

Operation of a NanaWall Folding Unit

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

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

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

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

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

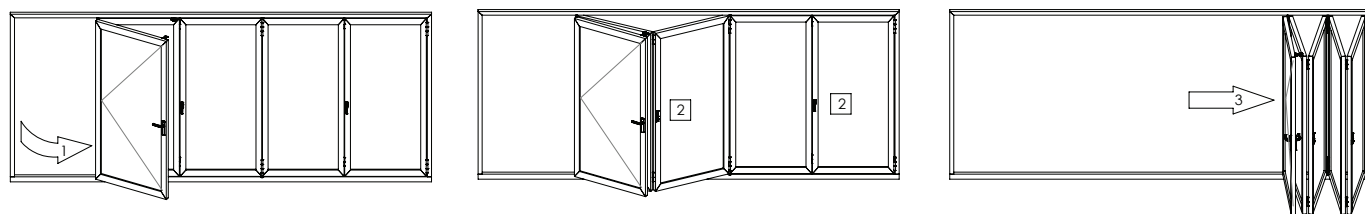
It is highly recommended that if not used, the NanaWall folding unit be kept closed as much as possible, to provide best security and weather resistance. When closed, please engage all locking mechanisms fully.

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

With a Swing Panel Attached to a Folding Pair

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

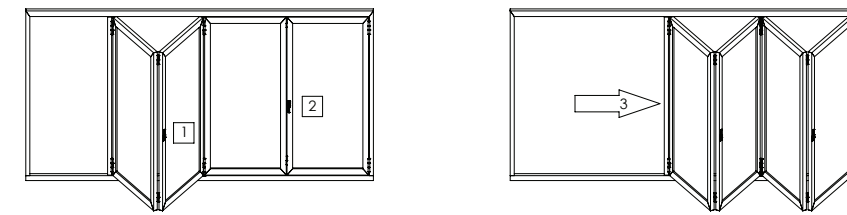
For closing, proceed in reverse order and disconnect swing panel from the panel catch only after all other panels are closed in place.



With No Swing Panel Attached to the Side Jamb

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

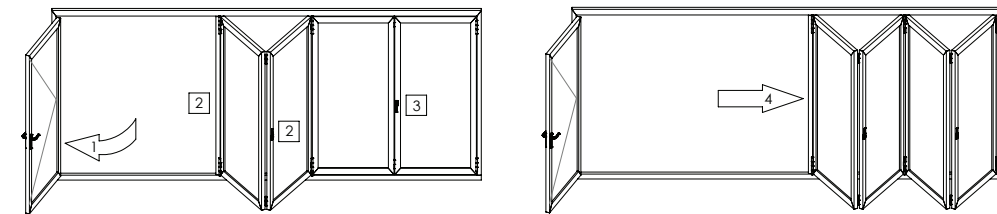
For closing, proceed in reverse order.



With a Swing Panel Attached to the Side Jamb

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

For closing, proceed in reverse order.



Inswing Units Shown

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

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

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

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

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

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

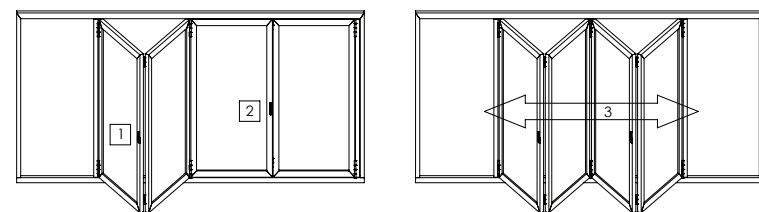
It is highly recommended that if not used, the NanaWall folding unit be kept closed as much as possible, to provide best security and weather resistance. When closed, please engage all locking mechanisms fully.

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

With No Swing Panel Attached to the Side Jamb

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

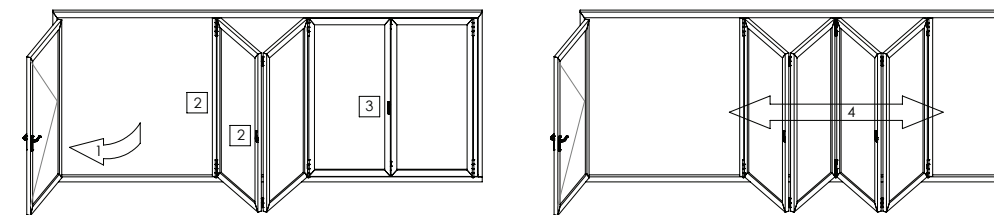
For closing, proceed in reverse order.



With a Swing Panel Attached to the Side Jamb

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

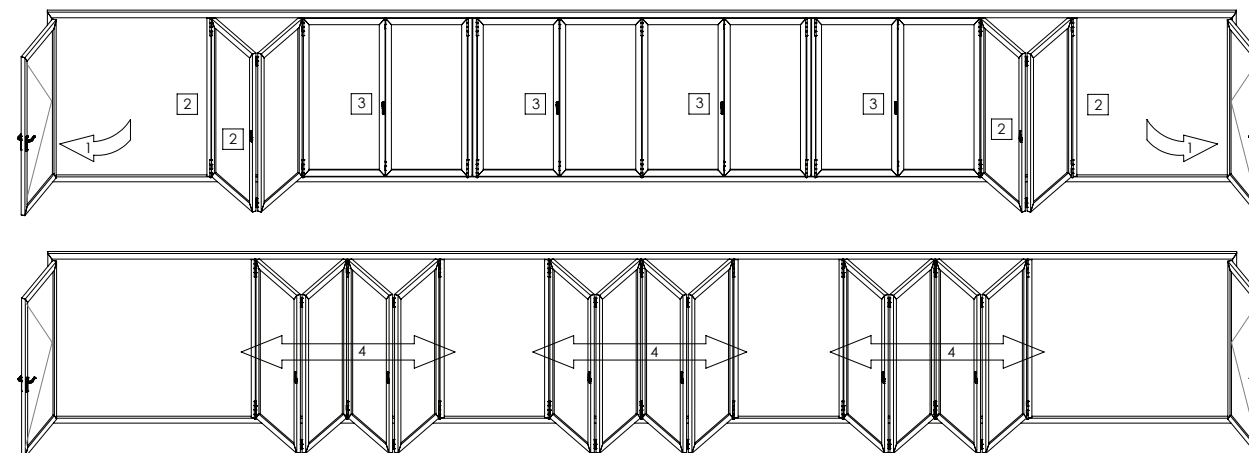
For closing, slide FourFold / SixFold Panel Set back to the side of the swing panel and lock down the concealed edge lock from the side, first. Then proceed in reverse order.



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

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

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



Inswing Units Shown

Recommended Maintenance of NanaWall Products

SOME GENERAL CONSIDERATIONS ON ALL PROJECTS:

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

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

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

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

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

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

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

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

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

with clean water and allowed to dry.

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

CLEANING AND CARE OF STAINLESS STEEL HARDWARE ON NANAWALL PRODUCTS

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

Initial Cleaning

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

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

Recommended Maintenance of NanaWall Products

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

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

Maintenance Cleaning

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

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

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

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

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

WOOD FINISHING AND MAINTENANCE RECOMMENDATIONS

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

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

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

CAUTION:

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

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

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

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

WOOD SIMULATED DIVIDED LITES (SDL)

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

MAINTENANCE OF WOOD UNITS

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