Owner’s Manual
NanaWall HSW45

ALUMINUM FRAMED SINGLE TRACK SLIDING SYSTEM

This Owner’s Manual contains instructions on the installation, operation, maintenance and warranty of the NanaWall HSW45 aluminum framed single track sliding 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 NANA Wall Systems.

If a screen unit is ordered, separate instructions are provided in the package with the screen unit. See also screen installation considerations on page 6.
INSTALLATION INSTRUCTIONS

The installation of the HSW45 System requires a working knowledge and experience in the use of tools, equipment and methods necessary for the installation of aluminum doors, windows, storefronts and/or partitions. This practice assumes a familiarity with preparing a proper and structurally sound opening, proper anchorage, waterproofing, caulking and sealing and assumes an understanding of the fundamentals of building construction that affect the installation of large horizontal single track sliding 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 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. Nana Wall 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.

The HSW45 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 rollers, hinges, weather stripping, multiple locking and flat handles are pre-attached to the panels and frame components.

DESCRIPTION OF SUPPLIED PARTS
First look for an envelope in the shipment, which contains drawings of the elevation and the layout of the unit. This information together with the product drawings provided by NanaWall at the time of order will be needed for a successful installation. As there is no “standard” configuration for HSW45 units, see diagram 1 and 2 for an example to illustrate the installation process. Diagram 1 show the elevation and layout of an Example with a 4 Panel Unit and diagram 2 shows an Example of the Profile Cutting List. Some items may not be applicable for your unit. Inspect the elevation drawing, indicating size, configuration and labeling of the unit ordered.

Check all parts carefully before assembly. Depending on the model, some of these parts may already be pre-installed on the panels. Check that the sizes of the frame components and panels match with what was ordered.
Diagram 1: Example with a 4 Panel Unit

HSW45 ELEVATION

View from the inside!

swing panel hinged to the side jamb

panel #1                  panel #2                  panel #3                  panel #4

sliding panel            sliding panel            sliding panel

UNIT HEIGHT

UNIT WIDTH

ALL PANELS IN CLOSED POSITION

STOPS HAVE TO BE USED AT THE END OF THE TRACK

roller access slot for inserting panels

PANELS IN STACKING BAY

SEQUENCE OF PROFILES

A         B         C         D         E

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Diagram 2: Example of Profile Cutting Lists

- cutting list: ALUMINUM HEADTRACK PROFILE SL5020
  - cut in head track (done for transportation or other purpose)
  - roller access slot

- cutting list: ALUMINUM COVER PROFILE SL5021
  - cut in head track (done for transportation or other purpose)
  - roller access slot

- cutting list: SILL PROFILE SL5028

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Always looking from the inside.
The elevation drawing shows the sequence and number of panels, which depends on the model ordered. The panels are pre-assembled with two upper carriers for each sliding panel and with flat handles for the standard locking mechanism. The sequence of labeling of panels starts from the left with the leftmost panel labeled Panel 1.

- For swing panels mortise locksets and/or deadbolts as per order are pre-installed.
- Lever handles, other handles or other entry hardware as ordered may not be pre-attached to the panels and will be in the hardware box or shipped separately.
- Hinge pins with washers – one for each set of hinges. Please note that the hinge pins may vary in size depending on the connection.
- Left side jamb, labeled L, and right side jamb, labeled R.
- The layout drawing of your unit shows the upper track components consisting of the head track in the opening, the stacking route(s) and the stacking bay(s), how they are labeled and how they have to be connected. The same information for the sill segments is provided, if a unit with a sill was chosen. The joints for the segments are indicated and necessary connectors and set screws for connecting different upper track and sill pieces are pre-attached to one of the two segments to be connected.
- The location of the access slot for the rollers in the head track is indicated on the layout drawing. There is also a label on the upper track on the exact location.
- The ends of the stacking bay have stoppers installed. The stoppers have to remain in place otherwise the panels may slide off the upper track.
- For units with a sill, receivers for the locking mechanisms on the panels are inserted in the sill. If the sill is straight, then all of them could be found at one end. A roll of sill gasket is provided with the correct overall length that is to be cut on site to be inserted in the channel between locking receivers after the locking receivers are placed in the proper position to receive the locking mechanisms.
- For units with NO SILL, adjustable floor sockets are supplied with additional installation information.

HANDLING OF COMPONENTS
1. Upon receipt, inspect the shipment to ensure it is in good condition.
2. Make sure that all components and hardware, which might be shipped separately does not get lost.
3. Store in a clean and dry location and protect against defacement or damage, especially to the edges of panels.

PREPARATION OF THE OPENING AND SUPPORT STRUCTURE ABOVE

Make rough opening about 3/4" wider than the outside unit frame width. The height of the rough opening relative to the unit frame height depends on the installation detail chosen after accounting for the recessing of the sill and the space above the head jamb needed for an adjustable anchorage mechanism or appropriate shim space. Shim space should not be more than 3/8" for projects with design pressures of less than 25 psf and not be more than 3/8" for projects with design pressures of more than 25 psf. See diagram 3 for Suggested Typical Installation Details. It is important that the opening be the correct size.

Product performance, including air infiltration, water penetration, structural loading and forced entry and operation, depends on having the gap between the bottom of the panel and the top of the sill (or on a unit with no sill, but floor sockets, then the top of the finish floor) be 10 mm (about 3/8").
Note that the outside frame height is measured from the bottom of the sill and not from the finish floor. If a unit with no sill is provided, the frame height is measured from the top of the finish floor.

The track length and layout have been supplied based on the configuration and sizes chosen and approved. Please refer to the layout drawing of your particular HSW45 project for the correct location of the support structure for the support of the head track at the opening, stacking route and stacking bay. It is important that the system is properly supported at the top and at the proper locations.

IMPORTANT – Any application should take into consideration the following:

1. As the HSW system is a top hung system, it is essential that a proper substrate with the proper size and thickness be used as the support structure not only as support for the head track in the opening but support of the head track at all locations including the stacking bay and stacking route.
2. The structural integrity of the support structure 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 windload and when the panels are stacked open) must also be provided.
3. A qualified engineer or architect should be used to determine the proper construction details and support structure to be used in your particular application.
4. THE ROUGH OPENING SHOULD BE LEVEL, PLUMB AND SQUARE AT ALL POINTS. THERE SHOULD BE NO UNEVENNESS OR BOWING. MAKE SURE THAT THE HEADER IS NOT TILTED OR TWISTED. THERE SHOULD BE NO BUMPS ON THE FLOOR. THE SIDES SHOULD BE IN THE SAME VERTICAL PLANE AND NOT OFFSET OF EACH OTHER. A TRANSIT/LASER AND OTHER SIMILAR PRECISE MEASURING EQUIPMENT SHOULD BE USED. You need to adjust the floor at the opening to make it absolutely level.
5. With the low profile saddle sill and the flush 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.
6. If planning to drill into post tensioned concrete, a structural engineer and architect has to be consulted.
7. With a low profile saddle sill, some resistance to water infiltration may be achieved by installing drain connections to the outside. Ask NanaWall for details.

If any anchorage or drain connection holes are made through these drain channels, make sure that they are properly sealed to prevent any water leakage. The open ends of these drain channels at each end of the sill should also be properly sealed including all areas where the sill parts are joined together. Alternative anchoring systems for the sill are using L brackets attached to both sides of the sill.

8. For a unit with floor sockets and no sill, the finish floor will need to be perfectly level with no unevenness. Floor sockets will need to be installed at precise locations after all panels are installed and final adjustments are made. See under D: LOCKING RECEIVER OR SOCKET INSTALLATION. The following points should be considered for the installation of floor sockets in concrete slabs and wood. The substrate should be a minimum of 4" thick. The embedment of the sockets into the concrete or wood should be a minimum of 1". The clear edge distance in concrete or wood should be a minimum of 1", when the sockets embedment is 2". If the socket embedment is 1", the clear edge distance should be a minimum of 2".

9. Installations into heavy gauge all metal studs must have wood backing.

10. For better performance and protection, any exterior single track sliding system should be installed under an overhang or with other similar protection.

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11. For better performance it is strongly recommended that all dead loads such as upper levels, roof, etc. be constructed and reasonable time for it has been allowed to settle before a unit is installed.

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 a unit in structures that do not allow for proper management/drainage of moisture. Peel and stick or ice shield should be used on all bottom seals.

To avoid future problems, do not install your unit until the rough opening and the support structure have been correctly prepared.

INSTALLATION CONSIDERATIONS IF THE NANASCREEN IS TO BE INSTALLED FOR THE NANAWALL UNIT

1. There must be an adequate frame by others at the top and sides to which the NanaScreen is to be attached. Although there is not much weight or load from the NanaScreen, the frame must not sag or deflect.
2. The bottom rail would need to be attached to the top of the finish floor. The installation of the NanaScreen may need to be delayed until the finish floor is installed.
3. If the finish floor is higher than the bottom of the NanaWall sill, the height of the NanaScreen will need to be shorter than the height of the NanaWall unit to allow for the difference in height between the bottom of the NanaWall unit and the finish floor.
4. To allow for stacking of the NanaScreen beyond the NanaWall opening, the width of the NanaScreen will need to be wider.
5. If the width of the NanaScreen is the same as the NanaWall unit and if the header and wall are wide enough, they can be used as the frame for the NanaScreen. If not, a separate frame will be needed. It could be attached to the header and wall.
6. Please note that if a separate frame for the NanaScreen is made, please make sure that there are no gaps between the frame and wall that will allow any bugs to pass through.
7. Sufficient distance (a minimum of 2 ¼”) must be allowed between the NanaScreen and NanaWall units to allow clearance for any handles on the units. The NanaScreen must also clear the sill of the NanaWall unit.
8. Please see the separate Installation Manual of the NanaScreen.

PREPARATION OF THE SUPPORT STRUCTURE ABOVE
Instructions for anchoring the head track with the adjustable anchorage assembly as shown in Details 1, 2 or 3 in Diagram 3.

1. Anchorage of the upper track should be made with appropriate corrosive resistant threaded rods with diameter of 3/8” and with appropriate size nuts and washers that are not smaller than shown in illustration 1. In the groove that is at the top of the upper track, a typical standard nut with dimensions that fits in the groove (not to exceed 5/8” (16 mm) in width and 5/16” (8 mm) in height) should be used. As shown in illustration 1, the maximum distance between the top of the upper track and the header should not be more than 1-9/16”. Please see Diagram 6 for proper spacing of the threaded rods in the opening. The proper spacing depends on the design windload and the unit height.
The spacing of the threaded rods in the stacking bay should be every 4” and in the stacking route every about 18”. Please see Diagram 5.

2. Please note that the holes in the support structure have to be drilled before the frame is set in the opening. If steel is used, it is recommended that all anchorage holes in the support structure be prepared by the steel supplier before installation of the steel structure. Please make sure that the structural integrity of the steel is still intact.

3. Determine the location of all anchorage points on the support structure. Make sure the points chosen correspond to where the center of the upper track is to be placed in relation to the steel as shown in any detail drawings provided by the architect or owner.

Diagram 3: HSW45 Suggested Typical Installation Details – not to scale

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.
Diagram 3: HSW45 Suggested Typical Installation Details

4. As the nuts to be placed in the upper track groove can only be placed along the length of the profile and since some tolerance in the drilling of the holes in the steel structure must be allowed, it is recommended that oblong holes be made as shown in diagram 5.

For anchoring the head track with screws through the head track as shown in Detail 3 in Diagram 3, please see Step A4.

Do not install your unit until the support structure has been correctly prepared.
**Diagram 4:** Suggested Frame Fastening Points – for standard installation in locations as defined in Step A4

For the head track spacing, depending on anchorage method, see Diagram 6 through 9 or Step A4.

A = About 4" from the edge.
B = Typical distance for the fastener points of the sill in the opening plane. Plus an extra screw at meeting point of panels.
C = For the side jamb distance about 14" from the bottom using extra screw at top.

**Diagram 5:** View from the top of a Typical Support Structure showing oblong slots for **Anchorage of Upper Track with Adjustable Rod Anchorage System**

See diagram 6 for correct spacing in the opening.
FRAME ASSEMBLY AND INSTALLATION

Since there can be an infinite number of variations of stacking options and configurations, 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 architectural drawings, product drawings or layout diagrams for your specific project.

The key to having a properly installed and operating HSW45 system is to install a perfectly level upper track at the correct height from the finish floor and having the upper track precisely aligned to the lower track.

Step A1. Look for the labels on the different upper track segments and set them on the floor as per the layout drawing/cutting list of the head track profile SL5020.

Step A2. For the upper track segments to be joined together, remove the aluminum cover profile SL5021 from both sides. Make sure they are marked, so they can be re-attached to the correct upper track later.

Find the roller access slot on the upper track through which the carriers on each panel will be inserted. A label shows the exact location. It should be a cut in the track about 2-3” wide. To open the slot, first pry open the upper track cover, then loosen the set screws on the connector piece and move it to one side.

Step A3. Attach as many of the upper track pieces together that could be supported and installed easily as one piece. Use the connectors and set screws provided. See Illustration 2.
Step A4.  **For anchoring the head track with screws through the head track as shown in Detail 3 in Diagram 3, pre-drill anchorage holes in the head track.**

Please see Diagrams 7, 8 and 9 for correct fastener spacing in the support structure within the opening. This depends on substrate material, Design Windload pressures of the project, and the panel height.

The spacing of anchorage devices in the stacking bay should be every 4’ and in the stacking route every about 18”. Please see Diagram 5.

Use appropriate screws or other equivalent anchorage devices depending on the adjacent substrate material and construction. Make sure they are corrosion resistant and that the screw head is small enough to fit inside the slot in the middle of the head track; otherwise, it will interfere with the running carriages. 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 1/4” diameter ITW Tapcons (concrete screws) with 1-1/4” min. embedment and min. edge distance of 1 1/2”, for masonry use 1/4” diameter ITW Tapcons (masonry screws) with 1-1/4” min. embedment and min. edge distance of 2”, for light gage steel substrates with a minimum of 14 gage (0.075” thick) use 1/4” diameter type 300 stainless steel self-drilling screws and for structural steel substrates thicker than 1/4” use 1/4” diameter SAE Grade 2 bolts with holes that are predrilled. Another option in structural steel substrates is to use type 300 stainless steel self-drilling screws with small pilot holes that are predrilled.

Step A5.  **For all anchorage options, set the assembled part of the upper track into the rough opening at the proper position relative to the support structure and the finish floor.**

Step A6.  **Support the upper track temporarily in a safe manner with, for example, construction posts or with straps/ropes tied around the header.**

Step A7.  **If the adjustable rod anchorage system is used, then loosely attach the threaded rods with all necessary washers and nuts to the oblong holes in the support structure. Anchor the upper track to the support structure by screwing the threaded rods into the nuts, which are in the groove on top of the head track. Lock them safely with nuts and washers on the top of the head track profile.**

For anchorage with screws through the upper track, place hard plastic horseshoe shims tightly at every fix point between the upper track and the header. Anchor the head track with appropriate screws through the pre-drilled holes.

Step A8.  **Assemble and install other segments of the upper track in a similar manner.**

If the stacking bay has parallel legs, make sure that the legs are exactly parallel. The aluminum plate provided to connect the ends help to insure this.

**IMPORTANT**
Adjust each anchorage point as needed to make the upper track absolutely level and plumb. Use a transit/laser and other similar precise measuring equipment to make these determinations.

Step A9.  **If there is a sill provided for the unit, the first step of assembling the sill will be to look for the labels on the different sill segments and set them on the floor as per the layout drawing.**

Step A10.  **Starting at about 4” from each edge, drill holes for anchorage devices to connect the sill to**
the opening at the same spacing that is used for the head track as described in Step A4 above. Use appropriate screws and anchorage devices as described in Step A4 above.

Step A11. Attach as many of the sill pieces together that could be supported and installed easily as one piece. Use the connectors and set screws provided. Make sure that the correct angles between segments are maintained.

Step A12. Set sill in place; make sure it is in the correct position and is plumb and aligned with the upper track. Make sure that the correct height between the sill and the head track is maintained.

Shim the sill as needed with hard plastic horseshoe shims located at the pre-drilled holes to make sure it is absolutely level. If there are bumps or unevenness in the floor, they would need to be evened out so that the height for the unit remains the same. Use hard plastic horseshoe shims only.

Anchor the sill through the pre-drilled holes and shims. Penetration should be as described in Step A4. Make sure that all holes drilled through the sill are properly sealed with for example silicone underneath and around the screws.

If a unit is supplied with NO SILL, do not make any socket holes in the floor yet!

Step A13. Installing the side jambs:
Pre-drill holes for the anchorage devices to connect the side jamb to the opening at the same spacing that is used for the head track as described in Step A4 above.
Use appropriate screws or anchorage devices as described in Step A4 above.

Step A14. Set the side jamb in place and align with the sill. See illustration 3. Support them temporarily with clamps.

Step A15. Place hard plastic horseshoe type shims tightly at every anchorage point between the side jamb and the wall to make the side jamb absolutely square and straight. Anchor the side jambs through the pre-drilled holes and shims.

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

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

As there can be many possible configurations, panel installation will vary with each unit. Below are general guidelines.

Look for the glass stops to determine the interior side of a panel.

Step B1. Looking at the elevation drawing, if there is a swing panel attached to the side jamb, align the hinge components and install the panel with the hinge pins.

Step B2. Check all the carriers on all the panels. Make sure all the locking nuts are securely tight. See illustration 4. Do not make any adjustments on the carriers.

Step B3. Hang panels not attached to a side jamb by inserting the carriers on each panel into the roller access slot in the upper track in the proper sequence.

Step B4. Install additional panels in the same manner.

B. GAPS AND ADJUSTMENT

After inserting and sliding all panels in the closed position, check if all panels are vertically straight. Between sliding panels there should be an even gap of 9 mm (about 3/8”) from top to bottom. Between a swing panel and side jamb and between a swing panel and adjacent panel, there should be an even gap of 7 mm (about ¼”) from top to bottom. Any problems may be due to the head track not being absolutely level. A difference of 1/16” or less in the level of the head track between the two corners of a panel can cause a ¼” shift of the panel from the vertical position – enough for a panel not to close properly.

The horizontal spacing between the upper track and the top of a panel and between the bottom of a panel and sill or finish floor (if there is no sill) should be 10 mm (about 3/8”).

If the gaps are not correct, then check the upper track. The upper track has to be perfectly level.

UNDER NO CIRCUMSTANCES SHOULD THE CARRIERS/ROLLERS BE ADJUSTED.

An adjustment feature is the vertical side jamb. If needed, they can be moved inwards or outwards to make the opening wider or narrower. The anchorage screws would need to be loosened and shims added or removed.

C. LOCKING RECEIVER OR SOCKET INSTALLATION

For units with a sill, move all the locking receivers so they are in the correct position below the locking rods. Tighten the screws. Close and lock all the panels. Move and adjust the locations of the locking receivers as needed.

For the sliding panel adjacent to the swing panel, there is an extra post with a locking rod that extends into a receiver mounted on the side of the head track. Close and lock all the panels, including the locking...
on this extra post. Make sure that the vertical gap between the swing panel and the adjacent panel is 7 mm (1/4"). If not, loosen the 2 allen screws on the receiver and move as needed.

For units with no sill, holes in the floor for the sockets have to be made at exact precise spots. There is no second chance if the hole location is off. Once a panel is in the correct position, turn the handle cautiously and mark the correct locking spot on the floor before drilling. Follow the separate installation instructions that are provided with the floor sockets.

D. FINAL STEPS

Step E1. Close and lock all panels into position.

Step E2. Check all vertical and horizontal joints and adjust them as described under section B: GAPS AND ADJUSTMENT. Move and adjust the locking receiver or floor sockets as needed.

Step E3. Attach handles and other hardware that have not been pre-attached. Attach the profile cylinder (if any) to the locking gear by inserting it into the lock hole and attaching the set screw through the screw hole on the gear located at the edge of the panel. Cut the set screw, if needed, so it is not longer than 1-1/2”.

Step E4. Check that the system operates and functions properly. Open and close all the swing panels. The panels should move easily in the opening and should stack smoothly in the stacking bay. Check to see if all upper track components are properly installed. Check if all angles are correct. Each leg of the stacking bay track should be equidistant at all points. Spray the carriers as needed with the lubricant provided or use Teflon spray for smooth movement. When opening or closing, all shoot bolts should engage smoothly.

Step E5. Reattach the aluminum cover profiles on the upper track.

Step E6. For a unit with a sill, measure and cut to the proper lengths the gasket to be installed in the channel to cover the space between the locking receivers.

Step E7. Correct any problems before finish trimming. While finishing trim and if the ceiling is to be dropped, pay attention to roller access location. They will need to be accessible for future servicing of the panels, if needed. The head track should not be subject to any loads from suspended ceilings, etc.

Step E8. Apply a thick bead of exterior grade sealant with a backer rod if needed on the joint between the sill and floor on both sides along the length of the sill. Do similar for the gaps between the head jamb and side jambs with the opening.

Step E9. Finish any waterproofing, flashing, trim and sealant needed around the perimeter of the opening.

Step E10. Important: If any weep holes were done in the sill by others, then make sure that they 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. All temptations to use the large opening of an installed system for easy ingress and egress by tradesmen should be resisted.
Owner's Manual

OPERATION AND MAINTENANCE OF NANAWALL PRODUCTS

OPERATION OF A NANAWALL HSW45–
SINGLE TRACK SLIDING SYSTEM

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

![Warning]

When operating the system similar to any other door, please do not place your
fingers between the panels/pivot points.

Only properly trained personnel should operate the unit. No children should operate the unit.

Do not force the system if not operating properly. Please have it repaired as soon as possible by a
qualified technician.

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

Be sure not to operate the doors in high wind conditions.

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

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 and Closing a Unit.**

1. If there are swing panels, open these panels first.
2. Disengage the locking points on all the other panels.
3. Note that there is a carrier at each upper corner of a sliding panel. Look at the head track within
the opening and note the switches that lead the head track from the main opening to the stacking
bay. Guide the closest carrier of a panel through the appropriate switch and slide that panel into
the stacking bay.
4. Similarly, slide all the remaining panels through the appropriate switch into the stacking bay.
5. With each hand, grab both stiles of a panel and push into the stacking bay.
6. If there is more than one stacking bay, please be sure the panels are stacked in the correct
stacking bay.
7. For closing, proceed with the sliding of the panels in reverse order (to pull the panels from the
stacking bay, you may need to grab the stiles of the panel with each hand).
8. Make sure each panel is placed in its proper position in the opening.
9. Engage all the locking points. Do not force any locking point.
Operating the SL-multipoint locking on the primary swing panel(s)

<table>
<thead>
<tr>
<th>Normal position</th>
<th>Engaging</th>
<th>LOCKING</th>
<th>Unlocking and Disengaging locking points</th>
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<td></td>
<td>Engaging</td>
<td>Locking</td>
<td>Unlocking and Disengaging locking points</td>
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(Note that this is not one motion operation. Key or thumbturn must be unlocked first.)

Be sure to check that the door is locked. The door is locked, when the handle cannot be depressed.

Engaging the locking points and Locking
- Turn handle up about 45° to engage the locking points. Then let it move back into its normal position.
- Only now can it be locked with a key on the outside or a thumb turn on the inside.

Unlock and disengaging the locking points
- Unlock the lock with key or thumb turn.
- By operating the door handle downwards, the locking points at the top and the bottom are disengaged.
RECOMMENDED MAINTENANCE OF NANAWALL PRODUCTS

Some General Considerations on all Projects:

1. It is important that the product is properly installed. 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.

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.

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 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 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 tracks in the head jamb and sill immediately to prevent damaging the running carriages and guide trolleys (if any). 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. 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, hinges and handles should be periodically cleaned with a soft cloth and mild cleanser. Excessive abrasive rubbing should be avoided. Please note that if the finish is oil rubbed brass, it is a finish that will develop its own unique patina over time.

9. About every six months, apply lubricant to all the hinges and Teflon spray to the running carriages and guiding trolleys.

Some specific suggested maintenance for coastal salt water and other extreme environments:

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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 and all hinges. Liberally apply lubricant such as Teflon spray (no grease) on the wheels and bearings of the rollers. 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 deionised water) and dry. 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 deionised 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 deionised 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.
GLASS INSTALLATION AND GLAZING

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

Glass stops and glazing gasket are to be used for “dry” glazing of each panel. Also needed are setting blocks. **Use glass setting blocks with varying thickness made from hard plastic. Rubber setting blocks are not acceptable.** Width of setting blocks should be at least 1/8” wider than the glass thickness and 1/16” to 1/8” less than the width of the glazing pocket. Setting blocks should be about 4” long.

Glass, with appropriate dimensions, thickness and specifications will be needed. Depending on the model, widths of all glass panels may not be equal. Ask NanaWall for the glass dimensions. 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 straightforward, it is recommended that an experienced glazing contractor be used.

It is **very important** that the bracing direction and placement of glass setting blocks be correct. Setting blocks for swing panels are to be placed only at one set of opposite diagonal corners whereas setting blocks for individual sliding panels are placed at all four corners. For swing panels, setting blocks are placed at the upper corner on the side where the handle is and at the lower corner on the side where the hinges are. If not correctly braced, the unit will not operate properly. See diagram 1 for an example with a typical 4 panel unit.

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

1. Close all panels and secure them with the multiple lock bolts. Start with a panel on one side.
2. Remove all glass stops on the panel. Be sure to protect the finish.
3. Measure both the vertical and horizontal dimensions of the glass and the panel opening. Subtract the vertical glass size from the vertical panel opening size. Divide the difference by two. This will give the nominal thickness of the setting block to use at the top and bottom rails. Several setting blocks 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 setting block to use at the stiles.
4. If it is a swing panel, place a setting block (or combination of setting blocks with desired thickness) on the bottom rail of the panel opening such that it is about 2” from the bottom corner that is on the same side as the hinges.

Carefully place the glass in the opening, making sure it rests on the setting block. With insulated glass, make sure that both inner and outer panes are supported evenly.

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Place a second setting block in the same corner as the first, but in the vertical direction along the stile such that its edge is about 2” above the corner.

Place the third setting block in the upper diagonal corner vertically on the opposite stile in the same manner. Then place the last setting block for a swing panel on the upper rail on the same corner as the other upper setting block. To get a proper fit, shift the glass weight by lifting the glass panel up with a plastic pry bar at the lower corner below the upper setting block. These setting blocks should all fit snugly but should not be forced. Adjust the thickness of the glass setting blocks such that the panel is slightly out of square. The upper corner with the setting blocks should be about 1/16” to 1/8” higher than the other corner.

5. For an individual sliding panel, place setting blocks on the bottom rail about 2” from the bottom of each corner. Carefully place the glass in the opening, making sure it rests on the setting block. With insulated glass, make sure that both inner and outer panes are supported evenly. Then place setting blocks in these corners in the vertical direction along the stile such that its edge is about 2” above the corner, proceed in the same manner on both upper vertical corners. For an individual sliding panel, place setting blocks on both corners of the upper rail.

If necessary, apply a little adhesive that is non-damaging to the glass edge seals such as Dow Corning 791 silicone, to keep the vertical setting blocks from slipping. Make sure that the drainage in the panel is not obstructed by adhesive or glass setting blocks. If the panels are large (over 8 feet tall), additional setting blocks are needed midpoint on the stiles, especially on a swing panel. Ensure that these blocks have the correct thickness and the vertical styles are still parallel and not bowed.

6. For aluminum systems insert the glass stops so that they snap into the panel profile. Start with the top and bottom stops and then the sides.

7. 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.

8. Make sure that the stops are locked firmly and securely into position and are flush with the rest of the panel profile.

9. After installing the panels, assuming that the head jamb and sill are level, check to see if the gap between the panel and head jamb and panel and sill is even across the width of the panel. With the glass weight, the out of square swing panels should become almost even. If they remain slightly higher in the upper corner with the setting blocks it is okay. If not, then the lower and upper setting blocks thickness need to be adjusted. Panels have to be braced correctly for proper operation.
Diagram 1: Example with a Typical 4 Panel Unit.

- Setting blocks for tension
- Setting blocks to keep distance
**Warranty Registration** must be filled out and returned to the address printed on the other side within 30 days from date of purchase of the NanaWall in order for the limited warranty to become effective.

<table>
<thead>
<tr>
<th>Nana Order #</th>
<th>Project Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Purchase</td>
<td>Purchaser Name</td>
</tr>
</tbody>
</table>

**PROJECT OWNER**
- Name
- Address
- Telephone ____________ e-mail
- Project Address (if different from above)

**INSTALLATION**
- Installer Name
- Address
- Street, City
- Telephone ____________ e-mail
- Type of project
  - [ ] new residential
  - [ ] restaurant
  - [ ] shopping mall
  - [ ] residential remodel
  - [ ] office building
  - [ ] other
- Name + Address of Architect

1. Is the installation complete?  
   - [ ] yes  
   - [ ] no  
   If yes, date completed ____________________________
   If no, date scheduled ____________________________

2. Have you been shown how to operate your new NanaWall?
   - [ ] yes  
   - [ ] no  
   If yes, is operation satisfying?  
     - [ ] yes  
     - [ ] no
   Why not? ______________________________________

signature

date
NanaWall Standard Warranty

Ten Years:

The insulated glass in NanaWall products is guaranteed for ten (10) years from the date of sale. If a permanent material obstruction of vision due to a premature failure of the glass or failure of the glass seal is brought to Nana’s attention during this period, Nana will ship replacement glass to the original location the product was purchased.

The rollers in NanaWall products are guaranteed for ten (10) years from the date of sale. If a premature failure of the roller is brought to Nana’s attention during this period, Nana will ship replacement rollers to the original location the product was purchased.

One Year:

Remaining components of NanaWall products not specifically covered by the above warranties, are warranted against defects in materials and workmanship for a period of one (1) year from date of sale. This includes but is not limited to hinges, handles, locking mechanisms, tracks, weather-stripping or any other NanaWall supplied products.

If NanaWall product is installed by a Nana Certified installer, the one year warranty increases to two years.

GENERAL INFORMATION FOR NANAWALL WARRANTY

Nana’s obligations under this warranty shall be limited, at its option to (1) repair any product or part of the product without charge (2) furnish any product or part of the product, shipped freight prepaid, in whatever stage of fitting and/or finishing it was in when originally supplied by Nana or (3) refund the price received by Nana for any product. Additionally, Nana reserves the right to determine whether or not a defect exists for which it is responsible under this warranty.

Written notice of any claim under this warranty must be given to Nana Wall Systems, Inc., 100 Meadowcreek Drive, Suite 250, Corte Madera, CA 94925, promptly when discovered. You will waive your rights under this warranty if you fail to notify within 30 days of receipt of the product a defect which an ordinary inspection would reveal, or if you fail to make a claim within a reasonable time during the warranty period after a hidden defect is discovered.

The warranty does not cover labor costs to install the product or replaced part nor does it cover delays or construction costs or late or damaged delivery. This warranty does not cover loss of time, inconvenience, or loss of use of the product or any parts.

The warranties detailed in this document are the only statements of the legal responsibility of NanaWall and any seller of Nana products with respect to covered Nana products manufactured on or after July 31, 2004, sold by Nana and installed in the United States or Canada. No one is authorized to make any different or additional warranties. In no event shall the liability of NanaWall or any seller of Nana products
arising out of a product defect exceed the price paid for the product. NOTHING IN THIS DOCUMENT SHALL GIVE RISE TO OR EXTEND THE PERIOD OF ANY WARRANTIES IMPLIED UNDER STATE OR PROVINCIAL LAW, AND NO IMPLIED WARRANTY SHALL EXTEND BEYOND THE PERIODS COVERED BY THIS WRITTEN WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

WARRANTY LIMITATIONS

This warranty does not cover: non-NanaWall products; products that have not been paid for in full; problems caused by improper storage, handling, installation, waterproofing, finishing (including, but not limited to, not finishing all sides of wood products in a timely manner or finishing wood in dark colors), use, locking, modification, or maintenance; use of glass not supplied by Nana that is heavier than 6 lbs/sq ft; products specifically excluded from warranty such as products with larger sizes or special configurations; Acts of God; accidents, including accidental glass breakage; products subjected to conditions outside their design limitations; products installed in structures that do not allow for proper management/drainage of moisture; minor imperfections in glass that do not affect the product’s structural integrity or obscure vision; minor variations in glass color; any interior wood finish; normal wear or discoloration of finish; finish problems caused by mechanical damage or abrasion; damage caused by acid rain, salt spray or other corrosive elements; tarnish or corrosion to hardware finishes; problems caused by high humidity (condensation and frost); variations in wood grain or color; allowable warp tolerance for wood panels as defined by ANSI/WDMA I.S. 6-A-01 industry standard: minor resin bleeding from wood panels: discoloration of non-visible parts; wood rot due to improper maintenance or installation; or problems due to water leakage that is not the fault of the Nana product or wrong choice of system or sill. All glass warranties are void if any film is applied to the glass surface. Labor connected with glass replacement (including replacement of sash or door panels), or labor in any other case where Nana elects replacement, is not covered by the warranty and is the responsibility of the owner. In no case does this warranty cover the costs of finishing any repaired or replacement product or component or any trim or other carpentry work that may be required. Replacement products will be the closest equivalent current product and may not exactly match the original. The warranty on any replacement product will extend for the balance of the original warranty period. NanaWall will not be responsible for problems or damages caused by deficiencies in building design, construction, and maintenance, failure to install NanaWall products in accordance with approved methods, or the use of NanaWall products in systems that do not allow for the proper management of moisture within the wall system.

NEITHER NANAWALL NOR ANY SELLER OF NANA PRODUCTS WILL BE RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (WHETHER UNDER THEORIES OF TORT, STRICT LIABILITY, CONTRACT, WARRANTY OR OTHERWISE) THAT MAY RESULT FROM A PRODUCT DEFECT OR MALFUNCTION. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may have additional rights that vary from state to state.