



Owner's Manual

NanaWall SL25

The All Glass Sliding Pivot Panel System

This Owner's Manual contains instructions on the installation, operation, maintenance and warranty of the NanaWall SL25 All Glass Sliding Pivot Panel System. 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.

Installation Instructions

The installation of the SL25 System requires a working knowledge and experience in the use of tools, equipment and methods necessary for the installation of aluminum doors, windows, storefronts, balcony enclosures and/or partitions. This practice assumes a familiarity with preparing a proper and structurally sound opening, proper anchorage, waterproofing, caulking and sealing and assumes an understanding of the fundamentals of building construction that affect the installation of large aluminum door/window systems. A crew of at least 2 persons is needed. These systems can be heavy. Use safe lifting techniques to avoid injury and product damage.

Highly recommended is using a NanaWall-trained independent installer, if available, or, at least, an installer who has some experience in installing NanaWall systems.

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

CAUTION:

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

NOTICE:

Please make sure that products selected are able to meet the design windload pressures and other performance requirements for the project.

The SL25 system is shipped with all necessary components. However, not included are screws, bolts, shims, etc. to anchor the unit to the rough opening. The frame is shipped knocked down and needs to be assembled. Panels are pre-assembled with glass, ready to be attached to the installed frame. In most cases, all carriers, weather stripping, and other accessories are pre-attached to the panels and frame components.

DESCRIPTION OF SUPPLIED PARTS

IMPORTANT: There are 2 versions of the SL25 systems – SL25 standard and SL25XXL. The installation for both versions is similar except for the panel installation. However, please note that the frame and panel profiles are different for the 2 versions.

Check all parts carefully before assembly. Check that the sizes of the frame components and panels match with what was ordered. Attached to the frame components, please find an Accessory Box with some paperwork and some of the parts listed below. Please review the paperwork for the order that includes elevation and layout drawings, indicating sizes, configurations, and labeling for each of the units ordered. 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 supplied parts:

Always looking from inside.

- Left side jamb, labeled L, and right side jamb, labeled R.

- Head jamb (generally with head compensating profile labeled A), labeled O, and sill, labeled U. (In some instances the head jamb and sill may be in segments.)
- Pre-assembled panels, including turn panel (s). The number of panels depends on the model ordered.
The sequence of labeling of panels starts from the left with the left most panel labeled Panel 1.
- Locking for the turn panel(s) either already installed on the panel(s) or located in Accessory Box
- Bolts and nuts to connect the head compensating profile to the head jamb.
- For head jamb and sill provided in segments, then connectors to connect the segments together.
- Cover plates for the exit points in the head jamb and sill and panel guide for the upper exit point.
- Keeps on the recessed sill for securing panels.
- Supplemental Installation Sheets as needed for segmented angle connectors, bolt connection to head compensating profile, connection of cover plates and panel guide for exit points, and installation of the keeps on a recessed sill.

HANDLING OF COMPONENTS

1. Upon receipt, inspect the shipment to ensure it is in good condition.
2. Store in a clean and dry location and protect against defacement or damage, especially to the edges of panels.

PREPARATION OF THE ROUGH OPENING

For necessary clearance and adjustment space, rough opening is suggested to be 1/2" wider and 3/8"-1/2" higher 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 opening be the correct size. Note that the outside frame height of the unit ordered is measured from the bottom of the sill even if it is recessed. Allowance must be made in height for the portion of the sill that is below the measured opening.

To allow for the bottom guide pins to exit for proper stacking, the standard sill cannot be recessed in the floor or pony wall.

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

1. The structural integrity of the header is critical for proper operation. Vertical deflection of the header under full live and dead loads should be the lesser of L/720th of the span and 1/4". Structural support for lateral loads (both wind load and in the stacking area when the panels are stacked open) must also be provided.
2. A qualified engineer or architect should be used to determine the proper construction details and header to be used in your particular application.
3. **The rough opening should be level, plumb and square at all points. There should be no unevenness or bowing. Make sure that the header is not tilted or twisted. There should be no bumps on the surface where the sill will sit. The sides should be in the same vertical plane and not offset of each other. A transit and other similar precise measuring equipment should be used.**
4. With a recessed sill, if concrete is to be poured after the installation of the unit, the sill has to be securely attached to the construction. If the sill is to be cast

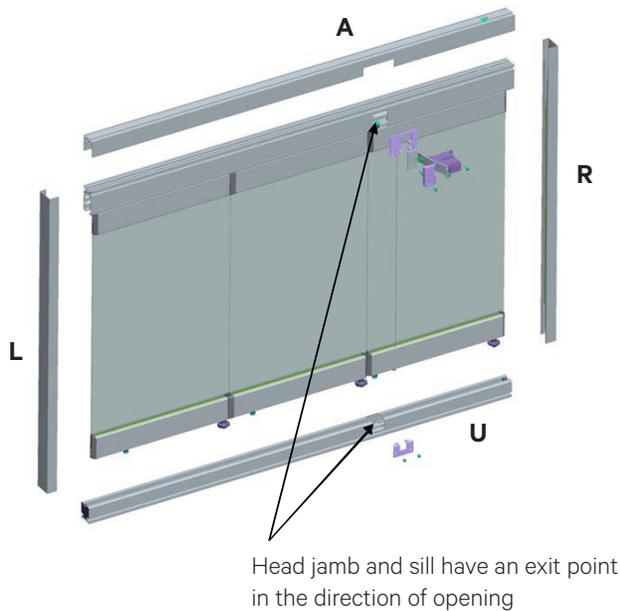
in concrete, then an expansion gap with appropriate material has to be created next to the sill.

- For better performance it is recommended that all dead loads such as upper levels, roof, etc. be constructed before a unit is installed.

Although the SL25 system is not meant to be a weather resistant system, the surrounding walls and substrate must be properly constructed. Properly flash and waterproof around the perimeter of the opening, especially at the sill. Make sure you seek proper professional advice for the appropriate construction needed for your particular application. Do not install unit in structures that do not allow for proper management/ drainage of moisture.

To avoid future problems, do not install your unit until the rough opening has been correctly prepared.

ILL. 1



Additional Requirements for Installation of the SL25 System to be Anchored to a Balcony Railing System by Others:

- The balcony railing system must be able to withstand transferred lateral loads from the SL25 system, including wind loads when the panels are in the closed position and loads of the panels at ends when the panels are stacked open.
- With applied wind loads, the lateral deflection of the balcony railing must not exceed the lesser of $L/175$ of the span or $3/4$ ". Also, the lateral bending stress must not exceed the allowable, with no $1/3$ increase.
- The top of the balcony railing to which the SL25 anchorage screws are to attach to must be of adequate strength, rigidity and stability.
- The top of the railing must be absolutely level. There should be no bumps, unevenness or bowing. The top of the railing should be plumb with the header above to which the SL25 head track will be attached.

UNIT INSTALLATION

Since there can be many variations of configurations and stacking, it is not possible to have step by step specific instructions that will apply to all units installed. Below are general instructions that may not exactly apply to your particular unit. Please refer to the product drawings or elevation and layout drawings for this particular order. See Illustration 1 for major components of a 3 panel unit.

The Installation of the unit is described in the following categories:

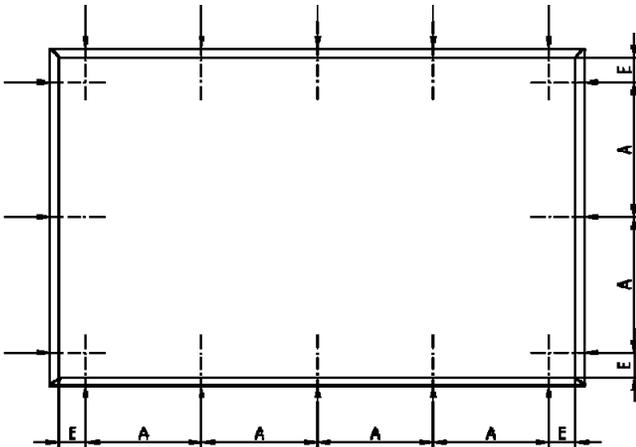
- A. FRAME ASSEMBLY AND INSTALLATION
- B. PANEL INSTALLATION
- C. FINAL STEPS

FRAME ASSEMBLY AND INSTALLATION

Step A1

Drill holes for anchorage devices to connect the frame components to the surrounding wall or balcony components as shown in Illustration 2 below. At the head, drill holes only through the head compensating profile.

ILL. 2



E = Distance from the inside edge of frame = about 2"

A = Max. anchor spacing of about 16" on center in

opening and 4" on center in panel stack area (for a unit with over 6 large panels, special reinforcement in stacking area may be needed to prevent head jamb and sill from twisting and deflecting) for a standard installation *. Make sure that there are anchorage devices next to the adjustment bolts (D) in the head compensating profile (Illustration 7) that will connect to the head jamb.

* Standard installation is limited to areas with a basic wind speed of not more than 90 mph, in a low rise building (max. 60 feet roof height), Exposures B or C and a non critical status. For installations that are in a project beyond these limitations, a structural engineer should be consulted for specific fastening requirements.

Use appropriate screws or other equivalent anchorage devices depending on the adjacent substrate material and construction. Make sure they are corrosion resistant. Anchorage devices should penetrate or hold sufficiently to the opening to withstand necessary structural loading. Generally, for wood frame use #14 (1/4" diameter) wood screws with 2-1/2" minimum embedment, for concrete with a minimum compressive strength of 3,200 psi use 3/16" diameter ITW Tapcons (concrete screws) with 1-1/4" min. embedment. For masonry, use 1/4" diameter ITW Tapcons (masonry screws) with 1-1/4" embedment. Standard installation into light gage steel substrates with a minimum of 18 gage (0.0451" thick) should have 1/4" diameter type 410 stainless steel self drilling screws. For structural steel substrates thicker than 1/4", the steel should be predrilled and 1/4" diameter SAE Grade 2 bolts be used. Another option is to use type 410 stainless steel self drilling screws. For this option, first drill small pilot holes.

Any anchorage devices used must not interfere with the operation of the unit. They must not obstruct movement of the running assembly and guide rollers.

Step A2

Examine the head jamb, head compensating profile and sill components.

If these components are provided in segments, then first connect as many of the segments together with the connectors provided, that could be supported and installed easily as one piece. See Illustration 3. If a unit has angle changes, then make sure that the exact angles are maintained. If the angle is 90 degrees, insert the curve guide into the frame first before the segments are connected. See Illustration 4. For the sill, insert the sealing channel into the middle chamber with proper sealant and positioned properly on the joint. See Illustration 5. Seal all the connection joints properly. See also Supplemental Installation Sheet in the Accessory Box for proper connectors to be used.

Please be careful to avoid scratching or damaging the components.

Step A3

Apply exterior grade sealant to all connection points between the frame components. The ends of the sill should be completely filled with sealant to prevent water leakage from the ends. All drilled holes and fastener screws have to be sealed too.

Step A4

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

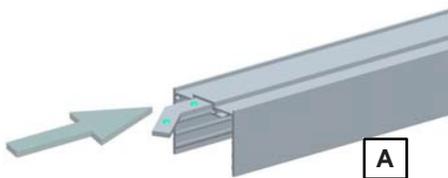
Step A5

IMPORTANT FOR SL25XXL: Install the bolt(s) from the top through the hole in the head compensating profile that will secure the stacking area. The hole(s) should be located at the ends where the turn panel will be located. See also Supplemental Installation Sheet.

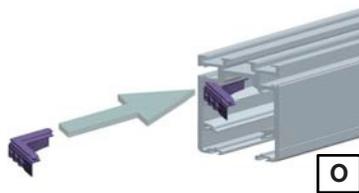
Step A6

Set the head compensating profile into the rough opening at the proper position relative to the header. Make sure the direction is correct with respect to inward or outward opening with the exit point (see Illustration 1) being on the inside for inward opening and outside for outward opening. Make sure that the proper edge distance is maintained for anchorage devices in the surrounding substrate material. Measure the unit height from the top of the head compensating profile and make sure it fits in the opening.

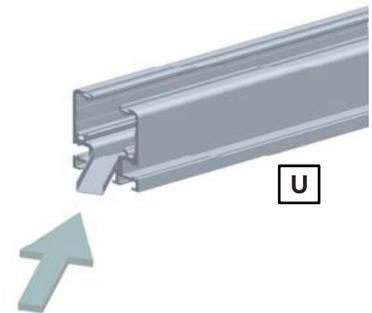
ILL. 3



ILL. 4



ILL. 5



Step A7

Place plastic, horseshoe type shims tightly at every fixing point between the head compensating profile and rough opening. Use hard plastic horseshoe shims only. Make sure that it is level. Anchor the head compensating profile. Make sure it is not twisted or tilted.

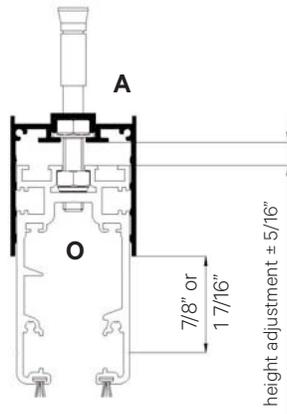
IMPORTANT: Make sure no shims are forced to ensure that frame sections are not bowed.

Check frame constantly to be certain that it is level, plumb and square. A transit and other similar precise measuring equipment should be used to make these determinations.

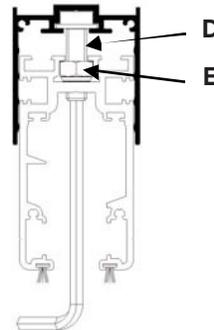
CAUTION: Please note that since the bolts are tightened from the bottom, be sure to check the direction of movement before proceeding.

Then starting from one side of the opening, turn the adjustment bolt until the distance between the bottom of the head compensating profile and the groove on the side of the head jamb is exactly 1 7/16" (37 mm) for SL25XXL and 7/8" (22 mm) for standard SL25. See Illustration 6. Turn all the other adjustment bolts to maintain the same distance at all points. From this position, the unit can be adjusted +/- 5/16" to compensate for any movement of the building.

ILL. 6



ILL. 7



Step A8

Insert the head jamb from underneath to the head compensating profile and align the profiles. Make sure the exit points in both profiles match. Starting on the side with the turn panel, drive in all the adjustment bolts (D) into the nuts (E) on the head jamb with a socket wrench, but make only 2-3 turns just to secure the profiles. See Illustration 7.

Step A9

Place the sill and the two side jambs into the opening and temporarily secure them to the rough opening with clamps as needed. The side jambs need to be slid behind the head jamb adjacent to the surrounding wall. Make sure that the wider flanges of the side jambs with the gaskets are on the same side as the exit points or on the side where the panels open. The sill has to absolutely aligned in the vertical plane to the head jamb above.

Step A10

Shim the sill as needed with hard plastic horseshoe shims located at the pre-drilled anchorage holes to make sure it is absolutely level. Make sure that the sill is at the proper height to maintain the unit height. If there are bumps or unevenness on the substrate, they may need to be evened out to maintain the proper unit height. Anchor the sill through the pre-drilled holes.

IMPORTANT: Pay special attention to the exit points in the head jamb and sill. They must be exactly aligned and plumb. The sill must be plumb and absolutely level in relation to the head jamb. All the sills are provided with drainage slots. You have to make sure that any water that is drained from the unit will flow away from the building structure.

Step A11

Shim the gaps between the side jambs and surrounding wall with hard plastic horseshoe shims located at the pre-drilled anchorage holes. Make sure they are plumb and not bowed. If needed, due to the surrounding wall not being straight and for an aesthetically pleasing even vertical reveal between the wall and side jamb, side jambs are adjustable and can be pushed out up to 5/8" to align with the adjacent wall (provided there is enough space). The consequence will be that the reveal between the

glass panel and side jamb will not be even, but that gap will not be as visible. Anchor the side jambs through the pre- drilled holes.

IMPORTANT: Seal all holes drilled through the frame components, especially at the sill, with for example silicone underneath and around the anchorage devices.

Step A12

Move the adjustable bolt (panel stop)in the sill all the way to the end away from the stack area. See Illustration 10.

Step A13

IMPORTANT: Make sure that all the surfaces of the upper and lower tracks are clean and free of any debris, especially, cuttings from drilled holes. Otherwise, the running assemblies may be permanently damages.

B. PANEL INSTALLATION

As there can be many possible configurations, panel installation will vary with each unit. With more than 6 panels to a side, there may be more than one exit point, but installation should be similar. Below are general guidelines. It specifically illustrates installation of a 3 panel unit shown in Illustration 1.

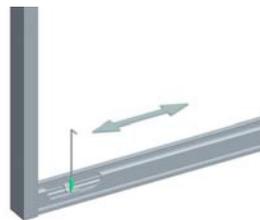
SL25XXL



ILL. 8
locked



ILL. 9
unlocked



ILL. 10

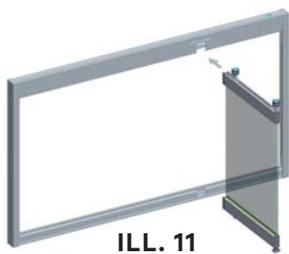
Step B1

Check all rollers at the top of each panel and make sure they are in the proper position and are secure. They may have moved together during transport, so they may need to be pulled apart.

Step B2

Unlock the axe roller of the turn panel (see Illustration 8 and 9) by lifting the pivot slightly and moving the arm 90 degrees in a direction away from the direction of opening.

STANDARD SILL - Insert the guide assemblies on the strike side of the turn panel through the exit points in the head jamb and through the sill. See Illustration 11. Slide the panel away from the side jamb or stacking area enough such that the axe roller at the top corner and the lower pivot at the bottom corner can be inserted through the same exit points. See Illustration 12.



ILL. 11



ILL. 12



ILL. 13

RECESSED SILL – Insert the lower pivot on the bottom corner of the swing side of the turn panel into the exit point first and then insert the axe roller on the top corner. Slide the panel into the stacking position until you can insert the guide assemblies on the strike side of the panel.

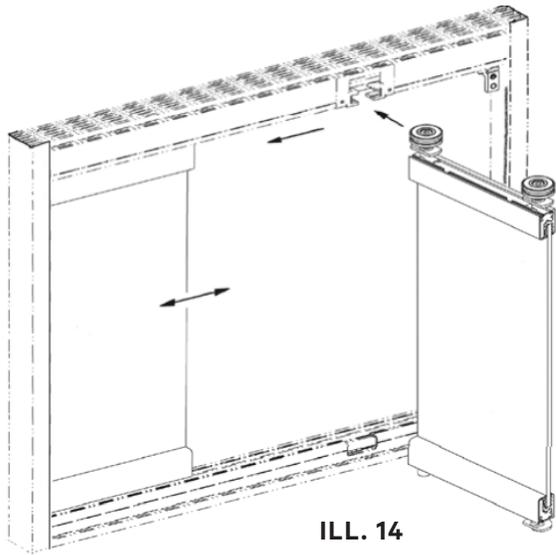
Step B3

When the panel is completely in the tracks, slide the panel as far as possible into the stacking position and then open the panel. See Illustration 13. Lock the axe roller of the turn panel by moving the arm straight into the top of the panel. See Illustration 8. The pivots at the top and bottom of the panel should fit securely in the slot in the head jamb and sill.

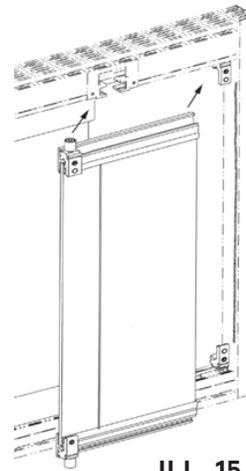
SL25 (STANDARD)

Step B1

Starting with the panel that is to be furthest away from the exit point through which the panels will stack, insert the upper rollers of the panel through the upper exit point and the lower pivot assemblies of the panel through the lower exit point. Make sure that the direction of the panel is such that the aluminum cover plates at the top and bottom rails are on the inside. Slide the panel all the way to the end to its closed position and make sure that the height of the unit is correct. Make any corrections. See Illustration 14.



ILL. 14



ILL. 15

Step B2

Insert each succeeding panel in the same manner. Make sure that the panels are inserted in the correct sequence. See the panel number label on each panel.

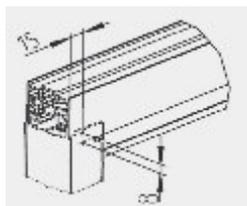
Step B3

Remove the top and bottom aluminum cover plates and end caps from the turn panel.

Slide the panel into the brackets attached to the ends of the head jamb and sill. Insert the top and bottom pins on the strike side of the turn panel through the exit points in the head jamb and sill. See Illustration 15. Tighten the set screws on the brackets but not to exceed a pressure of 3 newtons. See Illustration 16.



ILL. 16



ILL. 17

Step B4

See if the turn panel opens properly. The top and bottom pins should be in the middle of the exit points. Adjust the attachment to the brackets as needed. Then install the top and bottom aluminum cover plates and the plastic end caps.

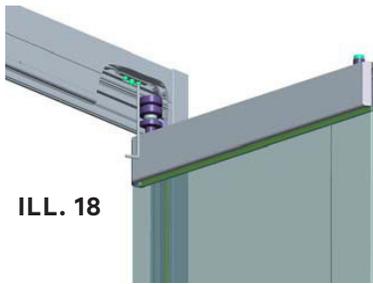
C. FINAL STEPS

Step C1

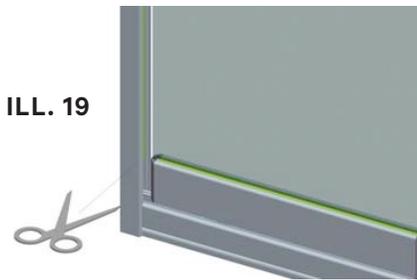
Install the covers for the upper and lower exit points and also the panel guide at the upper exit point. See Illustration 1 and Supplementary Installation Sheets found in the Accessory Box.

Step C2

Close all the panels into position. Check and make sure all the vertical gaps between panels are even from top to bottom. The gap between panels should be about 2 mm (1/16"). To maintain this gap, adjust the bolt (Panel Stop) in the sill for the last sliding panel as shown in Illustration 10 as necessary.



ILL. 18



ILL. 19

Step C3

Adjust and shim the side jambs as needed so there is an even vertical reveal with the adjacent wall.

Step C4

The head jamb together with the height compensation profile must be secured against sideways movement. For SL25XXL, you have to unfasten the screws next to the adjustment bolt in the stacking area by about 4 turns. See Illustration 18. For SL25 (standard), use a tapping screw to attach as shown in Illustration 17.

Step C5

Cut the gaskets at the side jambs so that they do not overlap over the top and bottom rails of the adjacent panel when opened. See Illustration 19. To keep them in place, dab the ends with a little crazy glue.

Step C6

For units with a recessed sill, most panels have male/female interlock between panels at the bottom. At the end panels and between segments, this is not possible. To secure end of panels with no guide pins or pivots, keeps will need to be installed on top of the recessed sill. See Supplementary Installation Sheet found in the Accessory Box.

Step C7

Check that the system operates and functions properly. See Operation Section. The panels should be able to be moved easily by one person without much effort when opening or closing. If the panels do not move easily or a lot of effort is needed, the indication is that the unit is not properly installed. Correct any problems before sealing and applying any finish trimming.

Step C8

Apply a thick bead of exterior grade sealant with a backer rod if needed on the gap between a standard sill and floor or pony wall on both sides along the length of the sill. Do similar for the gaps between the head jamb and side jambs with the opening. Apply sealant at the corners between the side jambs and head jamb and sill, especially at the bottom corners.

Step C9

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. It is essential to remove any debris that has dropped into the bottom rail. The running gear can get damaged.

PROTECTION OF UNIT DURING CONSTRUCTION PHASE

It is important that during the construction phase the unit be kept closed, covered and protected from damage. During this phase, a unit is often subject to the most extreme conditions from all types of construction operations that can permanently damage and destroy it. A unit can be damaged by cement splatter, tar, paint, weld splatter, falling objects, construction dust, sand blasting, etc. All temptations to use the large opening of an installed system for easy ingress and egress by tradesmen should be resisted.

Operation And Maintenance Of NanaWall Products

OPERATION OF A NANAWALL SL25 ALL GLASS SLIDING/PIVOT PANEL SYSTEM

IMPORTANT: Do not allow children or anyone not properly trained on operation 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.

Anchor panels when in the open position to prevent uncontrolled movement, especially in windy conditions.

It is highly recommended that if not open, the NanaWall SL25 unit be kept closed with all locking mechanisms fully engaged. This will provide the best security and weather resistance.

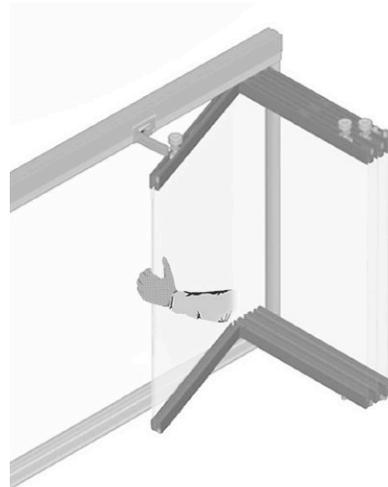
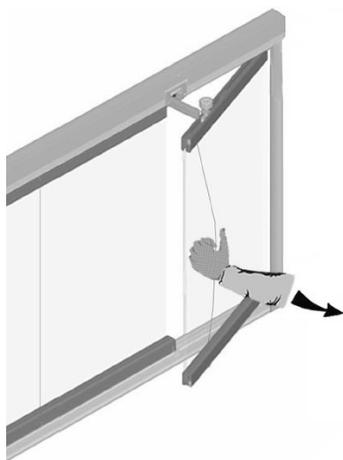
IMPORTANT: For units with extra reinforced locking on the turn panels, the reinforced locking at both the top and bottom must be properly engaged when the unit is closed.

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.

Opening the Unit

1. Open the turn panel.
2. Slide each sliding panel past the exit point as close to the already stacked panels and swing the panel through the exit point.
3. If there are more than one exit points, do not turn the prematurely through the wrong exit point. If there are more than one exit point, normally the first 4-6 panels closest to the stacking area open through the exit point closest to the stacking area and the other panels through each succeeding exit point.

Close the unit by reversing the above steps.



RECOMMENDED MAINTENANCE OF NANAWALL SL25 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). 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. Please have all problems corrected as soon as possible by a qualified technician.
2. From time to time, due to building movement or settlement, a unit may need to be adjusted by a qualified technician to compensate for any building change. Please note that only minor adjustments can be made.
3. It is important that a unit is operated properly. Panels 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 nonworking 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.
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 (if any) are clean and clear of any obstructions. Remove debris and other foreign bodies which have dropped into the tracks in the head jamb and sill immediately to prevent damaging the running carriages and guide trolleys. Clean all components as needed. Check gaskets for proper seating and condition. Remove dust and any deposits from these gaskets.
7. The finished aluminum 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. 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. All hardware should be periodically cleaned with a soft cloth and mild cleanser. Excessive abrasive rubbing should be avoided.
9. About every six months, apply Teflon spray to the running carriages and guiding trolleys.

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

Please note that the environment within one mile of a sea coast 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 jamb tracks 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. For cleaning, do not use abrasive household cleaners or materials like steel wool or hard brushes that can wear and harm finishes.
 - c. 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. Liberally apply lubricant such as Teflon spray (no grease) on the wheels and bearings of the rollers.
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.

NanaWall Limited Warranty

NanaWall is pleased to provide the following product warranty for the owner of the property within which NanaWall products have been installed, subject to all terms and conditions stated herein.

TEN YEAR COVERAGE

Insulated Glass. The insulated glass provided by NanaWall is warranted to be free from a permanent material obstruction of vision due to a premature failure of the glass seal for 10 years from the date of delivery (“Delivery”). Exception: for zero by NanaWall, please see Five Year Coverage.

Powder Coat or Baked on Fluoropolymer Surface Finish of Aluminum Profiles. Powder coat or baked on fluoropolymer surface finish of aluminum profile is warranted to perform for a period of 10 years from Delivery as an Effective Surface Material (ESM). ESM means: (1) free from substantial cracking, chipping or peeling due to the deterioration of the finish, exclusive of mechanical damage; (2) free from chalking in excess of a numerical rating of 8 as per ASTM D 659; and (3) free from fading or color changes in excess of 5 NBS units as per ASTM D 2244. Because surfaces may not be equally exposed to the sun and elements, NanaWall makes no warranty with respect to the uniformity of fading.

Rollers. The rollers in NanaWall product are warranted to be free of manufacturing defects in material and workmanship that significantly impair proper operation and function for 10 years from Delivery.

Wood and Other Remaining Components. Where product is installed by a NanaWall specific system approved or NanaWall Certified Installer, all remaining components of NanaWall products not otherwise addressed in this Warranty are warranted against defects in materials and workmanship that substantially impair operation and function for a period of 10 years from Delivery. This includes, but is not limited to, wood frame components, hinges, handles, locking mechanisms, tracks, and weather-stripping.

FIVE YEAR COVERAGE

Laminated Glass. The laminated glass in NanaWall products is warranted to perform for five (5) years from Delivery against a permanent material obstruction of vision due to premature delamination.

Wood and Other Remaining Components. In the event that product is not installed by a NanaWall specific system approved or NanaWall Certified Installer, the coverage period for Wood and Remaining Components addressed above is reduced to five (5) years from Delivery.

Insulated Glass for zero by NanaWall. The insulated glass provided for zero by NanaWall is warranted to be free from a permanent material obstruction of vision due to a premature failure of the glass seal for five (5) years from the date of Delivery.

THREE YEAR COVERAGE

Anodized Surface Finish of Aluminum Profiles. Anodized surface finish of aluminum profile is warranted to perform for a period of three (3) years from Delivery as an Effective Surfacing Material.

WHAT NANAWALL WILL DO

NanaWall shall have no obligation to respond under this Warranty until receipt of proper notice of a claim during the warranty period and an opportunity to respond. Upon proper notice and confirmation by NanaWall of a condition covered under this Warranty, NanaWall shall respond in its sole discretion and in a timely manner as follows:

Glass. NanaWall shall (1) ship a replacement glass unit to the location of original product delivery or (2) refund the original purchase price of the glass paid by NanaWall.

Surface Finishes of Aluminum Products. NanaWall shall (1) assume reasonable costs to restore the finish on non-compliant (non-ESM) materials using standard commercial refinishing techniques; (2) ship replacement parts to the location of original product delivery; or (3) refund the original purchase price of the non-compliant product.

Rollers. NanaWall shall ship replacement rollers to the location of original product delivery.

For covered product conditions not specifically addressed above, NanaWall's obligations under this Warranty shall be limited, at its option, to: (1) ship a replacement part or product without charge; (2) ship any replacement part or replacement product in its original stage of fitting and/or finishing as supplied by NanaWall; or (3) refund the original purchase price of the product.

NanaWall will repair or replace only defective parts or components. This Warranty does not cover labor costs to install a replacement part or product, or cost to repair or replace surrounding substrates, trim, or other carpentry work. Nor does it cover costs incurred due to delays or other construction costs, costs for late or damaged delivery, loss of time, inconvenience, or loss of use of the product or any parts or components. 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.

Replacement products will be the closest equivalent current product and may not be an exact match to the original. NanaWall reserves the right to determine whether or not a defect exists and if it is covered under this Warranty. Repair or replacement of warped wood panel or frame can be delayed by up to 12 months from date of claim to allow wood component to adjust to local conditions. If the claim is not covered under this Warranty, NanaWall may charge a fee for on-site product inspections.

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., 100 Meadowcreek Drive, Corte Madera, CA 94925, promptly when discovered. All rights under this Warranty will be waived if there is a failure to notify NanaWall within 30 days of receipt of the product for any defect which an ordinary inspection would reveal, or if there is failure to make a claim within a reasonable time during the warranty period after a hidden defect is discovered.

DISCLAIMERS & LIMITATIONS

Any liability of NanaWall is contingent upon owner fulfilling its notice obligations as stated in this Warranty. 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 owner. In no event shall the liability of NanaWall or any seller of NanaWall products arising out of a product defect exceed the price paid for the product.

This Warranty is the sole 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.** Where disclaimer of implied warranties is prohibited by law, the duration of any implied warranties is limited to the duration of this Warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. No one is authorized to make any different or additional warranties.

The warranties detailed in this document are the only statements of the legal responsibility of NanaWall and any seller of NanaWall products with respect to covered NanaWall products manufactured on or after November 30, 2015, sold by NanaWall and installed in the United States (50 states only) or Canada only.

OTHER WARRANTY LIMITATIONS

This Warranty does not cover damage or conditions caused in whole or part by:

- Improper selection, application, storage, handling, modification, installation, or waterproofing; Movement of surrounding substrates; Failure to properly install product according to NanaWall's instruction or to integrate product into the structure to prevent water intrusion; Failure to prevent the effects of sheeting rain or water or failure to provide an appropriate flashing system; Failure to meet code or specification requirements.
- Improper finishing, including, but not limited to, not properly finishing all sides of wood products in a timely manner or before exposure to weather, finishing exterior wood in dark colors, or not refinishing periodically; Failure to immediately repair any breaches such as scratches, chips or abrasions in any finish.
- Product installed within close proximity of any coastal area or body of salt water; Filiform corrosion in coastal environments, tarnish, or corrosion to hardware finishes; Product installed in other harsh or corrosive environments, including near swimming pools or where subjected to harsh chemicals such as road salt, solvents, acid, brick or mortar wash, or cleaning chemicals.
- Normal weathering, wear and tear; Discoloration of finish; 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 stresses; Film applied to the glass 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; 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 bleeding from wood panels.
- Panel shrinkage or expansion caused by change in weather; Expansion of aluminum units in dark colors caused by direct exposure to sunlight.
- Acts of God, falling objects, fire, accidents, external forces, or other conditions beyond NanaWall's control.
- The amount of argon or other gas remaining in insulated glass at any time after manufacture; Condensation, frost or mold caused by high interior relative humidity.
- Performance of product in conformance to any published NanaWall testing results in terms of air and water infiltration and structural loading. These results measure the performance of a single sample of the product of a certain size and configuration. Performance in the field may change over time depending upon the conditions of handling, installation, use, and maintenance.
- 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.

NanaWall Warranty Registration

Must be filled out and returned to the address printed at the bottom of this form 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 Why not? _____

Signature _____ Date _____