Installation and Owner's Manual

Generation 4 Tilt Turn Windows and Fixed Panels

NW TiltTurn 620 | NW Fixed 610

NW TiltTurn 820 | NW Fixed 810

NW TiltTurn 520 | NW Fixed 510

NW TiltTurn 720 | NW Fixed 710

This Manual contains instructions on the installation, operation, maintenance, and warranty of Generation 4 Tilt Turn Windows and Fixed Panels. 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 4™

Comprehensive Product Line by NanaWall

Nana Wall Systems, Inc.
100 Meadowcreek Drive #250
Corte Madera, CA 94925

800 873 5673
415 383 3148
Fax 415 383 0312

info@nanawall.com
nanawall.com
r1-0525

NanaWall®
Boundaries **Unbound**®

Table of Contents

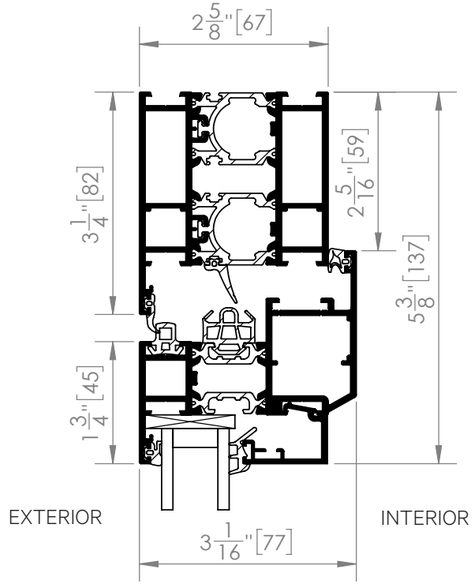
NanaWall®
Boundaries **Unbound**®

Generation 4 Tilt Turn Windows

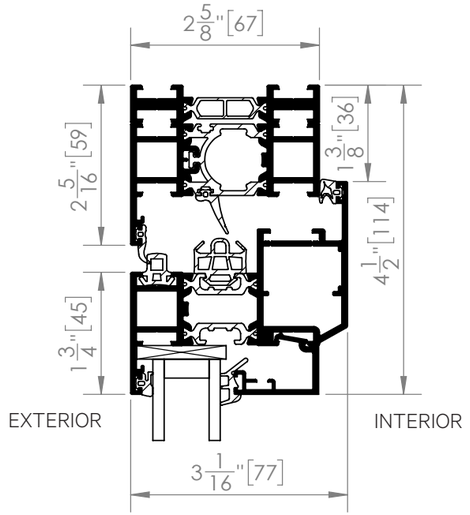
The principle of installation within the product family is the same (profile depth varies by system).

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

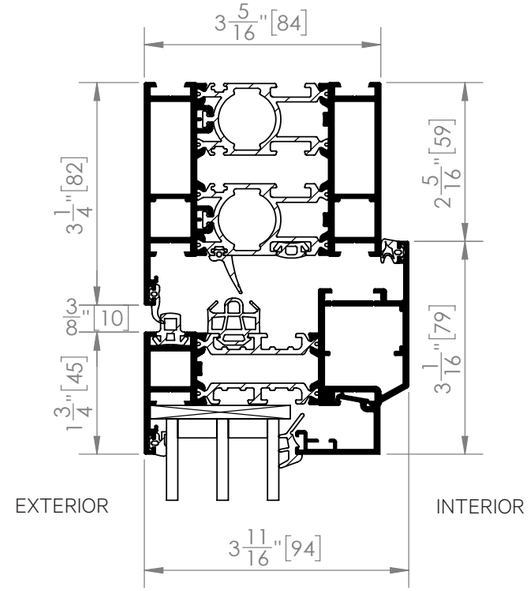
NW TiltTurn 620 (Wide Frame)
To Match NW Aluminum 640



NW TiltTurn 620 (Narrow Frame)
To Match NW Aluminum 640



NW TiltTurn 820
To Match NW Aluminum 840

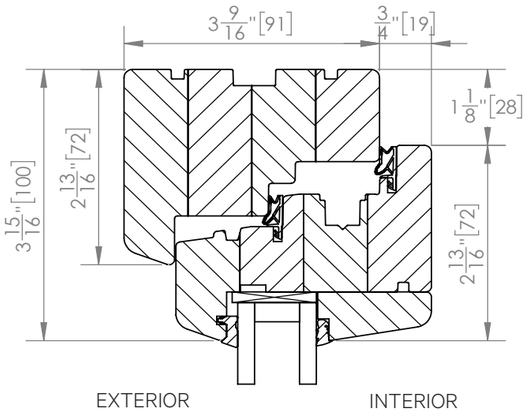


Generation 4 Tilt Turn Windows

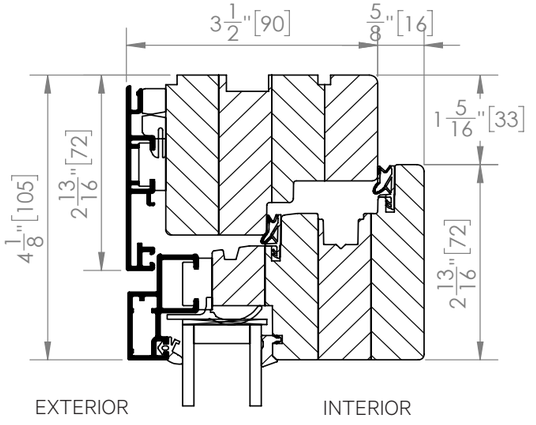
The principle of installation within the product family is the same (profile depth varies by system).

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

NW TiltTurn 520
To Match NW Wood 540



NW TiltTurn 720
To Match NW Clad 740

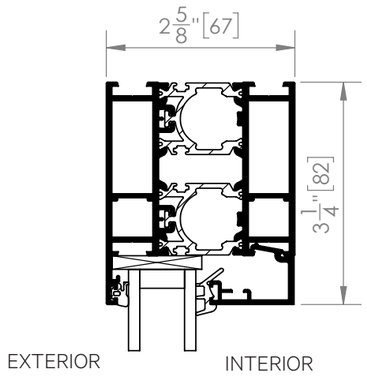


Generation 4 Fixed Panels

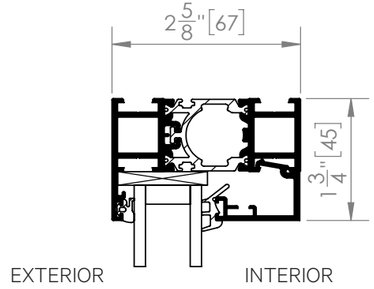
The principle of installation within the product family is the same (profile depth varies by system).

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

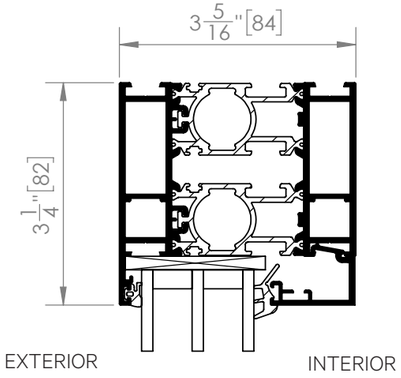
NW Fixed 610 (Wide Frame)
To Match NW Aluminum 640



NW Fixed 610 (Narrow Frame)
To Match NW Aluminum 640



NW Fixed 810
To Match NW Aluminum 840

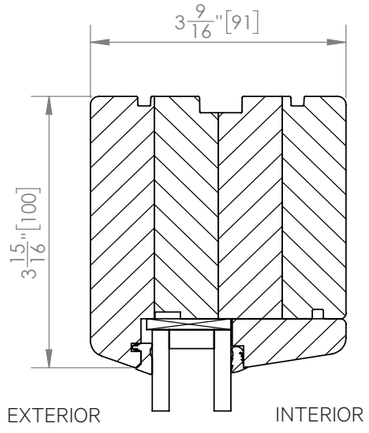


Generation 4 Fixed Panels

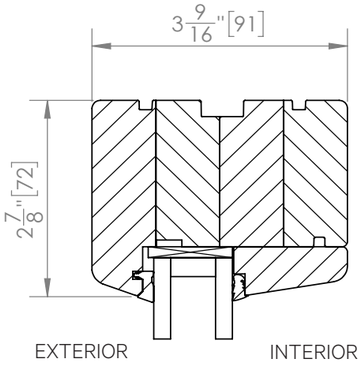
The principle of installation within the product family is the same (profile depth varies by system).

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

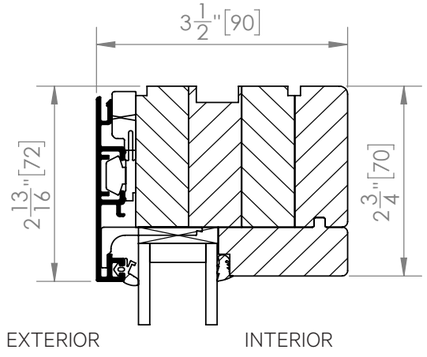
NW Fixed 510 (Wide Frame)
To Match NW Wood 540



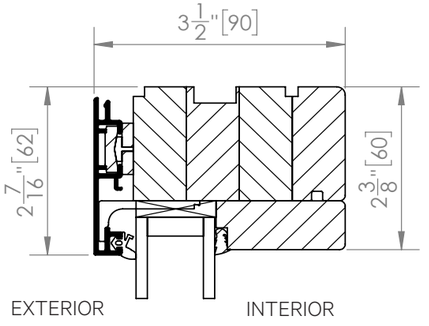
NW Fixed 510 (Narrow Frame)
To Match NW Wood 540



NW Fixed 710 (Wide Frame)
To Match NW Clad 740



NW Fixed 710 (Narrow Frame)
To Match NW Clad 740



Installation Instructions for Tilt Turn Windows and Fixed Panels

The installation of the NanaWall Generation 4 Tilt Turn Windows (dual action window) and Fixed Panels requires a working knowledge and experience in the use of tools, equipment, and methods necessary for the installation of 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 window 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 and tilt turn units.

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 and doors 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

Check all parts carefully before assembly. Depending on the model, some of these parts may already be pre-installed on the window. Check that the sizes of the frame components and configurations match what was ordered according to the signed product drawings that show all dimensions of the system. Windows are pre-assembled with or without glass.

An accessory box is added to the crates that contains hinge pins, 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:

- Tilt Turn units are shipped with the sash in the frame. Check that the sizes and opening hinged side match what was ordered. Usually handles are pre-installed.
- Generally for Fixed panels ordered with glass, the glass will be installed in the frame with temporary glass stops. Finished cut to size glass stops are provided separately, labeled, and prepared for each individual unit. Also a roll of interior glazing gasket to be cut on site is provided.
- Left frame (labeled L) and right frame (labeled R).
- For tilt turn windows, if supplied unglazed panels have to be glazed before being installed in the opening. See Glass Installation and Glazing instructions section of this document.

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, 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. The units are shipped complete with all necessary component. However, not included are screws, bolts, shims, and sealants, etc to anchor the unit to the rough opening. If the documents are missing, please contact NanaWall at info@nanawall.com to get them.
3. Store in a clean and dry location and protect against defacement or damage, especially to the edges of the units.
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. There should be no unevenness or bowing. Make sure that the header is not tilted or twisted. The side should not be in the same vertical plane and not offset of each other. For necessary clearance and shim adjustment space, make rough opening not more than 1/2" wider on all 4 sides from than the outside frame size 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.

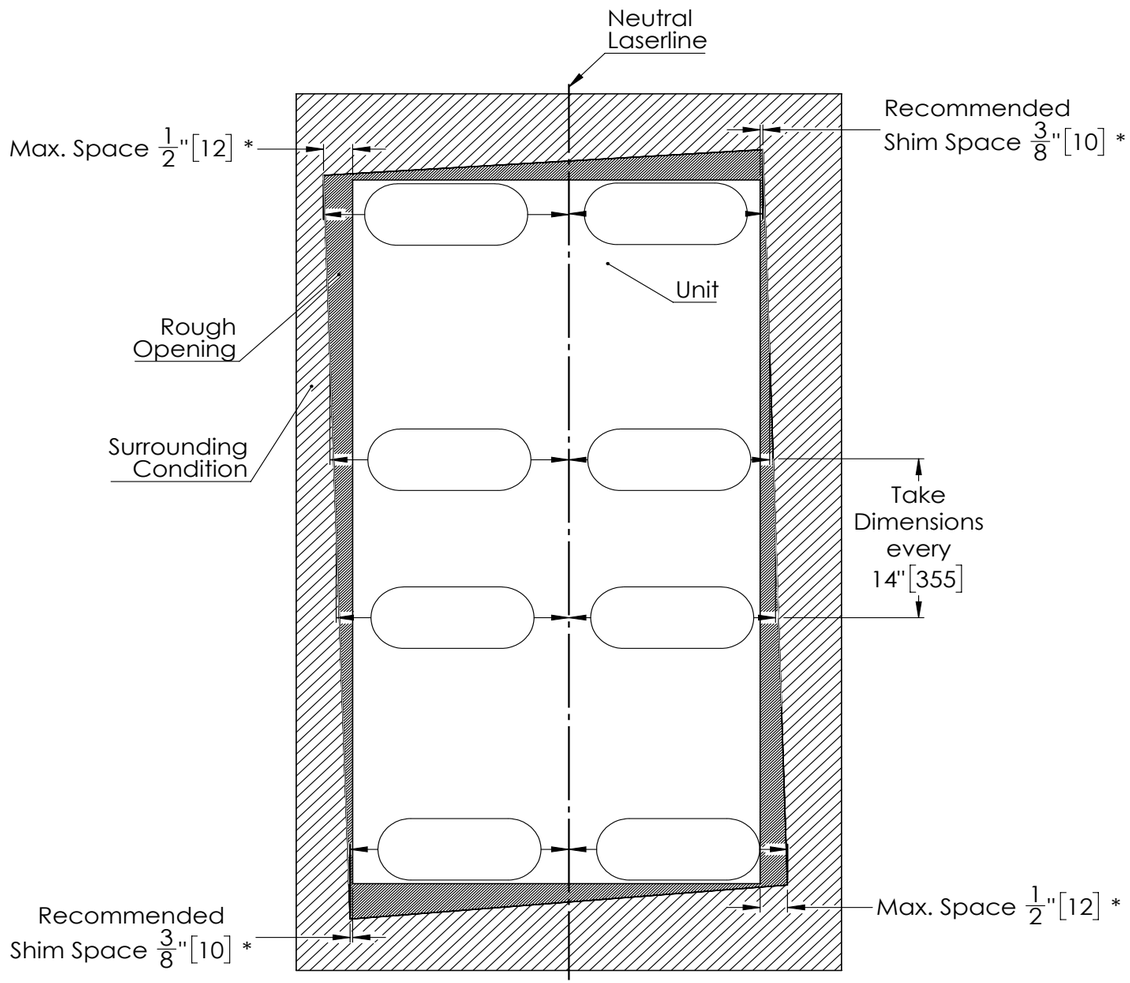
Take in consideration before finishing and trimming of the tilt turn windows and fixed panels, that the weep holes on the exterior face of the sill have to be kept clear and for tilt turn units, that a clearance of at least 1/4" between the finish material and the edge of the hinge is recommended.

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.

The structural integrity of the rough opening material must be adequate to handle any vertical loads and lateral loads, such as wind loads. A qualified engineer or architect should be used to determine the proper construction details and header to be used in your particular application. Properly flash and waterproof around the perimeter of the opening. Make sure you seek proper professional advice for the appropriate construction needed for your particular application. DO NOT install unit in structures that do not allow for proper management / drainage of moisture.

Rough Opening Preparation for Tilt Turn Windows and Fixed Panels

HORIZONTAL DIMENSIONS, INSIDE VIEW



(_____) + (_____)=(_____)

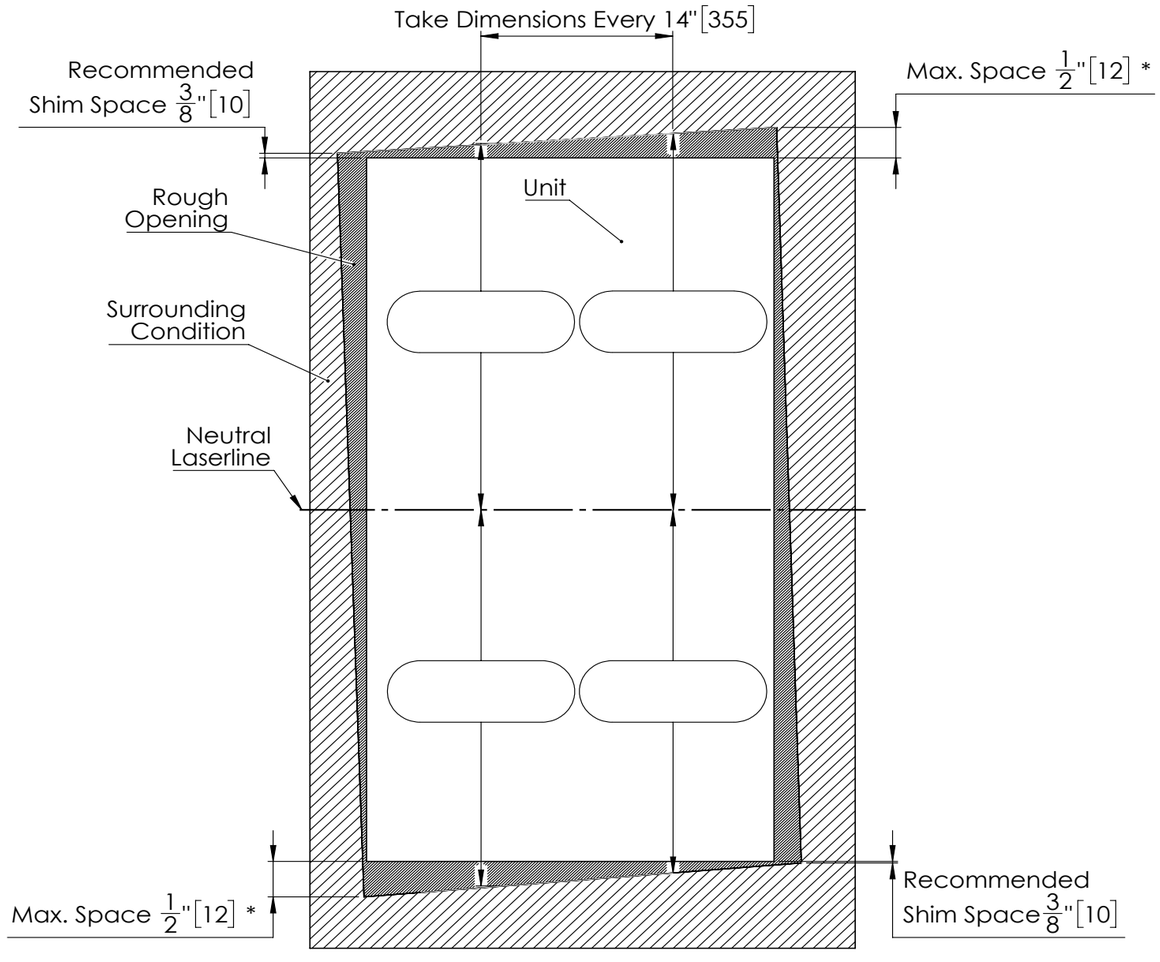
Smallest Rough Opening Dimension Left, minus Shim Space

Smallest Rough Opening Dimension Right, minus Shim Space

Order / Unit Width as Determined by Installation Contractor

Rough Opening Preparation for Tilt Turn Windows and Fixed Panels

VERTICAL DIMENSIONS, INSIDE VIEW



(_____) + (_____)=(_____)

Smallest Rough Opening Dimension Top, minus Shim Space

Smallest Rough Opening Dimension Bottom, minus Shim Space

Order / Unit Height as Determined by Installation Contractor

Recommended Fasteners and Shims

SELECTION OF APPROPRIATE FASTENERS FOR TILT TURN AND FIXED UNITS

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.

For the Angle Clip Anchorage Method: to attach the angle clip to the side of the frame, for aluminum units use #10 x 1 1/4" self drilling screws and for wood units use #10 x 1 1/4" wood screws.

For the Flat Clip Anchorage Method: to attach the flat clip to the back side of the frame, use #10 x 1" wood screws.

General recommendations for different substrates:

Wood Frame (minimum specific gravity of G=0.42):
Use #10 (3/16" diameter) wood screws with 1 1/4" minimum embedment.

Concrete (minimum compressive strength of 2,000 psi):
Use 1/4" diameter ITW Tapcons (concrete screws) with 1 1/4" minimum embedment with 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 1/4" minimum embedment with 2" minimum edge distance.

Structural Steel (minimum 1/4" thick):
Use 3/16" diameter self-tapping steel screws. Another option is to use type 410 stainless steel self-tapping screws with pre-drilled pilot holes.

Metal Structure (steel 18GA (.048") FY=33KSI/FU=52KSI - must be filled with wood backer able to withstand applied loads):
Use #10 SMS or self drilling screws with min. embedment of 1 1/4".

SELECTION AND USE OF INSTALLATION SHIMS FOR TILT TURN AND FIXED UNITS

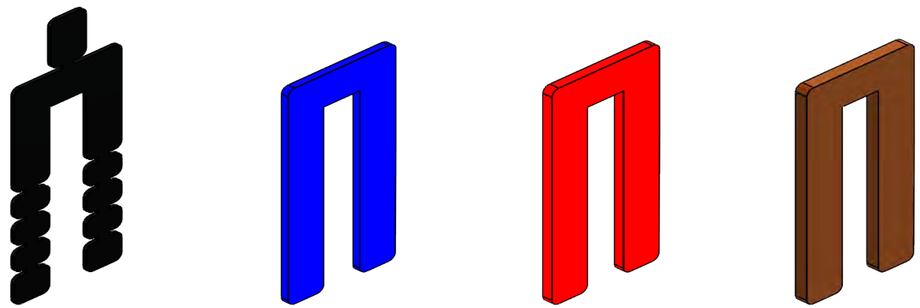
Use only hard plastic 'horseshoe' style glazier's shims that are capable of sustaining the applicable loads. Wood or rubber shims are NOT appropriate. Shims are to be installed between the system frame and the building structure at every fastener location to keep the frame components straight, level, 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 TiltTurn 620 / NW TiltTurn 820 / NW TiltTurn 520 / NW TiltTurn 720: FL47238

NW Fixed 610 / NW Fixed 810 / NW Fixed 520 / NW Fixed 710: FL47239



Installation Instructions For Tilt Turn Windows

Be sure that the appropriate flashing around the perimeter of the opening is installed.

Step 1

For all three methods of anchorage, review the Anchoring Pattern Layout elevation drawings and determine the applicable drawings for the location and spacing and determine the anchoring points needed. Mark the locations on the frame with non-permanent marks.

Step 2

For the Through Frame Anchorage Method

Remove the sash from the frame as shown in the following pages for both aluminum and wood units.

Pre-drill the anchor points in the frame at locations shown in the Through Frame Anchorage Detail Drawings. The anchor points could be drilled while the frame is laid down on saw horses or when it is temporarily secured in the rough opening with clamps. Take care to avoid scratching or damaging the profiles.

Drill holes needed for the appropriate fasteners for applicable substrate as required in the Selection of Appropriate Fasteners section in locations in the frame as shown in the Through Frame Anchorage Method detail drawings.

For the Angle Clip Anchorage Method

Removing the sash from the frame is not necessary.

Drill necessary holes in the angle clip on both sides and anchor the angle clips to the side of the frame as shown in the Angle Clip Anchorage Method detail drawings at the marked anchorage points.

For the Flat Clip Anchorage Method

For aluminum units, attach the flat clips for aluminum units to the groove in the back side of the frame as shown in the Flat Clip Anchorage Method detail drawings at the marked anchorage points.

For wood units and depending on whether the flat clips used are with or without prongs, drill necessary holes in the flat clips per the Flat Clip Anchorage Method and then attach the flat clips to the back side of the frame at the marked anchorage points with appropriate screws as shown in the Flat Clip Anchorage Method detail drawings.

Step 3

Place the frame in the opening and temporarily secure the frame to the rough opening with clamps.

Step 4

For the Through Frame Anchorage Method

Place plastic, horseshoe type shims tightly at every fixing point between the frame profile and rough opening.

For the Angle and Flat Clip Anchorage Method

Place plastic, horseshoe type shims tightly about 4" away from each fixing point between the frame profile and rough opening. Adjust the shims as needed to make sure that the frame is level, plumb, and square at all points. There should be no unevenness or bowing.

Step 5

Depending on the Anchorage Method used, anchor the frame to the surrounding substrate as shown in the Anchorage Detail Drawings. Make any necessary adjustments to level, plumb, and square before proceeding on. Make sure that all holes drilled through the frame, especially at the sill, are properly sealed with Polyurethane or waterproof sealant underneath and around the screws.

IMPORTANT: 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.

For the Through Frame Anchoring Method

Reinstall the sash to the frame as shown in the following pages for both aluminum and wood units.

Step 7

Close the window by pushing the top of the sash back into the frame. Then turn the handle from the horizontal position 90° into the down position.

Step 8

Operate the unit. See Operation Section for details.

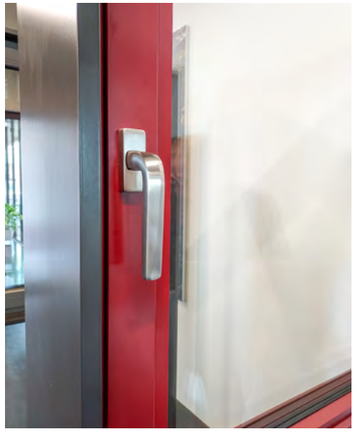
If the unit is not operating properly, first make sure that the installation is correct. The frame may not be installed plumb, level and square. Depending on whether there is space, the thickness of the shims can be adjusted to make the frame plumb, level, and square. Another reason for the unit not operating properly is that the frame or sash became bowed during handling or installation. Use a straight edge to determine any bowness. If bowed, you may need to remove the sash or frame to try to straighten them. If the unit is still not operation properly, then see Adjustments section for corrections possible.

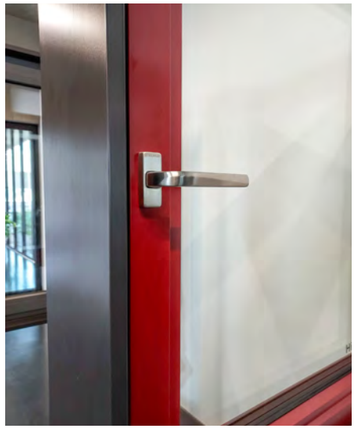
Step 9

Finish any waterproofing, flashing, trim, and sealant needed around the perimeter of the opening.

Generic Installation Instruction | NW TiltTurn 620 and NW TiltTurn 820

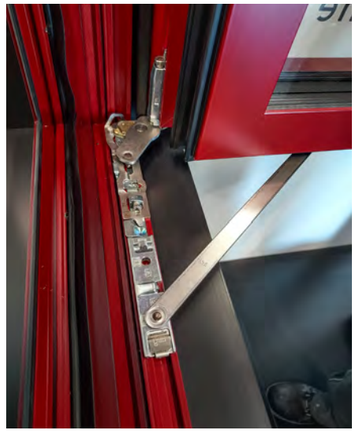
REMOVING THE SASH (Recommended for Through Frame Anchoring)

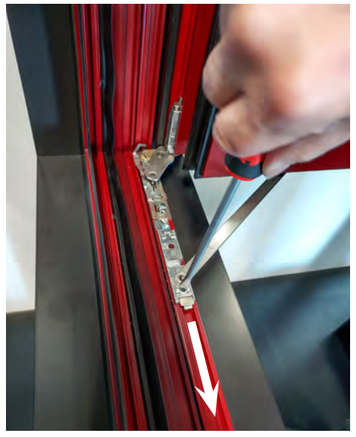


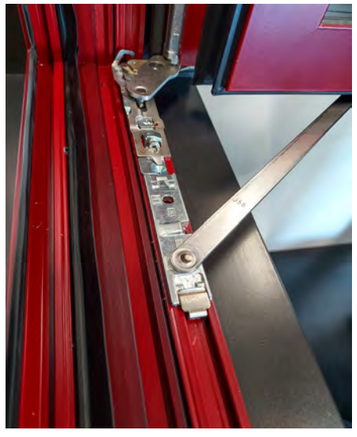


1 Open Window

Turn handle to the right and open the window.

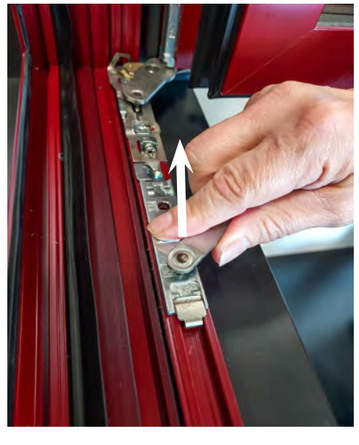


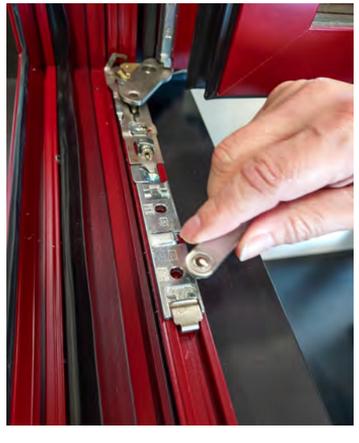




2 Open Safety Catch

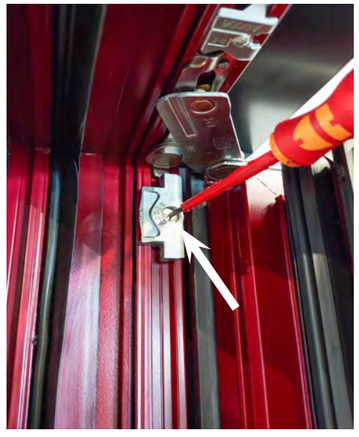
Use screwdriver to open safety catch on window limiter.

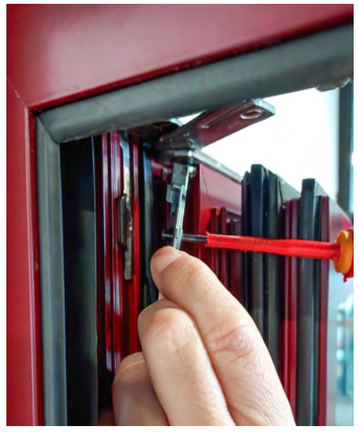




3 Unscrew the Window Limiter

Lift window limiter up and turn it away from the frame.

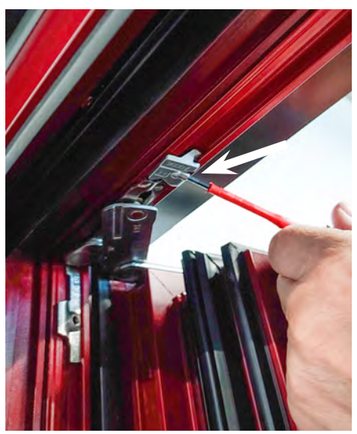


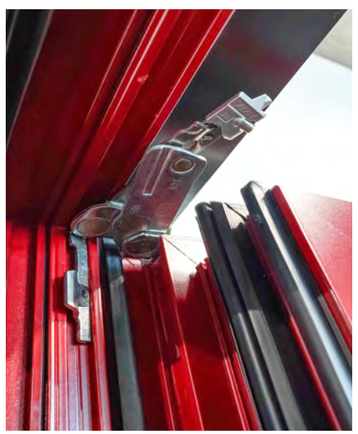


4 Top Window Clamp

Use Allen key metric 2.5 mm to remove the screw from the top window clamp.

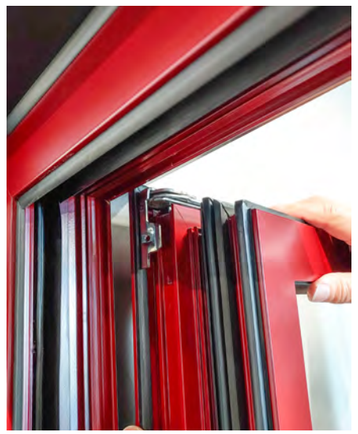
REMOVING THE SASH





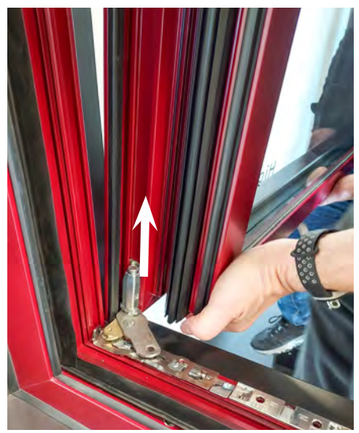
5 Loosen the Rotary Claw

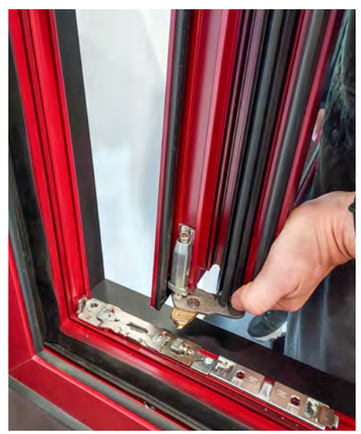
Loosen the rotary claw on the scissor bearing with Allen key metric 2.5 mm.



6 Move the Scissor Bearing

Move the scissor bearing towards the top of the window sash until the pin on the bearing is removed from the frame hinge.





7 Remove Sash from the Frame

Tilt window sash down sightly and keep the sash open in a 85° angle. Lift sash up so that the pin on the panel hinge part can be removed from the frame.

IMPORTANT: At least two people are necessary to disassemble and reinstall the window sash.

After removing the sash from the frame, carefully store in a safe location to prevent any damage before installing the window frame.

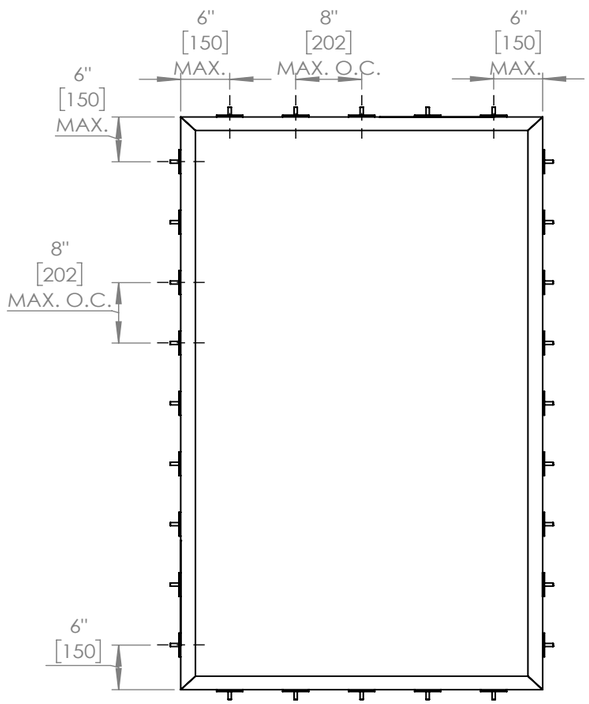
FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR THROUGH FRAME

NW TiltTurn 620 and NW TiltTurn 820

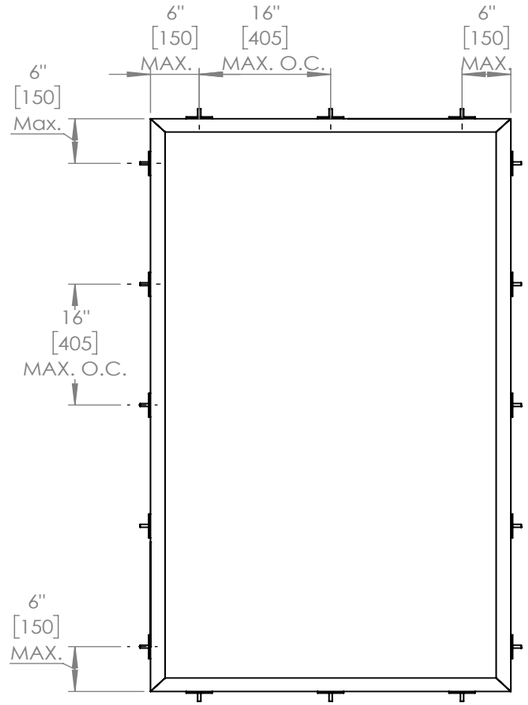
Typical anchorage shown for a NW TiltTurn 620 and NW TiltTurn 820 window unit. Allow for maximum shim space of 1/2" (12 mm) on all four sides. Please consult your local structural engineer if additional points are needed.

Each anchorage point needs to be shimmed.

For Design Pressure Ratings **30 PSF or Higher**

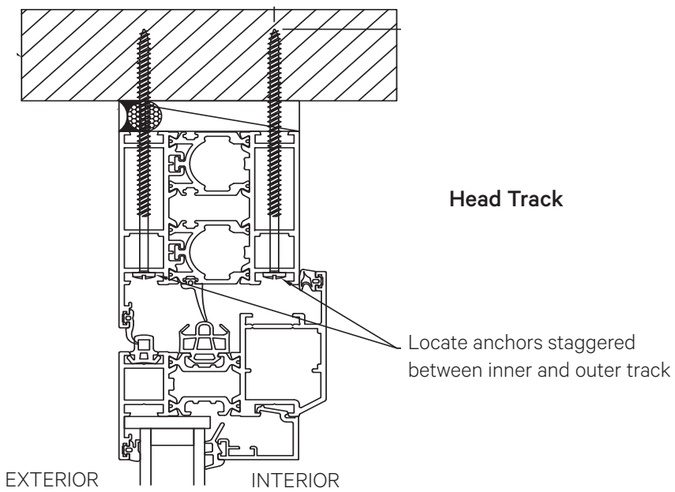


For Design Pressure Ratings **Lower than 30 PSF**



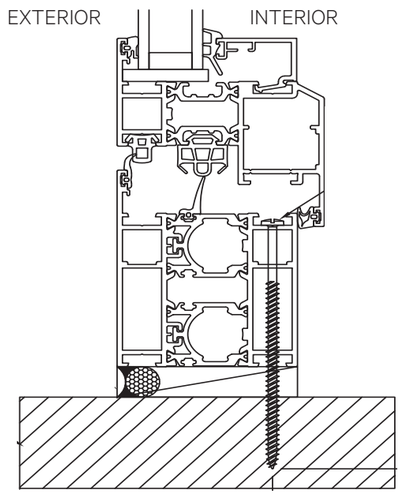
FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR THROUGH FRAME

NW TiltTurn 620 and NW TiltTurn 820



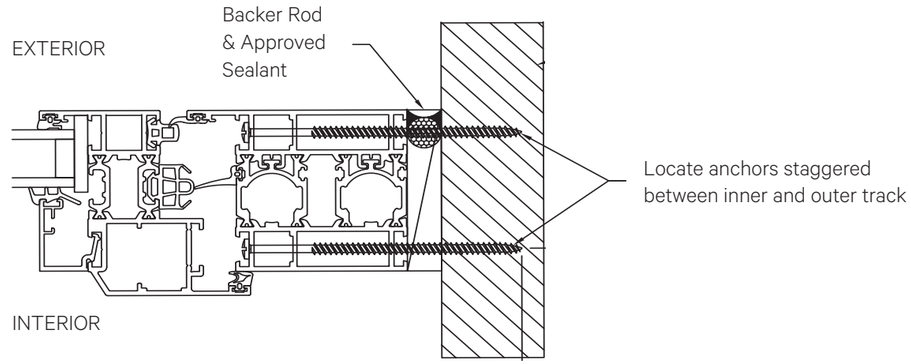
Head Track

Locate anchors staggered
between inner and outer track



Sill

(Weep slots in sill not shown,
but have to be unobstructed)



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.

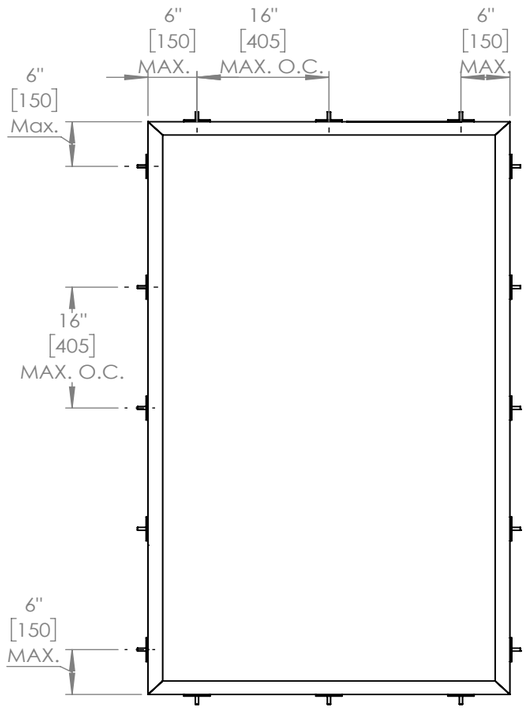
FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT OR ANGLE CLIP

NW TiltTurn 620 and NW TiltTurn 820

Typical anchorage shown for a NW TiltTurn 620 and NW TiltTurn 820 window unit. Allow for maximum shim space of 1/2" (12 mm) on all four sides. Please consult your local structural engineer if additional points are needed.

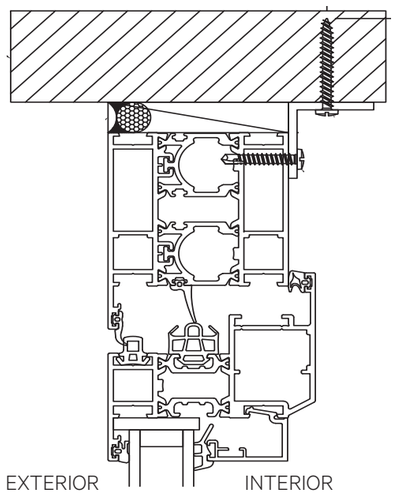
Each anchorage point needs to be shimmed.

For All Design Pressure Ratings

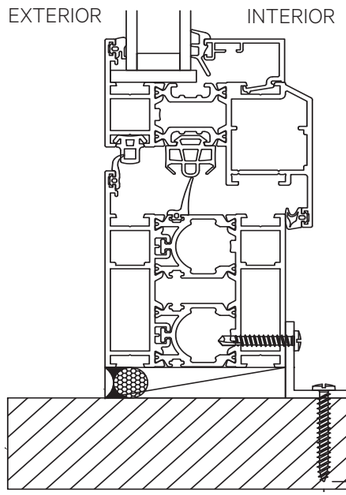


FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR ANGLE CLIP

NW TiltTurn 620 and NW TiltTurn 820

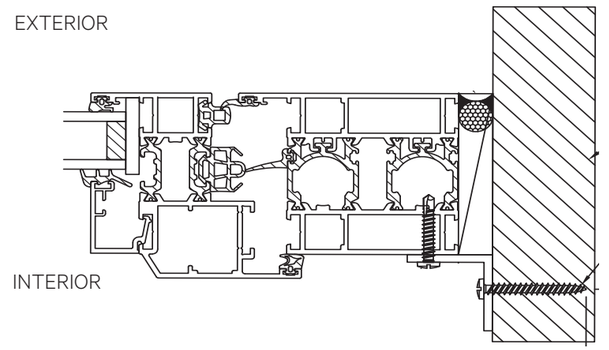


Head Track

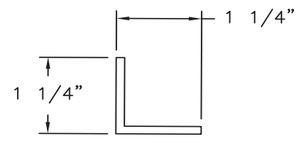


Sill

(Weep slots in sill not shown,
but have to be unobstructed)



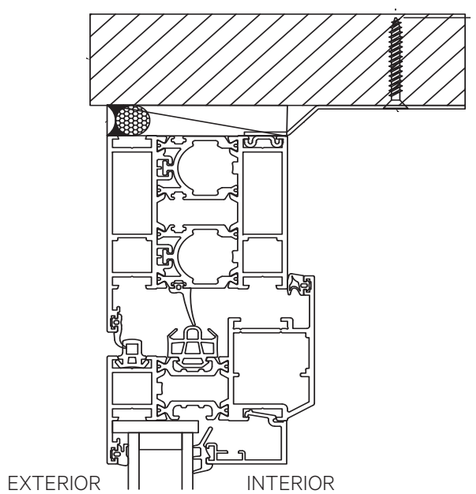
Side Jamb



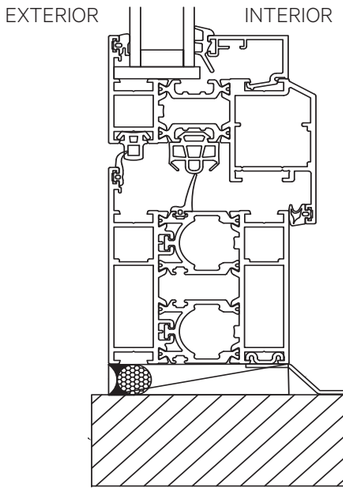
Angle Clip

FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT CLIP

NW TiltTurn 620 and NW TiltTurn 820

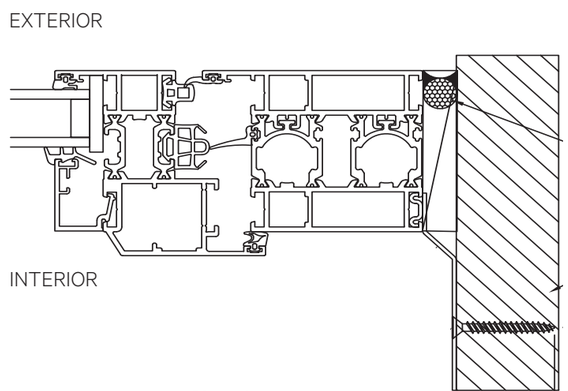


Head Track

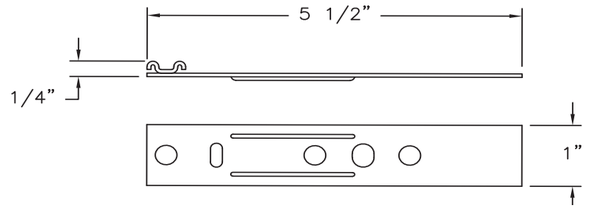


Sill

(Weep slots in sill not shown,
but have to be unobstructed)

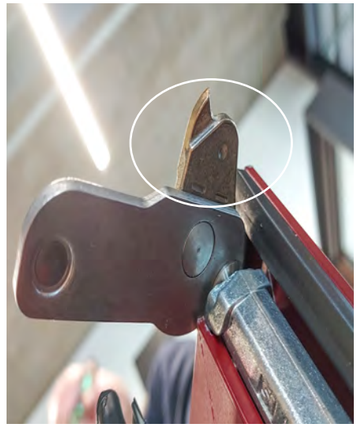


Side Jamb



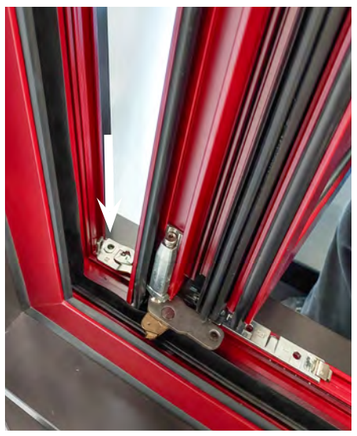
Flat Clip

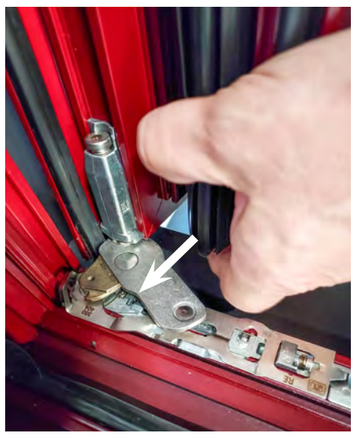
SASH REINSTALLATION



1 Sash Hinge Positioning

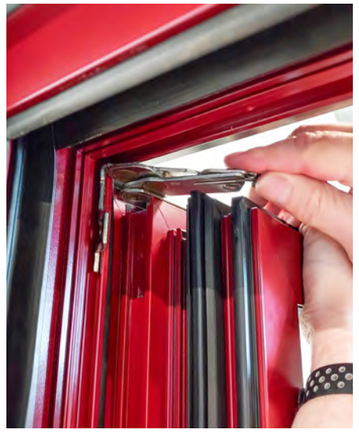
Position the hinge part for easy sash installation.





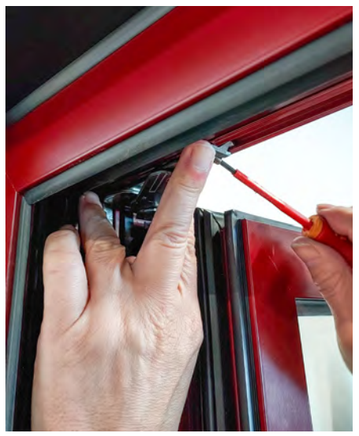
2 Sash Installation - Bottom

Reinstall sash to bottom part of the panel frame.



3 Sash installation - Top

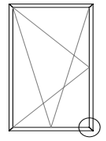
Insert the scissor bearing into the vertical frame groove and turn it inwards (towards the window frame).

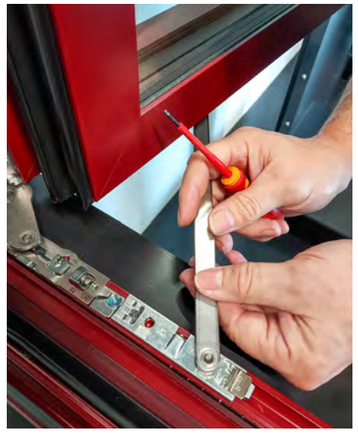


4 Screw the Scissor Bearing and Window Clamp

Check if the rotary claw and scissor bearing is correctly placed in the frame groove. Use Allen key metric 2.5 mm to tighten the pre-assembled clamping screw.

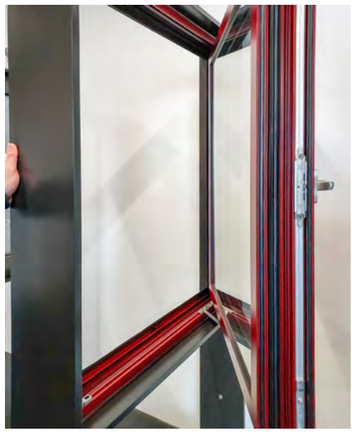
SASH REINSTALLATION





5 **Window Limiter and Safety Catch**

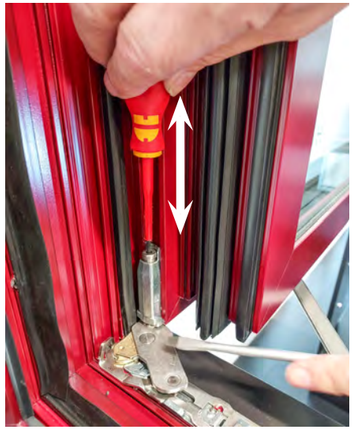
Reinstall the window limiter to safety catch and close it.



6 **Check Operation**

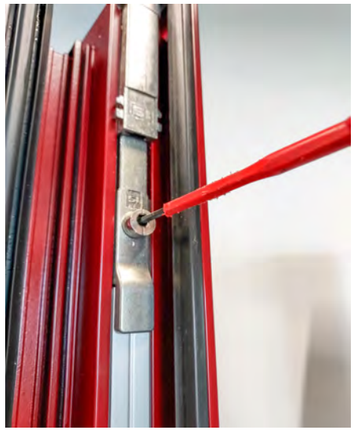
Close window after finishing sash installation and check if it functions properly.

ADJUSTMENT



1 Height Adjustment

Adjustment available for minor building settlement and heavy use. Minor sash binding problems can be adjusted by lifting/lowering the sash. Use Allen key metric 4 mm to adjust the height.



2 Closing Pressure Adjustment

Use Allen key metric 2.5 mm to adjust the closing pressure from the side of the sash.

3 Horizontal Sash Adjustment - Bottom

Use Allen key metric 2.5 mm to adjust the sash to the side.

4 Horizontal Sash Adjustment - Top

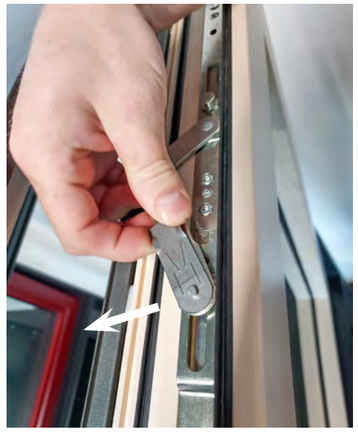
Use Allen key metric 2.5 mm to horizontally adjust from the top of the sash.

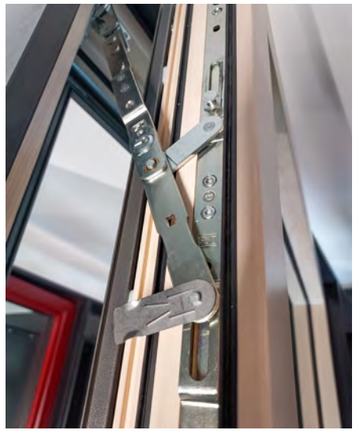
Generic Installation Instruction | NW TiltTurn 520 and NW TiltTurn 720

REMOVING THE SASH

1 Open Window

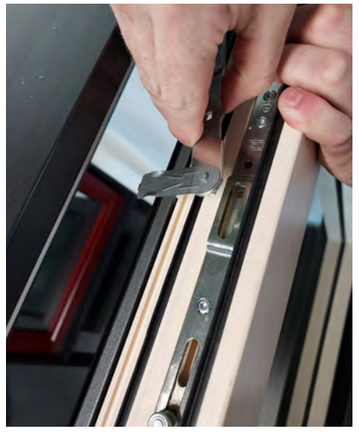
To uninstall sash, open window to "tilt" position.

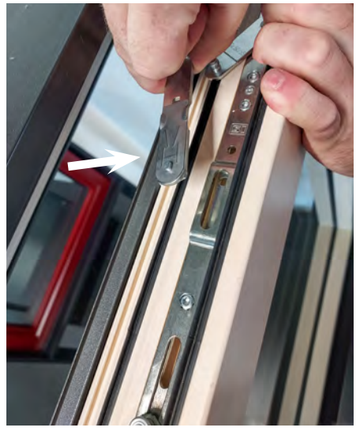




2 Unlock Locking Spring (on the top)

Unlock the locking spring at the top of the sash.





3 Unhook the Scissor Bearing

Unhook the scissor bearing. Turn the locking spring at the top of the scissor bearing back to its orginal position and fold the scissor arm in.

4 Remove the Sash

Close panel and move the handle to the "turn" position. Remove sash from the frame and store in a safe location.

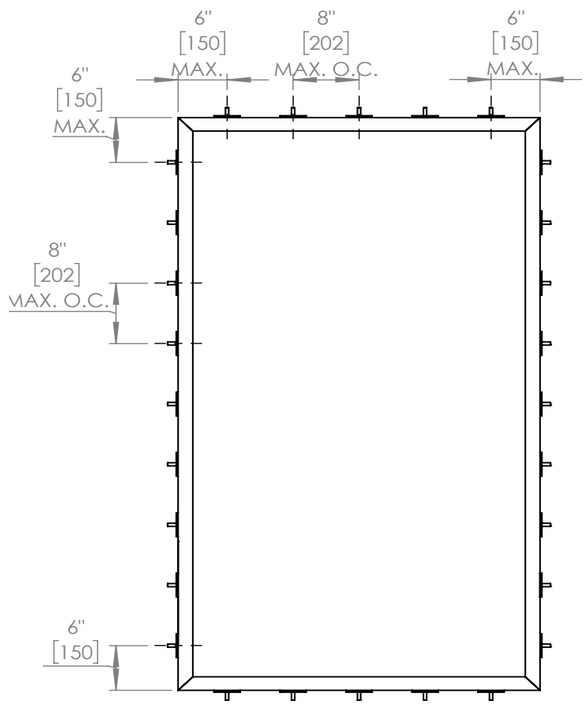
FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR THROUGH FRAME

NW TiltTurn 520 and NW TiltTurn 720

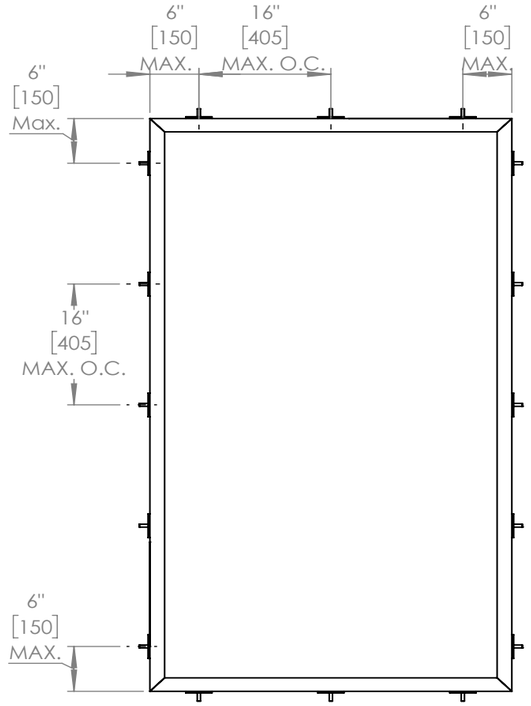
Typical anchorage shown for a NW TiltTurn 520 and NW TiltTurn 720 window unit. Allow for maximum shim space of 1/2" (12 mm) on all four sides. Please consult your local structural engineer if additional points are needed.

Each anchorage point needs to be shimmed.

For Design Pressure Ratings **30 PSF or Higher**

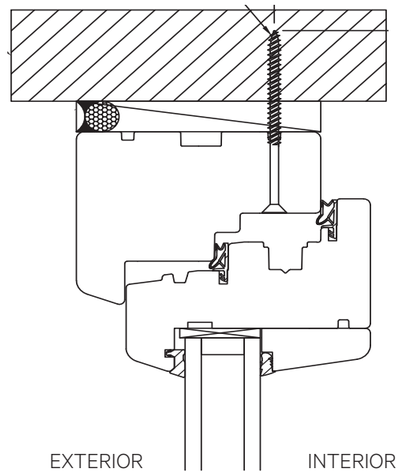


For Design Pressure Ratings **Lower than 30 PSF**

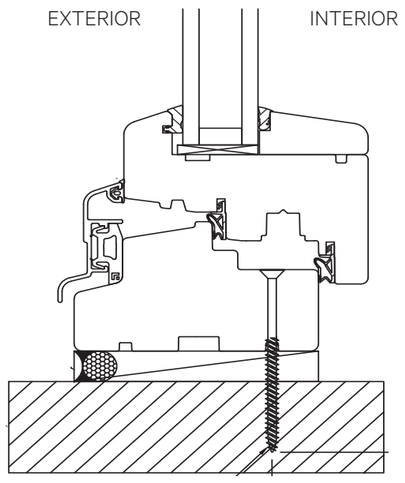


FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR THROUGH FRAME

NW TiltTurn 520 and NW TiltTurn 720

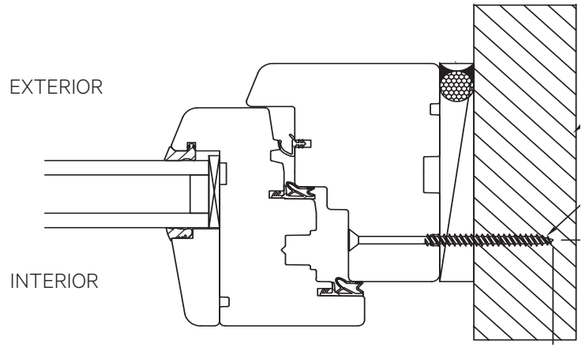


Head Track



Sill

(Weep slots in sill not shown,
but have to be unobstructed)



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.

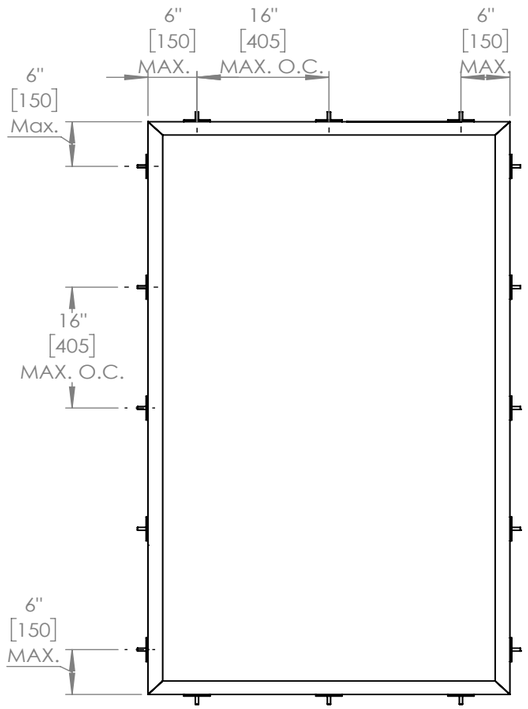
FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT OR ANGLE CLIP

NW TiltTurn 520 and NW TiltTurn 720

Typical anchorage shown for a NW TiltTurn 520 and NW TiltTurn 720 window unit. Allow for maximum shim space of 1/2" (12 mm) on all four sides. Please consult your local structural engineer if additional points are needed.

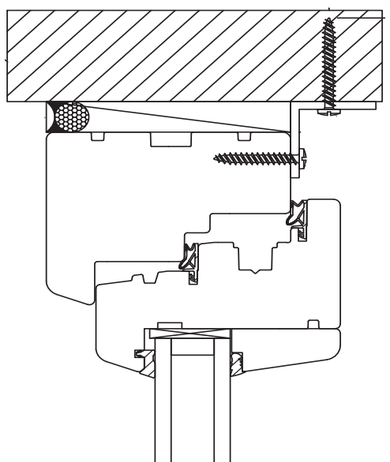
Each anchorage point needs to be shimmed.

For All Design Pressure Ratings

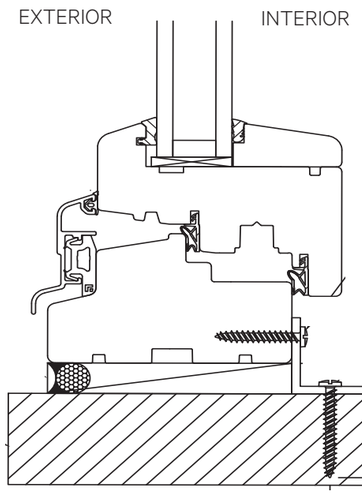


FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR ANGLE CLIP

NW TiltTurn 520 and NW TiltTurn 720

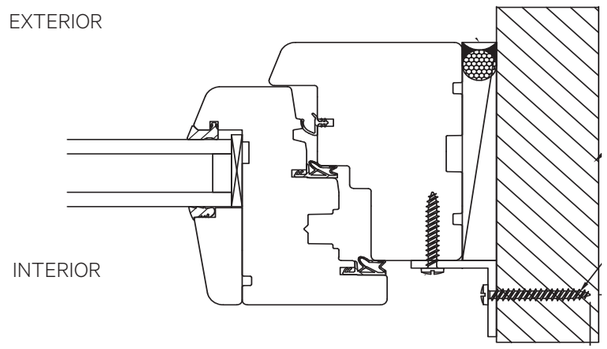


Head Track

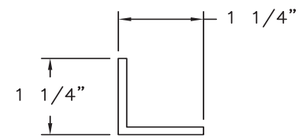


Sill

(Weep slots in sill not shown,
but have to be unobstructed)



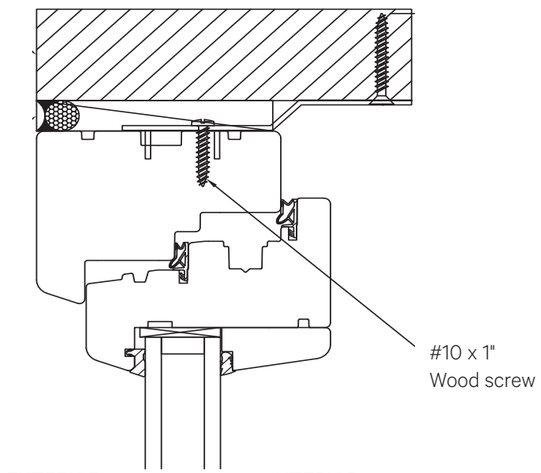
Side Jamb



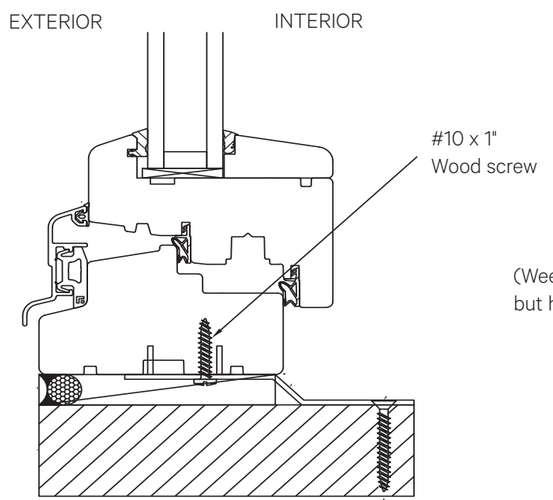
Angle Clip

FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT CLIP WITH PRONGS

NW TiltTurn 520

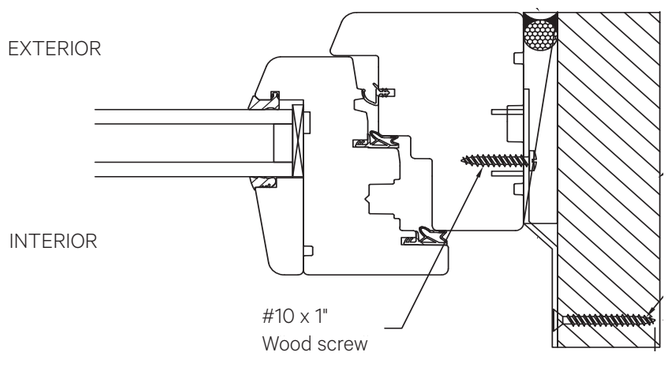


Head Track

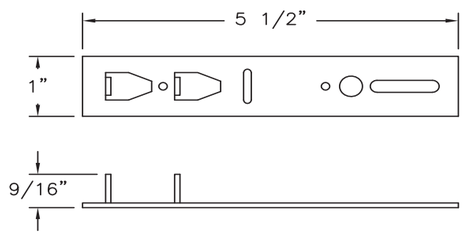


Sill

(Weep slots in sill not shown,
but have to be unobstructed)



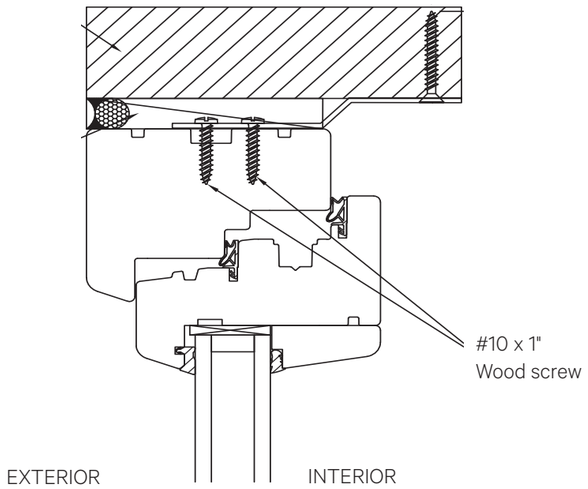
Side Jamb



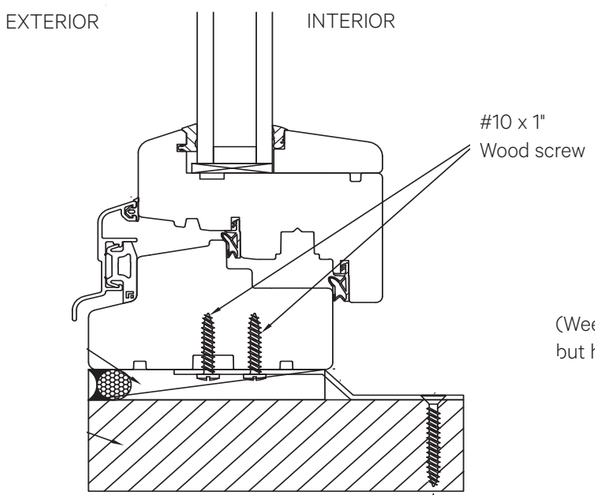
Flat Clip with Prongs

FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT CLIP WITHOUT PRONGS

NW TiltTurn 520

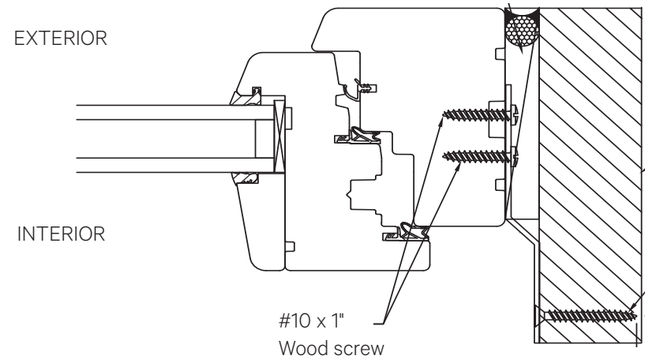


Head Track



Sill

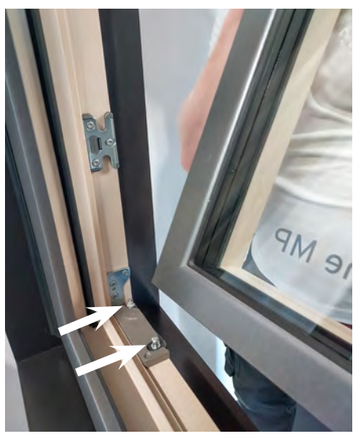
(Weep slots in sill not shown,
but have to be unobstructed)

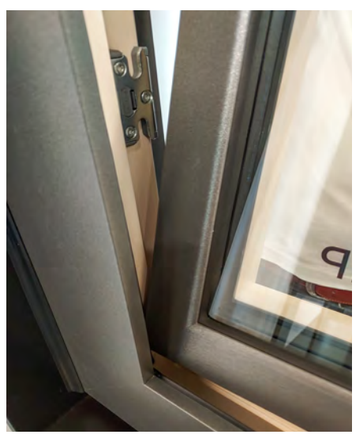


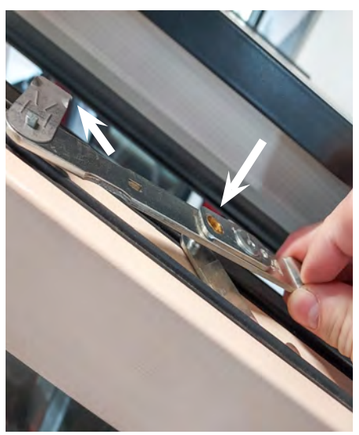
Side Jamb

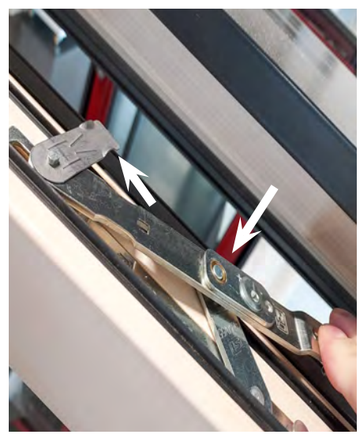
Suggested Typical Installation drawings shown are very general and may not be suitable for any particular installation. Product placement, fasteners, flashing, waterproofing, sealant, trim, and other details for specific surrounding conditions must be properly designed and provided by others.

SASH REINSTALLATION



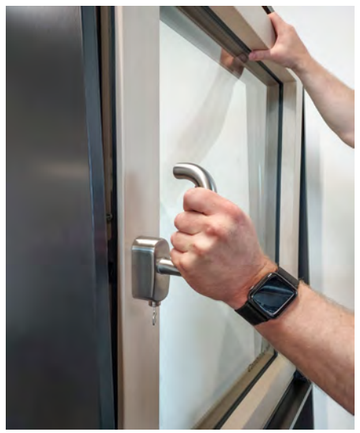


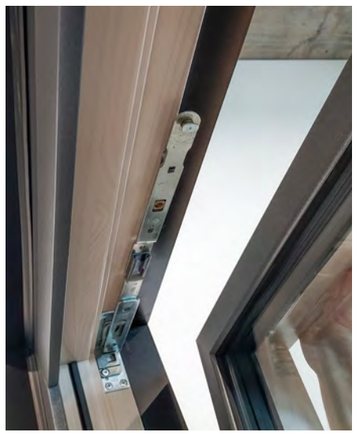




1 **Reinstall Sash**

Place the sash on the pins and carefully tilt the sash into the frame.





2 **Close the Window**

Move window handle upwards into the "tilt" position.

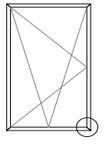
3 **Hook the Scissor Bearing (on the top)**

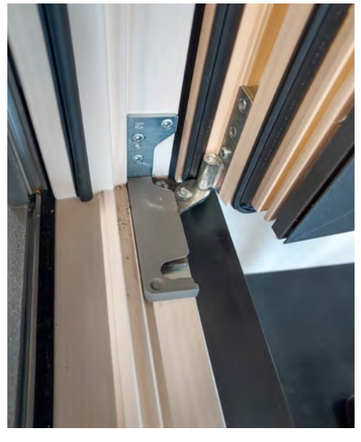
Open the locking spring. After correctly hooking the scissor bearing into the fitting, close the locking spring on the top of the sash.

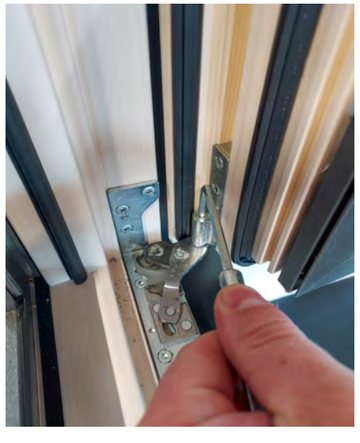
4 **Close the Window**

Close window after finishing sash installation and check if it functions properly.

ADJUSTMENT

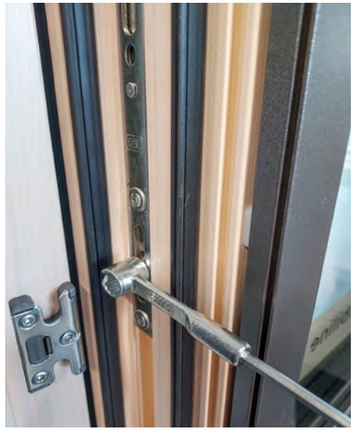






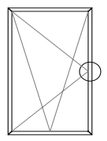
1 Height Adjustment

Adjustment available for minor building settlement and heavy use. Minor sash binding problems can be adjusted by lifting/lowering the sash. Use Allen key metric 4 mm to adjust the height.



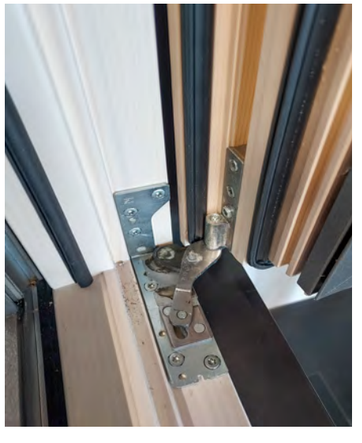
2 Closing Pressure Adjustment

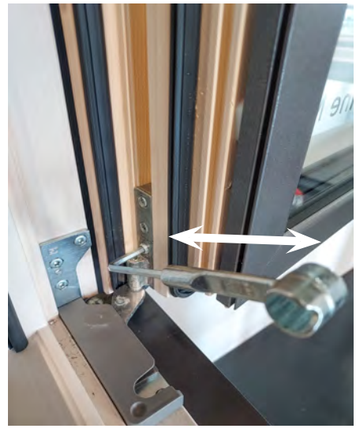
Use 11 mm socket wrench to adjust closing pressure.

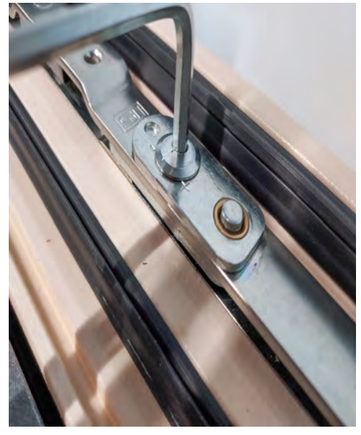


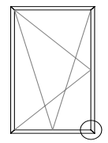
3 Horizontal Sash Adjustment - Bottom

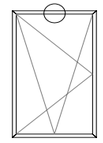
Use Allen key metric 4 mm to horizontally adjust the sash to the side.











4 Horizontal Sash Adjustment - Top

Use Allen key metric 4 mm to horizontally adjust the sash from the top.

Installation Instructions for Fixed Panels

Step 1 - For The Through Frame Anchorage Method

Remove the glass from the frame by first removing the inside glazing gaskets. Then remove the glazing bead (glass stops).

For the Angle Clip and Flat Clip Anchorage Methods, the glass does not need to be removed.

Step 2

For all three methods of anchorage, review the Anchoring Pattern Layout elevation drawings and determine the applicable drawing for the locations and spacing between anchoring points needed. Mark the locations on the frame with non-permanent marks.

Step 3

For The Through Frame Anchorage Method

Pre-drill the anchor points in the frame at location shown in the Through Frame Anchorage Detail Drawings. The anchor points could be drilled while the frame is laid down on saw horses or when it is temporarily secured in the rough opening with clamps. Take care to avoid scratching or damaging the profiles.

Drill holes needed for the appropriate fasteners for the applicable substrate as required in the Selection of Appropriate Fasteners section in locations in the frame as shown in the Through Frame Anchorage Method detail drawings.

For the Angle Clip Anchorage Method

Drill necessary holes in the angle clip on both sides and anchor the angle clips to the side of the frame as shown in the Angle Clip Anchorage Method detail drawings at the marked anchorage points.

For the Flat Clip Anchorage Method

For aluminum units, attach the flat clips to the groove in the back side of the frame as shown in the Flat Clip Anchorage Method detail drawings at the marked anchorage points.

For wood units and depending on whether the flat clips used are with or without prongs, drill necessary holes in the flat clips per the Flat Clip Anchorage Method and then attach the flat clips to the back side of the frame at the marked anchorage points with appropriate screws as shown in the Flat Clip Anchorage detail drawings.

Step 4

Place the frame in the opening and temporarily secure the frame to the rough opening with clamps.

Step 5

For The Through Frame Anchorage Method

Place plastic, horseshoe type shims tightly at every fixing point between the frame profile and rough opening.

For the Angle and Flat Clip Anchorage Method

Place plastic, horseshoe type shims tightly about 4" away from each fixing point between the frame profile and rough opening.

Adjust the shims as needed to make sure that the frame is level, plumb, and square at all points. There should be no uneveness or bowing.

Step 6

Depending on the Anchorage Method used, anchor the frame to the surrounding substrate as shown in the Anchorage Detail Drawings. Make any necessary adjustments to level, plumb, and square before proceeding on. Make sure that all holes drilled through the frame, especially at the sill, are properly sealed with Polyurethane or waterproof sealant underneath and around the screws.

IMPORTANT: 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.

Step 7

Reinstall the glass in the manner described in 'Glass Installation & Glazing'.

Step 8

Finish any waterproofing, flashing, trim, and sealant needed around the perimeter of the opening.

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

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.

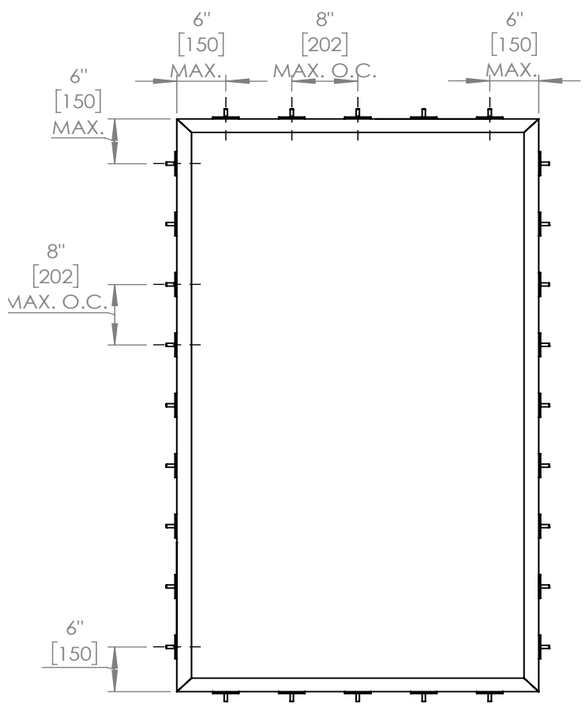
FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR THROUGH FRAME

NW Fixed 610 / 810 / 510 / 710

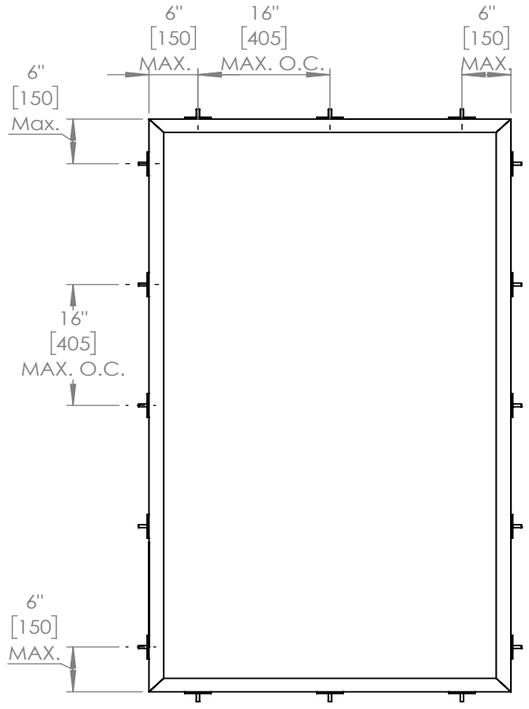
Typical anchorage shown for a NW Fixed 610, NW Fixed 810, NW Fixed 510, and NW Fixed 710 panel unit. Allow for maximum shim space of 1/2" (12 mm) on all four sides. Please consult your local structural engineer if additional points are needed.

Each anchorage point needs to be shimmed.

For Design Pressure Ratings **30 PSF or Higher**

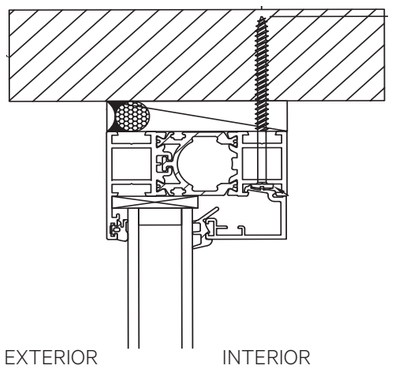


For Design Pressure Ratings **Lower than 30 PSF**

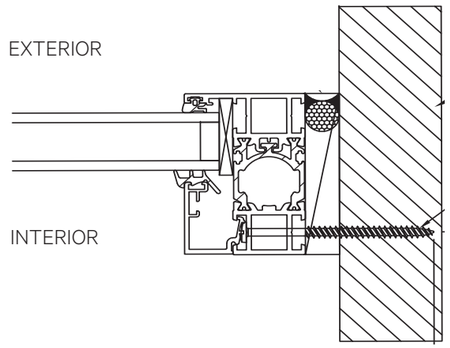


FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR THROUGH FRAME

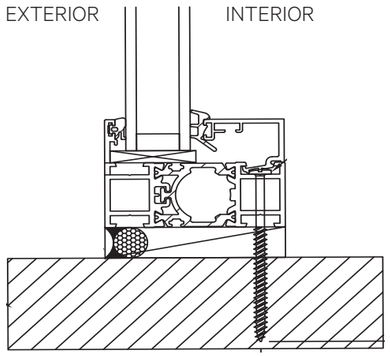
NW Fixed 610 and NW Fixed 810



Head Track



Side Jamb



Sill

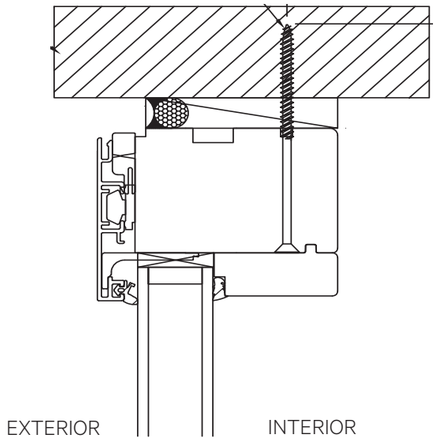
(Weep slots in sill not shown,
but have to be unobstructed)

Interior glazing gaskets, glazing beads (glass stops) and glass will need to be removed for anchoring.

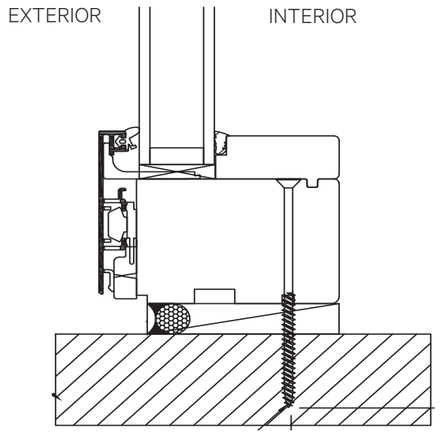
Suggested Typical Installation drawings shown are very general and may not be suitable for any particular installation. Product placement, fasteners, flashing, waterproofing, sealant, trim, and other details for specific surrounding conditions must be properly designed and provided by others.

FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR THROUGH FRAME

NW Fixed 510 and NW Fixed 710

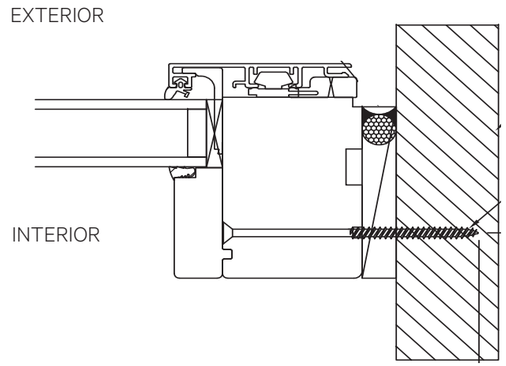


Head Track



Sill

(Weep slots in sill not shown,
but have to be unobstructed)



Side Jamb

Interior glazing gaskets, glazing beads (glass stops), and glass will need to be removed for anchoring. Glazing beads will need to be secured with finish nails.

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.

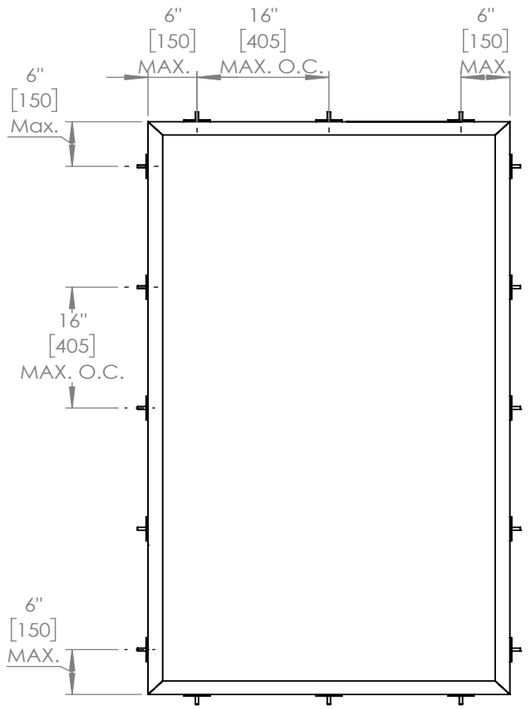
FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT OR ANGLE CLIP

NW Fixed 610 / 810 / 510 / 710

Typical anchorage shown for a NW Fixed 610, NW Fixed 810, NW Fixed 510, and NW Fixed 710 panel unit. Allow for maximum shim space of 1/2" (12 mm) on all four sides. Please consult your local structural engineer if additional points are needed.

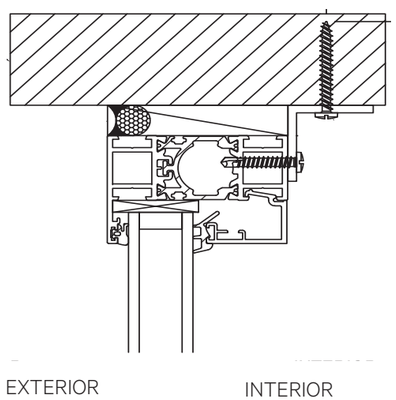
Each anchorage point needs to be shimmed.

For All Design Pressure Ratings

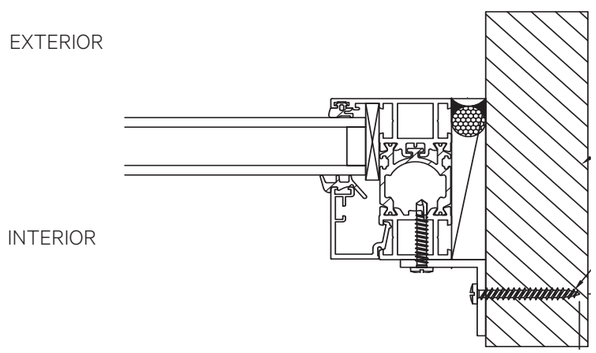


FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR ANGLE CLIP

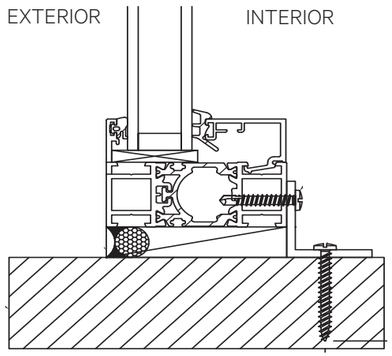
NW Fixed 610 and NW Fixed 810



Head Track

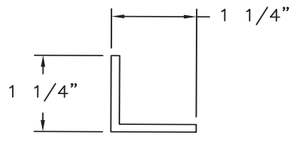


Side Jamb



Sill

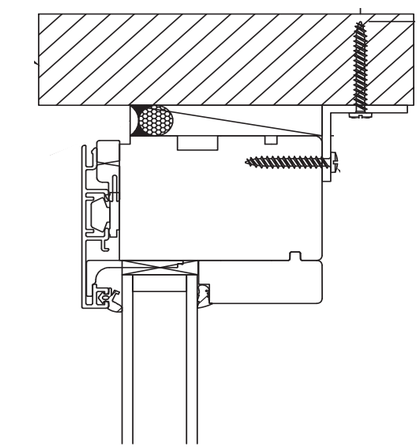
(Weep slots in sill not shown,
but have to be unobstructed)



Angle Clip

FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR ANGLE CLIP

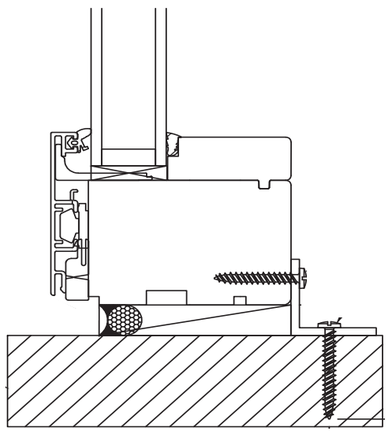
NW Fixed 510 and NW Fixed 710



EXTERIOR INTERIOR

Head Track

EXTERIOR INTERIOR

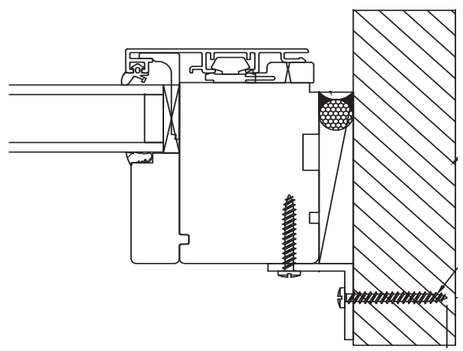


Sill

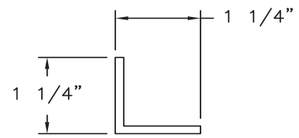
(Weep slots in sill not shown,
but have to be unobstructed)

EXTERIOR

INTERIOR



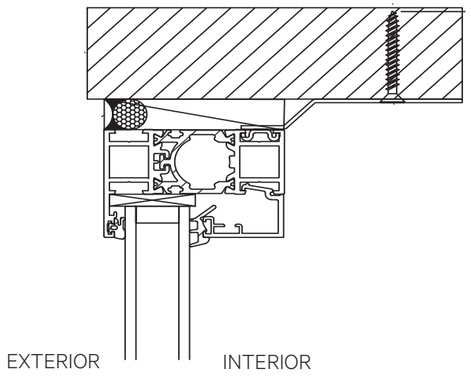
Side Jamb



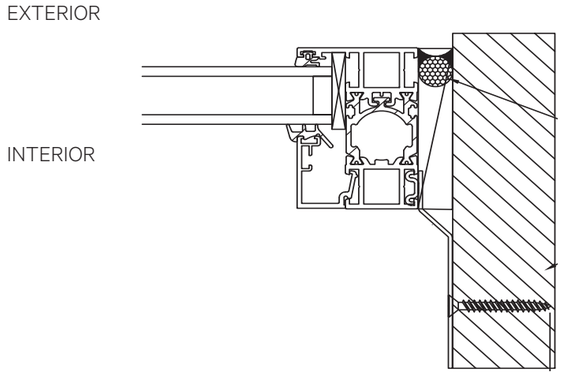
Angle Clip

FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT CLIP

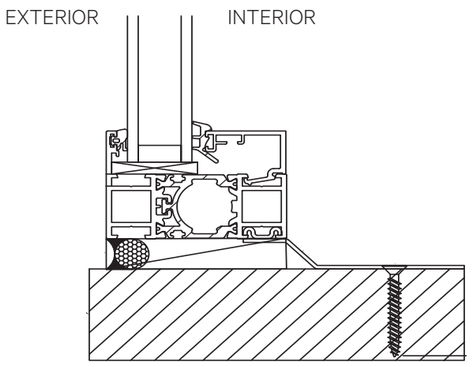
NW Fixed 610 and NW Fixed 810



Head Track

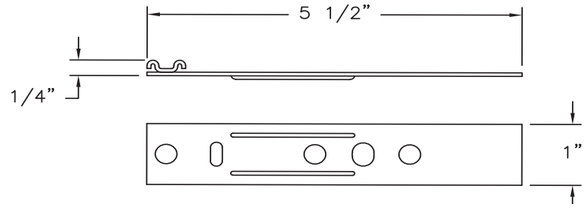


Side Jamb



Sill

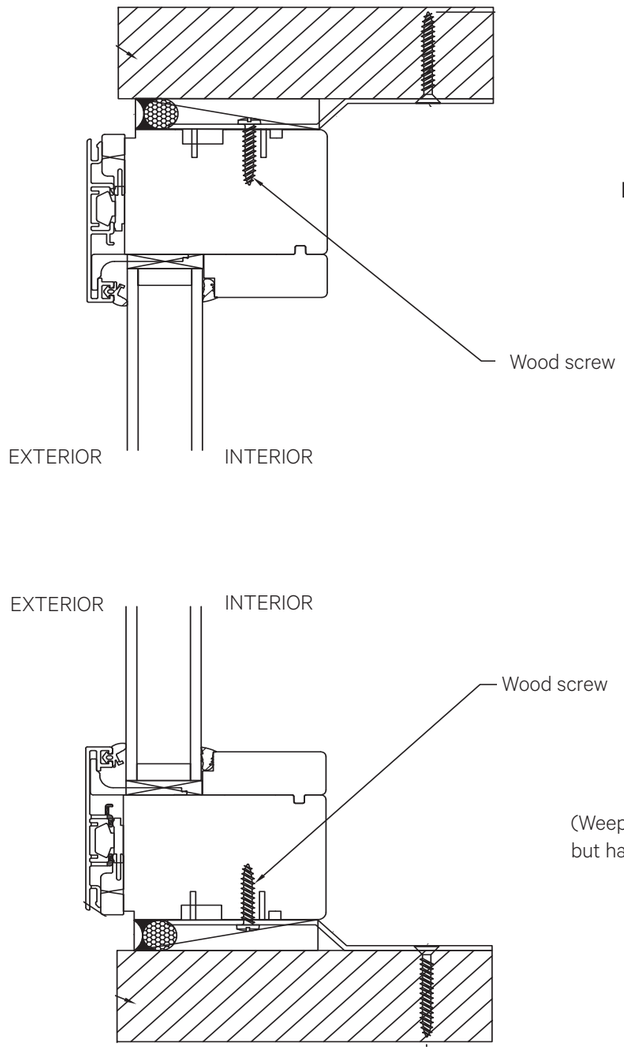
(Weep slots in sill not shown,
but have to be unobstructed)



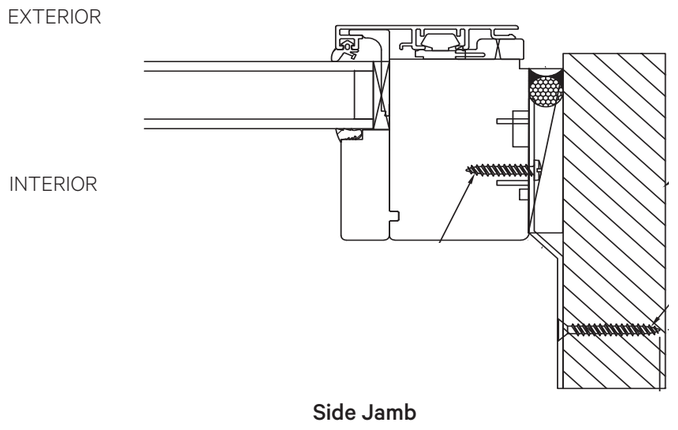
Flat Clip

FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT CLIP WITH PRONGS

NW Fixed 510



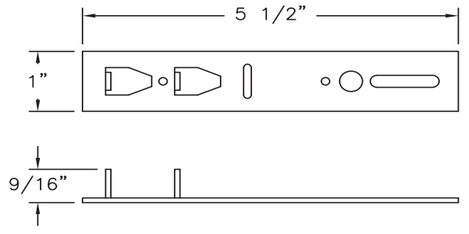
Head Track



Side Jamb

Sill

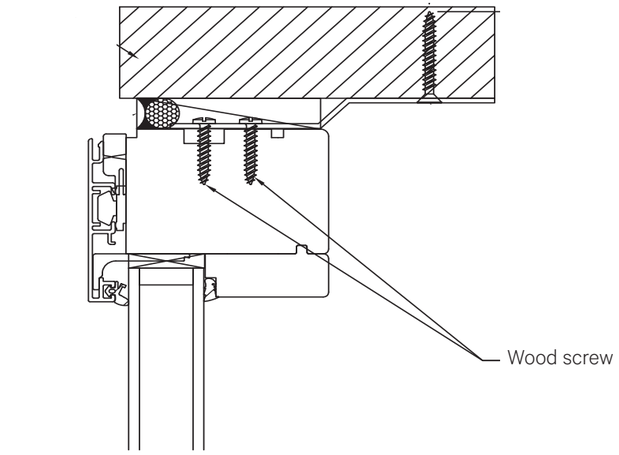
(Weep slots in sill not shown,
but have to be unobstructed)



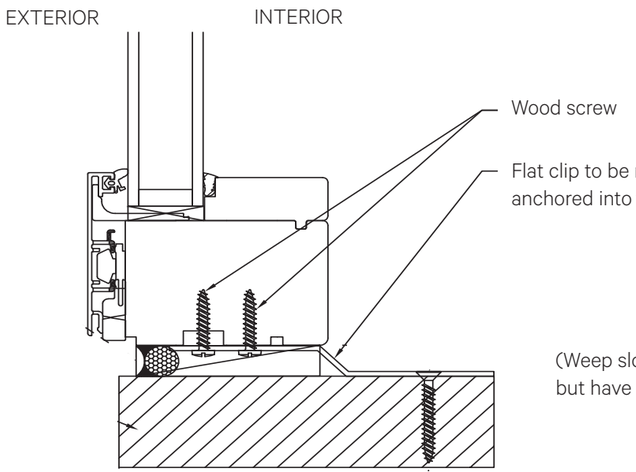
Flat Clip with Prongs

FRAME INSTALLATION | ANCHORING PATTERN LAYOUT FOR FLAT CLIP WITHOUT PRONGS

NW Fixed 510

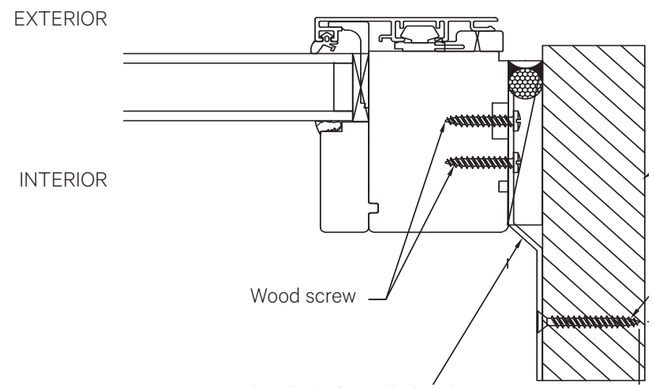


Head Track



Sill

(Weep slots in sill not shown, but have to be unobstructed)



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.

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, for operation.

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 be at least 1/8" wider than the glass thickness and 1/16" and 1/8" less than the width of the glazing pocket.

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.

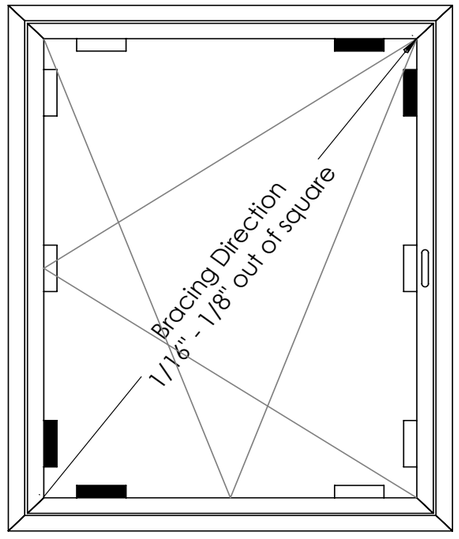
Follow all proper applicable glass installation and glazing techniques as recommended in the Flat Glass Marketing Association (FGMA) "Glazing Manual" and "Sealant Manual". Always use suction cups to shift glass within an opening. It would be best to install the glass on the window before they are installed in the opening. Windows can be laid flat on sawhorses.

If the windows are already installed, they can still be glazed. For glazing NW TiltTurn 720, the sash has to be laid flat on sawhorses, because the glass is inserted from the outside of the sash and is covered and sealed by the aluminum cladding. For glazing purpose, the aluminum cladding has to be removed. If the NW TiltTurn 720 was ordered w/o glass, then a wrench is supplied. Slide the wrench between the aluminum cladding and the wood style of the panel and turn the pivot holder with a simultaneous 90° turn of the wrench. This unlocks the cladding and it can be lifted apart.

For tilt turn window, it is very important that the bracing direction and placement of glass setting blocks on opposite diagonal corners be correct. If not correctly braced, the tilt turn window will not operate properly.

For fixed panel although glass may be already provided, the glass will need to be removed for installation and reglazed.

1. Close the window and remove all glass stops on the panel. Be sure to protect the finish.
2. 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.
3. 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 shims 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 2" from the bottom corner as shown in the Diagram for tilt turn or fixed windows.
4. 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.
5. For tilt turn units, 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 2" above the corner. If necessary, apply a littile adhesive that is non-damaging to the glass edge seals such as Dow Corning 791 silicone, to keep the vertical shims from slipping.
6. Place another shim in the upper diagonal corner vertically on the opposite stile in the same manner.
7. 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.
8. For fixed units, the glass should rest on the rail evenly supported with shims as shown in the Diagram. Install vertical shims as described above.
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.
10. 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 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.
11. For a clad tilt turn window, re-install the aluminum cladding.
12. 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.
13. Make sure that the stops are locked firmly and securely into position and are flush with the rest of the window profile.
14. After installing the sash, check to see if the gap is even across the width of the window. With the glass weight, the out of square window should be slightly higher in the upper corner, which is okay. If not, then the lower and upper shims thickness needs to be adjusted. **Windows must be braced correctly for proper operation.**



Glass Shims for tension

Glass Shims to keep distance

NOTE: Rubber shims are not acceptable.

Operation of a NanaWall Tilt Turn Windows

For opening and closing the window system, please observe the special notes on the following page.

IMPORTANT: When operating the window system, 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 qualifed technician or an independent NanaWall Certified Installer.

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

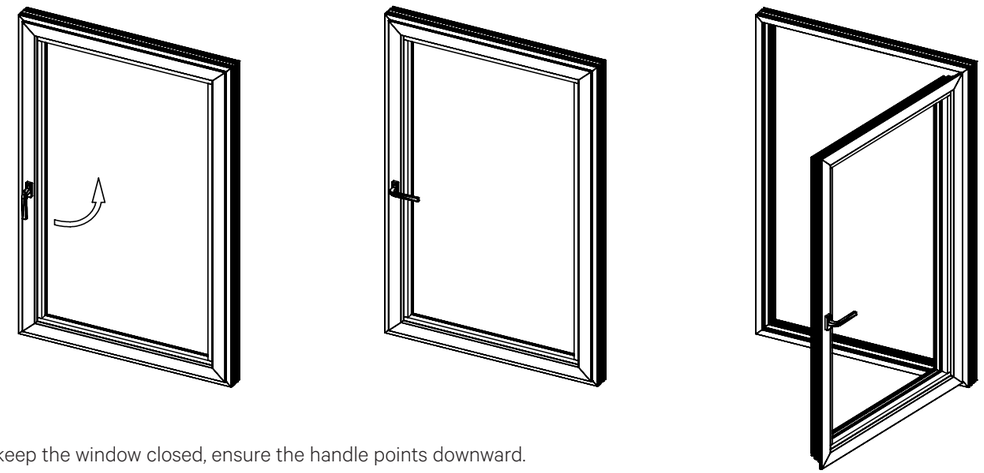
The correct sequence of opening and closing is dependent on the the configuration ordered. Panels must be opened and closed in the right order.

TILT OPERATION

1. To keep the window closed, ensure the handle points downward.
2. Turn the handle upward to open the sash.
3. The sash tilts inwards from the top.

For closing, proceed in reverse order.

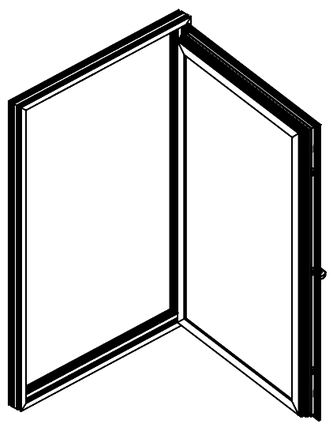
TURN OPERATION



1. To keep the window closed, ensure the handle points downward.
2. Rotate the handle horizontally to open the sash.
3. The sash swings inward.

For closing, proceed in reverse order.

CLEANING THE TILT TURN WINDOWS



IMPORTANT: For maintenance, open the sash inwards at 90°. This gives easy access to clean the exterior of the window.

Recommended Maintenance of NanaWall Tilt Turn Windows and Fixed Panels

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 window should generally be able to open, close, and tilt easily by one person. All locking points should engage smoothly. There should be no rubbing on sill and no binding. When the unit is closed, the reveal between panel and frame should be consistent and even. 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. See also Adjustment section in the Owner's Manual.
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. A qualified technician or an independent NanaWall Certified Installer should be used to make any repairs.
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. Clean all components as needed. 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. When finishing the wood, please make sure that the hardware components are protected.
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 window gets difficult, or at least every 12 months, clean the moving parts and locking points. Apply a Teflon based lubricant to the surface only and wipe off additional residues. 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 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 hardware, including locking points and 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.

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

Recommended Maintenance of NanaWall Tilt Turn Windows and Fixed Panels

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, 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 contaminates 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.

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 time frame may vary on weathering, exposure conditions, and altitude. Whenever damage is visual, it should be repaired immediately.

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 top coats 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.

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.

FOLD OR CUT HERE TO MAIL

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 _____

NanaWall®
Boundaries **Unbound**®

GENERIC DETAILS SUBJECT
TO CHANGE WITHOUT NOTICE

www.nanawall.com