Tern Overland
Engineered for Endurance

Arctic Tern Awning Window
Installation and Operation Guide

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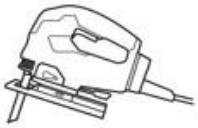
Revised 07/01/2024

Thank you for choosing this window. Please read through this manual before installing and keep for future reference.
Additional videos, documentation and FAQs can be found on our website:
TernOverland.com/Tech-Resources
Feel free to contact us through **Email: Info@TernOverland.com**
Phone: 928-642-3459
We appreciate your business.

RECOMMENDED TOOLS AND MATERIALS:


Eye and Ear Protection


Jig Saw or Similar Tool Appropriate For Your Wall Material and Your Fabricated Spacer Frame, If Applicable


Drill and Appropriate Size Drill Bit For Use as a Pilot Hole Saw Blade


Measuring Tape

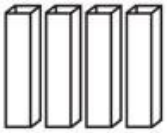

Masking Tape

Polyurethane Adhesive or VHB Tape


Poster Board for Window Template (The Shipping Box Should Not Be Used)


Pencil, Sharpie, Pen


Utility Knife


Spacer Frame Material: 1" Square Metal Tubing or Hardwood (For Sheet Metal Applications or Walls Less Than 24mm or 15/16" Thick)


Phillips Screwdriver

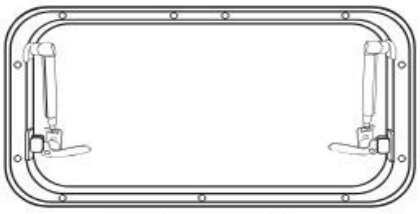

Flat File (For Sheet Metal Applications)

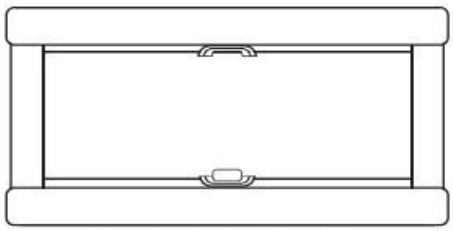
Metal-Based, Non-Teflon Anti-Seize Compound

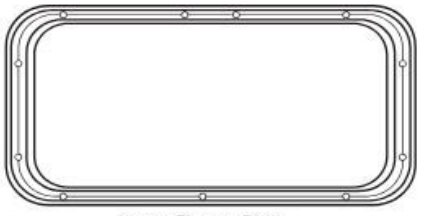
Isopropyl Alcohol

Touch Up Paint (For Sheet Metal Installations)

PACKAGE CONTENTS:


Window Assembly


Blind and Screen Assembly


Inner Frame Ring


1/8" x 1 1/4" Blind and Screen Mounting Screws


M4x20mm Inner Frame Ring Screw Set


M4x14mm Inner Frame Ring Screw Set

Determining Window Size or placement: Before proceeding, carefully consider the placement of the window. For curved sheet metal applications such as vans, there must be sufficient unsupported sheet metal between the wall's cut hole and any major structural supports. This will allow the sheet metal to flex and be flattened to match the flat surface of the window frame. As a general rule for curved sheet metal, there must be 76mm (3") of unsupported sheet metal on all 4 sides of the cut hole.

In the interior, a minimum of 50mm (2") above and below the cut hole, and 25mm (1") of clearance on each side of the hole is required. This will prevent interference with the Arctic Tern blind & screen assembly that will be installed after the window is in place. (Figure 1) Blind and screen assembly opening. (Figure 2)

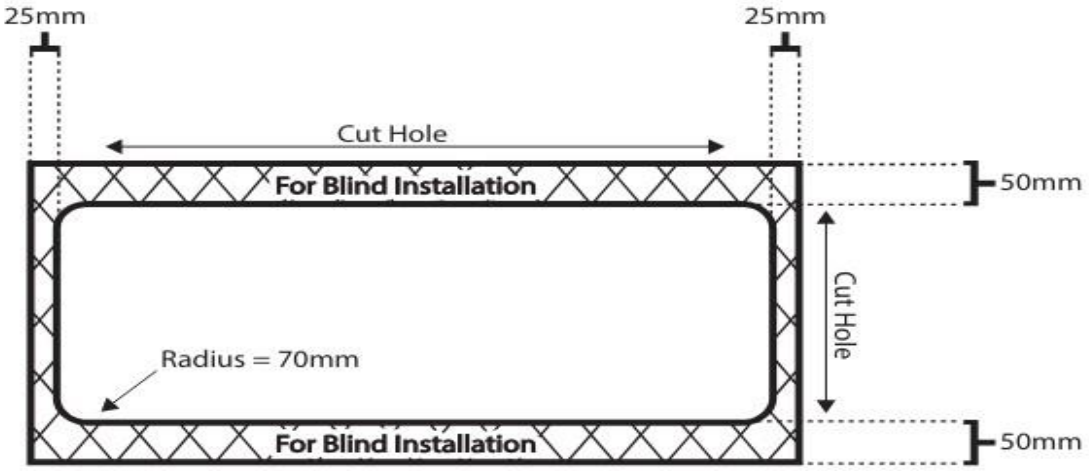
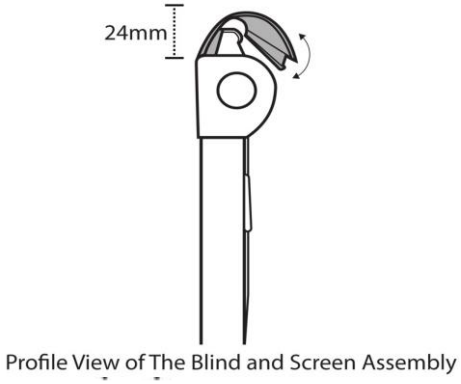


Figure 1



Profile View of The Blind and Screen Assembly

Figure 2

Creating your template: Using poster board, create a template for the cut hole. 3mm of clearance on all sides of the window is recommended. For example, a 300 x500mm window would require a hole Measuring 303mm x 503mm. After marking your template, measure from corner to corner to ensure the sides are square in relation to each other. Make any necessary adjustments until this is achieved. (Figure 3).

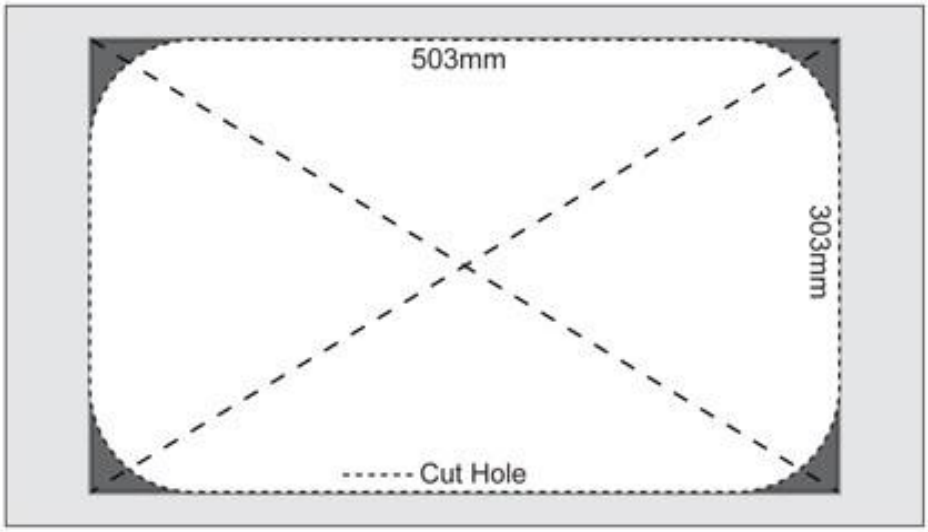


Figure 3

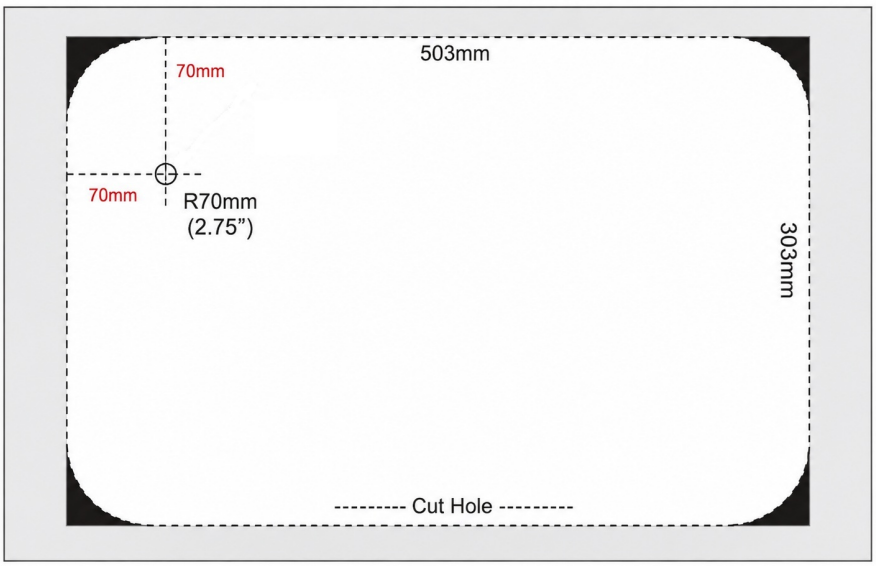


Figure 4

Test Fit: Place the template over the window to ensure a precise fit. Test the template on the inside and outside wall of the vehicle wall to ensure proper clearances are maintained. Once fitment is verified, use tape to position the template on the wall panel and ensure it is level on the vehicle (the vehicle may not be level on the ground). Trace your template onto the wall. After tracing, measure the proposed opening to ensure it matches the +3mm referenced earlier.

Cutting the wall: Using an appropriate saw for your wall material, cut the hole in your wall.

Note: A small weld is present on the top–center portion of the window frame. Your cut hole will need to be notched slightly to accommodate this weld. (Figure 5)

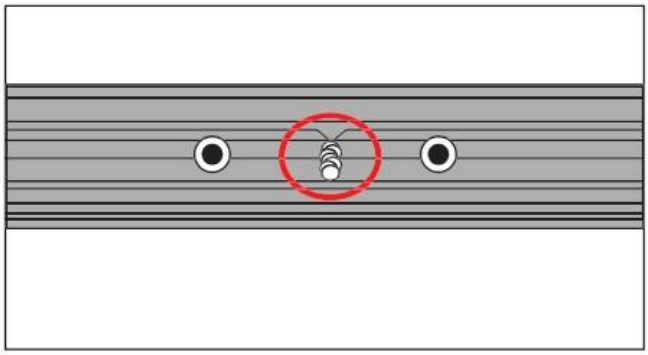


Figure 5

Test fit your window in the cut hole opening and make any adjustments to the hole as necessary. The window frame should be able to move freely in and out within the cut hole without binding. For sheet metal applications, clean the cut hole edges with isopropyl alcohol, apply touch up paint on the exposed surfaces and allow to dry.

Fabricating your spacer frame: Your window installation requires a flat wall mounting surface to match the flat surface of our window frame. For curved sheet metal applications such as vans, or walls less than 24mm (15/16”) thick, a spacer frame made of metal or hardwood is required. When clamped to your wall, this spacer frame will bring your wall to the minimum thickness required, it flattens the surface of your sheet metal (for curved applications), and it also provides a foundation for the blind & screen assembly mounting screws. Non-curved sheet metal walls thicker than 24mm (1”) do not require a fabricated spacer frame.

**The use of plywood, OSB or any other soft, flexible material to fabricate your spacer frame is not recommended, as these materials do not provide a stable, secure mounting surface, and water leaks will occur.

Prior to installing the window, the spacer frame should be affixed to the interior wall surrounding the cut hole. To secure the frame a high strength polyurethane adhesive is recommended for curved sheet metal applications. Very High Bond (VHB) tape can be used for flat wall surfaces. Clamp the fabricated spacer frame to the wall. (Figure 6)

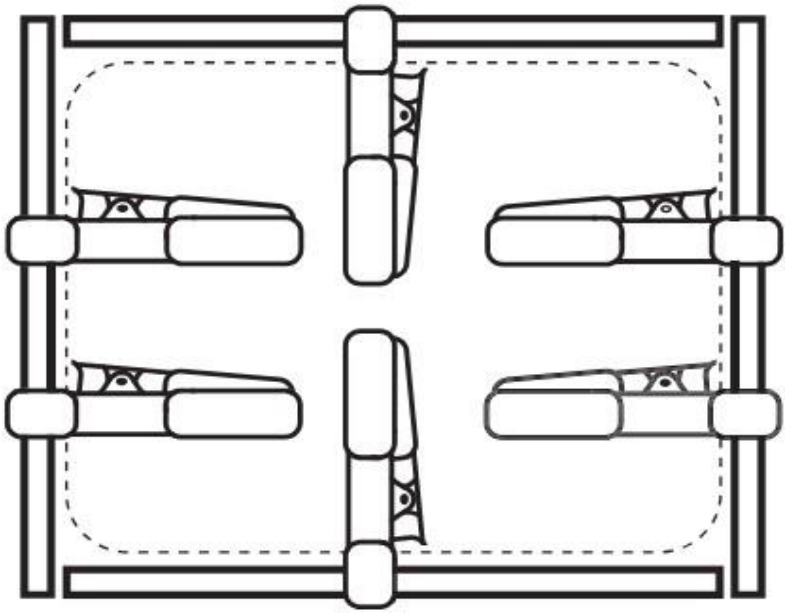


Figure 6

If using adhesive for your fabricated spacer frame, allow adhesive to cure based on the adhesive manufacturer’s recommendations before installing the window.

Installing the window:

**Please do not use any adhesive on the window unit or on window seal surfaces. This may damage the rubber window seal and cause water leaks.

Place the window assembly into the hole from the outside of the wall and have a helper hold the window securely in place until the inner frame ring is secured. From the inside of the vehicle, fit the inner frame ring into place, orienting it so the silver blind & screen mounting brackets are located on the top, facing the interior of the vehicle.

Verify that the inner frame ring provided is the correct depth for your wall thickness. The larger outer flange of the inner frame ring should sit flush against the surface of the wall or against your fabricated spacer frame. There should be no visible gap between the outer window assembly and the inner frame ring. (Figure 7)

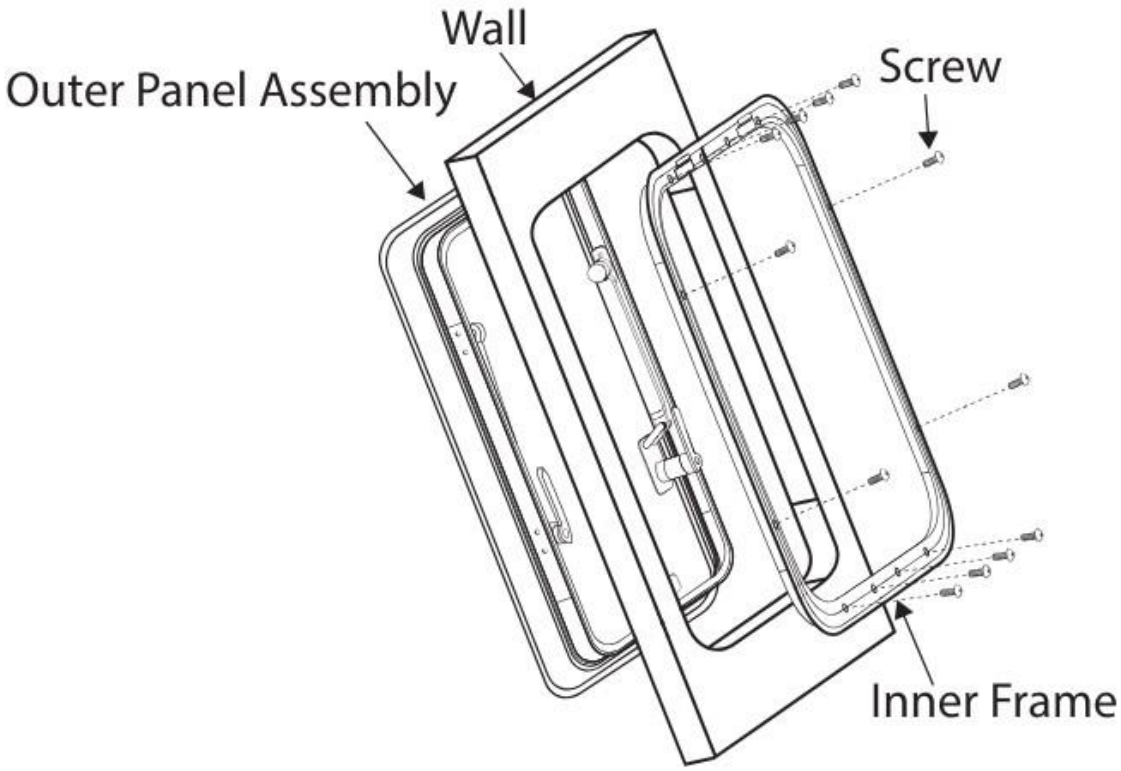


Figure 7

Inner frame ring screws installation: The window is supplied with two lengths of inner frame ring screws; M4 x 14mm and M4 x 20mm. Refer to the chart below to select the correct screw length for your specific wall thickness range. **Please note that using the incorrect screw length can damage your window frame and will cause water leaks. (Figure 8)

Wall Thickness (mm)	Screw Specifications
24-30 mm	M4X14
30-34 mm	M4X20
34-39 mm	M4X14
39-44 mm	M4X20
44-49 mm	M4X14
49-54 mm	M4X20
64-69 mm	M4X14
69-74 mm	M4X20

Figure 8

Apply non-Teflon anti-seize compound to the inner frame ring screws. Using a hand screwdriver, loosely install the screws through the holes in the inner frame ring and into the threaded inserts in the window frame. Please do not use a power tool to install the screws and do not over-tighten. **The screws must not bottom out in the holes, or damage to the window frame will occur and the main window seal will not be sufficiently compressed. Do not tighten the screws at this time.

50% - 75% compression of the main window seal is required. This is effectively your inner frame ring screw torque spec. To achieve this, measure the distance between the outer surface of your wall and the inner surface of the window frame while the window is pressed gently against the wall. Tighten the inner frame ring screws in a crisscross pattern until 50% to 75% compression of the window seal is achieved.

After installation, perform a water leak test to ensure the window is water-tight.

Mounting the blind & screen assembly: The blind & screen assembly can be mounted with the bug screen on top and shade on the bottom, or vice versa.

Open the blind roller covers by pulling from inside. (Figure 9)

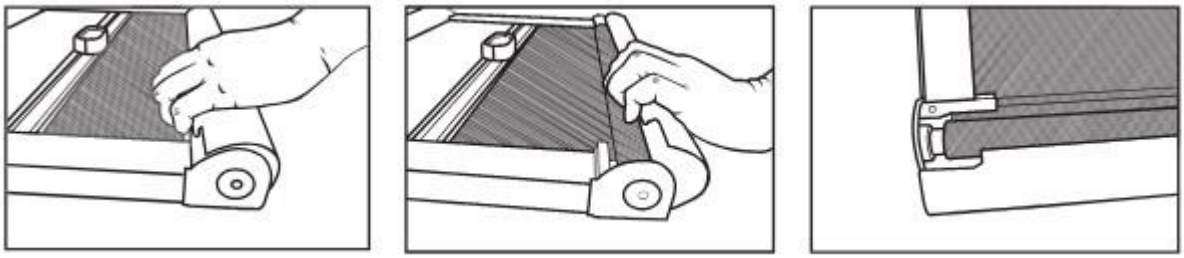


Figure 9

Position the blind & screen assembly over the silver brackets on the inner frame ring. Center the blind on the window. Locate the mounting screw hole locations. There is one hole in each corner of the assembly. Drill pilot holes for the mounting screws. Using a hand screwdriver, tighten the mounting screws. Do not over-tighten, as the plastic corner brackets may break or cause binding. Once the mounting screws have been installed, rotate and snap the blind roller covers into the closed position.

Congratulations! You're finished installing your Arctic Tern Window!

Follow the operating and cleaning instructions for the use

and maintenance of your new windows.

Window Operation Instructions

Opening a window equipped with detent-style struts:

Push the center button on the handle and rotate to unlock. (Figure 10)

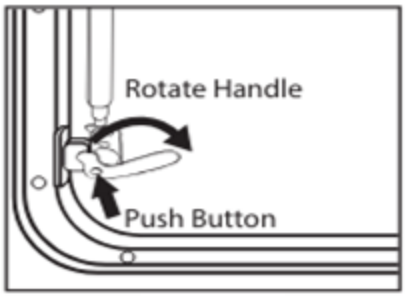


Figure 10

Push the acrylic panel outwards.

Windows equipped with detent-style struts will have 2 to 3 detent positions depending on window size. After each “click”, release outward pressure on the window panel and allow window to settle into the available stopping positions. (Figure 11)

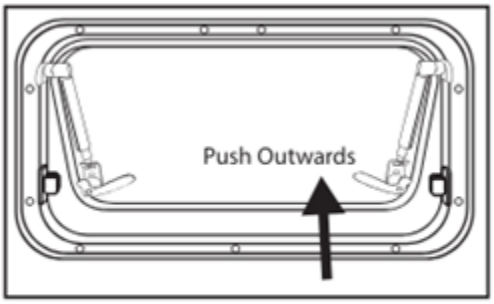


Figure 11

Closing a window equipped with detent-style struts:

Push the acrylic panel all the way outwards to release the locking detents, then pull inward to the fully closed position. (Figure 12)

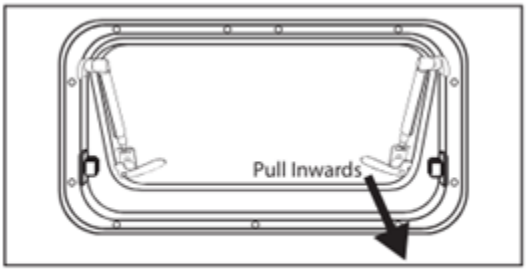


Figure 12

Window Operation Instructions
(Continued):

Opening a window equipped with cam-lock style struts

Push the acrylic panel outwards. When the desired open position has been reached, rotate the cam-lock levers upward to lock the struts in place (Figure 13).

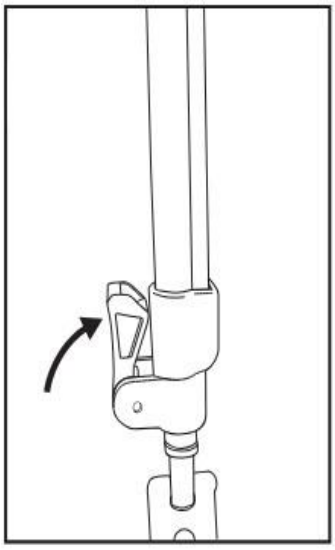


Figure 13

Closing a window equipped with cam-lock style struts

Rotate the cam-lock levers downward to unlock the struts (Figure 14)

Pull the acrylic panel inward.

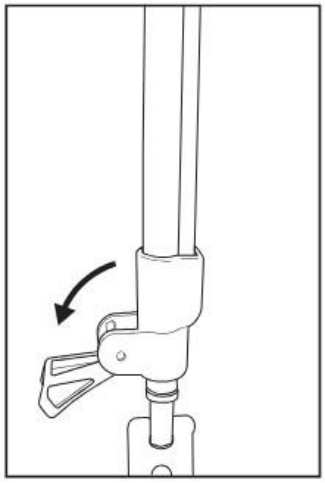


Figure 14

Window Operation Instructions
(Continued):

Locking the windows

All windows are equipped with a semi-lock position, allowing slight ventilation while parked. (Figure 15)

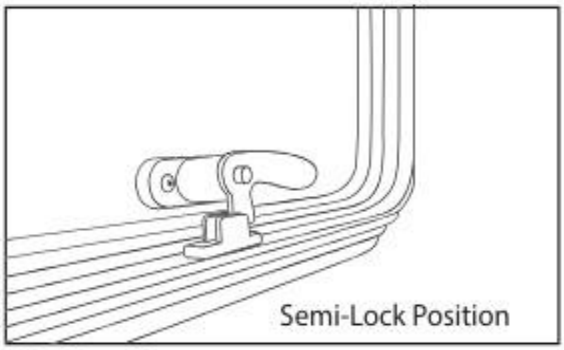


Figure 15

Windows must be fully closed, and all handles must be in the full-lock position while the vehicle is in motion. (Figure 16)

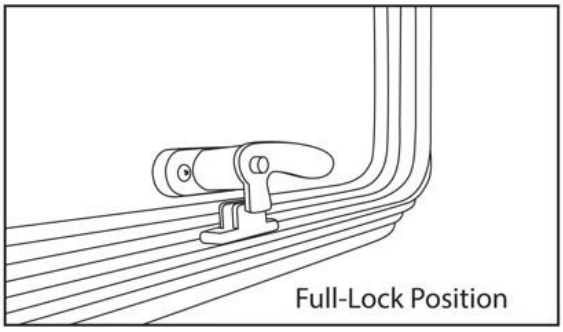


Figure 16

Blind & Screen Operation Instructions

Use the center handles to raise and lower the panels independently. (Figure 17)

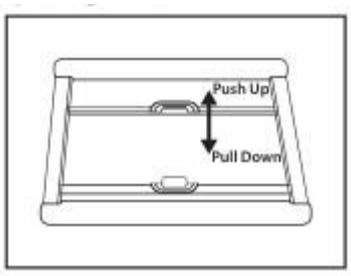


Figure 17

The blind and screen panels can be locked together by joining the two center handles. Once locked together, the two panels can be raised and lowered in unison.

(Figure 18)

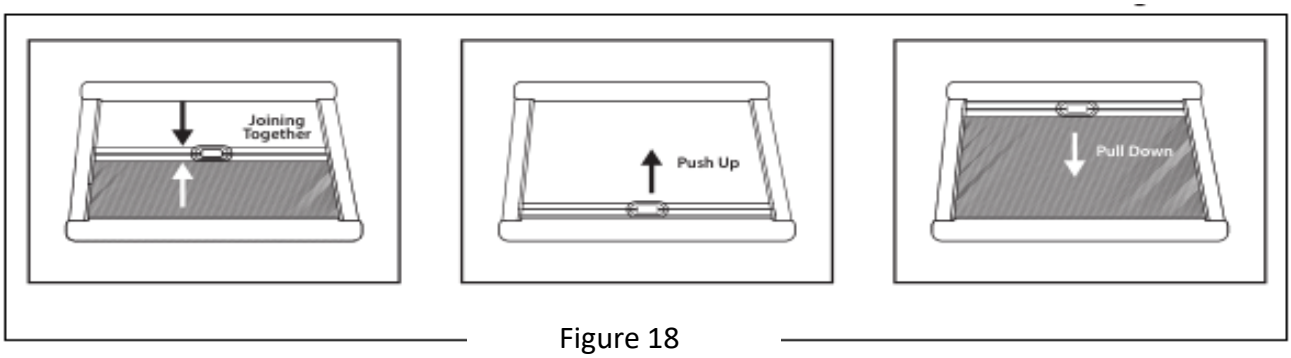


Figure 18

To unlock the center handles, press down on the release, located in the center of the handle.
(Figure 19)

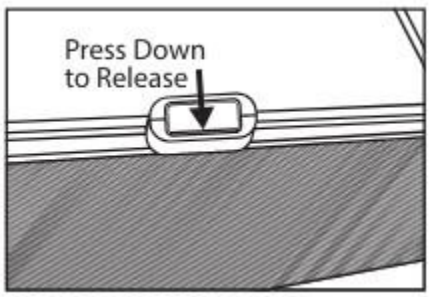


Figure 19

Acrylic Window Care

Following these simple steps will ensure long service life from your acrylic windows.

1. Always rinse abrasive dust from the window before cleaning.
2. Never use glass cleaner to clean acrylic unless it specifically meant for acrylic. *Ammonia based cleaners are especially damaging*. A better solution is a few drops of dish washing liquid in water. Dry with a soft towel or chamois cloth.
3. Automated car washes should be avoided due to the possible abrasives in the wash wheels.
4. We recommend Novus brand plastic cleaners and polishes:

   Novus 1 is for day-to-day cleaning. It leaves a bright, static free surface that resists fogging and fingerprints.

   Novus 2 is for polishing out fine scratches.

   Novus 3 is for removing deeper scratches. It should always be followed Novus 2.

   We are an authorized NOVUS Distributor.

Warranty

Arctic Tern products are warranted by Tern Overland to be free of manufacturing defects in materials and workmanship for a period of one year from the date of purchase.

All warranty returns must have a Returned Merchandise Authorization number on the outside of the packaging. Returned Goods without an RMA will not be accepted.

This warranty is limited solely to the replacement of Arctic Tern branded products.

Shipping costs to execute this warranty shall be covered by Tern Overland LLC. Tern Overland LLC. accepts no responsibility for consequential damages, including local installation costs.