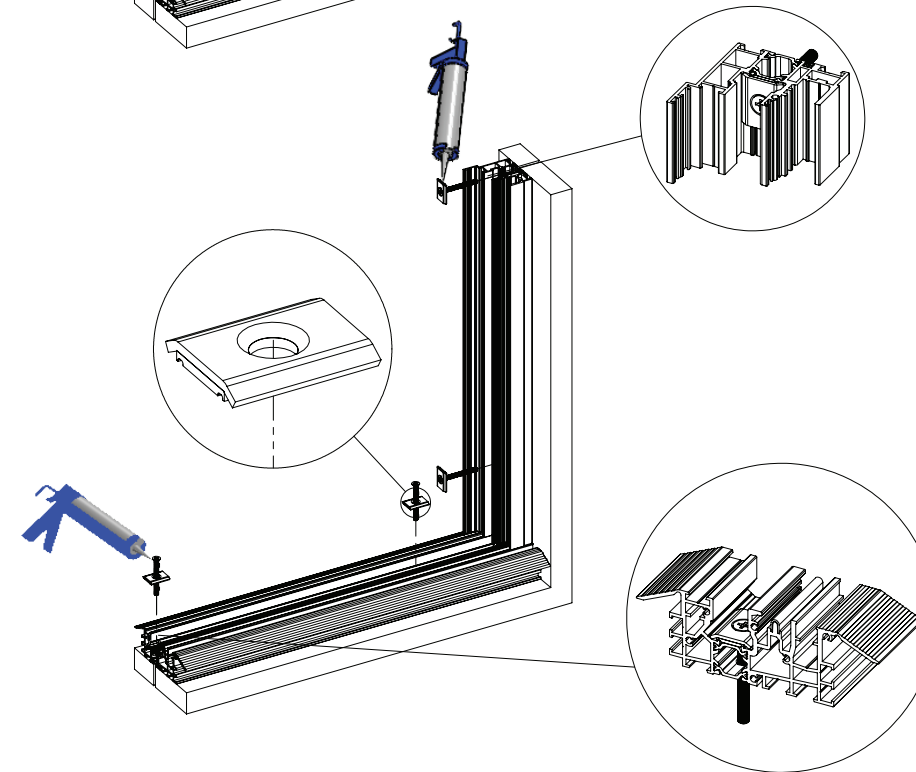
FRAME INSTALLATION

Pre-Drill Structure and Attach Frame



29 Handle with care

Make sure that all the surfaces of the upper and lower tracks are clean and free of any debris, especially, cuttings from drilled holes.

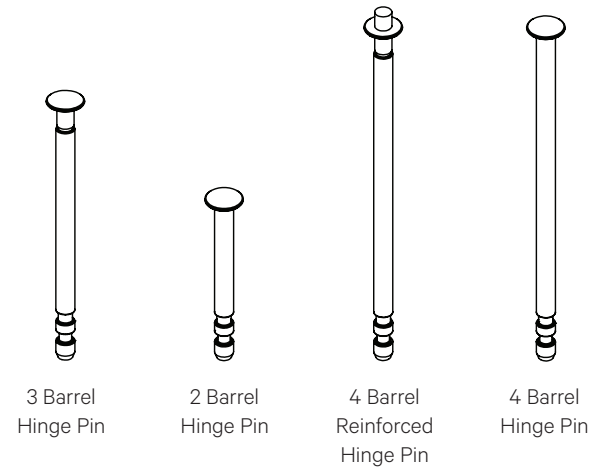


30 Installation plates

Use the supplied installation plates. Please note, a stainless steel washer that bears on the aluminum may be used if an installation plate is not available. All holes drilled through the frame must be sealed properly with an exterior grade sealant underneath the plate and around the screws. It is also recommended to seal underneath the sill along the thermal break to limit air infiltration.

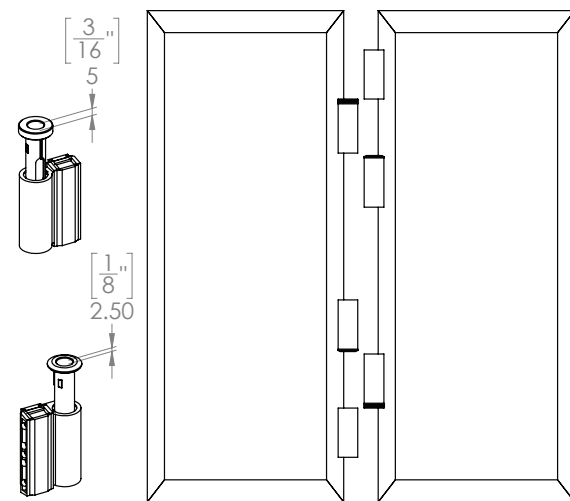
PANEL INSTALLATION

Installing Hinge Pins, Rollers, and Guides



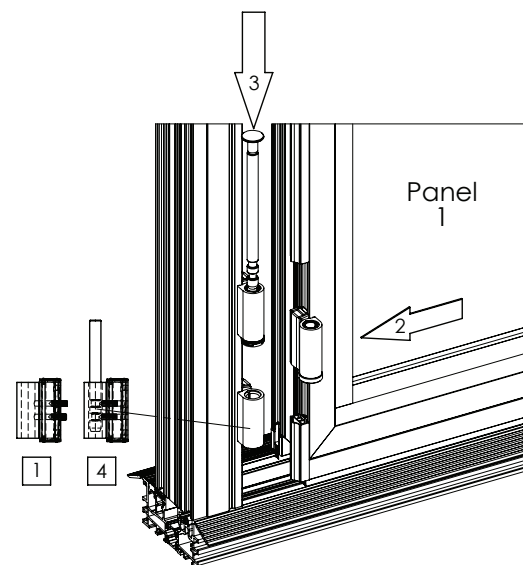
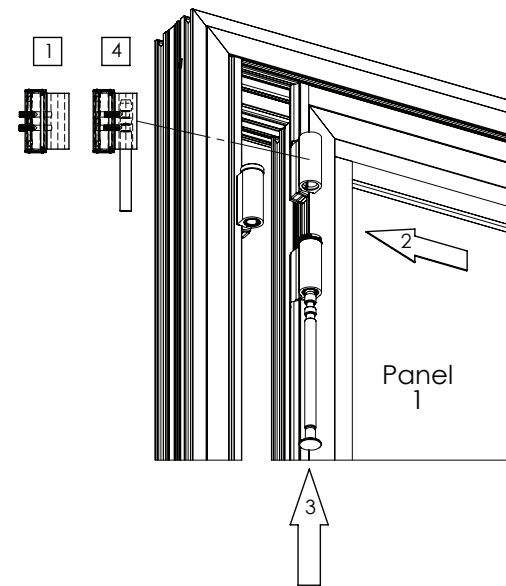
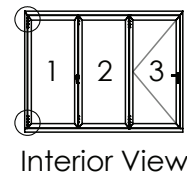
1 Hinge pin options

Hinge pins are supplied in the accessory box.



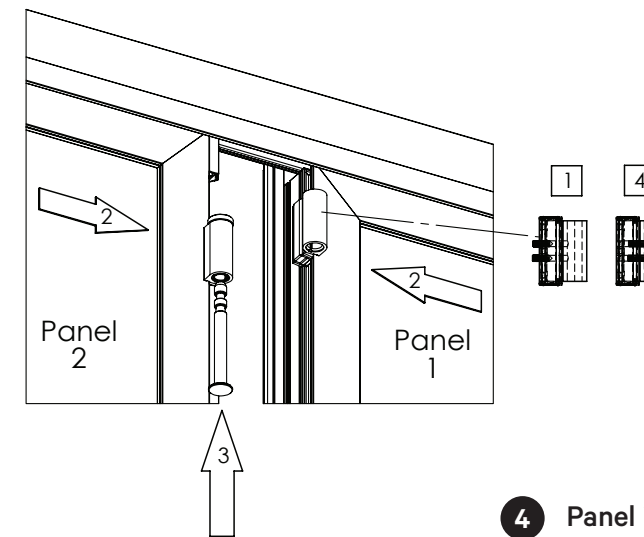
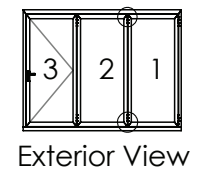
2 Barrel sleeves

Before you hang the panels, please check the barrels for the black polyamide sleeves. There are 2 kinds and some spare sleeves are added to the accessory box.



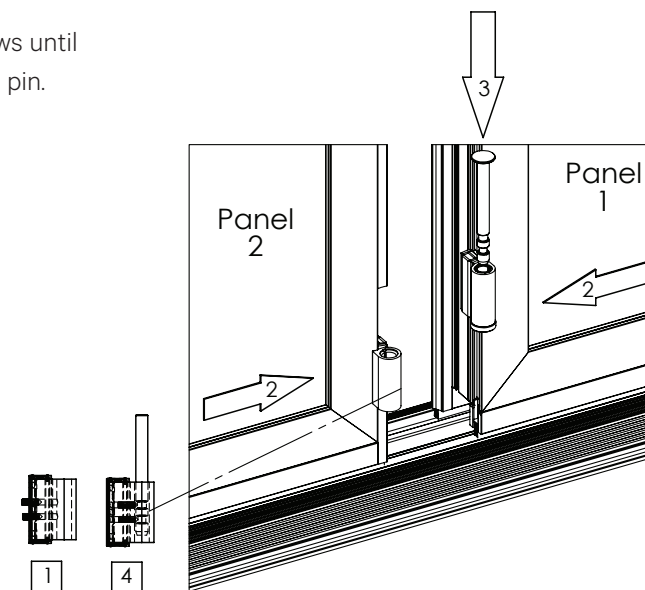
3 Panel Installation: panel 1 to side jamb

1. Loosen the set screws with an Allen key (metric size 2.5 mm).
2. Place panel 1 in opening and temporarily shim the bottom of the panel to line up the barrels. Slide the panel over to the jamb.
3. Push in the 3 barrel hinge pin to the top and bottom. Do not force it!
4. Tighten the set screws until they touch the hinge pin.



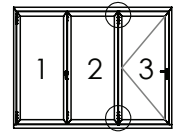
4 Panel installation: panel 2 to panel 1 (exterior view)

1. Loosen the set screws with an Allen key (metric size 2.5 mm).
2. Place panel 2 in opening and temporarily shim the bottom of the panel to line up the barrels. Slide the panel over to the side, so that all barrels line up.
3. Push in the 2 barrel hinge pin at the top and bottom. Do not force it!
4. Tighten the set screws until they touch the hinge pin.

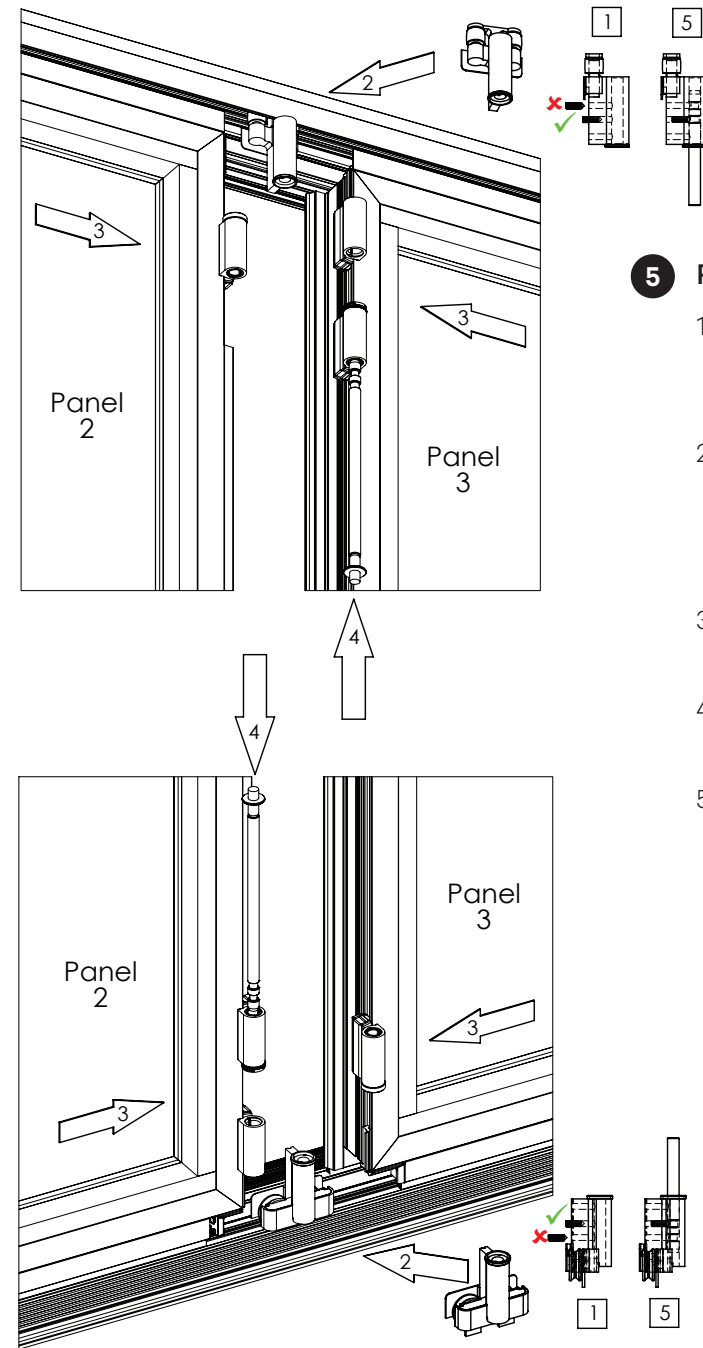


PANEL INSTALLATION

Installing Hinge Pins, Rollers, and Guides



Interior View

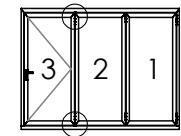


5 Panel installation: panel 3 to panel 2

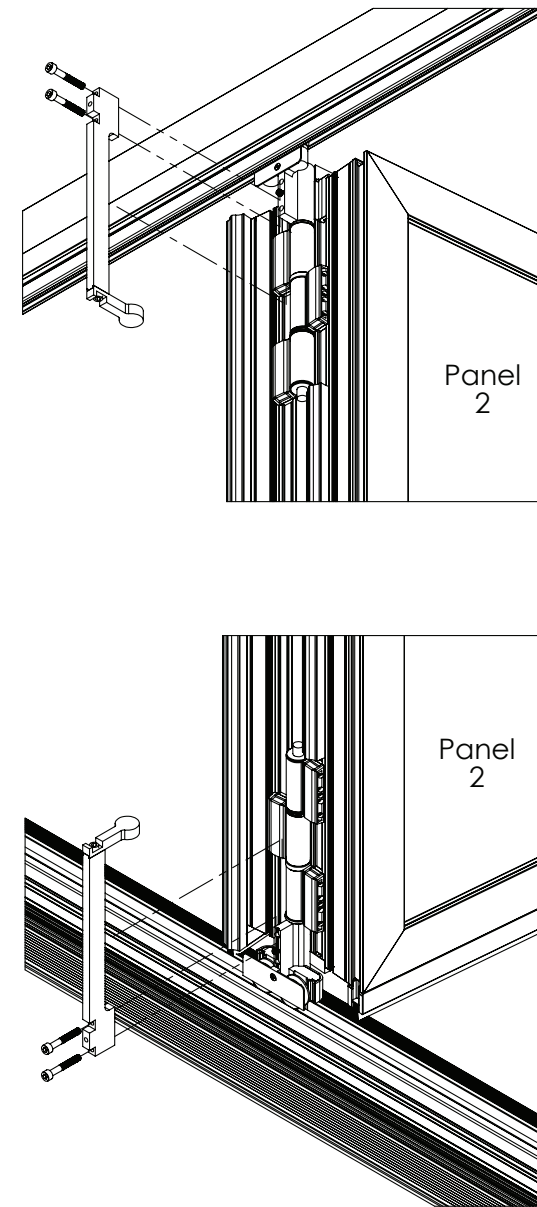
1. Loosen set screws with an Allen key (metric size 2.5 mm) and remove set screw closest to the top guide and bottom roller.
2. Place panel 3 in opening and temporarily shim the bottom of the panel to line up the barrels. Add the guide roller to the top and the roller to the bottom on top of the sill.
3. Slide the panel over to the side, so that all barrels line up.
4. Push in the 4 barrel reinforced hinge pin to the top and bottom. Do not force it!
5. Tighten the single set screw at the top and bottom until it touches the hinge pin.

PANEL INSTALLATION

Reinforced Bracket Installation



Exterior View

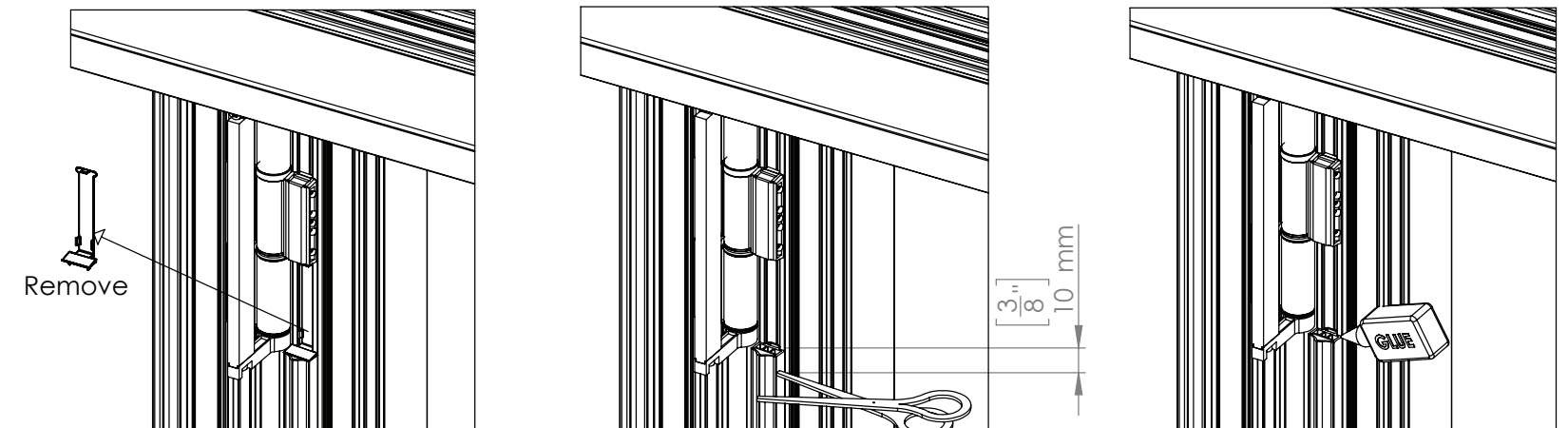


6 Installation of reinforcement bracket between panel 2 and panel 3 (exterior view)

The reinforcement brackets are supplied in the accessory box. Tilt the reinforcement bracket slightly up and place the upper short leg of the L on top of the head of the 4 barrel reinforced hinge pin. Then fasten the 2 Allen screws (metric size 2.5 mm) to the bottom roller and upper guide and tighten them.

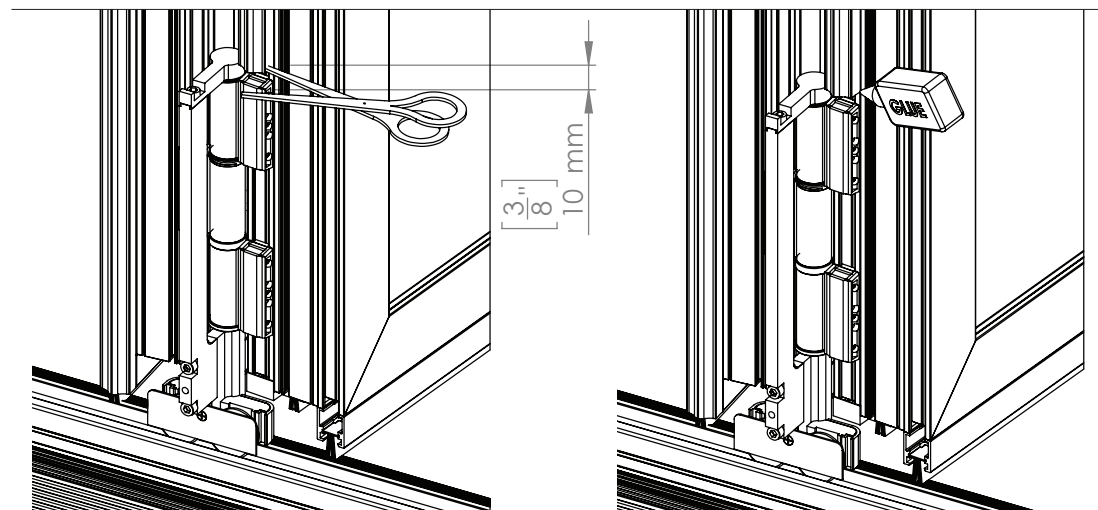
PANEL INSTALLATION

Reinforced Bracket Installation



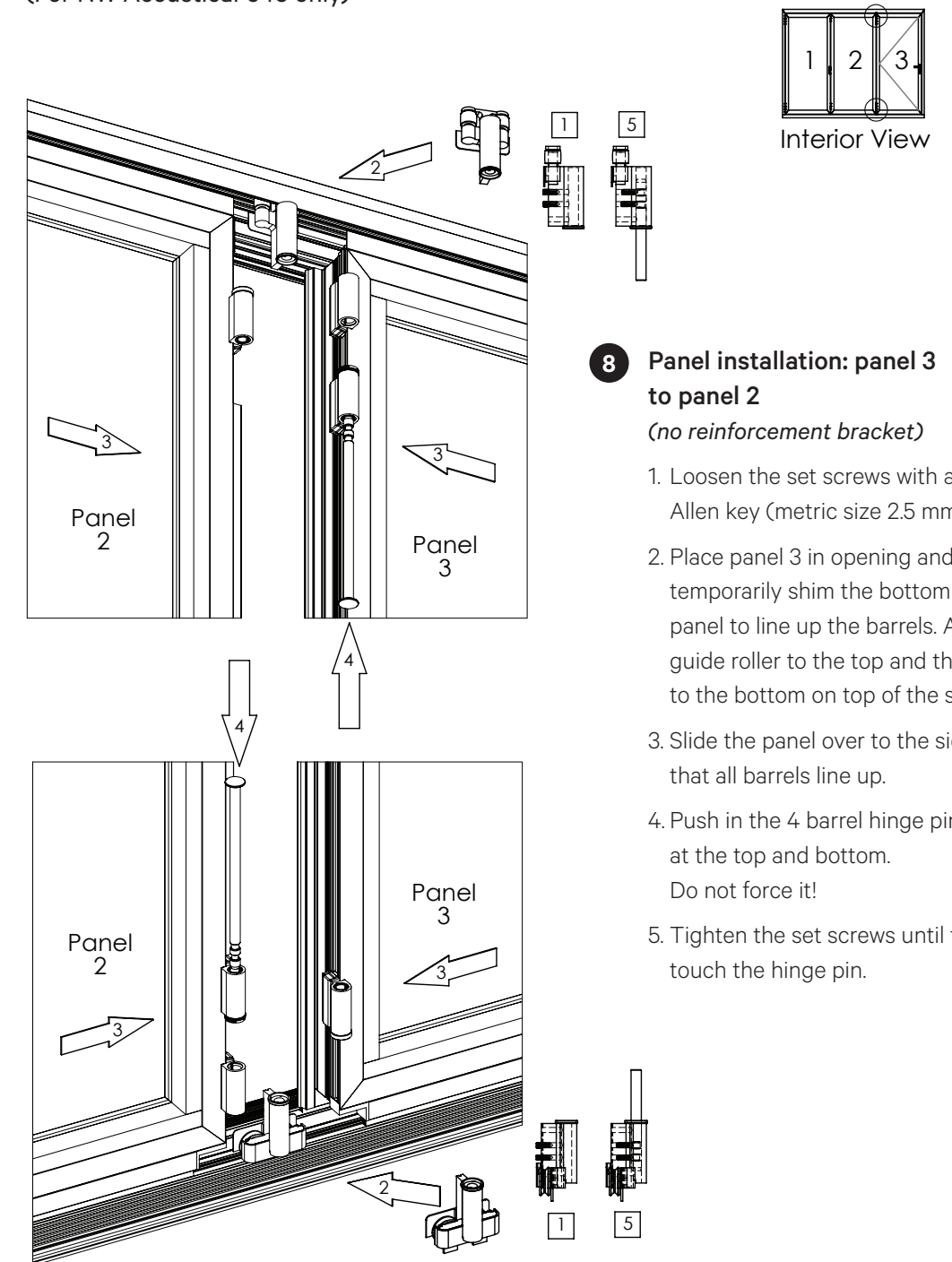
7 Adjustment of vertical gasket

Remove black polyamide insert piece at the top. Pull out the vertical gasket slightly and cut as illustrated approx. 3/8" (10 mm) shorter at the top and bottom. Add some glue to the ends of gasket before you insert it back into the groove.



PANEL INSTALLATION

(For NW Acoustical 645 only)

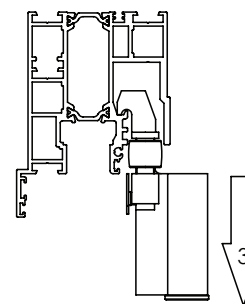
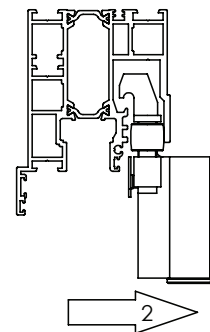
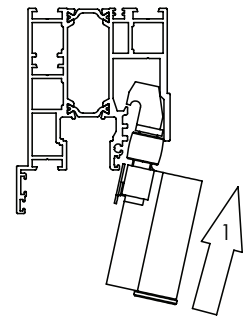


8 Panel installation: panel 3 to panel 2
(no reinforcement bracket)

1. Loosen the set screws with an Allen key (metric size 2.5 mm).
2. Place panel 3 in opening and temporarily shim the bottom of the panel to line up the barrels. Add the guide roller to the top and the roller to the bottom on top of the sill.
3. Slide the panel over to the side, so that all barrels line up.
4. Push in the 4 barrel hinge pin at the top and bottom. Do not force it!
5. Tighten the set screws until they touch the hinge pin.

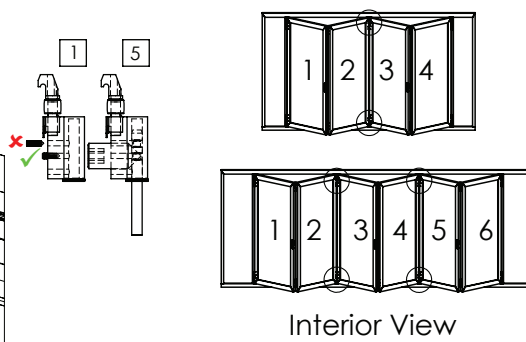
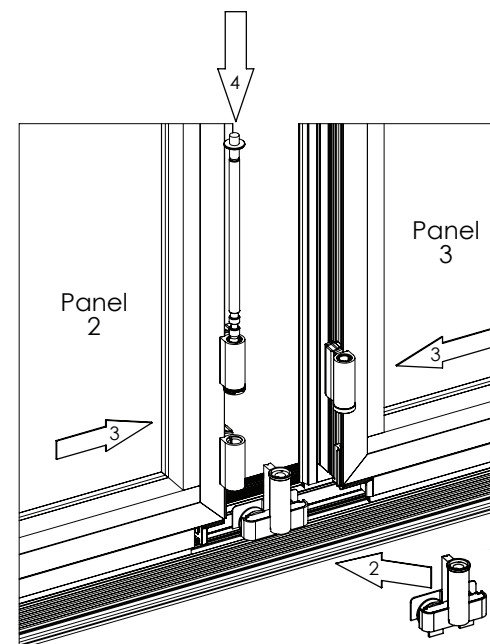
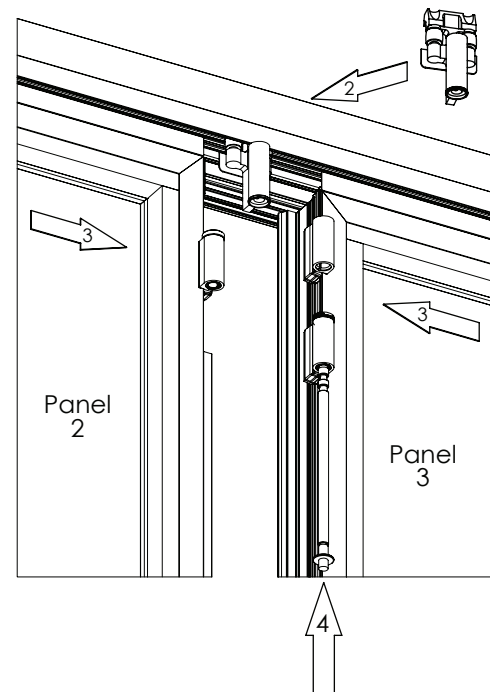
PANEL INSTALLATION

FourFold / SixFold Panels Sets



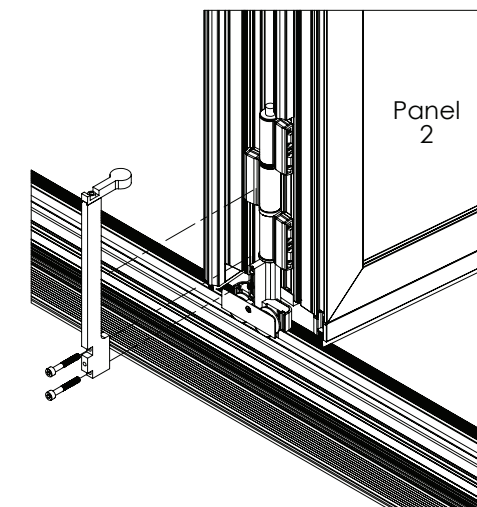
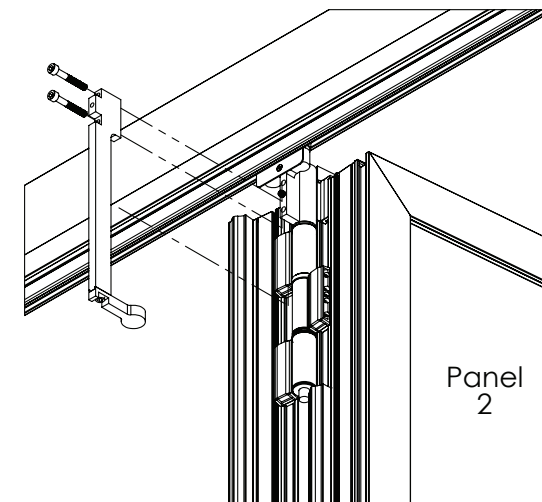
9 Installation of panel guide with anti-tilt feature

Tilt the guide roller slightly and push it up in an angle into the chamber of the higher head track. Do not force it!



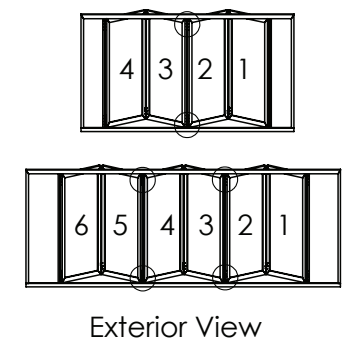
10 Panel installation: panel 3 to panel 2

1. Loosen set screws with an Allen key (metric size 2.5 mm) and remove set screw closest to the top guide and bottom roller. Loosen the other with an Allen key.
2. Place panel 3 in opening and temporarily shim the bottom of the panel to line up the barrels. Add the guide roller with anti-tilt feature at the top.
3. Slide the panel over to the side, so that all barrels line up.
4. Push in the 4 barrel reinforced hinge pin at the top. Do not force it!
5. Tighten the single set screw at the top and bottom until it touches the hinge pin.



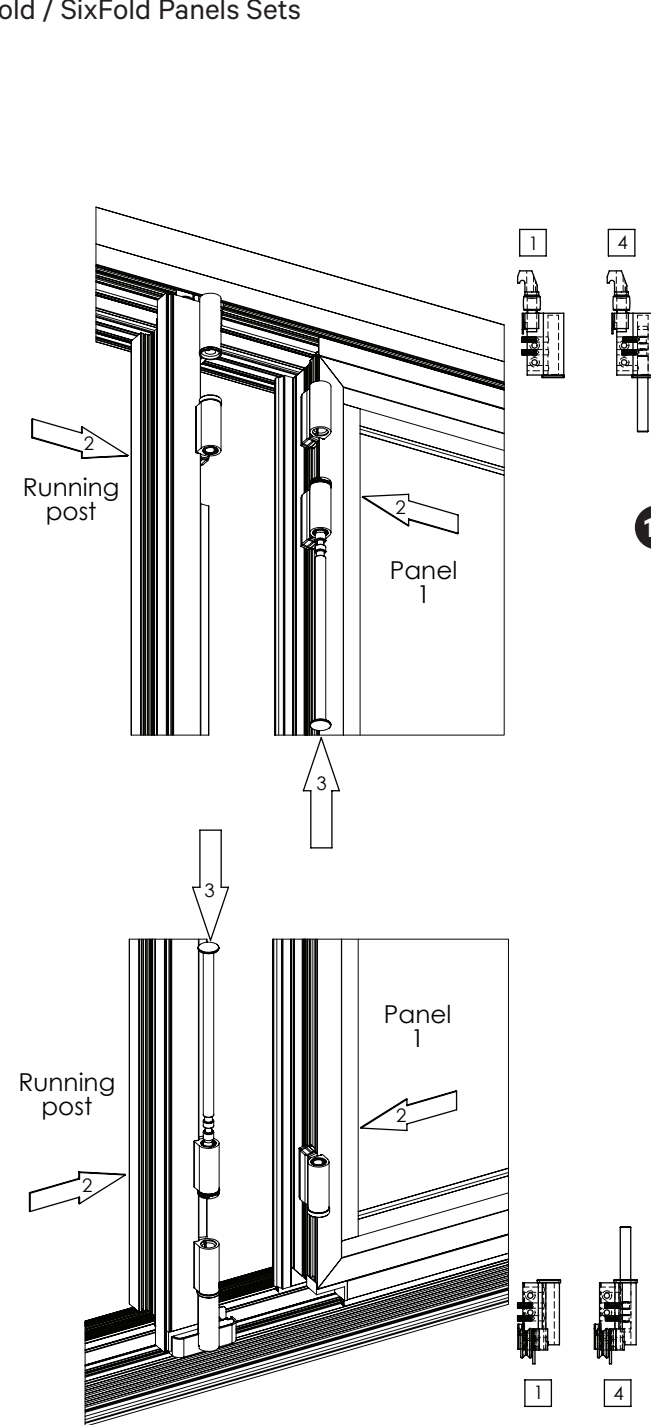
11 Installation of reinforcement bracket between panel 2 and panel 3 (and 4 and 5)

The reinforcement brackets are supplied in the accessory box. Tilt the reinforcement bracket slightly up and place the upper short leg of the L on top of the head of the 4 barrel reinforced hinge pin. Then fasten the 2 Allen screws (metric size 2.5 mm) to the bottom of the guide and tighten them.



PANEL INSTALLATION

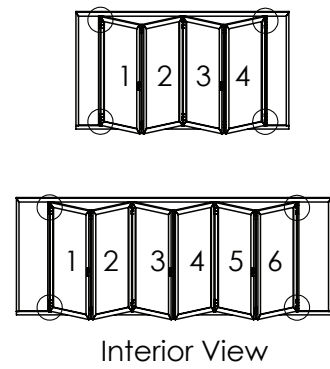
FourFold / SixFold Panels Sets



**12 Panel installation:
running post to panel 1 or 4 or 6
(no reinforcement bracket)**

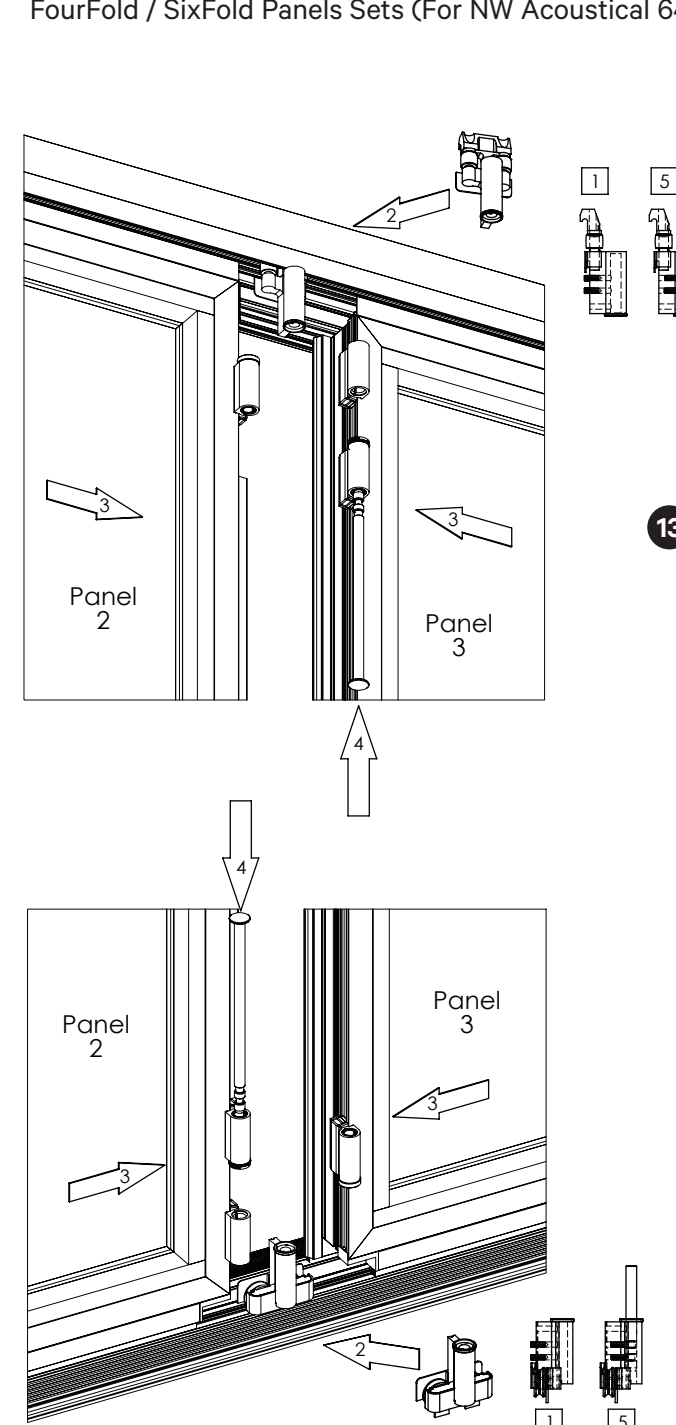
1. Loosen the set screws with an Allen key (metric size 2.5 mm).
2. Place panel 1 in opening and temporarily shim the bottom of the panel to line up the barrels. Place post in opening with pre-installed guide and bottom rollers next to panel 1.

Slide the post over to the side, so that all barrels line up.
3. Push in the 4 barrel hinge pin at the top and bottom. Do not force it!
4. Tighten the set screws until they touch the hinge pin.



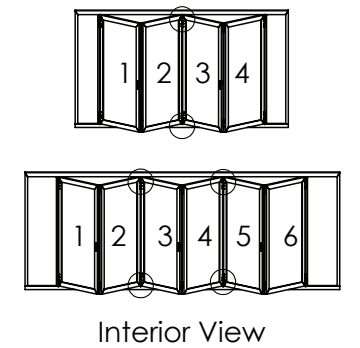
PANEL INSTALLATION

FourFold / SixFold Panels Sets (For NW Acoustical 645 only)

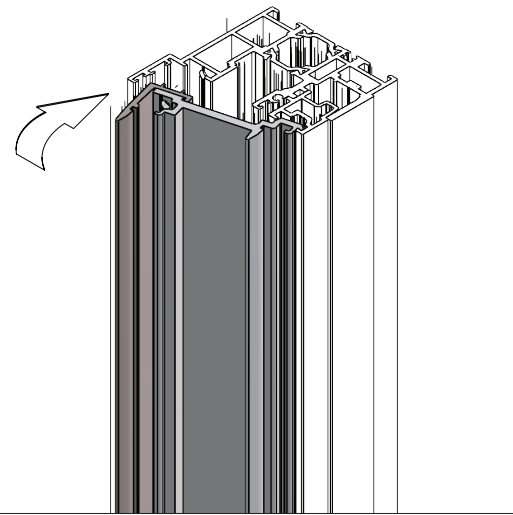


**13 Panel installation: panel 3 to panel 2
or panel 5 to panel 4
(no reinforcement bracket)**

1. Loosen set screws with an Allen key (metric size 2.5 mm).
2. Place panel 3 in opening and temporarily shim the bottom of the panel to line up the barrels. Add the guide roller with anti-tilt feature at the top.
3. Slide the panel over to the side, so that all barrels line up.
4. Push in the 4 barrel hinge pin at the top. Do not force it!
5. Tighten the set screws until they touch the hinge pin.

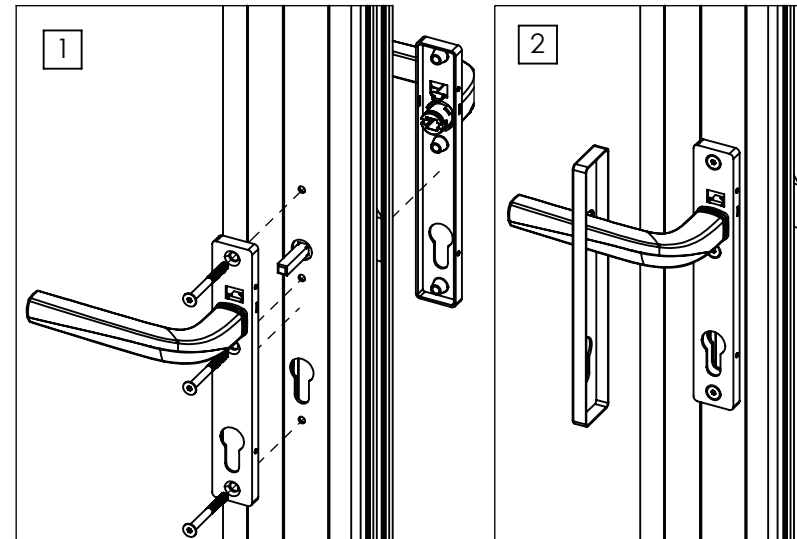
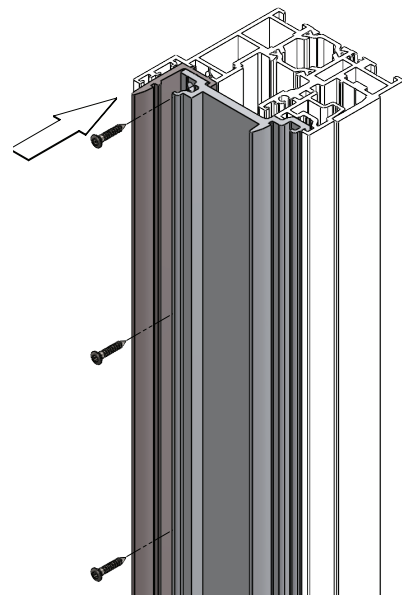


MULTIPOINT LOCKING WITH LEVER HANDLE



1 Side jamb (R) with cover profile

After unit is installed and adjusted, reinstall the black side jamb cover profile for systems like 1L, 3R, or 5L configurations meeting the side jamb.

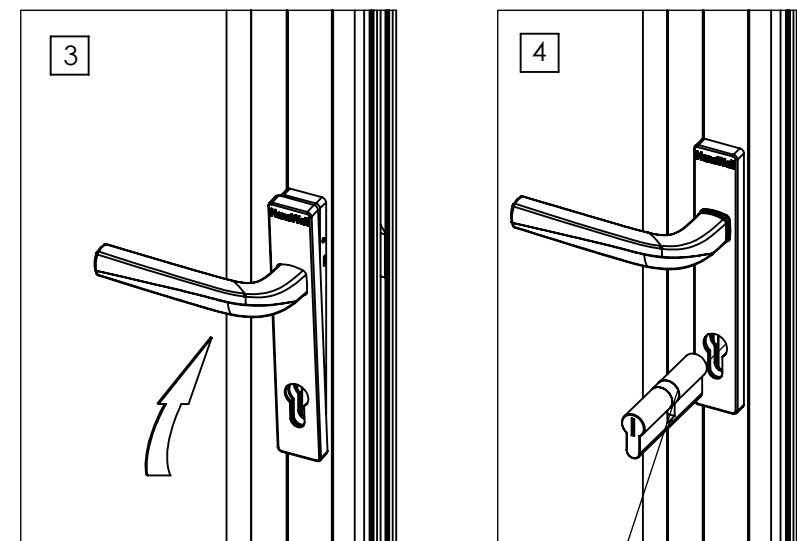


2 Installation of lever handle

Lever handle and cylinder are supplied in the accessory box.

1. Before you install the lever handles, check both handles, push down gently and see if the lever comes back up. If not, turn it gently in the opposite direction and try again. This way you can control if the spring loaded lever is oriented in the right direction.

Push the square spindle through the larger hole above the cylinder hole. Install mounting plate with screw holes facing the interior.

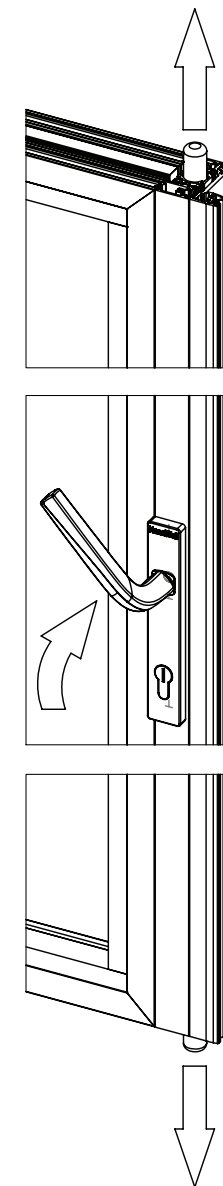
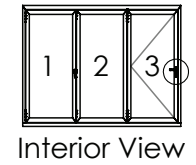
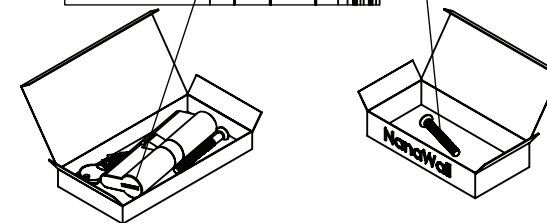


2. Add handles with mounting plate to both sides of the panel and fasten them with screws from the inside.

3. Slide the covers onto the mounting plate over the lever.

4. Push onto the mounting plate until flush to panel.

Remove cylinder from the small box. Install the cylinder and fix it from the side with the separate supplied screw. If screw is longer than 2", it may be necessary to cut the screw to fit.



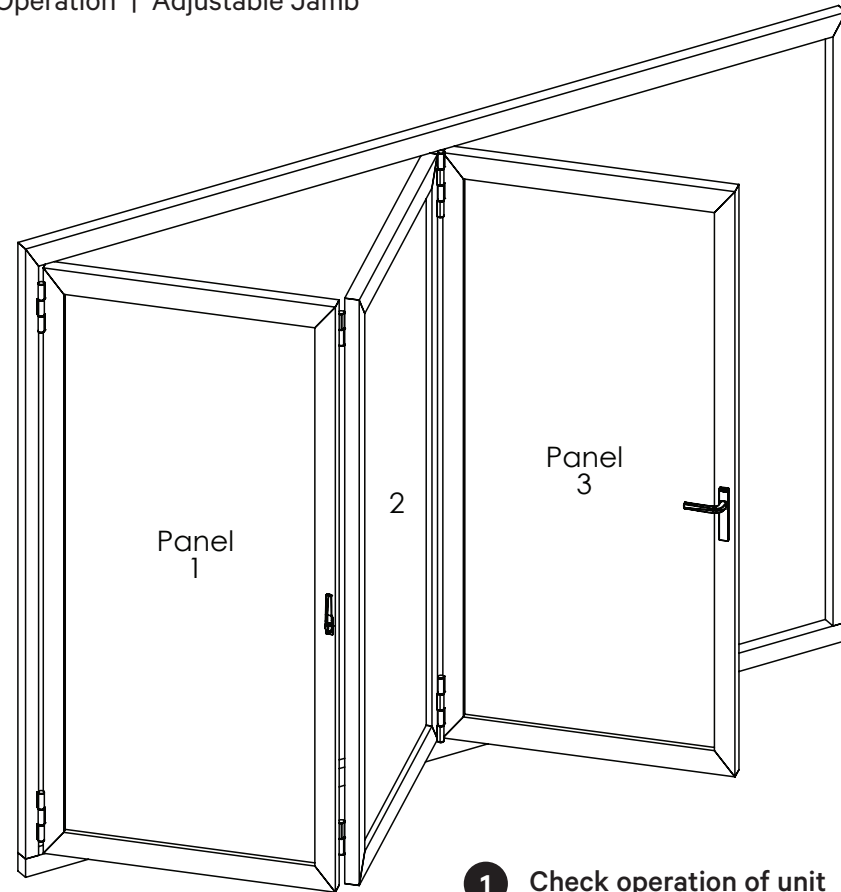
3 Multipoint locking operation on primary swing panel

Turn lever handle up about 45° to engage the locking points. Then let it return to its resting position. Only now can the lock cylinder be locked with a key on the outside or a thumb turn on the inside to extend dead bolt all the way.

To unlock, turn key or thumb turn to retract dead bolt all the way. By operating the lever handle downwards, the locking points at the top and bottom are disengaged.

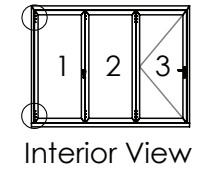
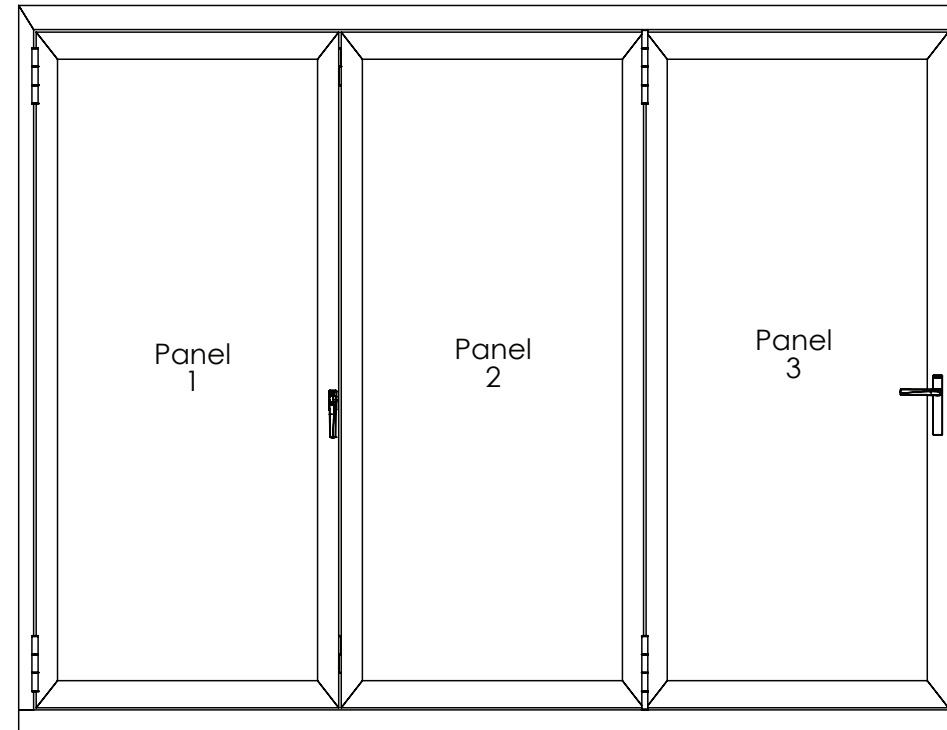
SYSTEM ADJUSTMENT

Check Operation | Adjustable Jamb



1 Check operation of unit

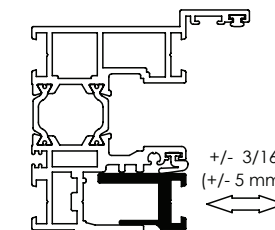
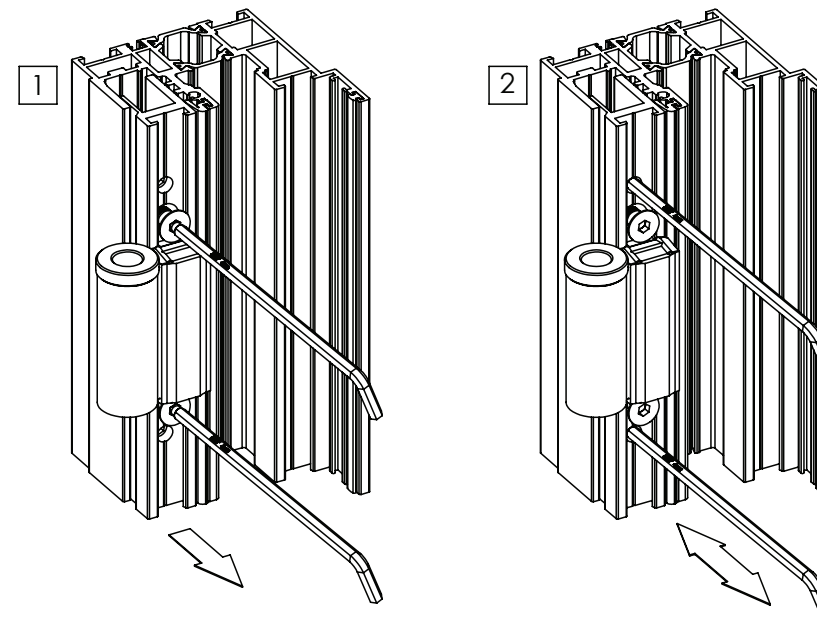
Open and close the unit slowly to check the operation of panels. Look for debris or other objects that can interfere with the movement of the panels and rollers. Check the locking points and the locking mechanism of the multipoint lock. It should work with ease. Do not apply force during this test run!



2 Horizontal and vertical reveals

Before closing the unit, check the frame again to ensure it is plumb, level, and not twisted.

Close and lock all panels into position. Check all horizontal and vertical reveals and compare them with the dimensions shown in the product drawing.



3 Adjustable side jamb

1. Loosen screws a few turns using an Allen key (metric size 4 mm).
2. By turning Allen key clockwise or counterclockwise you can adjust the hinge in and out.

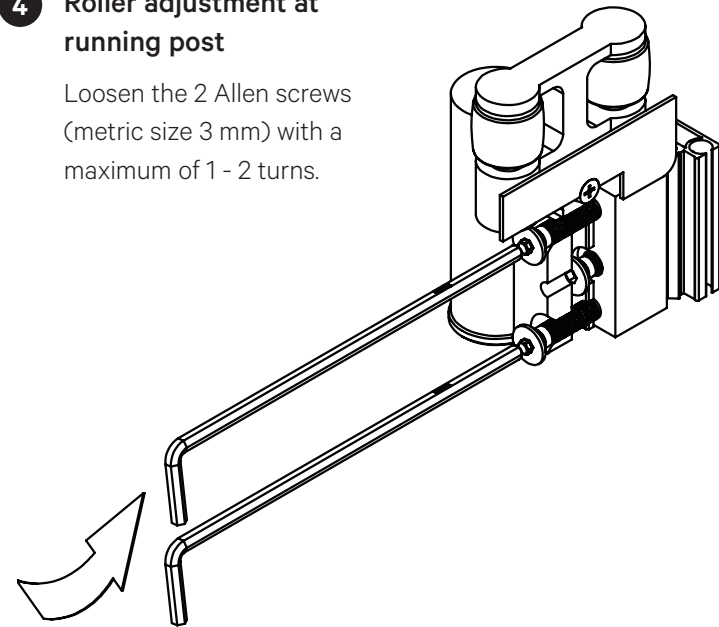
After final adjustment, tighten the Allen screws again. Depending on unit height, you can have up to 3 adjustable hinge points.

SYSTEM ADJUSTMENT

Running Post — Top and Bottom

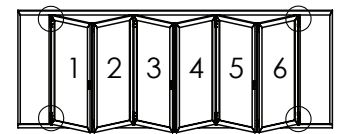
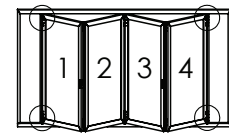
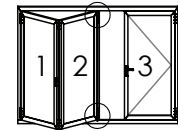
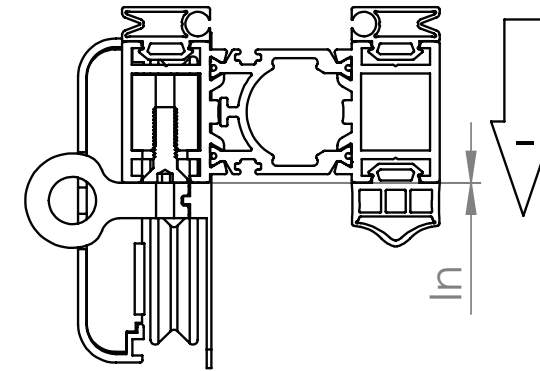
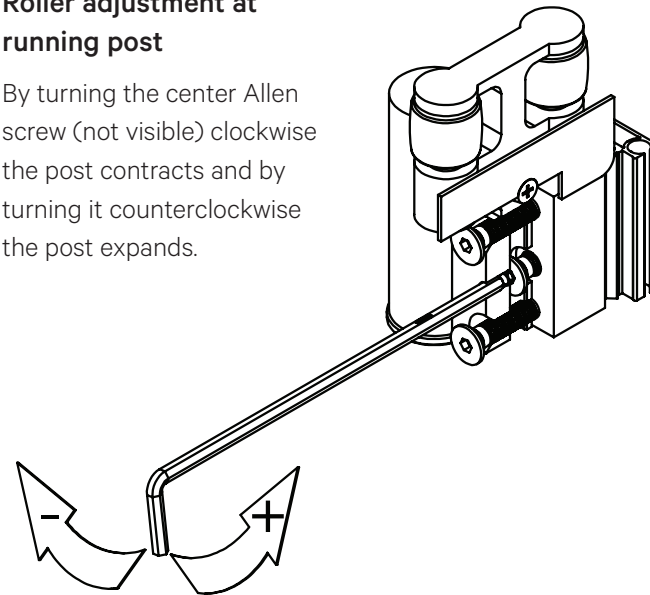
4 Roller adjustment at running post

Loosen the 2 Allen screws (metric size 3 mm) with a maximum of 1 - 2 turns.

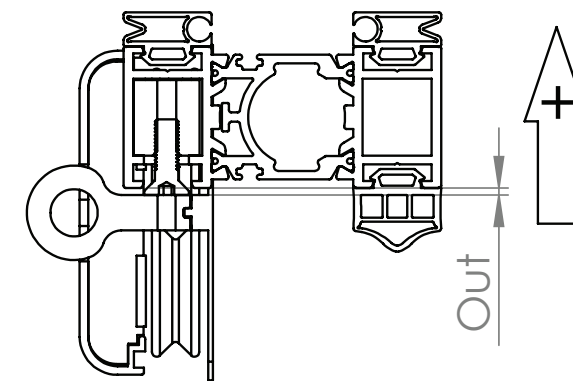
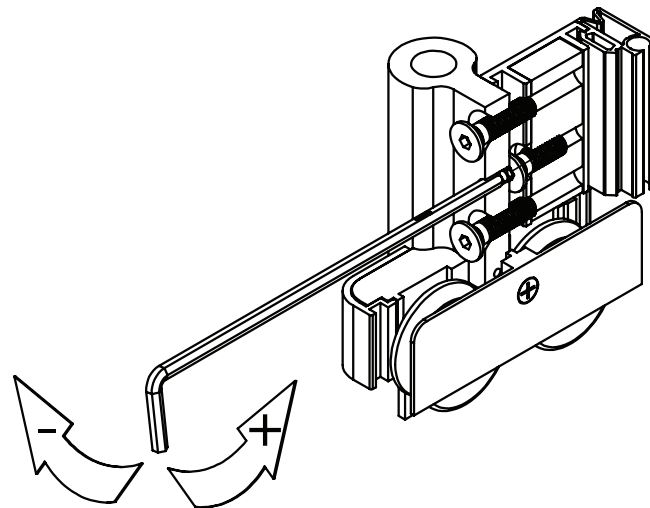
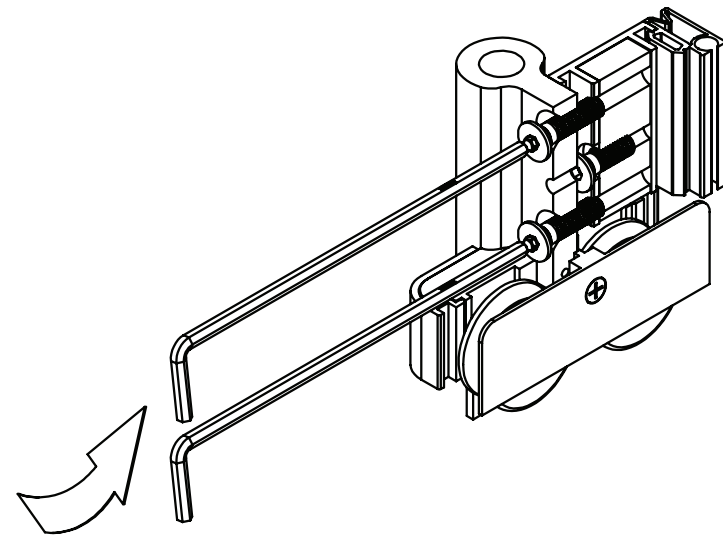


5 Roller adjustment at running post

By turning the center Allen screw (not visible) clockwise the post contracts and by turning it counterclockwise the post expands.

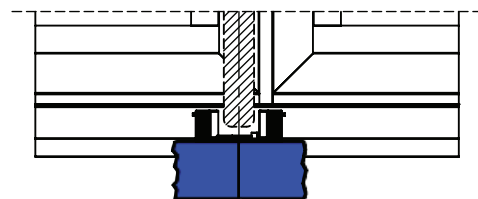
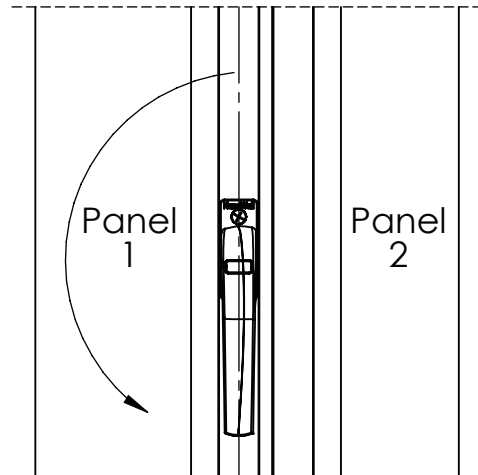
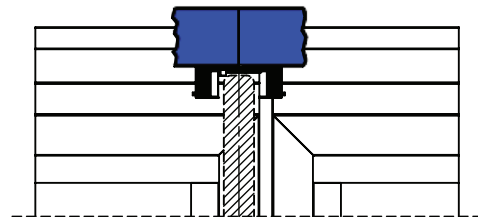
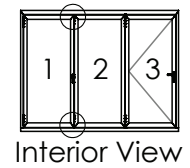


Interior View



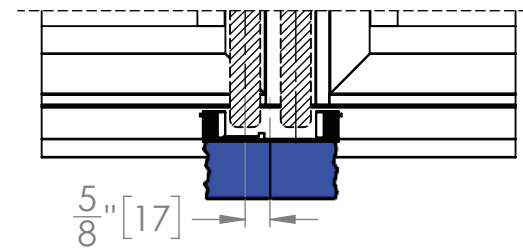
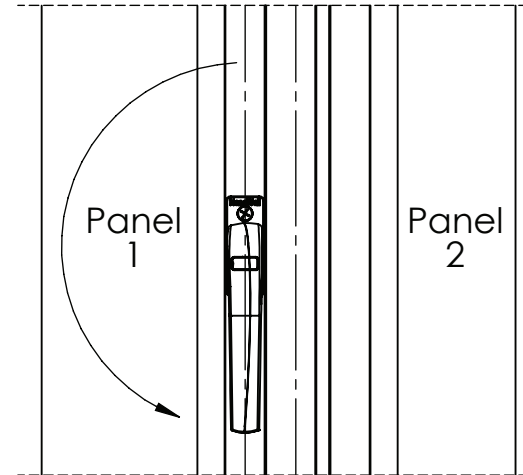
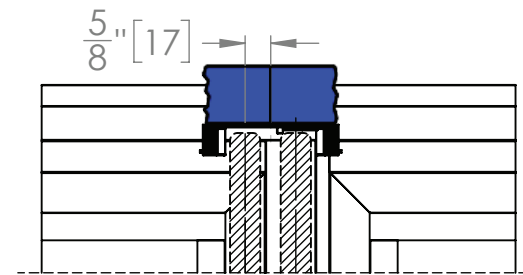
FLOATING LOCKING RECEIVERS

Head Track | Series 640, 540, and 740



1 Mark Center Line of Locking Point

Mark center line position of locking rod end caps on the visible surface of the head track and the sill with tape or similar for next steps.



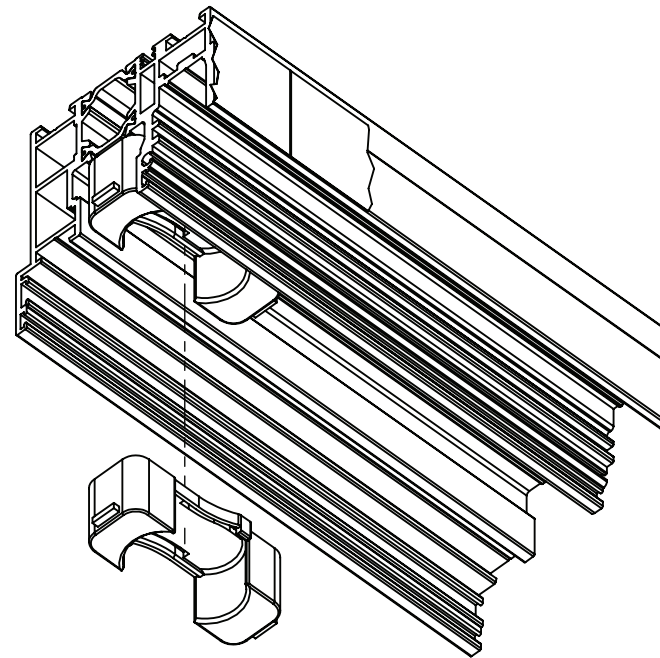
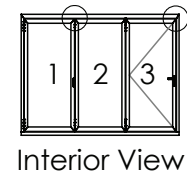
2 Mark Center Line of Locking Point

(NW Reinforced 647 only)

Mark center line position of PowerLock (follow line of extension profile between the 2 end caps) on the visible surface of the head track and the sill with tape or similar for next steps.

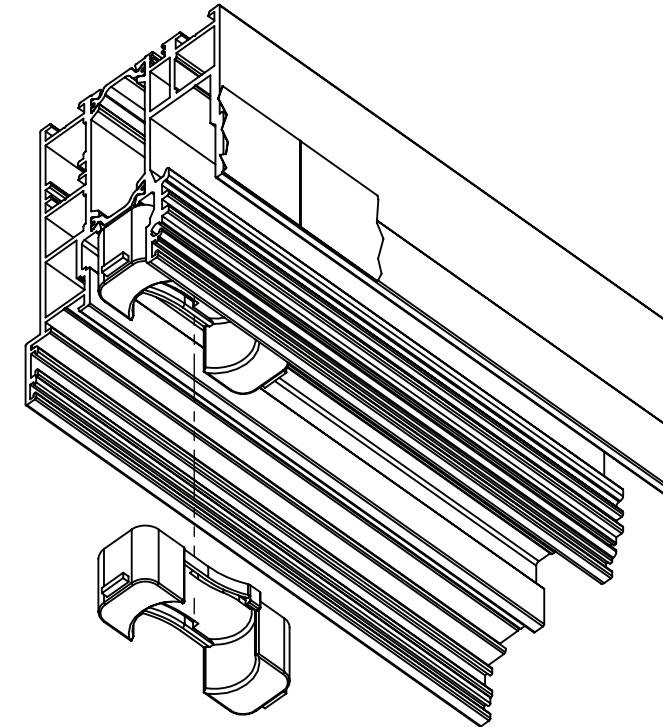
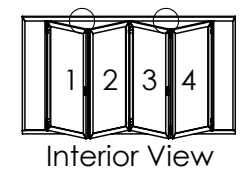
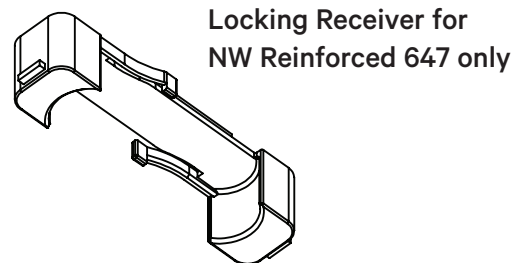
FLOATING LOCKING RECEIVERS

Head Track | Series 640, 540, and 740



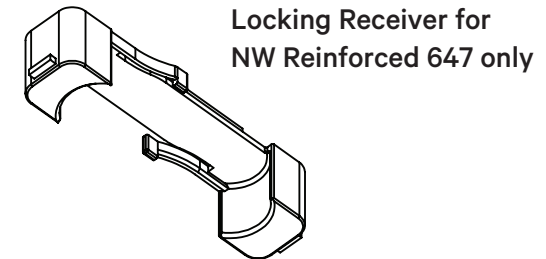
3 Standard Head Track

Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.



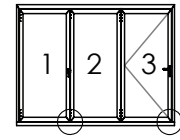
4 Higher Head Track for FourFold / SixFold Panel Sets

Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.

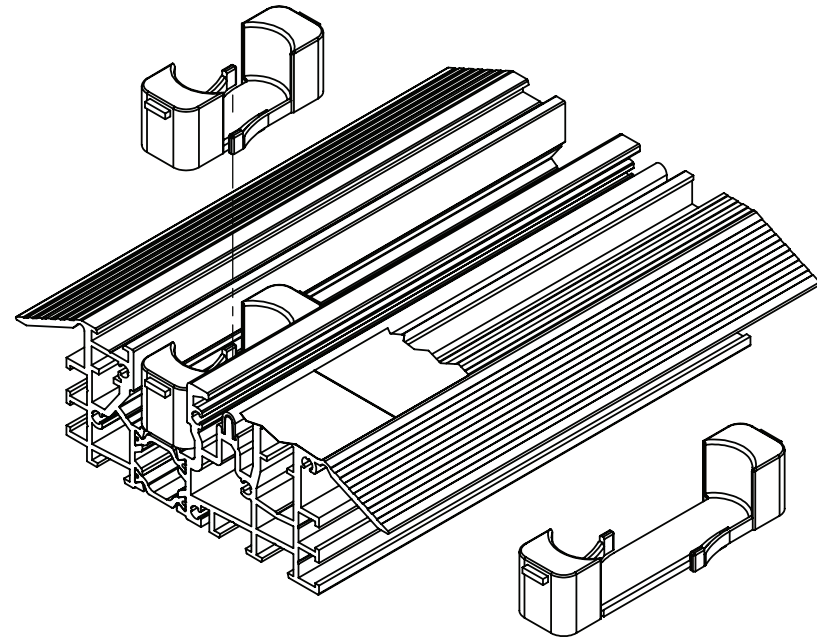


FLOATING LOCKING RECEIVERS

Sills | Series 640, 540, and 740



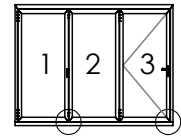
Interior View



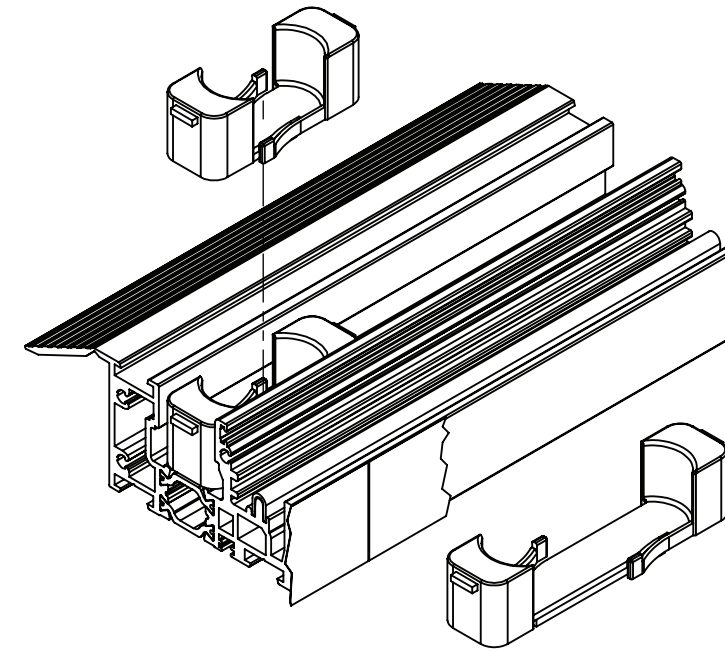
5 Low Profile Saddle Sill

Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.

Locking Receiver for
NW Reinforced 647 only



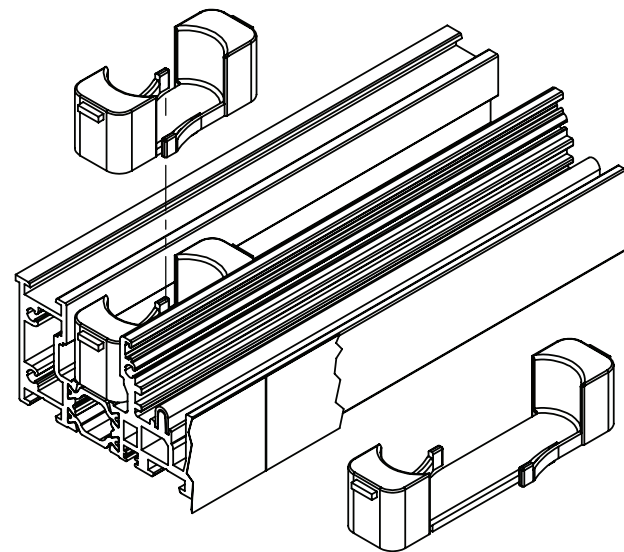
Interior View



6 Hybrid Sill

Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.

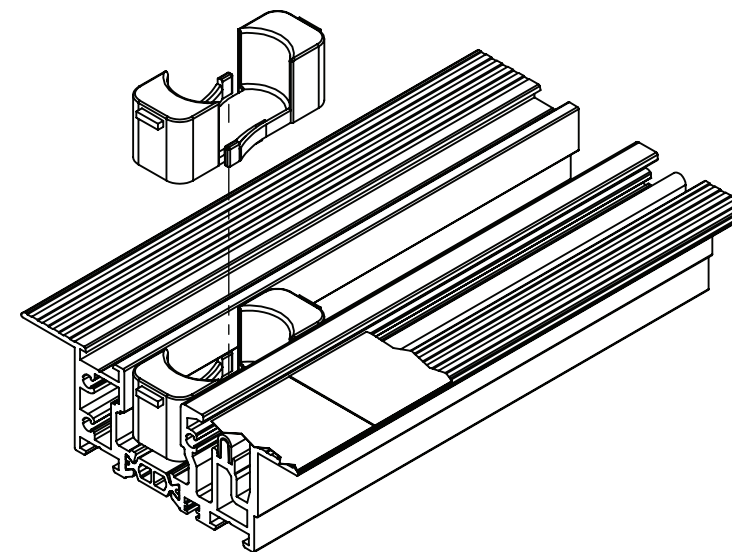
Locking Receiver for
NW Reinforced 647 only



7 Low Profile Raised Sill

Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.

Locking Receiver for
NW Reinforced 647 only

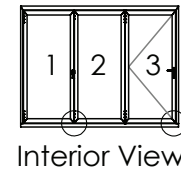


8 Flush Sill

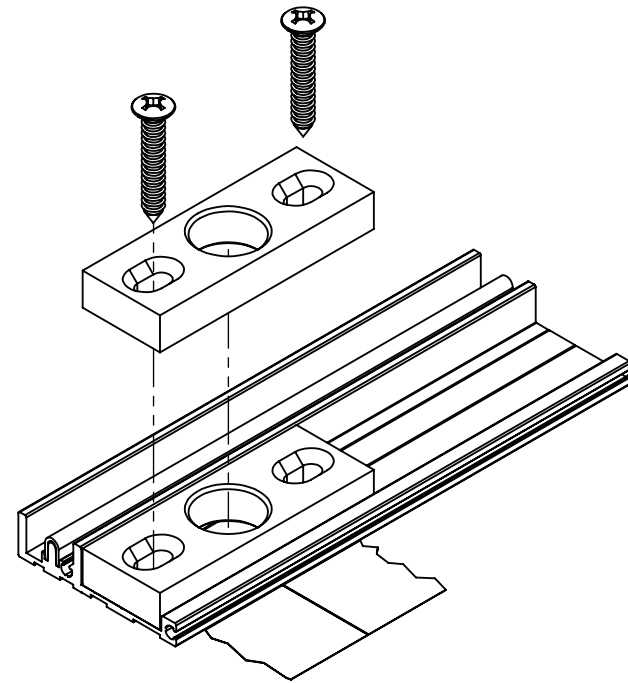
Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.

FLOATING LOCKING RECEIVERS

Sills | Series 640, 540, and 740



Interior View



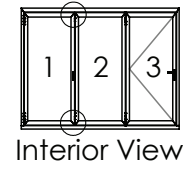
9 Minimal Surface Mounted Flush Sill

(NW Acoustical 645 and NW Acoustical 545 only)

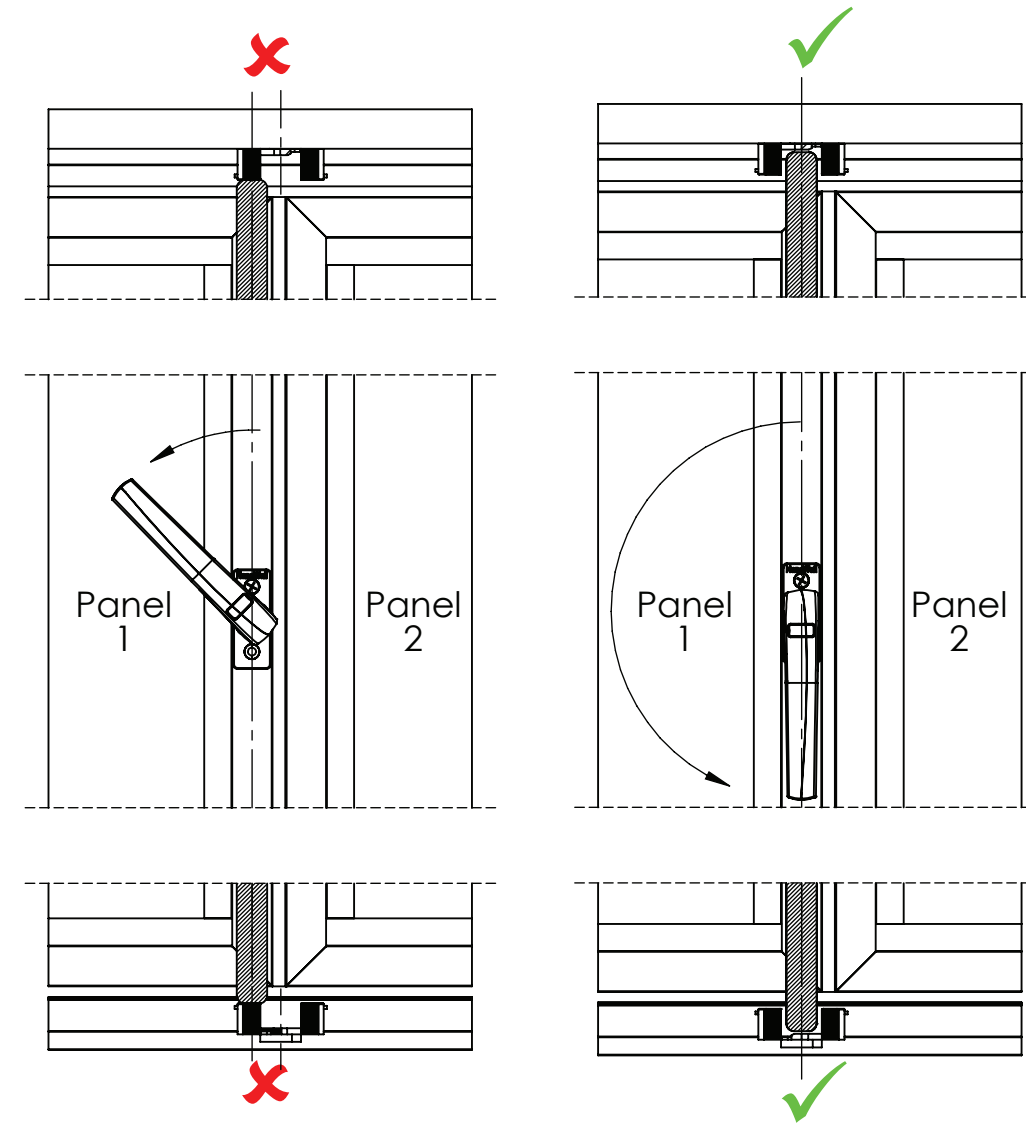
Line up the center line of locking receiver with center line of the black end cap of the rod. Fix locking receiver temporarily until unit is finally installed and adjusted. Keep tape as a mark for the next step.

FLOATING LOCKING RECEIVERS

Sills | Adjustment



Interior View

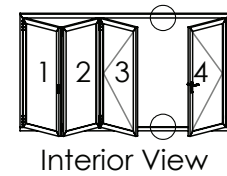
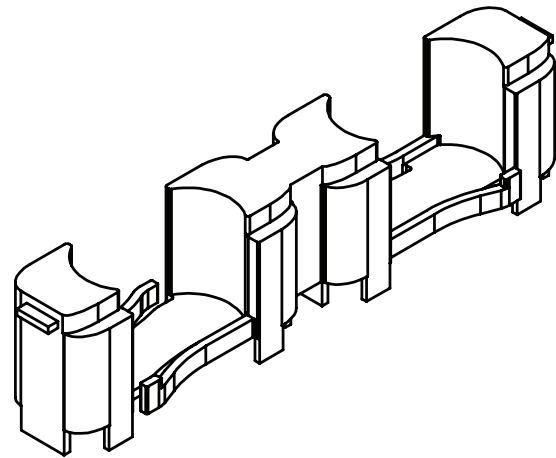


10 Adjustment of locking receivers

After final adjustments of the panels and the unit, line up locking receivers with the end caps. Do not force to lock the handle down!

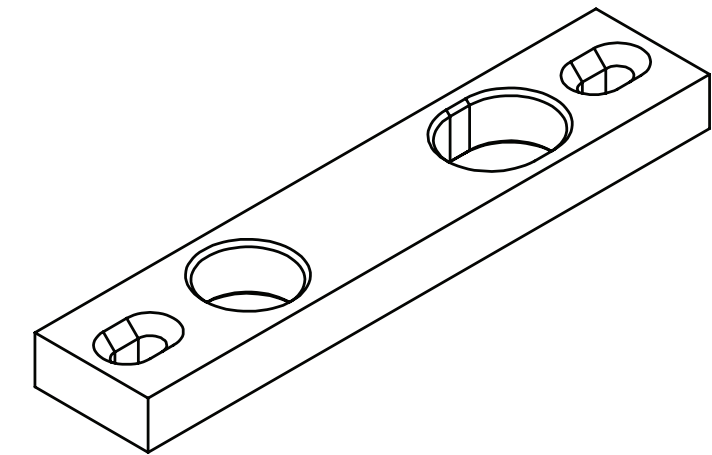
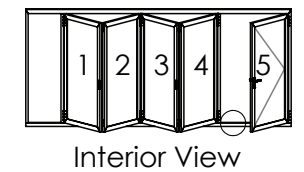
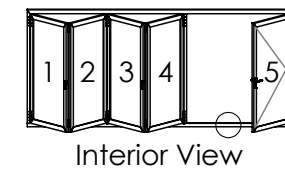
FLOATING LOCKING RECEIVERS

Sills | Series 640, 540, and 740



11 Floating locking receivers primary swing meeting secondary swing panel

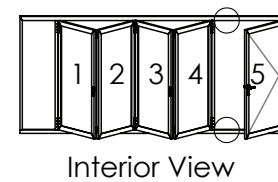
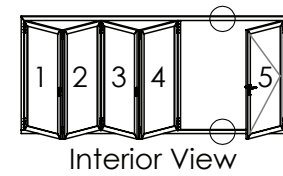
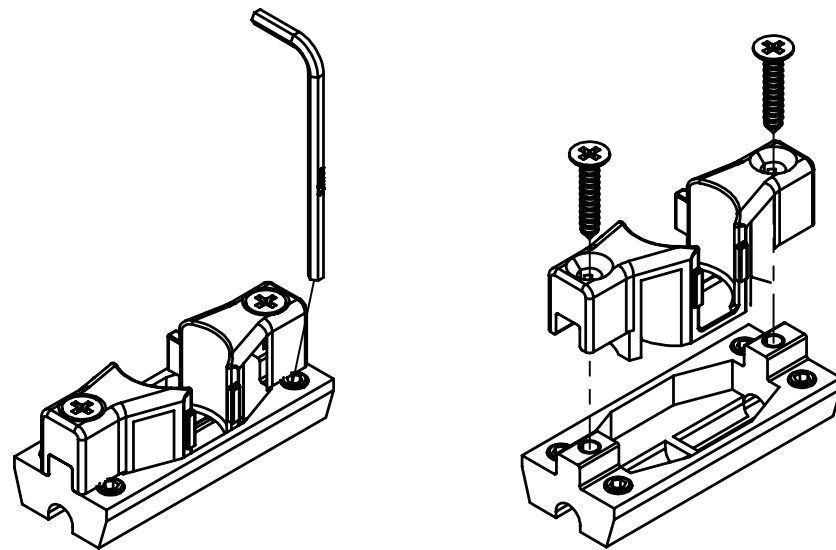
Line up the center line of one side of the oval floating locking receiver with center line of the black end cap of the rod of the primary swing panel. Click it in place so that the other side of the oval floating locking receiver is facing the secondary swing panel. Keep tape on profile for the next step.



13 Fixed locking receiver for running post with edge lock meeting swing panel
(NW Acoustical 645 and NW Acoustical 545 only)

Line up the center line of round hole with center line of the black end cap of the rod of the concealed edge lock of the running post. Fix locking receiver temporarily until unit is finally installed and adjusted. Keep tape as a mark for the next step.

Locking receivers for the head track, please reference step 12 on this page.



12 Fixed locking receiver for running post with edge lock meeting swing panel

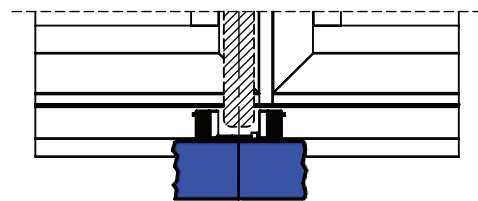
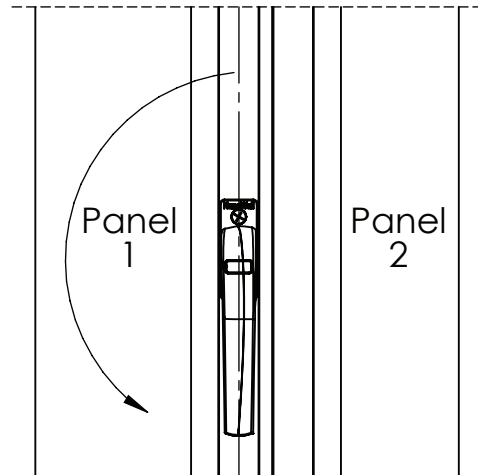
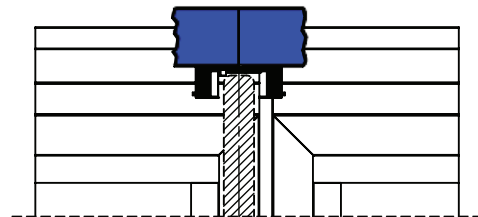
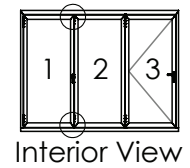
Line up the center line of the fixed locking receiver with center line of the black end cap of the rod of the concealed edge lock on the running post. Fasten the base plate in place with the set screws using an Allen key (metric size 2.5 mm) and install the receiver part on top using Phillips head screws (#2 screwdriver). Keep tape on profile for the next step.

On some units, the fixed locking receiver comes installed from the factory. For the swing panel, the floating locking receiver is in the accessory box.

Double check if the end cap of edge lock lines up with locking receiver and move as needed.

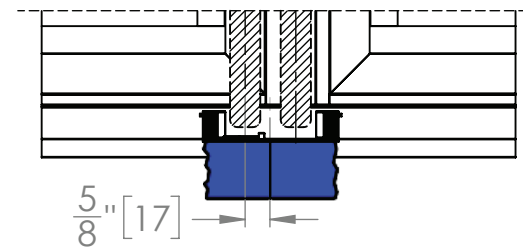
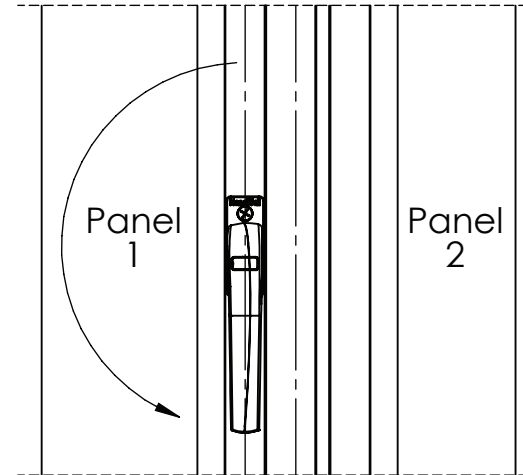
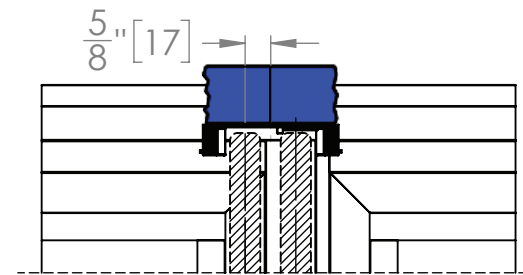
FLOATING LOCKING RECEIVERS

Head Track | Series 840



14 Mark Center Line of Locking Point

Mark center line position of locking rod end caps on the visible surface of the head track and the sill with tape or similar for next steps.

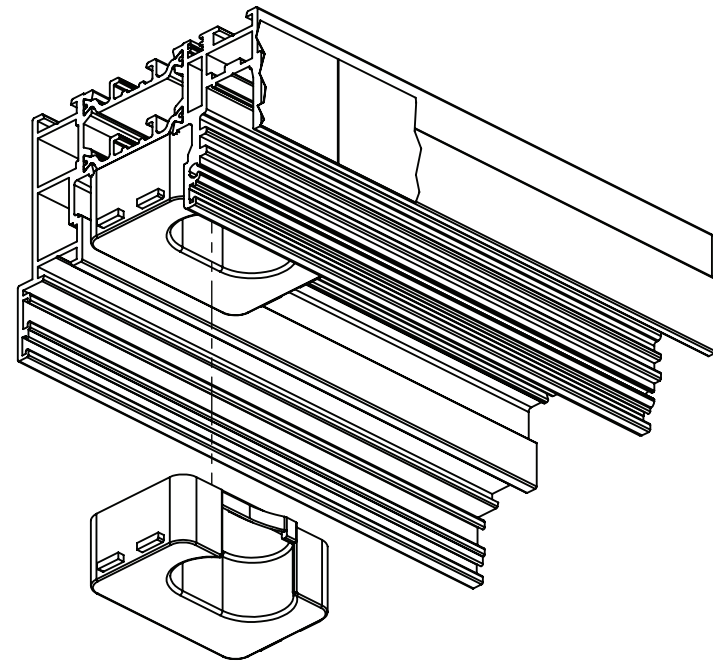
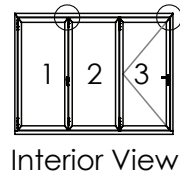


15 Mark Center Line of Locking Point
(NW Reinforced 847 only)

Mark center line position of PowerLock (follow line of extension profile between the 2 end caps) on the visible surface of the head track and the sill with tape or similar for next steps.

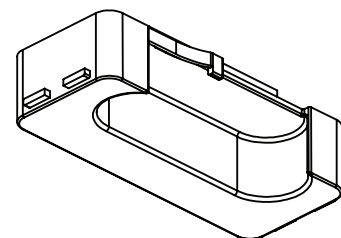
FLOATING LOCKING RECEIVERS

Head Track | Series 840

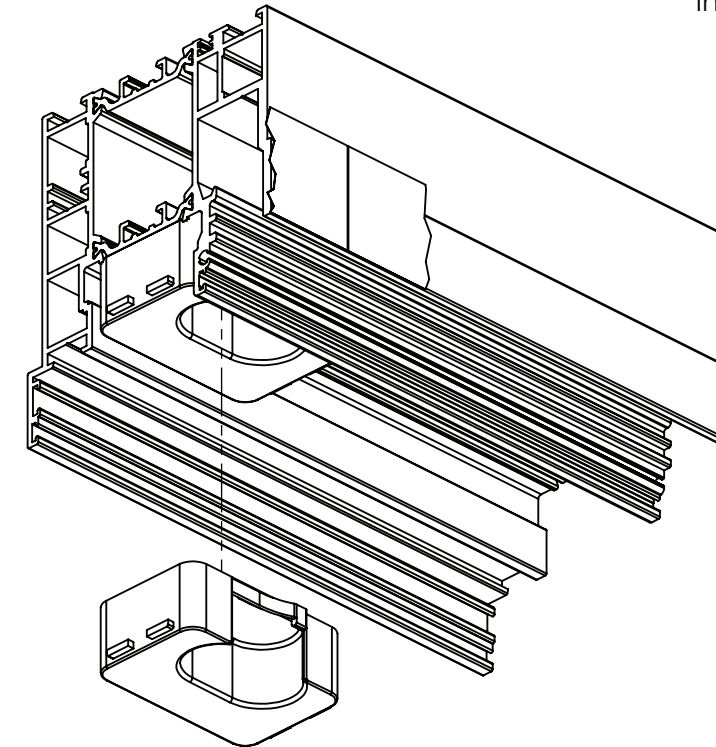
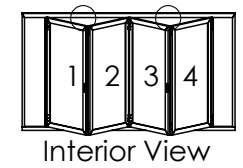


16 Standard Head Track

Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.

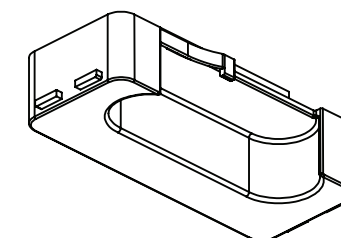


Locking Receiver for NW Reinforced 847 only



17 Higher Head Track for FourFold / SixFold Panel Sets

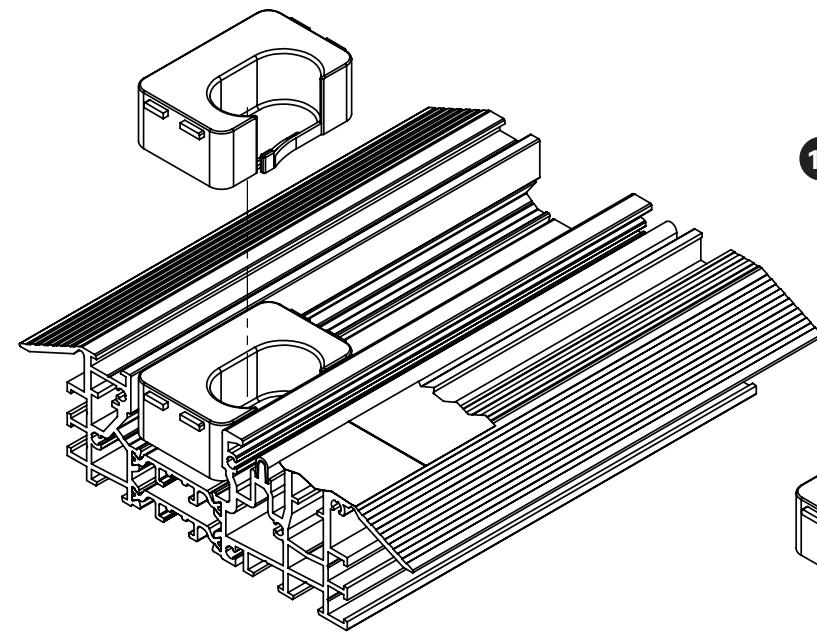
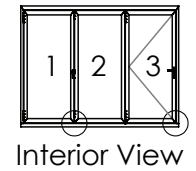
Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.



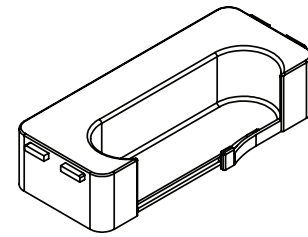
Locking Receiver for NW Reinforced 847 only

FLOATING LOCKING RECEIVERS

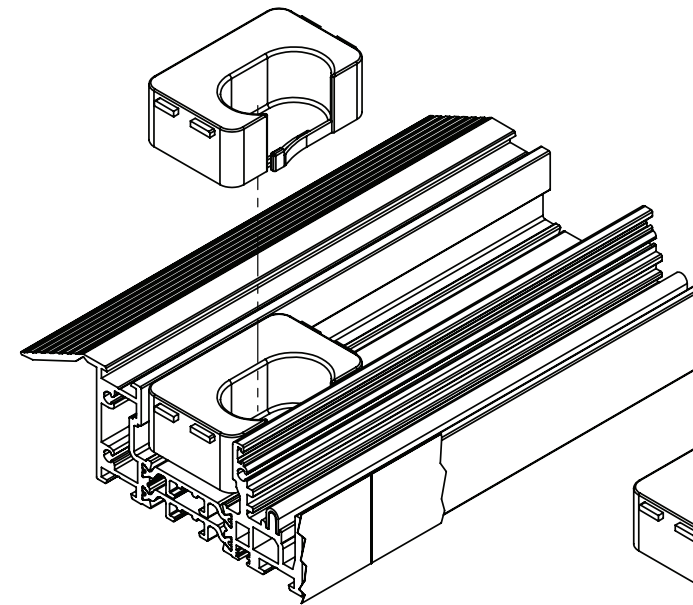
Sills | Series 840



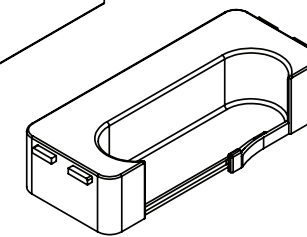
18 Low Profile Saddle Sill
Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.



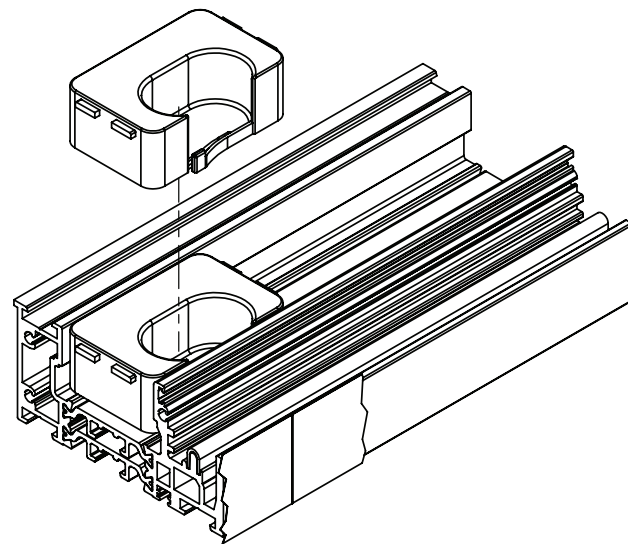
Locking Receiver for NW Reinforced 847 only



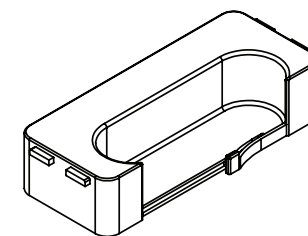
19 Hybrid Sill
Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.



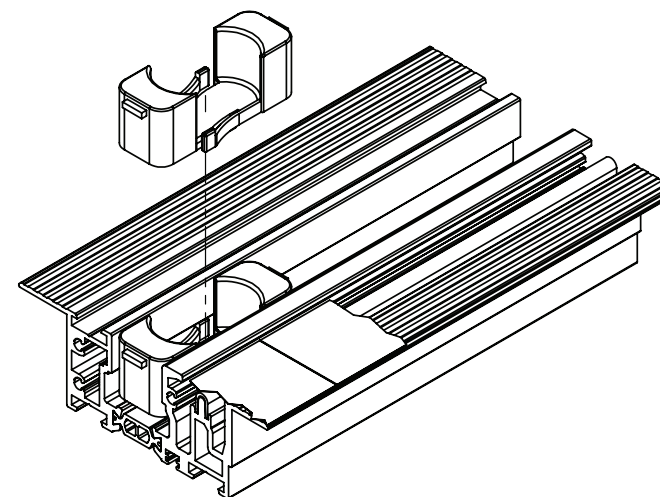
Locking Receiver for NW Reinforced 847 only



20 Low Profile Raised Sill
Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.



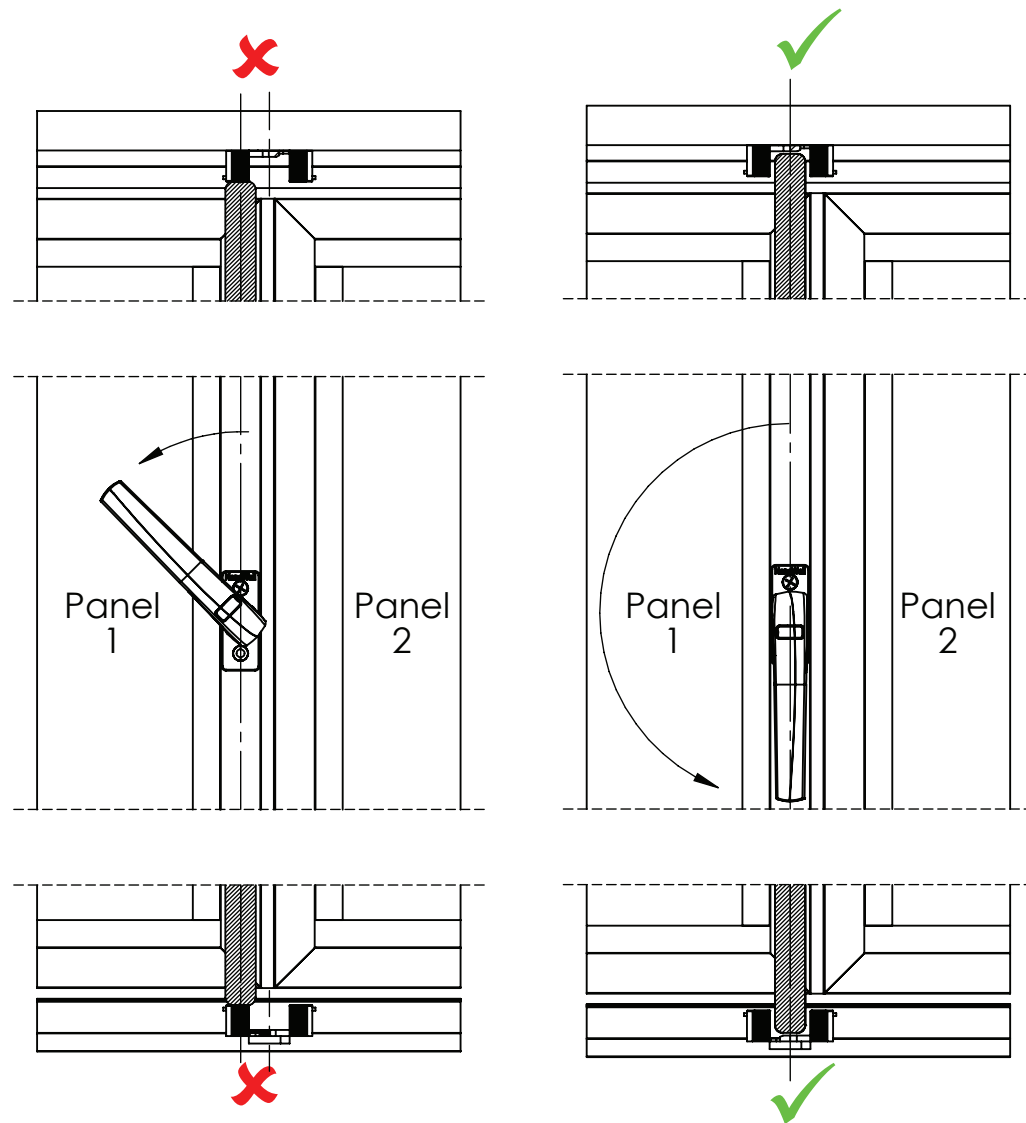
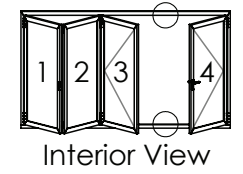
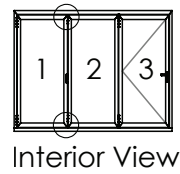
Locking Receiver for NW Reinforced 847 only



21 Flush Sill
Line up the center line of floating locking receiver with center line of the black end cap of the rod. Click it in place and keep tape on profile for the next step.
This is the same sill for Series 640, 540, 740, and 840.

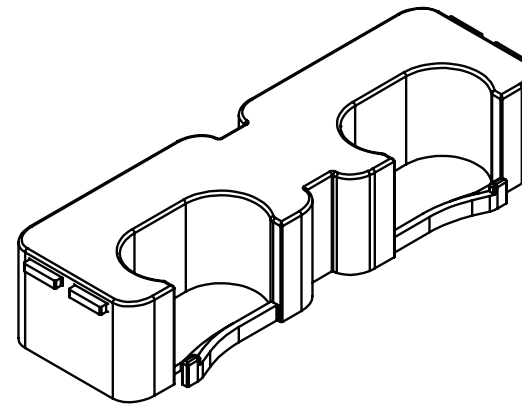
FLOATING LOCKING RECEIVERS

Sills | Series 840



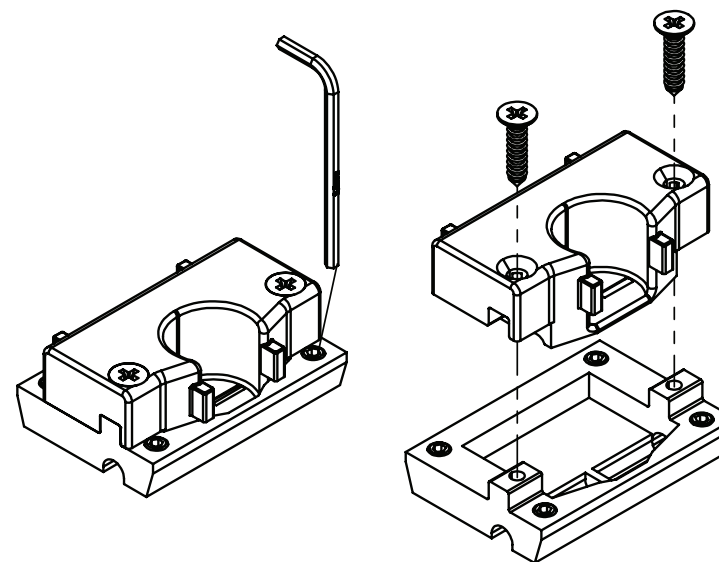
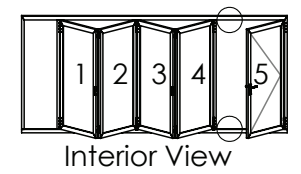
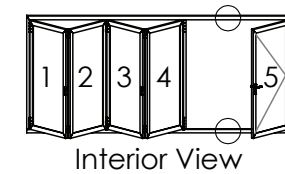
22 Adjustment of locking receivers

After final adjustments of the panels and the unit, line up locking receivers with the end caps. Do not force to lock the handle down!



23 Floating locking receivers primary swing meeting secondary swing panel

Line up the center line of one side of the oval floating locking receiver with center line of the black end cap of the rod of the primary swing panel. Click it in place so that the other side of the oval floating locking receiver is facing the secondary swing panel. Keep tape on profile for the next step.



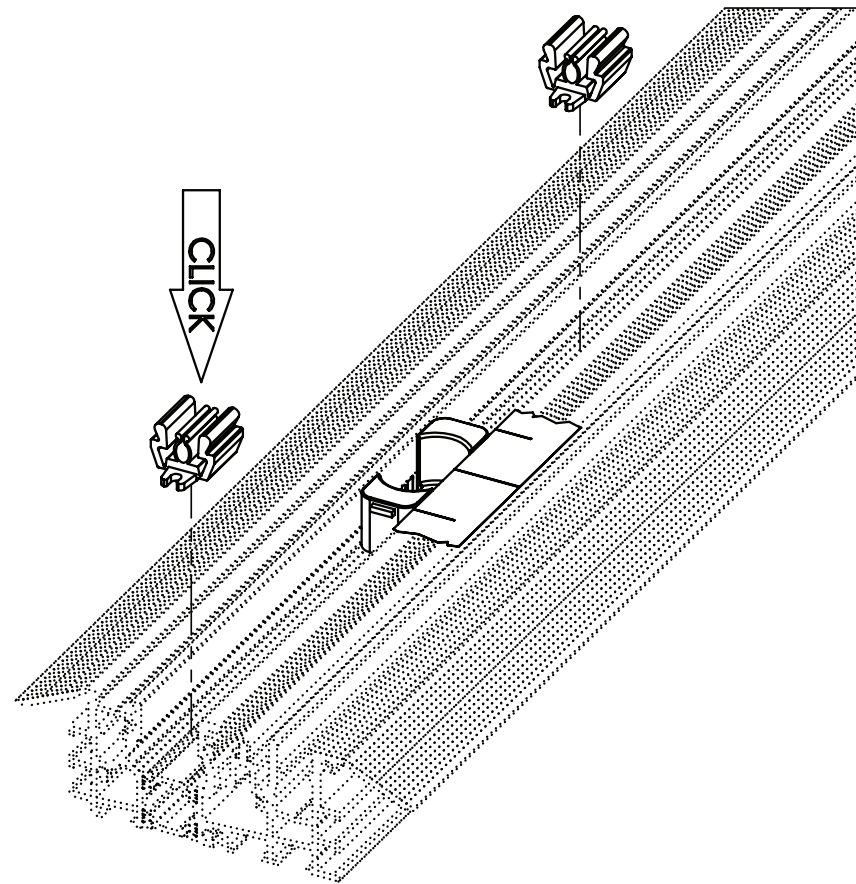
24 Fixed locking receiver for running post with edge lock meeting swing panel

Line up the center line of the fixed locking receiver with center line of the black end cap of the rod of the concealed edge lock on the running post. Fasten the base plate in place with the set screws using an Allen key (metric size 2.5 mm) and install the receiver part on top using Phillips head screws (#2 screwdriver). Keep tape on profile for the next step.

On some units, the fixed locking receiver comes installed from the factory. For the swing panel, the floating locking receiver is in the accessory box.

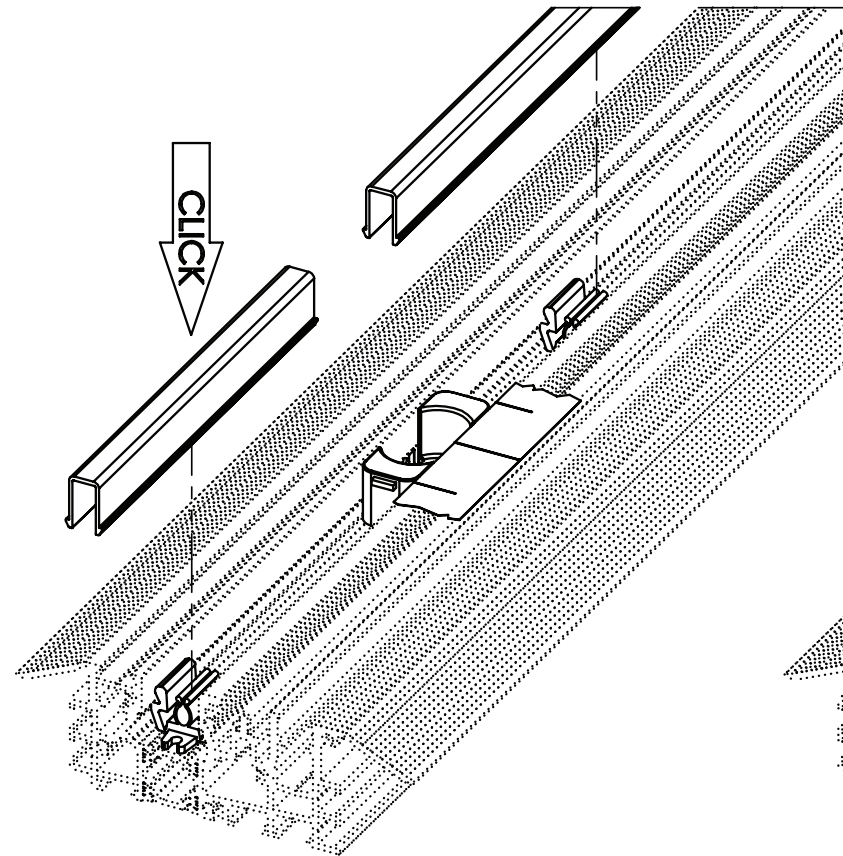
Double check if the end cap of edge lock lines up with locking receiver and move as needed.

ALUMINUM SILL INSERT INSTALLATION



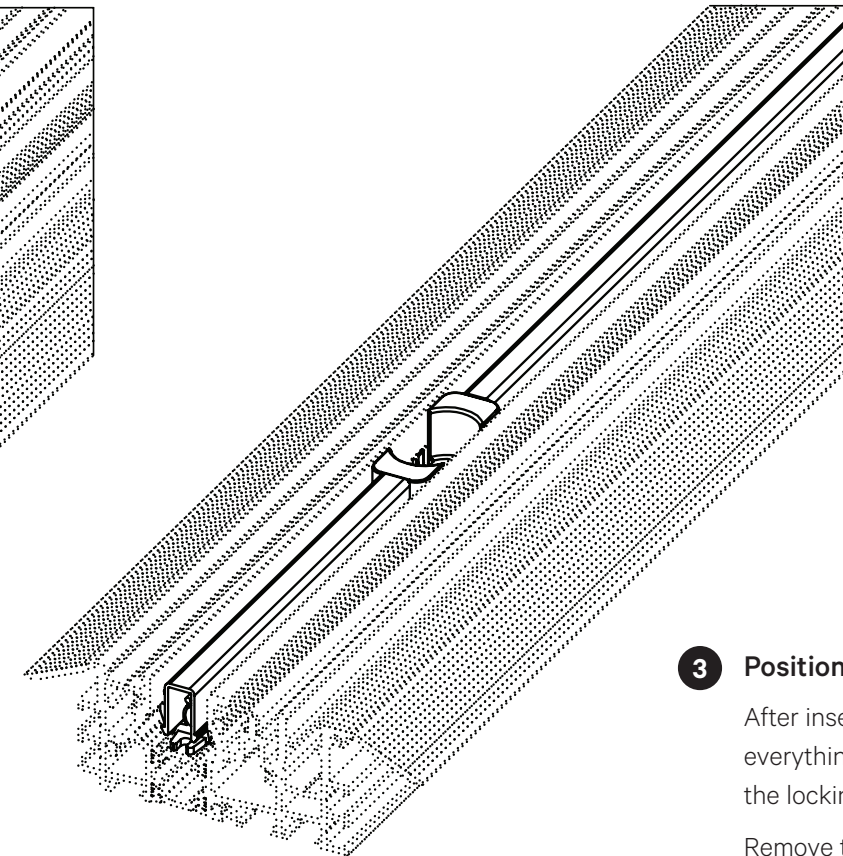
1 Positioning of sill insert retaining clips

Click retaining clips for high heel resistant aluminum sill insert in place. Please add at least 2 to 3 clips in between each locking point depending on length of sill insert.



2 Positioning of sill insert

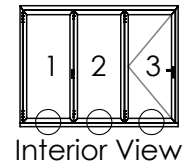
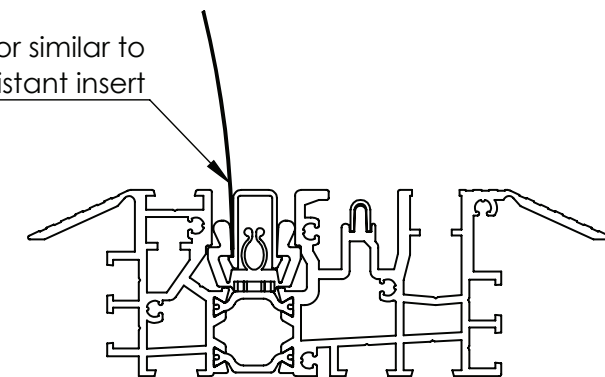
Sill inserts come pre-cut. Please add in between locking points.



3 Positioning of sill insert

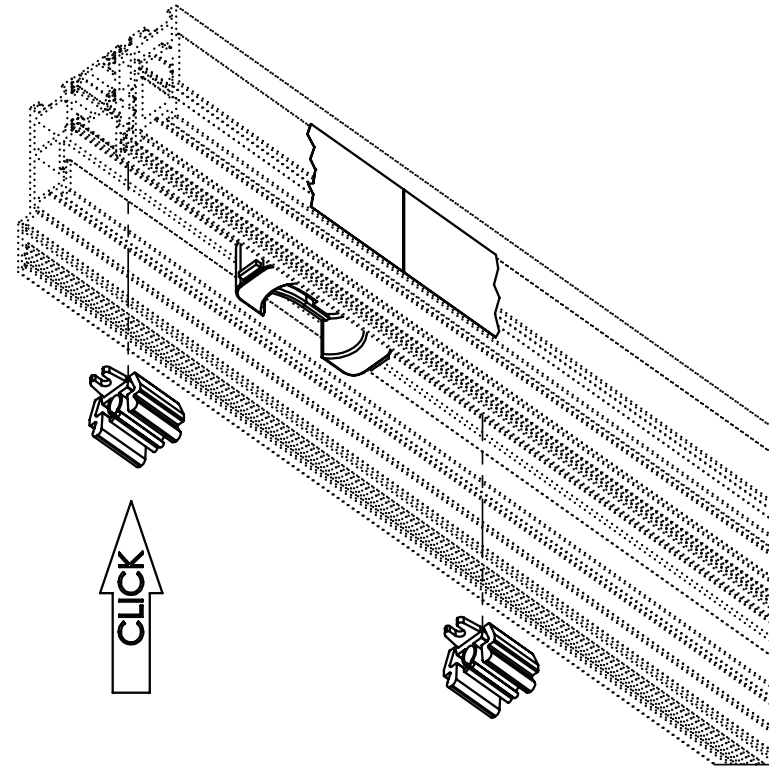
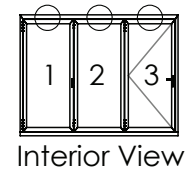
After insert is positioned, check if everything lines up correctly with the locking rod end cap. Remove tape carefully.

use flat plastic tool or similar to remove high heel resistant insert



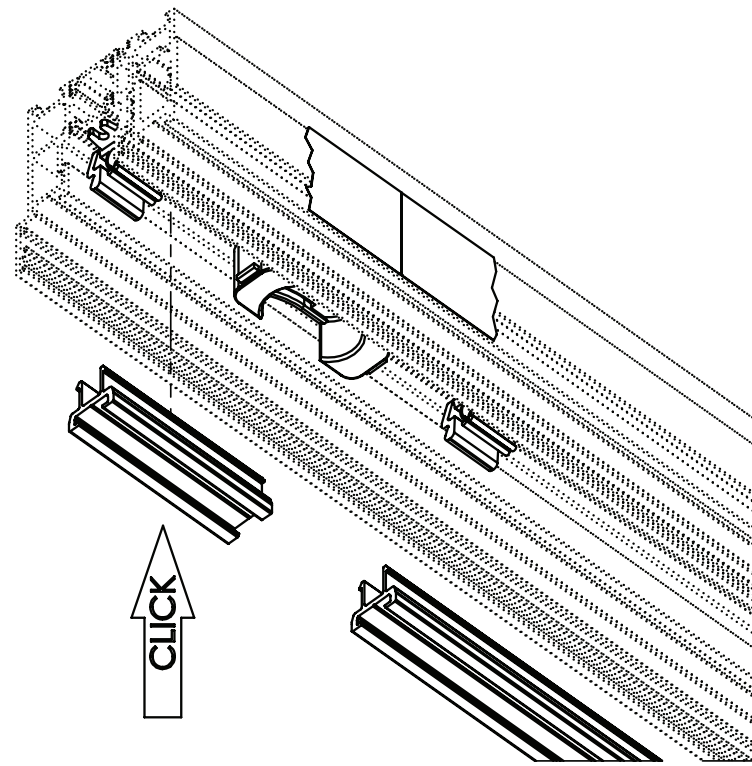
MULTIPURPOSE FRAME INSERT INSTALLATION (MPFI)

Head Track



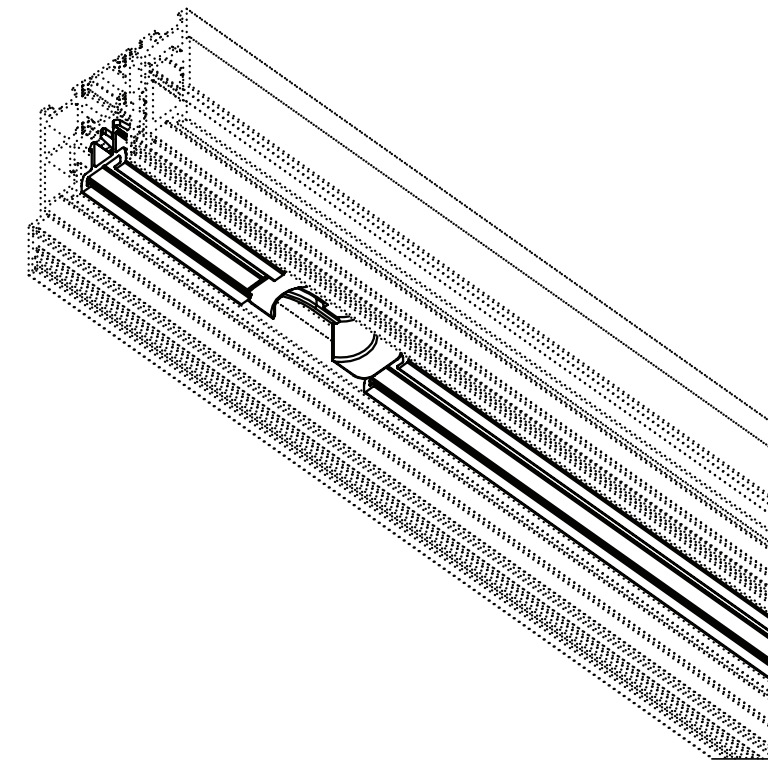
1 Positioning of multipurpose frame insert retaining clips

Click retaining clips in place. Please add at least 2 to 3 clips in between each locking point depending on length of the MPFI.



2 Positioning of multipurpose frame insert

MPFI comes pre-cut. Please add in between locking points.



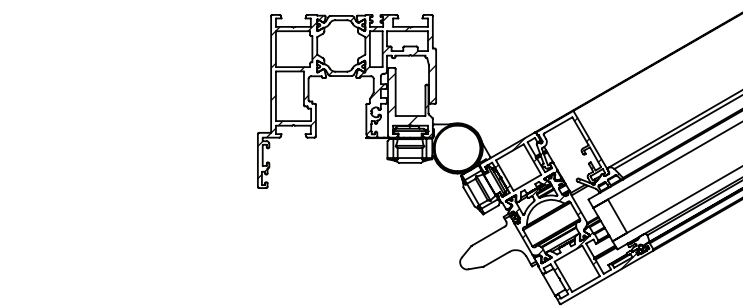
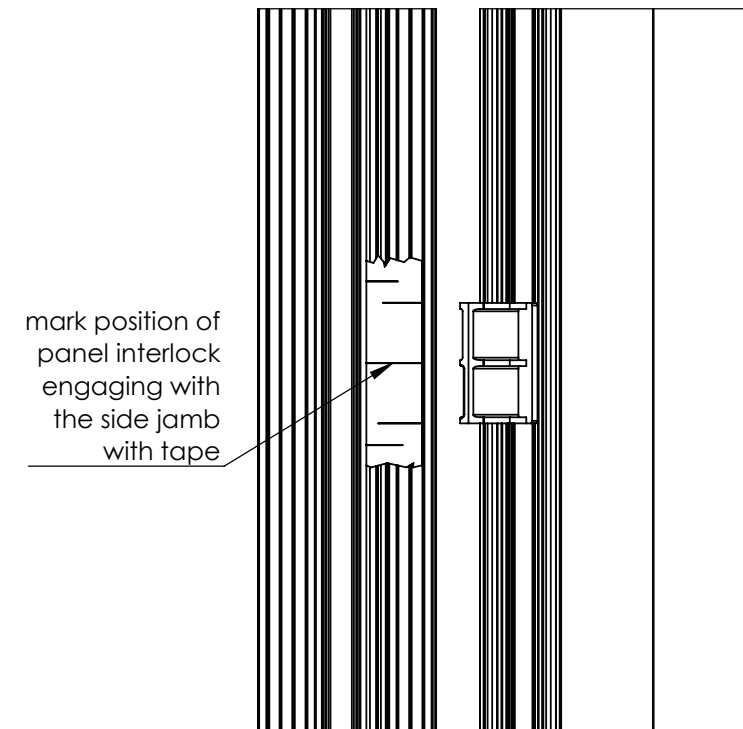
3 Positioning of multipurpose frame insert

After MPFI is positioned, check if everything lines up correctly with the locking rod end cap.

Remove tape carefully.

MULTIPURPOSE FRAME INSERT INSTALLATION (MPFI)

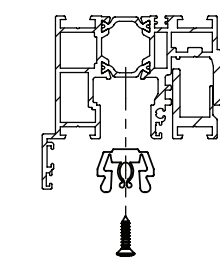
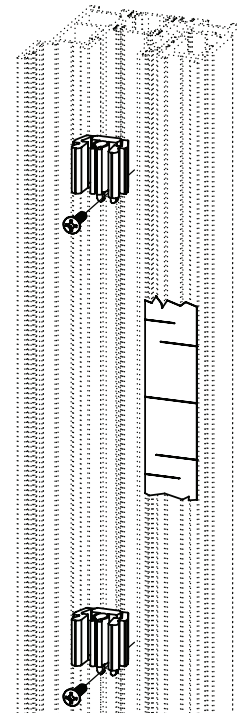
Side Jamb | Jamb Interlock



4 Positioning of interlock pocket cover

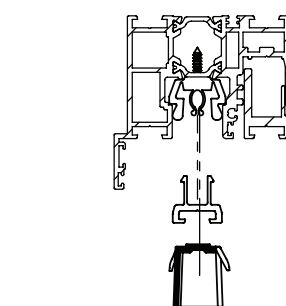
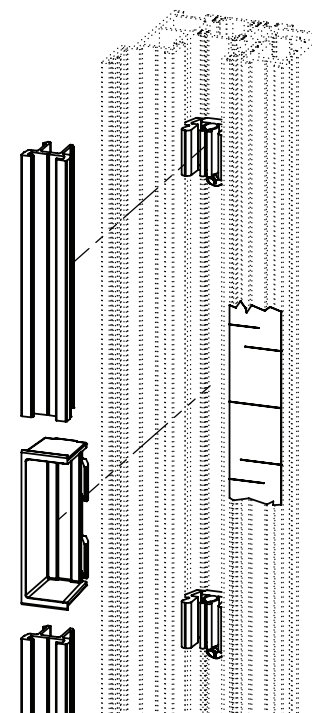
Mark location of interlock meeting side jamb with tape.

For heights up to 7' 0" (2100 mm) none, over 7' 0" (2100 mm) - 8' 6" (2600 mm) 1 and over 8' 6" (2600 mm) 2 panel to jamb interlocks.



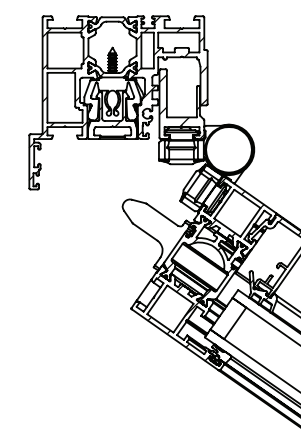
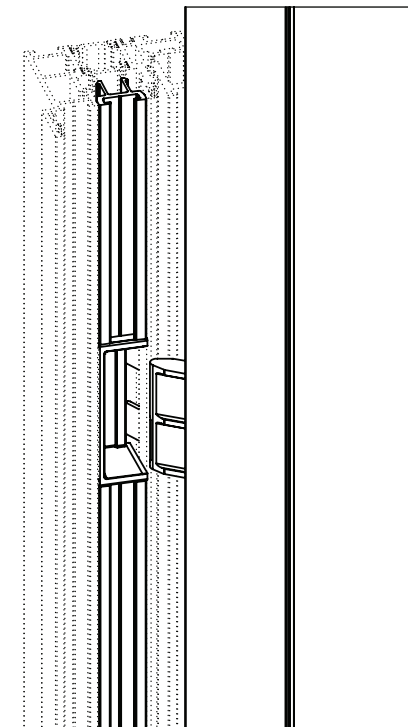
5 Positioning of multipurpose frame insert retaining clips

Click retaining clips for MPFI in place and fasten with screw. Please add at least 2 to 3 clips in between interlock pocket cover and top and bottom of vertical side jamb.



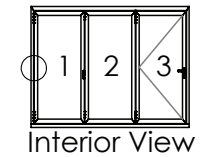
6 Positioning of multipurpose frame insert and interlock pocket cover

MPFI come pre-cut. Please add in between interlock pocket cover and top and bottom of vertical side jamb.

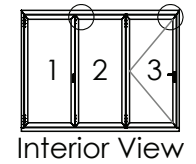
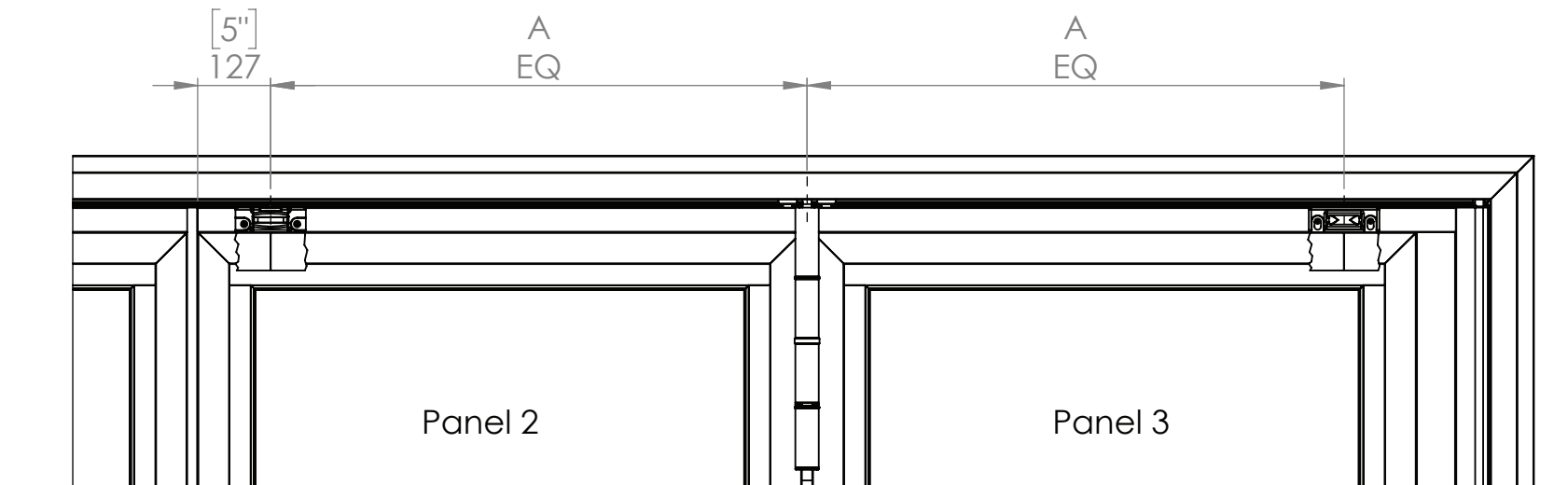


7 Positioning of multipurpose frame insert and interlock pocket cover

After MPFI and interlock pocket cover are positioned, check if everything lines up correctly with the panel to jamb interlock. Remove tape carefully.



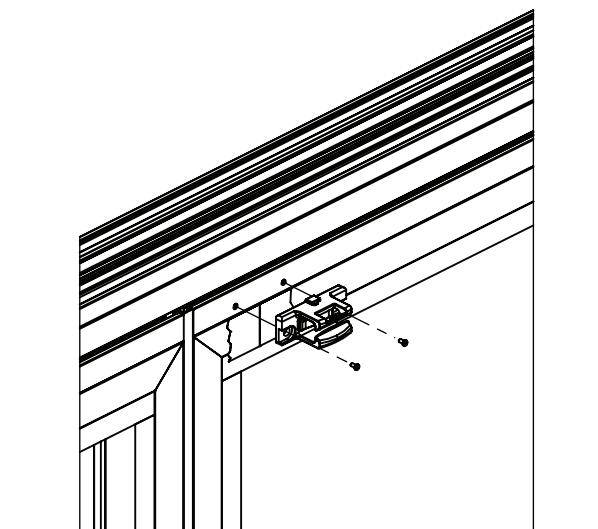
PANEL CATCH FOR SWING PANEL INSTALLATION



1 Location of panel catch

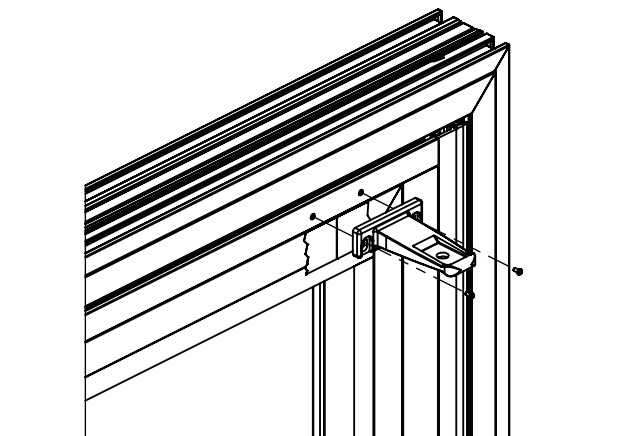
Measure 5" (127 mm) from the aluminum edge of panel 2 to the center line of panel catch and mark with tape.

Measure the distance between center line of receiver part to center line of hinge point. Use the same dimension to mark position of interlock part on panel 3.



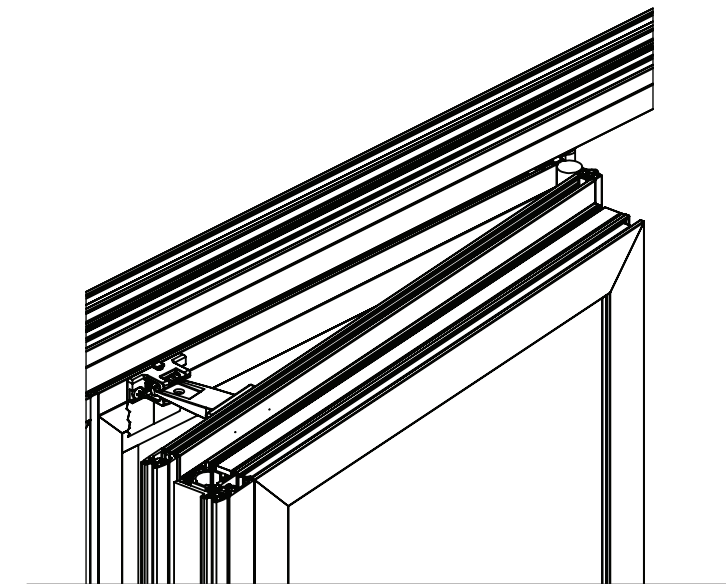
2 Install panel catch receiver on panel 2

Line up panel catch with tape, mark screw holes, and pre-drill using a 9/64" (3.5 mm) drill bit. Fasten with supplied screws.



3 Install panel catch interlock on panel 3

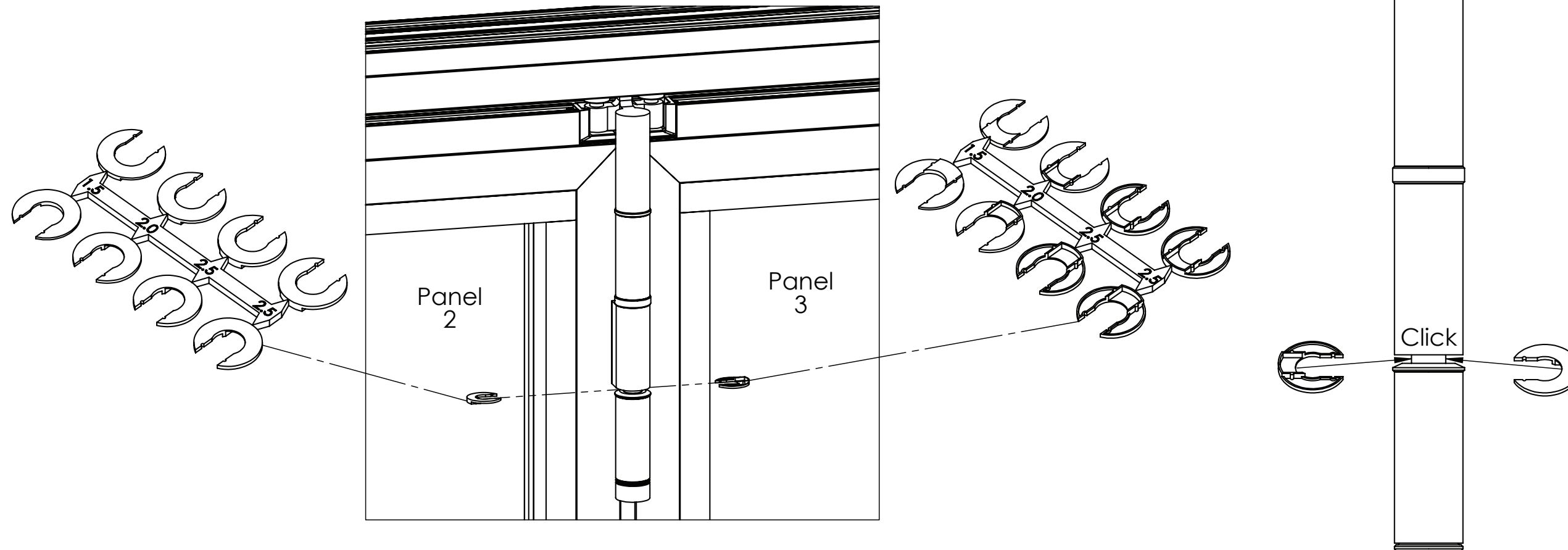
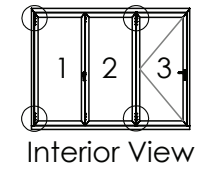
Double check that interlock lines up with receiver part. Mark screw holes and pre-drill with 9/64" (3.5 mm) drill bit. Fasten with supplied screws.



4 Panel catch

After both parts of the panel catch are installed, check if they interlock properly.

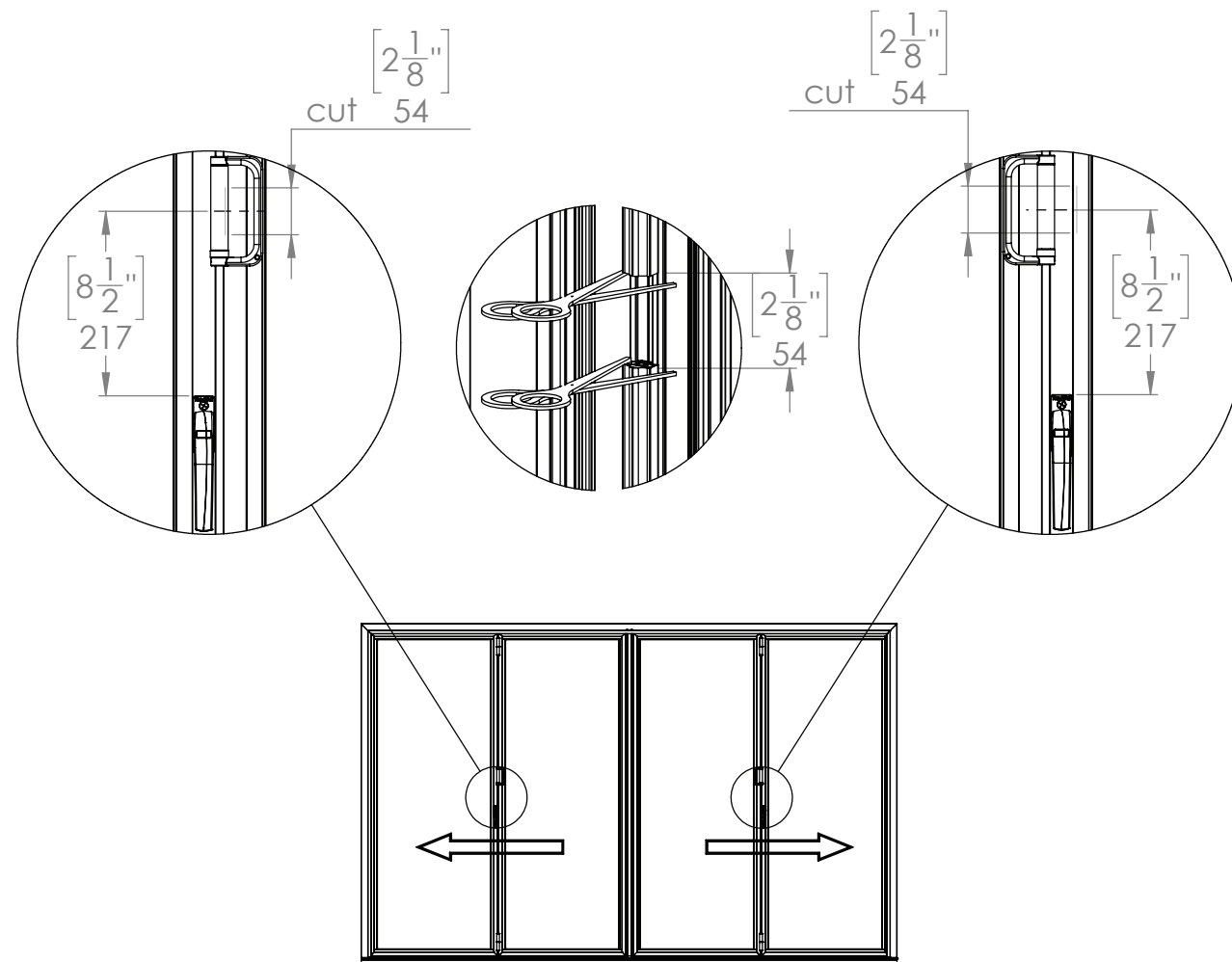
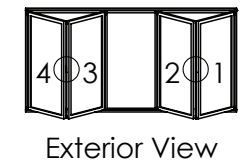
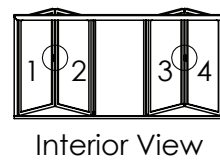
HINGE DISTANCE WASHERS INSTALLATION



- 1 Distance washers**
 If gap between hinge point of barrel is too large, add distance washers supplied in the accessory box.
 The 2 slanted sides should face one another and click into place.

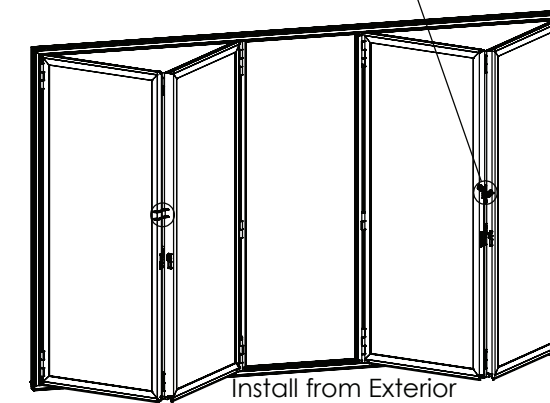
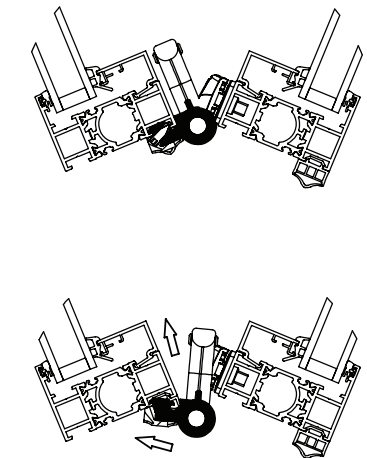
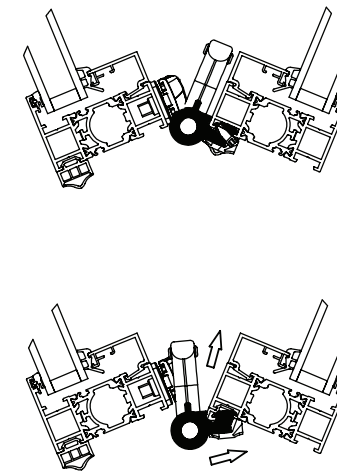
PULL HANDLE INSTALLATION

(For Outswing Units Only)



1 Measure and cut

Take off rubber cover from hinge and unscrew the 3 set screws with an Allen key (metric size 2.5 mm).
Pull out gasket slightly and cut it to size as indicated.



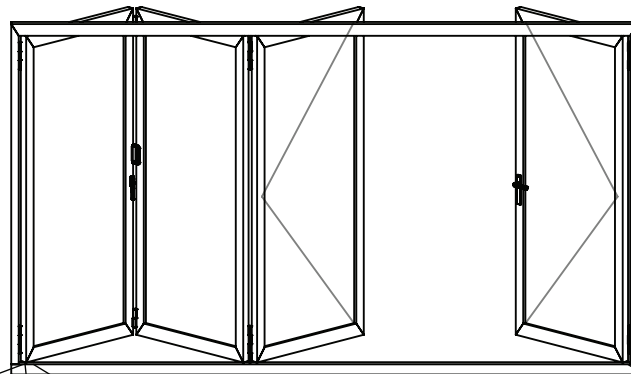
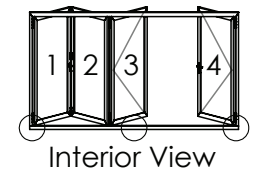
2 Install and check operation

Push handle from the exterior side through joint of panel. Little bumpers and slot in hinge pin should be at the bottom of handle. Interlock of hinge part should face cut out of gasket. There should be slight tension on the hinge part. Do not overturn in one direction!

Tilt hinge part, interlock into groove and push it down. Fasten with set screws using an Allen key (metric size 2.5 mm) and make sure that head of set screw is concealed in hinge part. Check swing direction of handle. In the relaxed position, the pull handle should rest on the profile adjacent to the flat handle. Push rubber cover back on. Add some glue to the ends of the gasket before you insert it back into the groove.

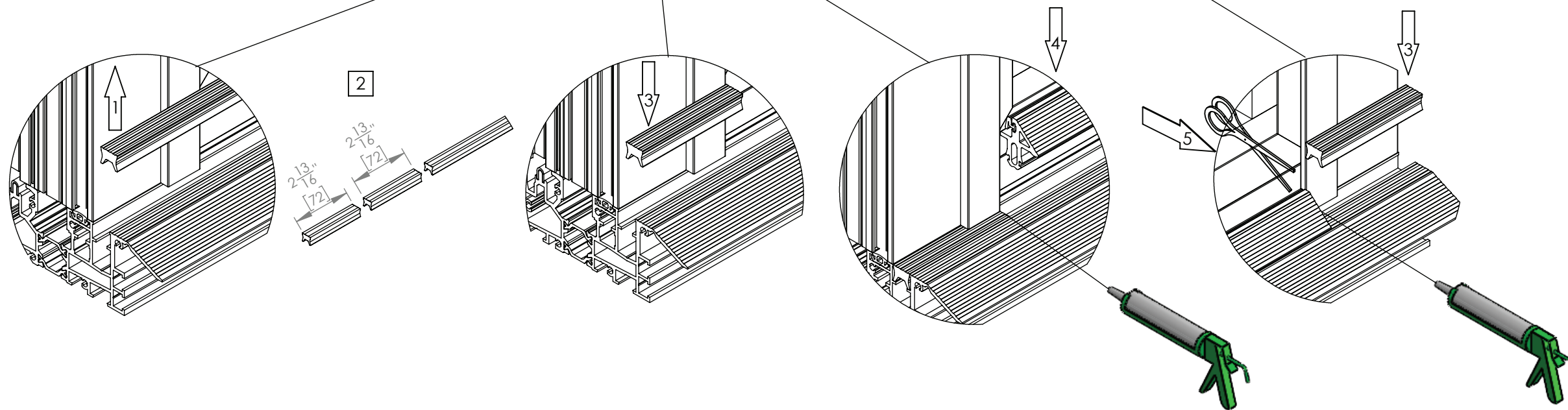
UNIVERSILL® INSTALLATION

(For Outswing Low Profile Saddle Sill Units Only)



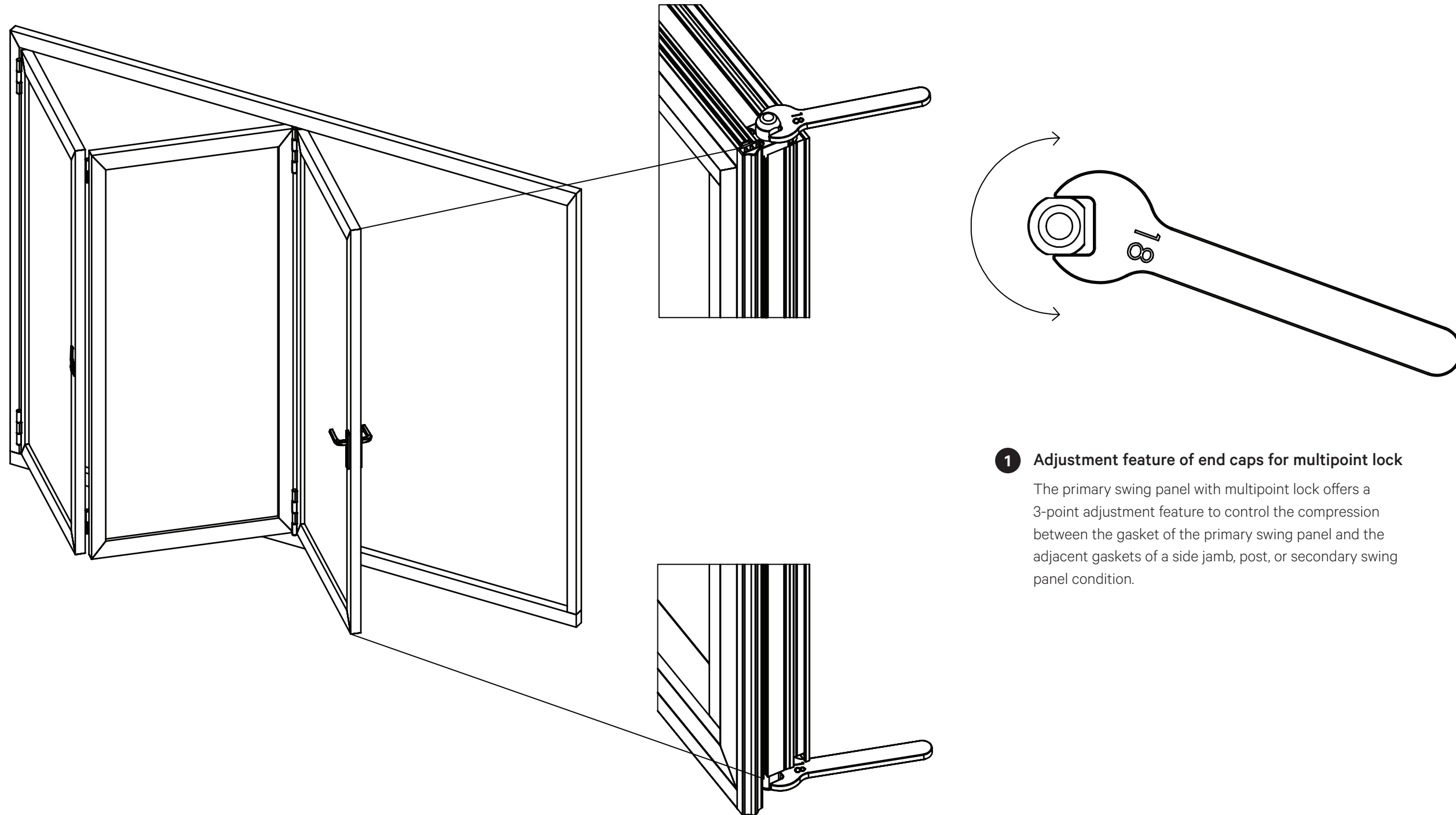
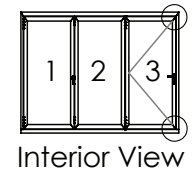
Cut and install UniverSILL®

1. Remove existing gasket on the inside.
2. Cut off 2 pieces measuring 2 13/16" (72 mm).
3. Slide short piece of gasket back into the channel underneath the right and left side jamb.
4. UniverSILL® can be used as a seasonal sill adapter and needs to be cut to length in the field. Open the unit and start on one end. Push UniverSILL® against the short piece of installed gasket on one end and install it into the channel.
5. Cut UniverSILL® to size on opposite end. Seal the seam with exterior grade sealant, if required.



LOCKING ROD END CAP ADJUSTMENT

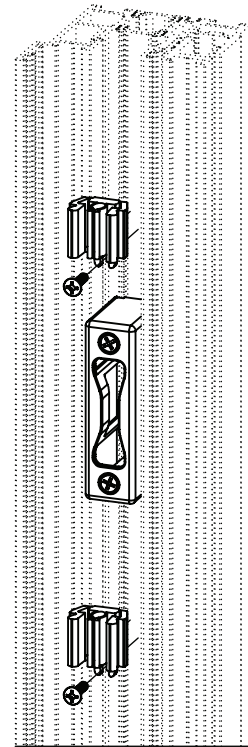
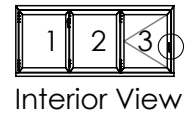
(For Primary Swing Panel only)



1 Adjustment feature of end caps for multipoint lock

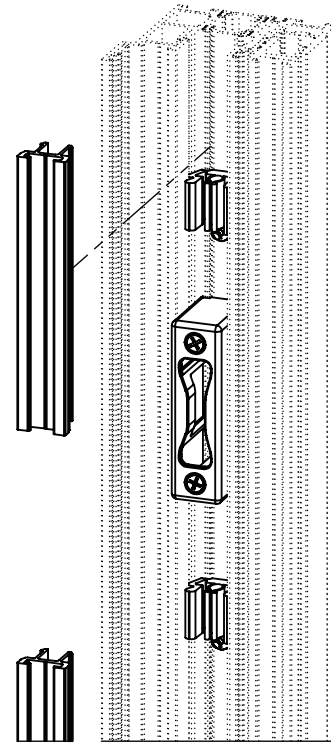
The primary swing panel with multipoint lock offers a 3-point adjustment feature to control the compression between the gasket of the primary swing panel and the adjacent gaskets of a side jamb, post, or secondary swing panel condition.

3-POINT LOCKING FOR WINDOW UNITS



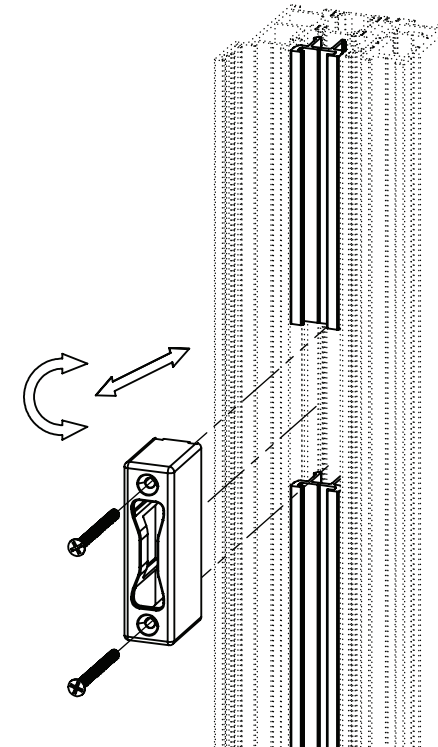
1 Positioning of multipurpose frame insert retaining clips

Click retaining clips for MPFI in place and fasten with screw. Please add at least 2 clips in between 3-point-locking receiver and top and bottom of vertical side jamb.



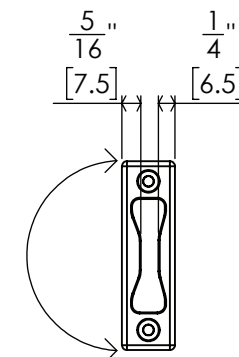
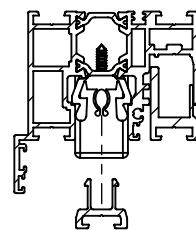
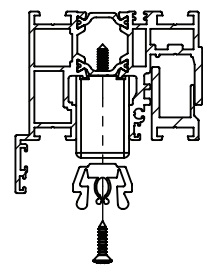
2 Positioning of multipurpose frame insert

MPFI come pre-cut. Please add in between 3-point locking receiver and top and bottom of vertical side jamb.

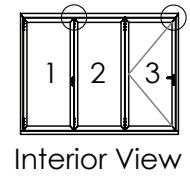


3 Adjustment feature of 3-point locking receiver

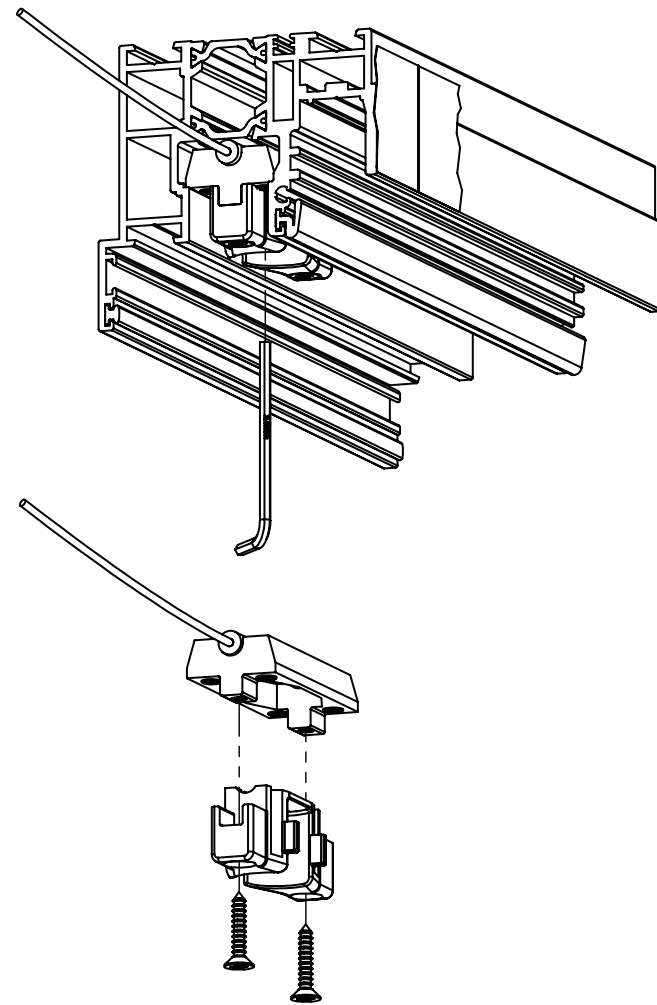
The primary swing panel with 3-point locking offers an adjustment feature to control the compression between the gasket of the primary swing and the adjacent gaskets of a side jamb. Remove, rotate, and reinstall as needed.



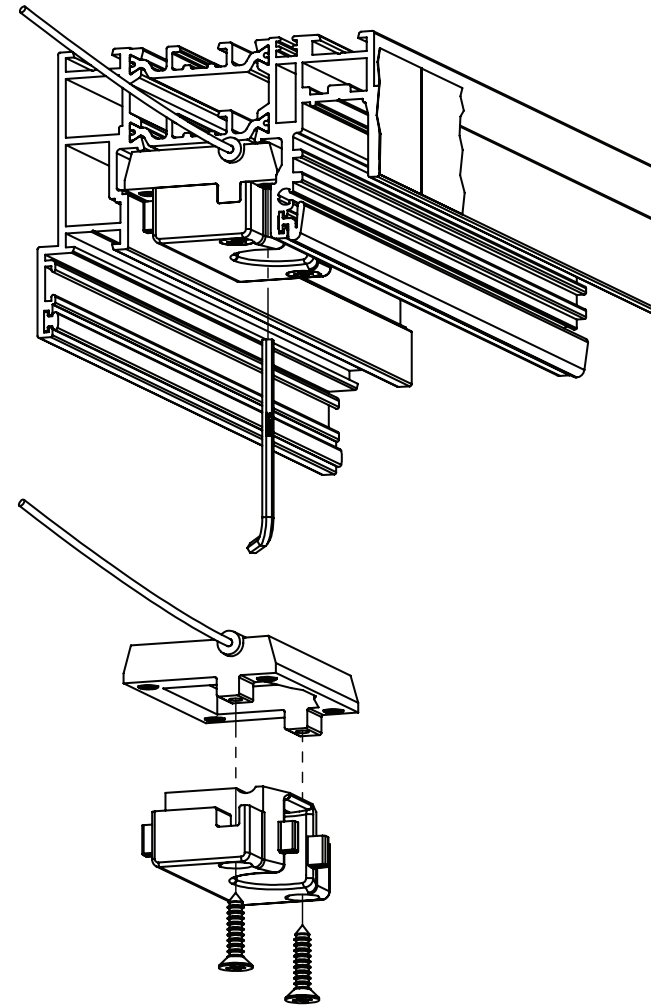
ADVANCED SECURITY WITH REED CONTACT INSTALLATION



Series 640, 540, and 740



Series 840



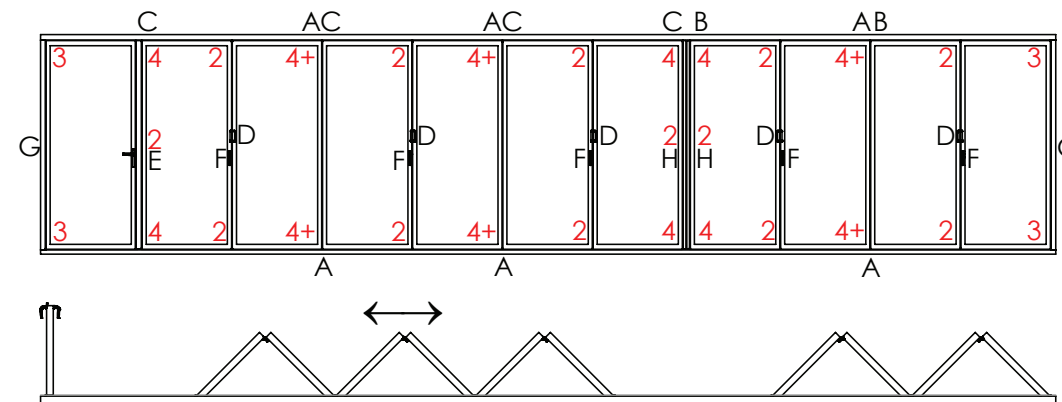
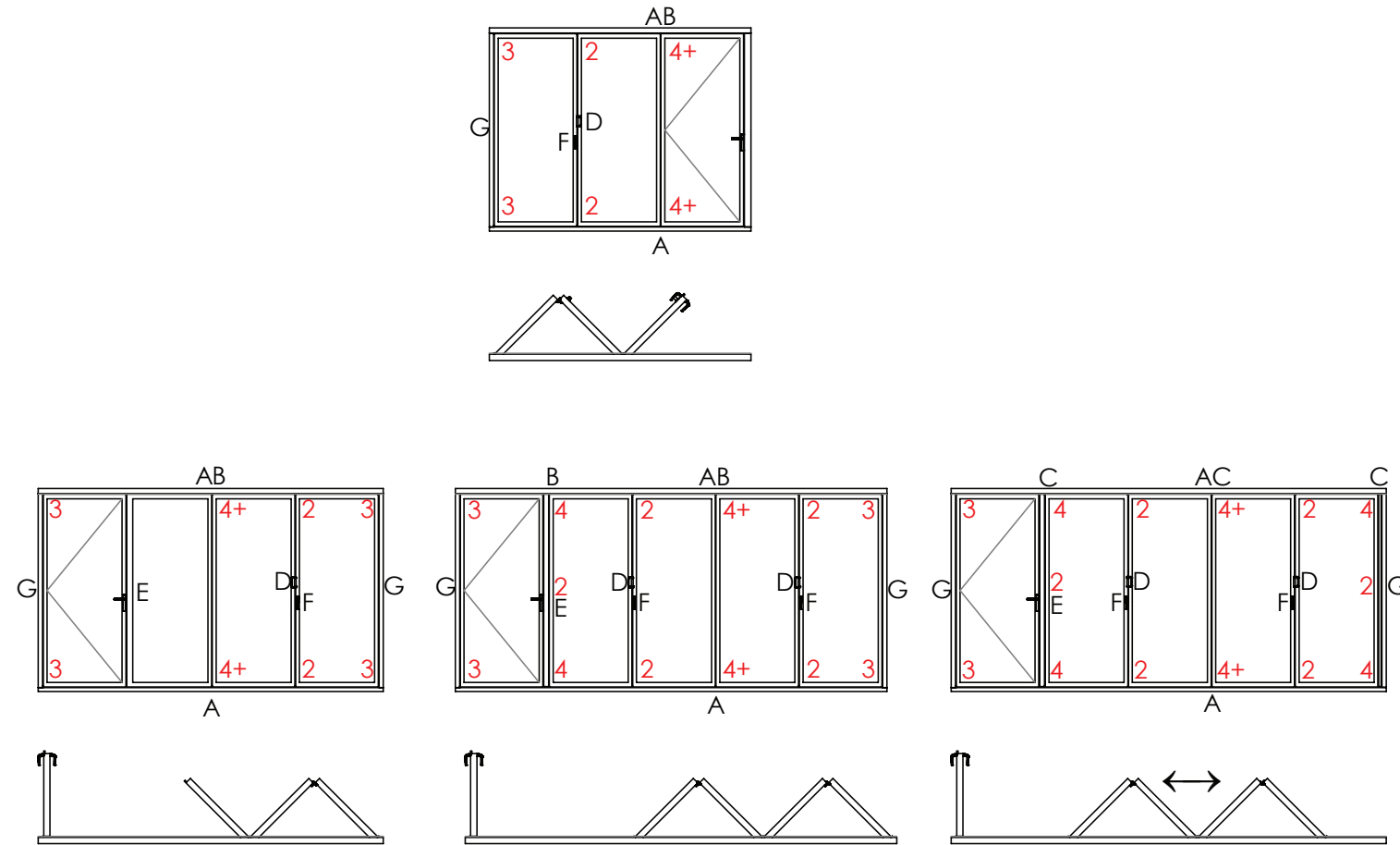
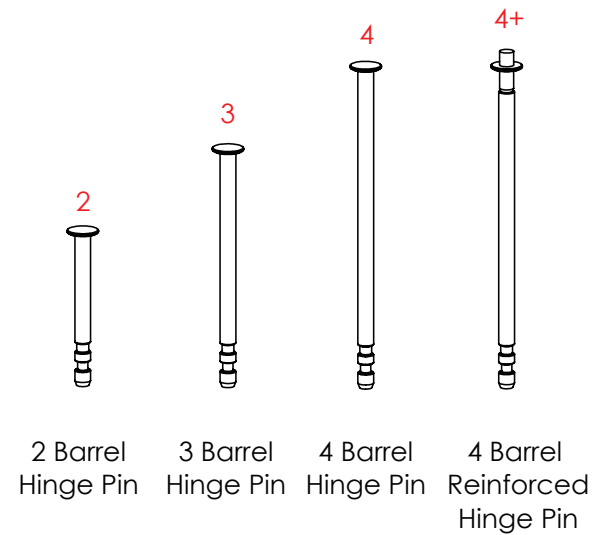
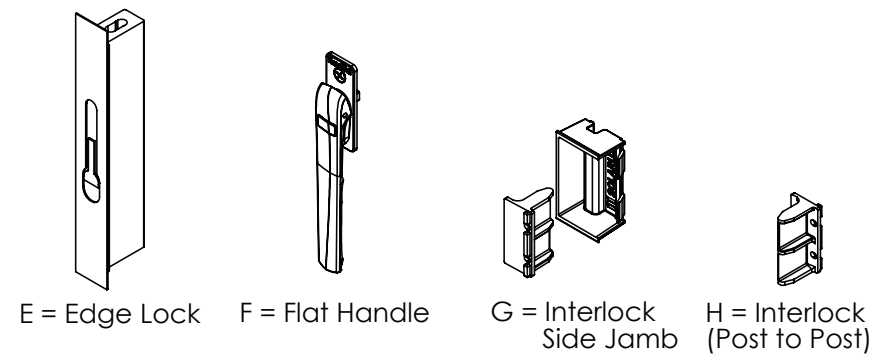
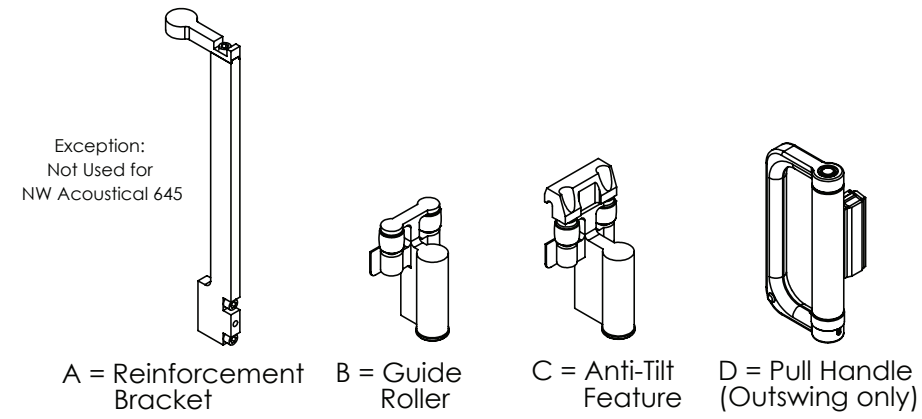
Fixed locking receiver with REED contact

1. Line up the center line of fixed locking receiver with center line of the magnet-tipped black end cap of the rod.
2. Slide REED contact underneath the base plate of the locking receiver and fasten with the set screws using an Allen key (metric size 2.5 mm). Install the receiver part on top using a Phillips head screw (#2 screwdriver). Keep tape on profile for the next step.

With some units, the fixed locking receiver comes installed from the factory.

Double check if the end cap lines up with the locking receiver and move if needed.

Generation 4 System Components



Outswing Units Shown

Glass Installation And Glazing

This section applies only if you need to install glass for any reason or if glass shims need to be adjusted. Proper glass installation is critical, as with the NanaWall folding system, glass is a structural part of the panel.

Glass stops and glazing gaskets are to be used for “dry” glazing of each panel. Also needed are shims. Use glass shims with varying thickness made from hard plastic. Rubber shims are not acceptable. Width of shims should not be more than 1/4" (6 mm) wider than the glass thickness.

Glass, with appropriate dimensions, thickness, and specifications will be needed. Depending on the model, widths of all glass panels may not be equal. Please note that glass is required to be fully tempered unless the unit is a window placed above a certain height from the floor. Check with all applicable codes and regulations.

Float glass, including the glass components of insulated glass, shall meet the current requirements of ASTM C 1306 “Standard Specifications for Flat Glass” for quality, thickness, and dimensional tolerances. Tempered float glass shall meet the current requirements of ASTM C 1048 “Standard Specifications for Heat-Treated Flat Glass - Kind HS, Kind FT Coated, and Uncoated Glass”. All tempered glass shall have a permanent logo, which signifies Safety Commission 16 CFR-1201 and the safety glass test requirements of ANSI Z 97.1 (current editions). Insulating Glass shall meet the requirements of ASTM E 774, Class A, B, or C.

Although glass installation with the “dry” glazing system is relatively straight forward, it is recommended that an experienced glazing contractor or an independent NanaWall Certified Installer be used.

It is very important that the bracing direction and placement of glass shims on opposite diagonal corners be correct. Shims are to be placed only at opposite diagonal corners with corners alternating with each succeeding panel. This is necessary for the stability and balance of the panels when in operation. If not

correctly braced, the unit will not operate properly.

The general rules for bracing are as follows (please look at the diagram that shows the bracing direction of a 3-panel unit):

- For a swing panel attached to a side jamb, the lower brace should be at the lower corner closest to the side.
- For a panel with a bottom roller, the lower brace should be on the lower corner that is on the same side as the bottom roller.
- For a swing panel attached to a folding pair, the lower brace should be on the lower corner that is on the same side as the bottom roller.

Follow all proper applicable glass installation and glazing techniques as recommended in the Flat Glass Marketing Association (FGMA) “Glazing Manual” and “Sealant Manual”. Always use suction cups to shift glass within an opening. It would be best to install the glass on the panels before they are installed in the opening. Panels can be laid flat on sawhorses. If the panels are already installed, they can still be glazed.

1. Close all panels and secure them with the multiple point lock bolts. Start with a panel that is attached to a side jamb or, in the case of unhinged pairs, closest to a side jamb.
2. Remove all glass stops on the panel. Be sure to protect the finish.
3. Measure both the vertical and horizontal dimensions of the glass and the panel opening. Subtract the vertical glass size from the vertical panel opening size. Divide the difference by two. This will give the nominal thickness of the shim to use at the top and bottom rails.
4. Several shims of different thickness may need to be combined to obtain the desired thickness. Do the same for the horizontal dimension to obtain the thickness of the shim to use at the stiles. Place a shim (or combination of shims with desired thickness) on the bottom rail of the

panel opening such that it is about 4" from the bottom corner as determined by the bracing rules above. Make sure shim does not block the weep hole of the panel.

5. Carefully place the glass in the opening, making sure it rests on the shim. With insulated glass, make sure that both inner and outer panes are supported evenly.
6. Place a second shim in the same corner as the first shim, but in the vertical direction along the stile such that it is about 4" above the corner. If necessary, apply a little adhesive that is non-damaging to the glass edge seals such as Dow Corning 791 silicone, to keep the vertical shims from slipping.
7. Place another shim in the upper diagonal corner vertically on the opposite stile in the same manner. If necessary, apply a little adhesive that is non-damaging to the glass edge seals such as Dow Corning 791 silicone, to keep the vertical shims from slipping.
8. Place the last shim on the upper rail on the same corner as the other upper shim. To get a proper fit, shift the glass weight by lifting the panel up with a plastic pry bar at the lower corner below the upper shim. These shims should all fit snugly but should not be forced.

Adjust the thickness of the glass shims such that the panel is slightly out of square. The upper corner with the shims should be about 1/16" - 1/8" higher than the other corner.

If the panels are large, additional shims may be needed midpoint on the stiles, especially on a swing panel.

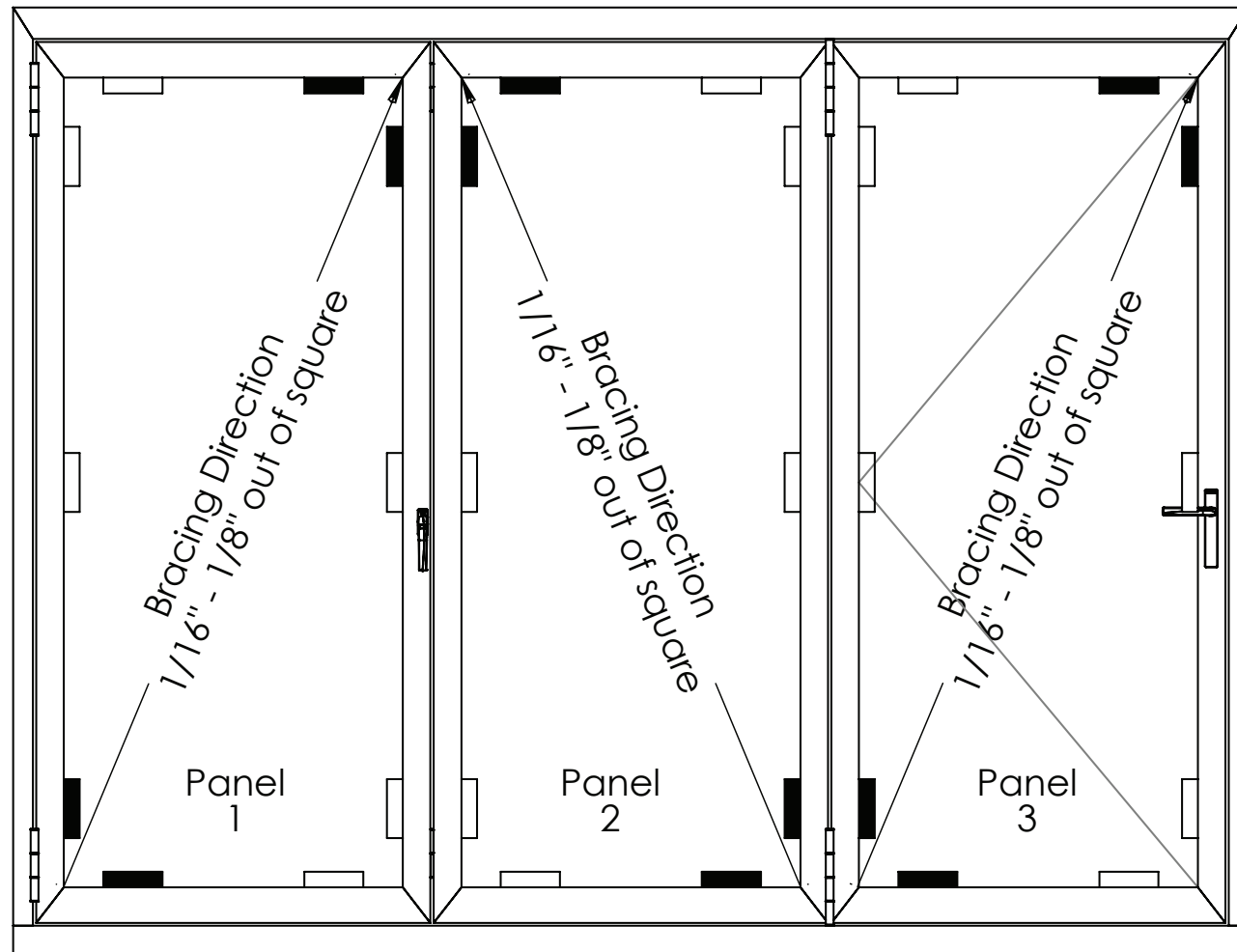
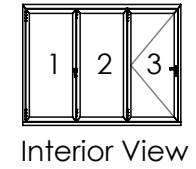
9. For aluminum systems, insert the glass stops so that they snap into the panel profile. Make sure that they do not interfere with any glass shim.


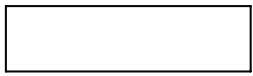
For wood systems, insert the glass stop firmly into position, so they are flush with the panel. Make sure that they do not interfere with any glass shim. Nail to the inner

side of the panel with small finish nails. Start with the top and bottom stops and then the sides.

10. Insert the glazing gasket in the space between the glass and the glass stop. First, cut the gasket to a length a little longer than the actual length of the glass stop because gasket material may shrink at low temperatures. Do not stretch or pull the gasket in any manner. If necessary, use soapy water to lubricate the gasket to make insertion easier.
11. Make sure that the stops are locked firmly and securely into position and are flush with the rest of the panel profile.
12. Repeat Steps 2 to 12 for each of the other panels. Shims for each succeeding panel must be placed at diagonally opposite corners in the proper sequence as set forth in Step 1.
13. After installing the panels, assuming that the head track and sill are level, check to see if the gap between the panel and head track, and panel and sill is even across the width of the panel. With the glass weight, the out of square panels should be slightly higher in the upper corner, which is okay. If not, then the lower and upper shims thickness needs to be adjusted. **Panels must be braced correctly for proper operation.**

Glass Installation And Glazing



-  Glass Shims for tension
-  Glass Shims to keep distance

Operation of a NanaWall Folding Unit

For opening and closing the folding system, please observe the special notes on the following pages in as far as they relate to your folding system.

⚠ When operating the folding system like any other door, please do not place your fingers between the panels/pivot points. You may hurt them!

Do not allow anyone not properly trained on operation and children to operate the unit.

Do not force the system if not operating properly. Please have it repaired as soon as possible by a qualified technician or an independent NanaWall Certified Installer.

Anchor panels when in the open position to prevent uncontrolled movement, especially in windy conditions, that might cause damage and injury.

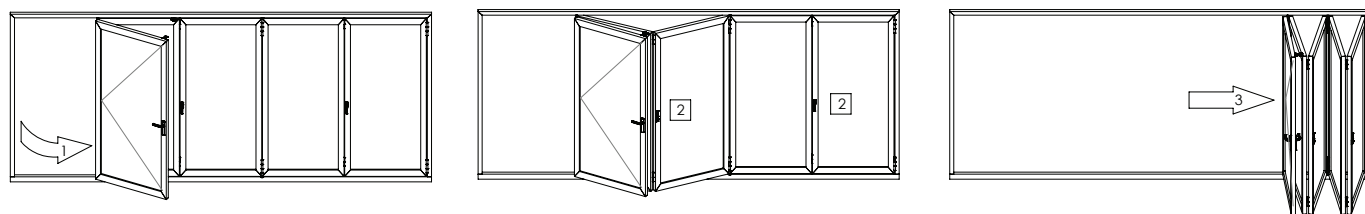
It is highly recommended that if not used, the NanaWall folding unit be kept closed as much as possible, to provide best security and weather resistance. When closed, please engage all locking mechanisms fully.

The correct sequence of opening and closing of panels is dependent on the configuration ordered. Panels must be opened and closed in the right order.

With a Swing Panel Attached to a Folding Pair

1. Open the swing panel a full 180° and connect to the panel catch on the adjacent panel.
2. Disengage the locking points on all the other folding panels using the flat handle(s).
3. Slide folding panels to the side, starting with the pair adjacent to the swing panel.

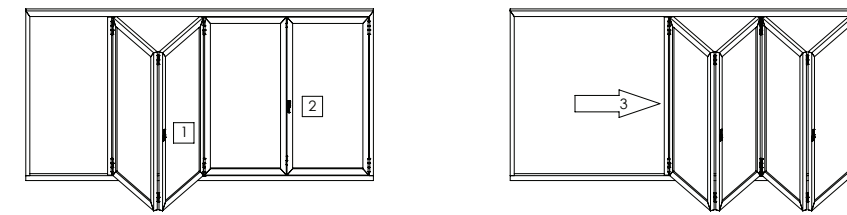
For closing, proceed in reverse order and disconnect swing panel from the panel catch only after all other panels are closed in place.



With No Swing Panel Attached to the Side Jamb

1. Disengage locking points on primary opening panel pair using the flat handle and fold it slightly.
2. Do the same with any adjacent panel pair.
3. Slide folding panels completely to the side.

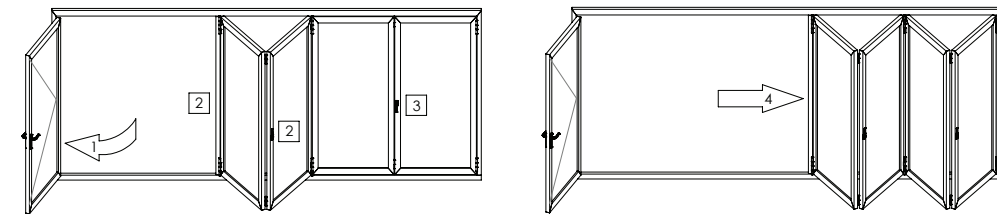
For closing, proceed in reverse order.



With a Swing Panel Attached to the Side Jamb

1. Open the swing panel.
2. Disengage concealed edge lock from the side and flat handle on adjacent panel pair and fold it slightly.
3. Disengage locking points on adjacent panel pair(s) using the flat handle and fold slightly.
4. Slide folding panels completely to the side.

For closing, proceed in reverse order.



Inswing Units Shown

Operation of a NanaWall Folding Unit with FourFold and SixFold Panel Sets

For opening and closing the folding system, please observe the special notes on the following pages in as far as they relate to your folding system.

⚠ When operating the folding system like any other door, please do not place your fingers between the panels/pivot points. You may hurt them!

Do not allow anyone not properly trained on operation and children to operate the unit.

Do not force the system if not operating properly. Please have it repaired as soon as possible by a qualified technician or an independent NanaWall Certified Installer.

Anchor panels when in the open position to prevent uncontrolled movement, especially in windy conditions, that might cause damage and injury.

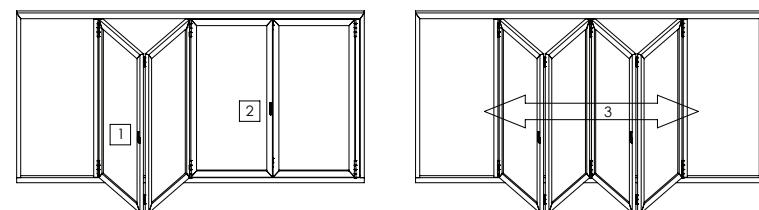
It is highly recommended that if not used, the NanaWall folding unit be kept closed as much as possible, to provide best security and weather resistance. When closed, please engage all locking mechanisms fully.

The correct sequence of opening and closing of panels is dependent on the configuration ordered. Panels must be opened and closed in the right order.

With No Swing Panel Attached to the Side Jamb

1. Disengage locking points on primary opening panel pair using the flat handle and fold it slightly.
2. Do the same with any adjacent panel pair.
3. Slide folding panels completely to the side. When operating the pairs, leave a slight angle between the panels.
4. Slide the FourFold / SixFold Panel Sets to desired stacking position. When operating the panel sets leave a slight angle between panels.

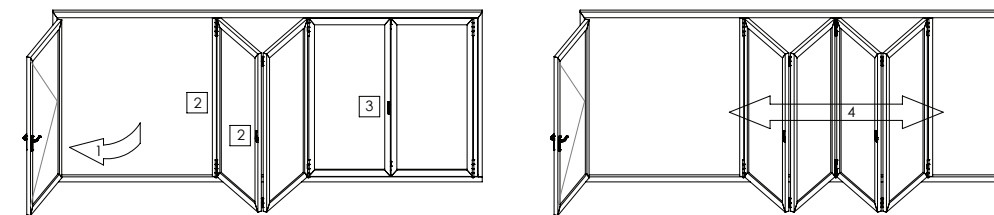
For closing, proceed in reverse order.



With a Swing Panel Attached to the Side Jamb

1. Open the swing panel.
2. Disengage concealed edge lock from the side and flat handle on adjacent panel pair and fold it slightly.
3. Do the same with any adjacent panel pair(s) using the flat handles.
4. Slide FourFold / SixFold Panel Set into desired stacking position. When operating the panel set, leave a slight angle between the panels.

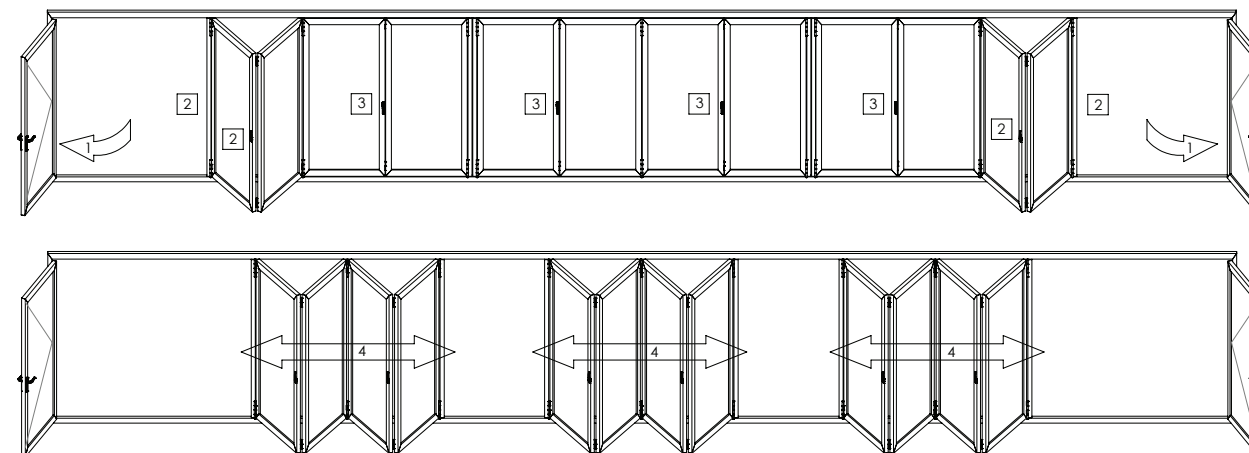
For closing, slide FourFold / SixFold Panel Set back to the side of the swing panel and lock down the concealed edge lock from the side, first. Then proceed in reverse order.



With a Swing Panel Attached to the Side Jamb at Each End

1. Open the swing panels at each end of the unit.
2. Disengage concealed edge lock from the side and flat handle on adjacent panel pair on each end of the unit and fold it slightly.
3. Do the same with any adjacent panel pair(s) using the flat handles.
4. Slide FourFold / SixFold Panel Sets into desired stacking position. When operating the panel sets, leave a slight angle between the panels.

For closing, slide FourFold / SixFold back to the side of the swing panel on each end and lock down the concealed edge lock from the side, first. Then proceed in reverse order.



Inswing Units Shown

Recommended Maintenance of NanaWall Products

SOME GENERAL CONSIDERATIONS ON ALL PROJECTS:

1. It is important that the product is installed correctly. A poorly installed unit will not function properly. This will cause more abnormal force or stress on the components and will lead to premature failure. When operating the unit, the panels should generally be able to be moved easily by one person (except when there are very large panels or when there are more than 6 panels folding to one side). All locking points should engage smoothly. There should be no rubbing on the floor and no binding. When the unit is closed, the reveal between panels and head jamb and between panels and sill should be consistent. There should be no daylight seen from the inside. Please have all problems corrected as soon as possible by a qualified technician or an independent NanaWall Certified Installer.
2. From time to time, due to building movement or settlement, a unit may need to be adjusted by a qualified technician or an independent NanaWall Certified Installer to compensate for any building change.
3. It is important that a unit is operated properly. Locking points should be gently opened and closed and not forced. Panels should be opened and closed in the proper manner and sequence. See the Operation section for proper operation.
4. Periodically check for worn or damaged components and replace as soon as possible. A unit with non-working components will subject the other components to increased stress and lead to premature failure. A unit with worn or damaged components will compromise the performance level expected for air and water infiltration, structural loading, and forced entry.
5. Periodically, inspect the sealant/caulking on the exterior perimeter of the unit. It is extremely important that the sealant/caulking remains intact and in good condition. Trim

off any old, loose caulking, and seal any gaps with a good quality caulk.

6. Check that all weep holes are clean and clear of any obstructions. Remove debris and other foreign bodies which have dropped into the sill and other parts of the frame immediately to prevent damaging the top guides and bottom rollers. Clean all components as needed. Rinse the bottom track and check if water is exiting the system. Check gaskets for proper seating and condition. Remove dust and any deposits from these gaskets.
7. The finished aluminum or wood surface needs periodic cleaning and maintenance. Its appearance may be marred by harsh chemicals, abuse, or neglect. Frequency of cleaning depends on exposure and needs. For aluminum surfaces, generally warm soapy water should be sufficient. Stubborn stains and deposits may be removed with mineral spirits. For wood surfaces, superficial surface dirt can be removed by washing with water and a soft-bristled, long-handled brush. Heavier accumulations can be removed with a mild solution of household detergent. For all surfaces, aggressive alkaline or acid cleaners should not be used. Excessive abrasive rubbing should be avoided. Sealants and weather stripping may be affected by strong organic solvents. Superficial damage to the aluminum surface must be touched up immediately with proper touch up paint.
8. If it is a wood product, the surface should be visually inspected every six months or earlier, depending on the exposure of the NanaWall unit. Periodically repaint or restain the wood as needed. Exposure to the environment will break down the finish and compromise its protective features if not refinished.

See Wood Finishing Recommendations section in this document.
9. All hardware, hinges, and handles should be periodically

cleaned with a soft cloth and mild cleanser. Excessive abrasive rubbing should be avoided. Please note that oil rubbed brass is a finish that will develop its own unique patina over time.

10. About every three to six months, apply a Teflon based lubricant to all the hinges. If operation of panels gets difficult, or at least every 12 months, clean the stainless steel surface of the track insert and the rollers and apply a Teflon based lubricant to the surface only and wipe off additional residues. The ball bearings of the rollers are encapsulated and maintenance free. Any silicone, other oils, and "dry lube" sprays should not be used.

SOME SPECIFIC SUGGESTED MAINTENANCE FOR COASTAL SALT WATER AND OTHER EXTREME ENVIRONMENTS:

Please note that the environment within close proximity of any coastal area or body of salt water can be extremely corrosive. Products installed in this environment will typically deteriorate sooner than products installed in a less severe environment.

1. Open and close completely a unit at least once a week and inspect all surfaces.
 - a. Salt and other corrosive or abrasive materials such as sand must not be allowed to build up on any surfaces, including all hardware and sill.
 - b. The sill and head track should be free from all dirt and debris.
 - c. There should be no standing water in the track in the sill.
 - d. All hardware should be intact and operating properly.
2. All surfaces must be cleaned with a mild detergent soap and fresh water at least every month and more frequently if necessary.
 - a. After washing, the surface should be rinsed thoroughly

with clean water and allowed to dry.

- b. Do not use a power washer or similar to rinse the unit.
 - c. For cleaning, do not use abrasive household cleaners, or materials like steel wool, or hard brushes that can wear and harm finishes.
 - d. Any glass cleaner used should not be allowed to run down on any other surface.
3. Any breaches in the paint coating, such as scratches, chips, or areas of abrasion, must be repaired immediately.
 4. Every 3 months, thoroughly clean and dry all upper and lower rollers and all hinges. Oil all hinges including the hinge pin with light weight lubricating oil or Teflon spray.
 5. As with any painted surface exposed to corrosive environments, every 6 months apply a wax to the outside of the painted panel and painted track. If the system includes corner connections, make sure the wax penetrates the connection joints.

CLEANING AND CARE OF STAINLESS STEEL HARDWARE ON NANAWALL PRODUCTS

Stainless steel is an inherently corrosion resistant material, but some routine maintenance and cleaning is needed to keep surfaces in good condition so that the aesthetic appearance and corrosion resistance are not compromised.

Initial Cleaning

It would be best to protect all stainless steel hardware in the construction phase so that there is no damage. However, if there has been exposure, the following is recommended:

Mortar and cement splashes can be treated with a solution containing a small amount of phosphoric acid or a proprietary stainless steel cleaner with phosphoric acid. Rinse with water (preferably deionized water) and dry.

Recommended Maintenance of NanaWall Products

Never allow mortar removers or diluted hydrochloric acid to be used on stainless steel.

Iron particles picked up from tools or from contact with structural steel, etc. must be removed immediately. Steel dust particles created during operations such as welding, cutting, drilling, and grinding of carbon steel will rust quickly and must be removed. At an early stage, light deposits can be removed mechanically using nylon scouring pads, such as those used in the kitchen. Alternatively, the contamination can be removed with a proprietary stainless steel cleaner containing phosphoric acid.

Maintenance Cleaning

Stainless steel may be exposed to a wide range of aggressive environments such as coastal salt water, industrial pollutants, salt spray from road de-icing salt, and atmospheric dirt. All cause brown staining to appear. During routine cleaning of at least every month and more frequently, if necessary, all accumulations of airborne contaminants, such as airborne chlorides, salt, or sulfur oxides, should be removed. In less aggressive environments, cleaning can be less frequent, such as every 3-6 months. Also, finger marks should be routinely removed. To remove fingerprints and other marks, soapy water or a mild detergent are usually safe and successful.

For more stubborn stains, mild household cream cleansers should be effective. This should also be suitable for cleaning off watermarks and light discoloration. After cleaning, remove the residues with deionized water and dry to avoid streaking and water marks.

Nylon pads can be used (such as those from 3M). When using nylon pads make sure you follow the original grain of the stainless steel surface. Maintain rubbing in a straight line or the surface will appear scratched rather than grained. DO NOT use cleaning steel wool, wire brushes, metal scouring pads, hard scrapers, or knives as the underlying stainless steel surface may become scratched or unwanted contaminants may be

deposited on the surface of the stainless steel. To avoid "cross contamination" from iron particles, ensure that cleaning utensils have not been used to clean other types of steel.

Alternatively, use a proprietary stainless steel cleaner containing phosphoric acid to remove contamination, rinse with deionized water, and dry. It is advisable that the entire surface is treated so that a patchy appearance is avoided. Cleaners that should not be used on stainless steel include: chloride-containing cleansers, especially those containing hydrochloric acid, hypochlorite bleaches, and silver cleaners.

WOOD FINISHING AND MAINTENANCE RECOMMENDATIONS

NanaWall wood framed systems are shipped with a factory applied layer of a water born clear coat of a sand sealer or primer. NanaWall aluminum clad wood framed systems are shipped with a similar additional coat. These factory-applied coatings are not a sufficient or adequate protection from the elements and at least two coats of a final finish need to be applied in the field by others.

IMPORTANT: Immediately upon receipt of the unit and prior to installation and exterior exposure to weather elements, all wood surfaces including all edges (top, bottom, and sides) should be completely sealed and must be protected with a good quality finish. Before installation, keep the units in a dry and clean location, store and stack them properly to avoid twisting or warping of the panels and frame components.

To complete the wood surface treatment, suitable compatible solvent or water-based products can be used.

CAUTION:

Not all available paints and stains, nor the customer's specific application requirements can be evaluated. A local paint professional should know of suitable finish systems that give satisfactory results in the region where the unit is located. It is highly recommended that top quality finishes be selected, and the directions of the products be followed explicitly.

In general, the surface must be prepared by cleaning off dust and any debris. With 180-220 grit sandpaper, sand lightly and thoroughly all surfaces to be painted. Do not use steel wool or silicon carbide type sandpapers. Then clean the surfaces before applying paint, etc.

For best performance, a minimum of two topcoats should be applied. Always make sure that you apply the coatings on a hidden area before finishing the whole unit to make sure you are satisfied with the results.

Please make sure none of the gaskets are removed or disposed of during the finishing process. It is possible to finish behind the loose parts of the gaskets without removing them. Some parts of the gaskets are glued in place and removing them may also remove some of the wood. Ensure not to apply the coating material on to hardware, gaskets, glass, sealant, or aluminum surfaces to maintain proper product performance. All damages or scratches during installation on the surface coating should be immediately touched up.

WOOD SIMULATED DIVIDED LITES (SDL)

It is recommended that after completing the surface treatment of the SDL and after allowing for adequate drying time, to seal the gaps between the SDL and glass with a durable weather resistant caulking material, which is compatible with the surface treatment material.

MAINTENANCE OF WOOD UNITS

As a general guideline, it is recommended that every 1/2 year or earlier, to inspect visually the surface and if necessary, refinish in the same manner as per instructions given. The timeframe may vary on weathering, exposure conditions, and altitude. Whenever damage is visual, it should be repaired immediately.

NanaWall Limited Warranty

NanaWall is pleased to provide the following warranty to the owner of NanaWall products, including the initial purchaser and all subsequent owners ("Owner"), subject to all terms and conditions stated herein. This Warranty supersedes all previous product warranties and is the exclusive statement of all commitments and rights of NanaWall with respect to its products sold on or after May 1, 2023, to be installed in the United States (excluding territories) or Canada.

NanaWall shall have no obligation to respond under this Warranty until receipt of proper notice of a claim and an opportunity to respond. Upon notice and confirmation by NanaWall of a condition covered under this Warranty, NanaWall will respond in good faith and in a timely manner as follows:

TEN YEAR COVERAGE.

For ten (10) years from the date of delivery by NanaWall ("Delivery"), NanaWall will respond as follows:

Insulated Glass. For an insulated glass unit with a permanent material obstruction of vision due to a premature failure of the glass seal, NanaWall will ship a replacement glass unit or panel. **Exception:** insulated glass units for cero® are covered for five (5) years from Delivery.

Powder Coat or Baked-on Fluoropolymer Surface Finish of Aluminum Profiles. For powder coat or baked-on fluoropolymer surface finish not functioning as an Effective Surface Material ("ESM"), NanaWall will, at its option, (1) assume reasonable costs to restore the finish using standard commercial refinishing techniques or (2) ship replacement parts. Uneven fading is not a covered condition due to environmental variables.

Exception: Products installed within two (2) miles of any coastal area or body of salt water or other harsh or corrosive environments or chemicals ("Harsh Environments") are covered for one (1) year from Delivery, provided that the instructions in Specific Suggested Maintenance For Coastal Salt Water and Other Extreme Environments included in the Owner's Manual

for each Product and is available for review on NanaWall's website, is properly implemented and documented.

**An ESM is a finish without (1) substantial cracking, chipping, or peeling due to the deterioration of the finish (exclusive of mechanical damage); (2) chalking in excess of a numerical rating of 8 as per ASTM D 659; or (3) fading or color changes in excess of 5 NBS units as per ASTM D 2244.*

Rollers. For a roller with material or workmanship issues that significantly impair proper operation and function, NanaWall will ship a replacement roller.

Wood and Other Remaining Components (for product installed by an independent NanaWall Certified Installer or Approved Installer*). For all remaining components of NanaWall products not otherwise addressed herein with a material or workmanship issue that substantially impairs operation and function, NanaWall will, at its option, (1) ship a replacement part or product or (2) ship any replacement part or replacement product in the same stage of fitting and/or finishing as originally supplied by NanaWall. This includes wood frame components, hinges, handles, locking mechanisms, tracks, beads, and weather-stripping.

FIVE YEAR COVERAGE.

For five (5) years from Delivery, NanaWall will respond as follows:

Laminated Glass. For a laminated glass unit with permanent material obstruction of vision due to premature delamination, NanaWall will ship a replacement glass unit or panel.

Wood and Other Remaining Components (for product NOT installed by an independent NanaWall Certified Installer or Approved Installer*). For all remaining components of NanaWall products not otherwise addressed herein with a material or workmanship issue that substantially impairs operation and function, NanaWall will ship a replacement part or product without charge in the same stage of fitting and/or finishing as originally supplied by NanaWall. This includes

wood frame components, hinges, handles, locking mechanisms, tracks, and weather-stripping.

THREE YEAR COVERAGE.

For three (3) years from Delivery, NanaWall will respond as follows:

Anodized Surface Finish of Aluminum Profiles. For anodized surface finish of aluminum profile not functioning as an ESM,* NanaWall will, at its option, (1) assume reasonable costs to restore the finish on a non-compliant (non-ESM) material using standard commercial refinishing techniques or (2) ship replacement parts.

Exception: Products installed in Harsh Environments are not covered.

ONE YEAR COVERAGE.

For one (1) year from Delivery, NanaWall will respond as follows:

Screens. For a screen part (excluding the screen mesh) with a material or workmanship issue that substantially impairs the function of the screen, NanaWall will, at its option, (1) ship a replacement screen or (2) upon return by owner, repair the screen without charge.

ADDITIONAL SERVICE INFORMATION

This Warranty does not cover labor costs to remove existing parts or products, install a replacement part or product, costs to finish wood products, or the cost to repair or replace surrounding substrates, trim, or other work. Nor does it cover costs incurred due to delays or other construction costs, costs for late or damaged delivery, loss of revenue, loss of time, liquidated damages, inconvenience, or loss of use of the product or any parts or components. NanaWall reserves the right to determine whether or not a covered condition exists. If the claim is not covered under this Warranty, NanaWall may charge and collect a fee for on-site product inspections.

Any replacement part or product will be shipped to the location of original product delivery by NanaWall. Replacement products will be the closest equivalent current product and may not be an exact match to the original. Any replacement parts or any repairs are warranted for the remainder of the original limited warranty period. If providing a replacement part or product is not commercially practicable, NanaWall may elect to refund the purchase price of the affected product in full satisfaction of its obligations.

Wood. Wood components must be properly finished on all sides promptly after receipt of unit, before installation, and prior to exposure to weather. Repair or replacement of a warped wood panel or frame can be delayed by up to 12 months from date of claim to allow the wood component to adjust to local environmental conditions.

Glass. Unloading the replacement glass/panel from the delivery truck is the responsibility of the owner. Due to the weight of the product, appropriate manpower and/or equipment will be needed to unload and move the glass/panel to the location for replacement. Depending on the size of the replacement part and interior building dimensions, it may not be possible to transport the glass/panel through the interior of the building. NanaWall is not responsible for any costs associated with moving the replacement glass/panel at the delivery location.

**Whether an installer is a NanaWall Certified Installer or Approved Installer is determined by the installer's status as of the date of delivery. NanaWall maintains information regarding the installers designated as Certified Installers or Approved Installers.*

NOTICE PROCESS

Written notice of any claim under this Warranty with supporting documents such as photos or videos must be given to Nana Wall Systems, Inc. via email to service@nanawall.com or via mail to 100 Meadowcreek Drive, Corte Madera, CA 94925, promptly when discovered. A condition will not be covered under this

NanaWall Limited Warranty

Warranty if there is a failure to notify NanaWall in writing (1) within 7 days of receipt of the product for any defect which an ordinary inspection would reveal, (2) within a reasonable time during the warranty period after an impairment in operation and use is manifest or a hidden defect is discovered, or (3) for claims first made after expiration of the coverage period outlined in this Warranty.

DISCLAIMERS & LIMITATIONS

Any responsibility of NanaWall is contingent upon owner fulfilling its notice obligations as stated in this Warranty. The owner shall have no standing to assert a claim absent timely notice to NanaWall and an opportunity to cure. The remedies prescribed in this Warranty are the exclusive and sole remedies available to the owner who hereby waives any claim not encompassed herein. This exclusivity and waiver survive expiration of warranty coverages herein. In no event shall the liability of NanaWall or any seller of NanaWall product exceed the price paid for the product.

This Warranty is the sole and exclusive warranty for NanaWall products. **ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE DISCLAIMED. NANAWALL SHALL NOT BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES.** Some state and federal laws may not allow disclaimers of implied warranties or exclusions of incidental or consequential damages, so these limitations or exclusions may not apply to you. Where federal law prohibits disclaimer of implied warranties, the duration of any implied warranty is limited to the duration of the relevant coverage period, if less than the statutory limitation period. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This Warranty may only be modified by a writing signed by an officer of NanaWall. Any action taken by NanaWall does not

create a new warranty or extend the duration of the original product warranty. A failure by NanaWall to enforce a warranty provision shall not constitute a waiver barring subsequent enforcement.

EXCLUDED CONDITIONS.

This Warranty does not cover the following conditions, or any damage or issues caused in whole or part by the following:

- Improper product selection, application, storage, handling, modification, or waterproofing; Movement of surrounding substrates, including deflection of the header of more than ¼", or any other stresses on product; Improper installation, flashing, or integration into the structure; Failure to provide an adequate overhang; Failure to prevent the effects of sheeting rain or water; Failure to install proper weep holes in sill where needed, and failure to properly drain water exiting weep holes in the sill; Failure to meet code or specification requirements.
- Finishing by anyone other than NanaWall, including, but not limited to, not properly finishing all sides of wood products promptly after receipt of unit, before installation, and before exposure to weather, finishing exterior wood in dark colors, or not refinishing periodically; Discoloration of finish; Failure to immediately repair any breaches such as scratches, chips, or abrasions in any finish or aluminum profile.
- Condensation, frost, or mold caused by high interior relative humidity; Installation near swimming pools, saunas, hot tubs or other high humidity environments or sources of chlorine; Harsh chemicals such as road salt, solvents, acid, brick or mortar wash, or cleaning chemicals; Corrosion, oxidation, discoloration or tarnish on product installed in Harsh Environments.
- Normal weathering, wear and tear; Failure to follow the NanaWall operation and maintenance instructions; Failure to operate the product for more than one month; Failure to clean and maintain aluminum surfaces in accordance with AAMA 609 and 610 or not maintaining adequate cleaning records.
- Imperfections in glass that do not affect the product's structural integrity or obscure vision and cannot be detected from within 10 feet as per ASTM C 1036; Accidental or spontaneous glass breakage; Glass breakage due to thermal or other stresses, or glass with film or other coatings applied to the surface; Industry accepted bow, warp or distortion in glass and minor variations in glass color; Glass not installed as per NanaWall's instructions.
- Variations in wood grain or color; Warp within the allowable warp tolerance for wood panels per ANSI/WDMA I.S. 6-A-01; Warp that does not affect the normal functioning of the Product; Warpage on wood panels caused by leaving panels in the open position exposed to the elements or not engaging the locking points properly when in the closed position; Resin or sap bleeding from wood panels.
- Panel shrinkage or expansion caused by change in weather; Expansion or bowing of aluminum units caused by exposure to sunlight or caused by temperature difference between interior and exterior panel surfaces.
- Acts of God, falling objects, fire, accidents, external forces, extreme weather events, or other conditions beyond NanaWall's control.
- Gas fill or retention levels in insulated glass units.
- Field testing of Product; Performance of the Product in conformance to any published NanaWall testing results (e.g. air infiltration, water infiltration, structural loading, thermal and sound). Published test results measure the laboratory performance of a single sample of the product of a certain size, sill and configuration that may not be applicable to the Product being field tested. Performance during testing may vary depending upon handling, installation, use, maintenance, and time after installation. Field testing must be in compliance with AAMA 502, including water penetration testing at 2/3 of the pressure of applicable published test results.
- Products or components not supplied by NanaWall; Products that have not been paid for in full; Products ordered in larger sizes or special configurations beyond NanaWall's published specifications. Product with glass that is heavier than NanaWall specifications; Product that has been modified or altered in any manner.

NanaWall Warranty Registration

Must be filled out and returned to Nana Wall Systems, Inc., 100 Meadowcreek Drive, Corte Madera, CA 94925 within 30 days from date of purchase of the NanaWall in order for the limited warranty to become effective.

NANAWALL ORDER # _____ **PROJECT NAME** _____

Date of Purchase _____ Purchaser Name _____

PROPERTY OWNER

Name _____ Address _____

Telephone _____ E-mail _____

Project Address (if different from above) _____

INSTALLATION

Installer Name _____ Address _____

Telephone _____ E-mail _____

Type of project new residential restaurant shopping mall
 residential remodel office building other _____

Architect Name _____ Address _____

1. Is the installation complete? yes If yes, date completed _____
 no If no, date scheduled _____

2. Have you been shown how to operate your new NanaWall? yes Is operation satisfying? yes no
 no If no, why not? _____

Print Name _____

Signature _____ Date _____

FOLD OR CUT HERE TO MAIL