

SUPPLEMENTAL INSTALLATION GUIDELINES

For E3 Aluminum Systems



THANK YOU FOR CHOOSING LANAI DOORS™

Thank you for choosing a Lanai Doors™ bi-folding door system. You have chosen one of the finest weather-sealed bi-folding door systems available today. The Lanai Doors™ system is made with top quality products and if installed properly will provide you with years of trouble-free operation.

The following supplemental instructions provide guidelines for preparing, fitting and installing your top hung bi-folding door panels. No matter how many doors you have installed in the past, completely read these installation guidelines before you attempt installation. If you have any questions or would like clarification, please call our toll-free number (866) 907-3667. While this guide is comprehensive, it cannot address all eventualities, which may be encountered on site. The most important factors for a successful job are:

- ☐ Install systems in accordance with local codes
- ☐ Square and plumb rough opening
- ☐ Level and flat flooring
- ☐ Structurally sound and unyielding rough opening header designed by a professional engineer
- ☐ Using an installer who is qualified and experienced with top-hung systems and familiar with applicable Federal, state and local codes and regulations

Lanai Doors™ is unable and does not control the actual site measuring and system installation, and therefore does not assume any responsibility or liability for the performance of the installed product.

CRITICAL INSTALLATION INFORMATION

CRITICAL INSTALLATION INFORMATION – Bi-folding systems are different than a normal swing door which is hung from a jamb with little or no pressure on the header or threshold. All bi-folding system weight is carried by the header. In a closed position, wind load pressure is applied to both the header and threshold guide track and larger systems can act like a giant sail. In an open position, the weight is transferred to the folded end position and a significant counterweight leveraged on the threshold guide track. **For these reasons, it is critical to securely attach both the Lanai Doors™ header track and threshold to the rough opening to maintain proper functionality under various weather conditions.**

BEFORE YOU BEGIN

READ THIS GUIDE BEFORE INSTALLATION

PARTS LIST

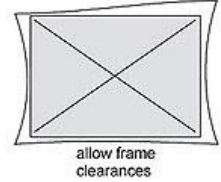
- HEADER TRACK WITH PIVOT & CARRIERS INSTALLED IN TRACK
- THRESHOLD (STANDARD, LOWRISE OR FLUSH GUIDE)
- SIDE JAMBS & JAMB COVERS
- DOOR PANELS WITH HINGES AND LOCK ASSEMBLIES ATTACHED
- BOTTOM PIVOT AND GUIDE HINGE HARDWARE
- FASTENERS: FRAME ASSEMBLY AND HINGE
- 5/32" MASONRY BIT
- #2 & #3 SQUARE DRIVES
- 8MM HEX HEAD ALLEN WRENCH
- TOUCH UP PAINT (IF APPLICABLE)
- 2 KEYS PER LEVER SET (IF APPLICABLE)
- SWING DOOR CATCH & STOP AND/OR MAGNETS (IF APPLICABLE)

TOOLS & MATERIAL NEEDED FOR INSTALL

- | | |
|--|------------------------------------|
| • TAPE MEASURE | • DRILL AND IMPACT GUNS |
| • 6' 0" OR LONGER LEVEL | • TWIST DRILL BITS AND COUNTERSINK |
| • PLUM BOB | • VARIOUS PLASTIC & WOOD SHIMS |
| • LONG PHILIPS HANDHELD SCREWDRIVER (TO ADJUST PIVOTS) | • CHALK LINE & SHARPIE |
| • LADDER & STEP STOOL | • BACKER ROD & EXTERIOR SEALANT |
| • SILL PAN | • SUBSTRATE ADHESIVE |
| | • DOOR & WINDOW SEALANT |

SITE MEASURING AND PREPERATION

1. Check substrate of the rough opening (walls, floor and head structure) and make sure that all components are sound, suitable and ready to receive the door jambs, threshold, top track/header and door panels. Note that fasteners must penetrate through solid material and that offset installation may cause roll and twist of the header beam. Rough opening header must not deflect more than 1/16" (2 mm) when carrying the weight of the doors.



2. Establish and measure clear, square-opening sizes. Straight edge and level tools should be used. Ensure that all measurements follow straight lines and apply to square corner conditions. Note: Bottom must be LEVEL and sides SQUARE. Your Lanai Doors™ were manufactured to fit rough opening dimensions you provided with ½" on top and ¼" clearance on both sides.

3. A sill pan is recommended to be installed under the standard sill threshold. If properly installed, your system should be weather resistant. However, under certain situations and over time moisture and water can penetrate thresholds and damage your interior flooring. Protect your investment by installing a sill pan. **PRO TIP:** Install the sill pan level to ease installation of the Lanai Doors™ frame.

4. **Note:** Wherever conditions are unsatisfactory, do not proceed with installation.

MATERIAL HANDLING AND STORAGE

5. Door panels are shipped with temporary blocks on the bottom of each door to prevent damage during handling. Before installing door panels, you need to remove the temporary blocks. Handle door panel with care in an upright position. **NEVER** drag door panels! If door panels are to be stored for more than a few days, door panels should be carefully stacked in a vertical position at least 3 1/2" off the floor supported by 2x4's in between each door panel. No stack should have any more than five door panels. Your door panels may warp if stored improperly.

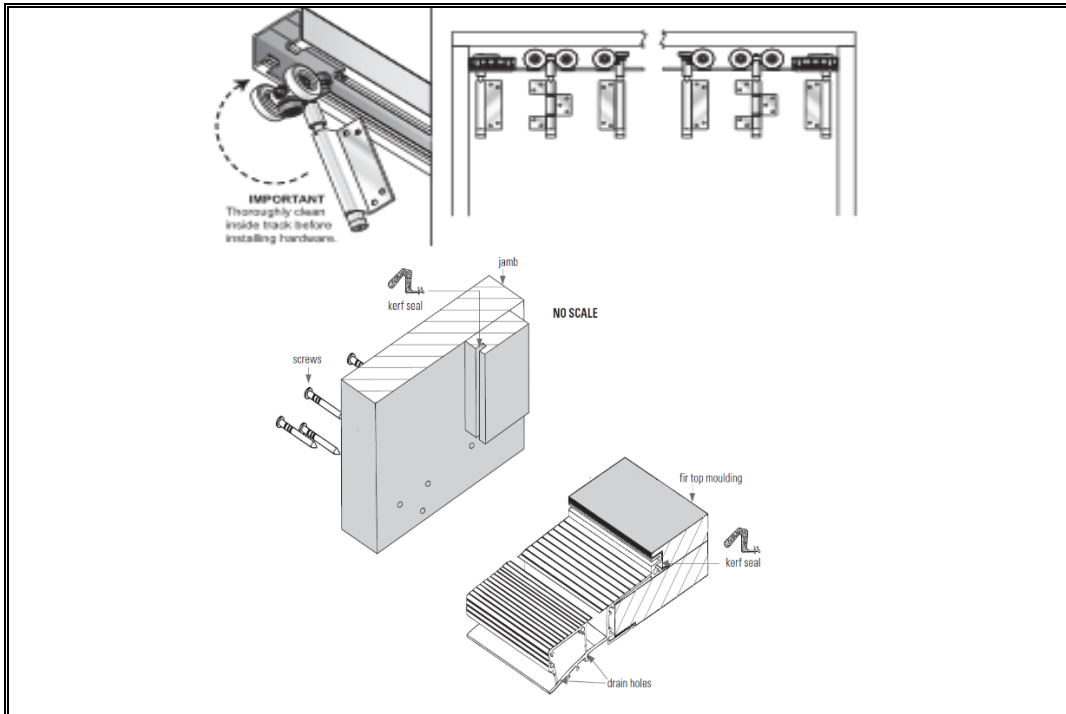
“Your door panels may warp if stored improperly.”

The following pages include our guide for sealing and fastening recommendations for our system. Confirm with your local codes and building practices on waterproofing and fastening your Lanai Doors™ system.

FRAME INSTALLATION

THRESHOLD AND JAMB INSTALLATION

6. Take inventory that the top pivots and carriers are in the header track before you screw the frame together. For maintenance of header track assembly, we have pre-cut a hole under one of the pivots which will allow you to remove the pivots and carriers after the frame is installed. You will attach the door panels to the frame assembly after the frame is completely installed.



7. Lay header, two jambs and threshold on a protected surface. Apply a small bead of window and door sealant between frame parts and squarely attach with frame assembly fasteners (provided).

Note: Flush Guide Thresholds do not attach directly to the jambs, and the jambs may have a removable plastic shim.

8. Dry fit the Lanai Doors™ frame into the opening to make sure it is properly sized and oriented. **DO NOT CUT LANAI DOORS™ FRAME COMPONENTS. THE JAMBS, HEADER AND THRESHOLD ARE PRECISELY MACHINED TO FIT THE PANELS PROVIDED.**

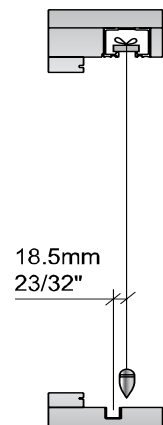
Note: If you have a flush guide threshold, the jambs should *rest on or be shimmed to the height of the finished floor*. If the frame fits inside the rough opening, temporarily attach your header track and both jambs squarely into its permanent location. Positioning flush guides requires some additional steps as follows:

- ☐ Set the flush guide between the jambs
- ☐ Shim flush guide to be flush with finished floor height
- ☐ Use a Plum Bob to perfectly align the bottom guide to the top track.

Before proceeding, verify the following:

- ☐ Swing direction
- ☐ Pivot locations
- ☐ Shim space between jambs and header are less than ½"
- ☐ Shim space under threshold is less than ¼" (fill in excess)

“Use A Plum Bob To Perfectly Align The Bottom Guide To The Top Track.”



FRAME INSTALLATION - continued

9. Mark the front and back of the threshold on the sill pan or flooring so you will know the inner and outer limits of the threshold for your substrate sealant beads. To mark the threshold installation holes, drill a shallow hole through the pre-drilled holes inside the threshold guide channel. Remove the frame from the opening.

“Mark The Front And Back Of The Threshold ...For Your Substrate Sealant Beads”

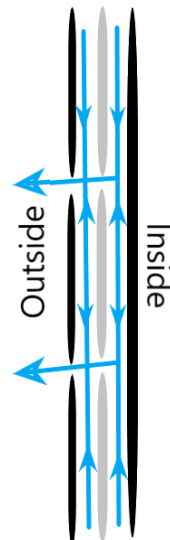
10. If subfloor is concrete, then drill into the foundation at the marked positions $\frac{1}{4}$ " deeper than the $1\frac{3}{4}$ " concrete anchors, using a $\frac{5}{32}$ " masonry drill bit (other substrates may require different drill bits and fasteners).

11. Apply two thick beads of exterior sealant and one bead of substrate adhesive. The outside edge of sealant and a central bead of adhesive should have gaps every 24" to allow water to escape. The inside edge should be a solid bead of exterior sealant across the entire length of the sill pan to air seal the threshold. Shim the threshold to level, taking care not to break or push through the Inside Sealant Bead. Re-position the doorframe so that the head and threshold are lined up with the drilled threshold holes. At the top and bottom of doorframe, shim tight both jambs to the rough opening, and make the jambs plumb.

12. Using the concrete anchors (or suitable alternative); securely attach the threshold to the sub-floor structure after pushing plenty of exterior sealant through the holes in the threshold to provide a good seal to the sill pan and foundation. **Do not overtighten.**

13. Verify and ensure that the frame is not out of plumb or twisted. At the top and bottom of doorframe, shim tight both jambs to the rough opening, and make the jambs plumb and square. Attach jambs to the rough opening with appropriate fasteners. **Do not overtighten.**

14. Finally, double-check the doorframe is square by verifying that the diagonals do not differ by more than $\frac{1}{8}$ " (3 mm).



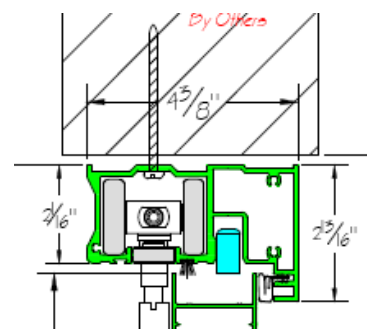
TOP TRACK INSTALLATION

15. Top track should already have pre-drilled holes through the track and doorframe head. Drill pilot screw holes into the structural head beam of rough opening. Note that steel and concrete structures require additional preparation.

16. Secure the doorframe head with the appropriate screws. Structural (suspension) steel fasteners should be at least #12 by 3" long (14 x 76 mm) and penetrate by $1\frac{1}{2}$ " (38 mm) into the rough opening's structural header beam that carries the load of the door panels. Be sure to put screws in ALL holes to properly handle the weight of the door panels when open. Check that the doorframe head is level or has a center crown not exceeding $\frac{1}{8}$ " (3 mm). **Do not overtighten.**

17. Thoroughly clean the extruded head track and remove any debris. Debris left in the track will attach to the carrier wheels and will negatively affect operation. Insert and check that the carriers move freely along the full length of the track.

18. Lubricate the track and the wheels with a small quantity of white petroleum jelly (Vaseline). This will improve smooth operation, and help to preserve the bearings and track.



“Clean Header Track Thoroughly To Avoid Damaging Carrier Wheels”

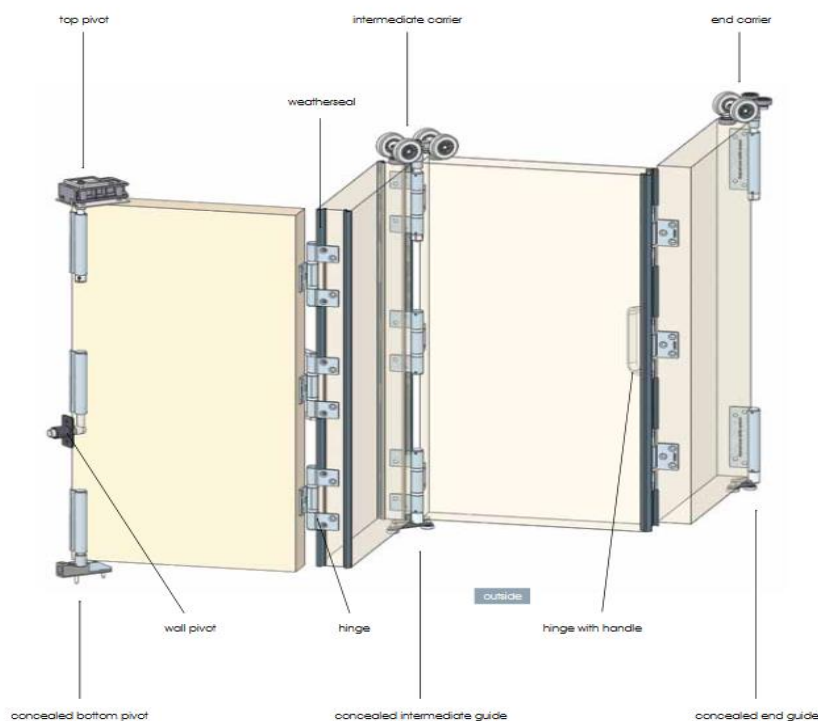
19. Lanai Door™ aluminum folding system utilizes a concealed twin-bolt locking system to securely lock your door panels into the header track and threshold. With the turn of the handle, you can easily disengage the doors from the frame. DO NOT pull on the twin-bolt handle to close the system – use the adjacent u-shaped handle or finger pull.

20. The action door multi-point lever set has a door latch, dead bolt and twin bolts that securely lock the action door into the header track and threshold. To engage the dead bolt and the twin-bolt locking system, in a closed position, pull door tightly against the q-lon insulation and lift handle. DO NOT try to close the door when the locks are engaged. This could damage the locking system and the strike plate door.

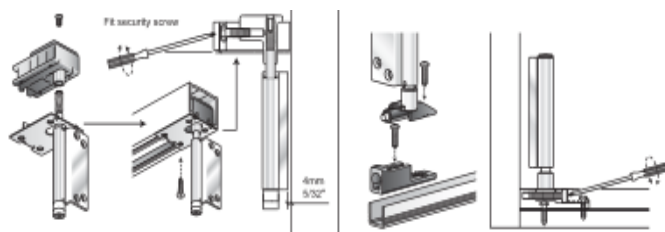


PANEL INSTALLATION AND ADJUSTMENT

21. Door panels are pre-numbered on glass as they are to be installed. As example, Panel 1-L is the pivot door panel on the left side when standing outside the house looking in.



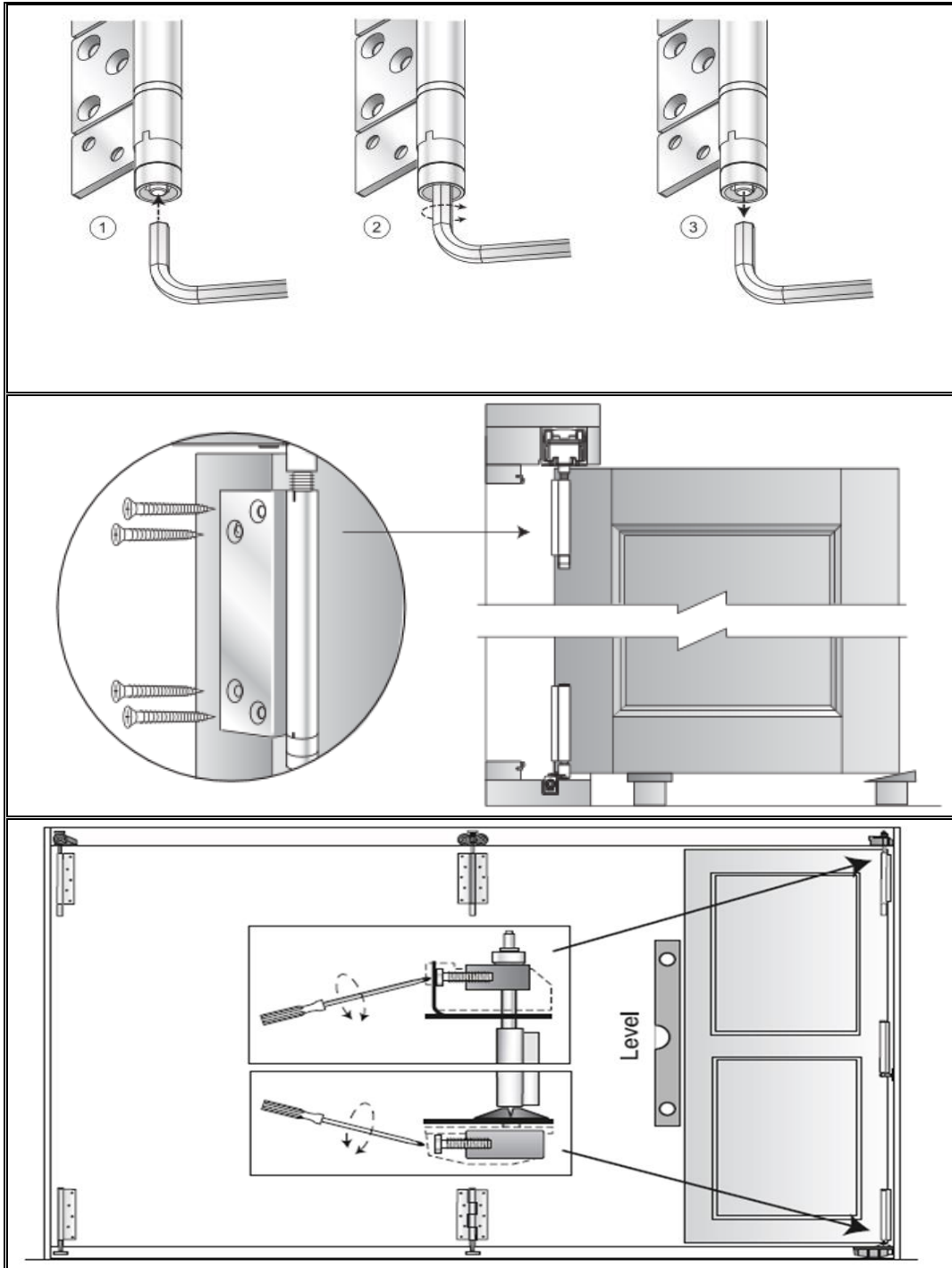
22. Hardware may be installed. If not, then slide in bottom guide and top carrier wheels into tracks and install the bottom and top pivot posts.



PANEL INSTALLATION AND ADJUSTMENT - continued

23. It is recommended to have more than one person installing the door panels and to use a door carrier for heavier doors to prevent damaging doors during installation. It is common for E3 panel weights to exceed 200 lbs. each. Set the pivot door panel (door panel 1) in the open position (or 90 degrees to opening) and place it on the bottom pivot. Using removable shims between the door and the threshold, carefully raise the level of the door so that the bottom gap is 1/4". Use removable wedges and blocking at the other end of the door to keep the door level.

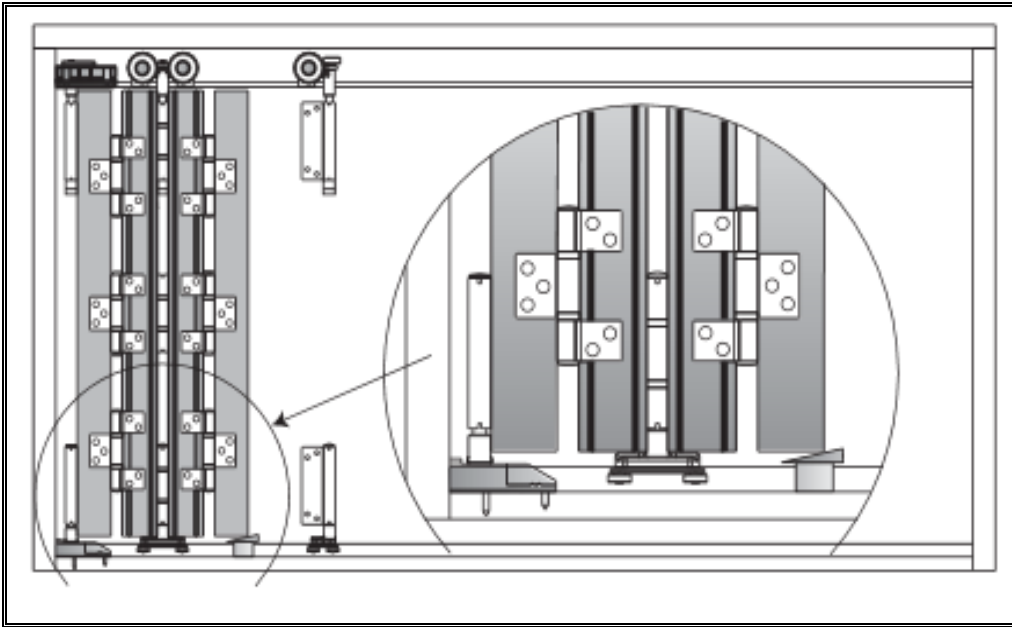
“It Is Common For E3 Panel Weights To Exceed 200 lbs. Each.”



24. Using the included 8mm Allen wrench, adjust the top pivot up or down until the predrilled holes line up with panel 1. Attach the top pivot plate with the included hinge fasteners into the predrilled holes on door panel. **Take care not to strip the screw heads.**

25. Close the door panel and check for a consistent gap (approx. 9/32" or 7 mm) between the side jamb and the door panel. Adjust the gap by turning the top and bottom pivot adjustment screws.

26. Provide an even panel top gap of 1/4" (6 mm) and an even bottom gap of 1/4" (6 mm).



27. Use a wedge and/or shims to hold the pivot panel at a 90-degree angle from the opening and install the remaining panels much the same way the pivot panel was hung. Using removable shims between the door and the threshold, carefully raise the level of the door so that the bottom gap is 1/4". Use removable wedges and blocking at the other end of the door to keep the door level.

28. Using the included 8mm Allen wrench, adjust the top carriers up or down until the predrilled holes line up with the panel.

29. Test-operate all door panels. Inspect the gaps at the end panels while the doors are closed. If the gaps are uneven, open the door panels and adjust the horizontal screw on the top and bottom pivots.

FINAL ADJUSTMENT & CONSIDERATIONS

30. Check the gap on your action door panel and lock. Depending on your configuration you can adjust the pivot door panel. Fine-tune the door panel heights by turning the carrier and pivot hinges and adjust until the door panels operate smoothly, and the gaps are even and acceptable.

31. Our standard threshold has pre-drilled weep holes which allows water that gets into the guide track to drain outside. During installation and finish work by installers and other sub-contractors these holes can accidentally get filled or covered up. It is strongly recommended that when everything is complete make sure that weep holes are clean and open. Drainage for Lowrise and Flush Guide thresholds are to be designed and installed by others.

**“Keep Weep Holes Clear
For Proper Drainage”**

MINIMUM MAINTENANCE

DOOR HARDWARE

Door hardware subject to wear and tear, deterioration or damage by everyday use, corrosion and other conditions require ongoing maintenance. Maintenance of hardware is much more important in coastal marine or industrial and chemically aggressive environment. Any metal including stainless steel products require maintenance to prevent or reduce wear and tear or deterioration.

Track and Bearings

Lubricant reduces wear, improves smoothness and further protects against corrosion of the track and bearings. Note that stainless-steel bearings also require periodical cleaning and lubrication that prevents corrosion. Use a spatula or a similar tool. Apply small amount (typically ¼ teaspoon) of white petroleum jelly (Vaseline) or similar lubricant to the inner lip of each side of the track. Ensure that the wheels pass through the lubricant. The lubricant must be evenly distributed along the track. Apply additional lubricant around bearings.

Hangers, Pivots and Brackets

Wipe down with warm soapy water and a soft rag, rinse clean and dry well all exposed surfaces. Apply a light spray of corrosion preventing substance such as WD-40. Remove excess and wipe dry with cloth.

Hinges

Use warm soapy water on a soft rag. Wipe down the exposed surfaces. Follow with a clean damp rag. Maintain the original luster of the metal finish by the application of a thin film of light machine oil or the corrosion preventing spray mentioned above. Note that these materials may stain wood material and its finishes.

Frequency

Ensure smooth operation and prevent deterioration of parts and material. The above maintenance procedures need to be carried out as often as it is necessary.

Manufacturer recommends:

- Inland environment/climate – Every six (6) months.
- Coastal marine and industrial environment/climate – Every three (3) months.

GLASS

Glass care is more important than ever. Never use a razor blade, putty knife, abrasive pad or dirty/old rags that can scratch the glass. Never use any petroleum-based cleaners or caustic chemicals on your glass. Vacuum dirt from threshold and track before washing. Do not use a high-pressure spray nozzle when rinsing your windows after washing. Clean glass with a mixture of mild dish soap & water. Rinse completely with clear water then wipe dry with a soft clean cloth to avoid water spots. Abrasive or caustic cleaners are never recommended because they might cause permanent damage to the finish or the glass.

THRESHOLD

Threshold guide track should be kept clean of any debris. Vacuum debris from threshold and track on a regular basis being careful not to scratch the threshold finish. Periodically inspect weep holes to make sure they are working properly. Add additional caulking to maintain seals when necessary.

CONTACT INFORMATION

With proper care and maintenance, your beautiful Lanai Doors™ will give countless years of smooth operation and enjoyment. If you should have any questions regarding the maintenance of your Lanai Doors™ system, please contact our corporate office at:

941 North Elm Street, Suite C
Orange, CA 92867
866-907-DOOR (3667)

Lanai Doors™ Limited Warranty

Coastal Innovative Products, Inc. d.b.a. Lanai Doors™ (“Lanai”) warrants to the original owner that Lanai manufactured products (“Product”) to be free from material defects in workmanship and material under normal use and service subject to the terms and conditions as stated herein. Specific coverages are as follows:

TEN (10) YEAR COVERAGE

Folding Hardware. Folding hardware (pivots, carriers and hinges) will be warranted for a period of ten (10) years from shipping date to be free from manufacturing defects. A manufacturing defect is defined as where the Product or components are not of merchantable quality nor fit for its intended purpose.

Insulated Glass. Insulated glass supplied by Lanai is warranted for a period of ten (10) years from shipping date against air seal failure and that each unit will be free from material obstruction of vision because of fogging or film formation on the internal surfaces.

Weather Seals. Weather seals between panels and on overall frame are warranted for a period of ten (10) years from shipping date. Lanai does not warranty normal wear and tear and natural weathering of surfaces and color.

FIVE (5) YEAR COVERAGE

Laminated Glass. Laminated glass supplied by Lanai is warranted for a period of five (5) years from shipping date against failure of edged separation and that the laminated glass will be free from material obstruction of vision.

Wood Components. Wood component parts will be warranted for a period of five (5) year from shipping date. Finishing of wood products need to be completed in accordance with Lanai finishing recommendations. Lanai does not warrant doors against warping caused by direct sun exposure. Wood doors will warp if they are subject to direct sun light. Southern and western exposures require 100% overhang protection (overhang equal to 100% of height of overhang) while eastern and northern exposures require 50% overhang protection (overhang equal to 50% of height of overhang).

Locking Hardware. Locking hardware (door handles & twin-bolts) will be warranted for a period of five (5) year from shipping date.

Paint Finishes. Lanai fluoropolymer paint finish will be warranted for a period of five (5) years from shipping date to be: 1) free from peeling, chipping or cracking; 2) chalk more than a numerical rating of eight (8); and fade or change color more than five (5) E units. Products within three (3) miles of saltwater require a 3-coat process. Non-Fluoropolymer and 2-coat Fluoropolymer paint finishes within three (3) miles of saltwater will be warranted for one (1) year.

Anodized Finishes. Anodized finishes will be warranted for a period of five (5) years from shipping date and will: 1) resist cracking, crazing, flaking, or blistering; 2) not chalk more than a numerical rating of eight (8); and 3) not change color more than five (5) E units.

Three (3) YEAR COVERAGE

International Locations. Products located outside the United States have a maximum warranty period of three (3) years from shipping date for all component parts except for folding hardware which has a warranty period of ten (10) years. This warranty relates to Product manufactured and shipped after January 31, 2017 and is non-transferable. No other express warranty is given and no affirmation of Lanai, by words or actions, will constitute a warranty. Product within three (3) miles of saltwater require maintenance every three (3) months to prevent premature buildup and corrosion. Lanai warranty does not include defects caused by, or resulting from: 1) abuse, misuse or neglect; 2) natural disasters; 3) circumstances where Product is used for purposes other than the intended use; 4) improper maintenance; and 5) damage by others. All warranties include a caveat for proper finishing, installation, adjustment, use and maintenance. If, during the applicable warranty period, Lanai is notified promptly in writing upon discovery of any defect in the Product and Lanai’s examination of such Product discloses to Lanai’s satisfaction that such Product is defective and such defects are not caused by accident, abuse, misuse, neglect, alteration, repair, or improper storage, finishing and installation, or use contrary to any instructions issued by Lanai, Lanai shall, at its sole option, either repair, replace or credit customer the purchase price of such product. Notice shall be given to Lanai in writing within three (3) days from the date of discovery. Lanai shall have a reasonable time from the date of notification (but in no event less than 30 days) to cure any defect of condition. Lanai does not warranty any product removed from its original installation location or returned to Lanai without Lanai written authorization. The performance of this warranty does not extend the warranty period for any product beyond that period applicable to the products originally delivered.

THE FOREGOING WARRANTY CONSTITUTES LANAI’S EXCLUSIVE LIABILITY, AND THE EXCLUSIVE REMEDY OF CUSTOMER, FOR ANY BREACH OF ANY WARRANTY OR OTHER NONCONFORMITY OF THE PRODUCT COVERED BY THESE TERMS AND CONDITIONS. THIS WARRANTY IS EXCLUSIVE, AND IN LIEU OF ALL OTHER WARRANTIES. LANAI MAKES NO OTHER WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY, including WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT.

IN NO EVENT WILL LANAI BE LIABLE FOR ANY COSTS ASSOCIATED WITH THE REPLACEMENT OR REPAIR OF PRODUCT, INCLUDING LABOR, INSTALLATION, OR OTHER COSTS INCURRED BY CUSTOMER AND, IN PARTICULAR, ANY COSTS RELATING TO THE REMOVAL OR REPLACEMENT OF ANY PRODUCT.

[END]