Tern Overland
Engineered for Endurance

Arctic Tern Cargo Door Installation Guide

DO NOT attempt to install this cargo door before completely reading and understanding ALL Instructions and Considerations for Fitment (Found on our Website Library Page).

Almost ALL issues of damage, leaking, and improper function are due to improper installation. A great deal of time has gone into creating this document to ensure your installation will be easy and successful.

READ ENTIRE INSTALLATION GUIDE BEFORE ATTEMPTING INSTALLATION.

Issues due to improper installation are not covered under the product warranty.

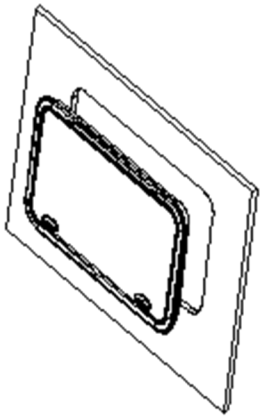
Arctic Tern Cargo Door Installation Guide

Thank you for purchasing an Arctic Tern Cargo Door from Tern Overland! We hope you have a great experience installing and enjoying the Cargo Door for years to come. Here are some tips and guidance. Please review before installing.

Installation Options: Generally we recommend using a combination of adhesives and mechanical fasteners to install these doors. When mechanical fasteners are not practical to use, these doors may be installed with our Bostik adhesive alone. If fasteners are not used, care must be taken to ensure a good bond and complete cure before the door is subjected to road stress. Glue a number of test pieces together and set them aside with the door to test for complete cure! The following instructions describe the use of fasteners & adhesive. To use only adhesive, disregard steps 2& 3. Be sure to leave .030 to .040 adhesive thickness under the flange. Do not push the door in so hard that all of the adhesive is forced out!

The cargo door requires two people to install. You will need the following tools and supplies:

- Drill / screw gun
- 3/16” and 1/8” drills
- #20 torx bit
- Masking tape and electricians tape
- 2 tubes of Bostik adhesive for the larger doors and 1 tube for the small and medium doors (1 sausage = 2 tubes)
- Scotchbrite pad
- Isopropyl alcohol



Step 1: **Mark and cut the door hole:** The hole should be close to the size of the cargo door and should not exceed the door size by more than 3mm. Generally, the cut hole is the hatch size plus 2mm, and the corner radius is 70mm. Example: 300x600 hatch = 302mm x 602mm. Cut the hole using a suitable saw for your wall material. Masking tape should be used to protect surrounding areas from the saw base. Note: If your wall is not solid, you may need to create embedded framing around the door opening to support the door. Composite walls can be cored with a hole saw, and a wooden plug glued in where the screws need to go.

Step 2: Prepare the door for installation: Tape four #10 flat washers to the glue flange on the cargo door, to space it out from the wall about .030" to .040". This is the thickness required for the glue, and it will ensure that the mounting holes are properly positioned.

Step 3: Trial fitting: Lift the door into the cut out. Have a friend open the cargo door and hold the door frame firmly against the wall. Your mounting screws will go through the door frame, and into the door jamb. Using the 1/8" drill, drill holes into the top and bottom of the door frame, and into the door jamb (4 holes total). Enlarge the holes in the aluminum door frame using the 3/16" drill. Secure the door into the door opening using 4 of the screws provided. Drill and add additional screws through the frame at about 12" intervals. Do not use the sealing washers for this step.

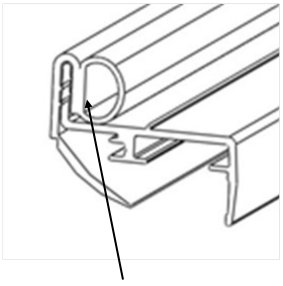
Note: The mounting screws must not span an open gap. Spanning a gap may distort the door frame and prevent the door from operating smoothly. If gaps exist where the screws go through, fill the gap with a plastic or wooden shim. Close the door, test for proper latch function, and smooth door operation. If there is any binding in the operation of the door, you may have to adjust or shim the door frame to achieve a perfect alignment between the frame and the door.

Step 4: Once the alignment of the door is perfect and all the screws are in place, use the masking tape to mask all around the exterior flange of the door. Masking tape is best for the straight sections, and the electricians tape works well around the corners.

Step 5: Remove the door assembly from the wall. Remove and discard the #10 washers.
Scuff the wall surface where the glue will bond, as well as the flange on the door.
Wipe both with isopropyl alcohol.

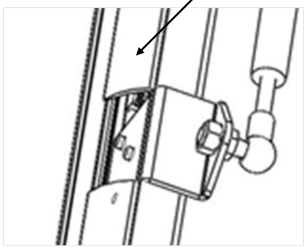
Step 6: Put a ¼" bead of Bostik adhesive around the door flange. Push the door gently into the door opening. Open the door and have a helper support it. Compress the adhesive until the holes that you drilled through the door frame line up, no farther. Start all the screws through the door frame, then snug them down. Be sure to use the silicone gel sealing washers included! Do not overtighten these screws, just good and snug. You should see adhesive evenly squeezing out around the door frame.

Step 7: . Gently check the function and fit of the door in the frame one last time. Make any last-minute adjustments quickly before the adhesive sets. Close the door and allow the adhesive to cure before subjecting the door to stress.

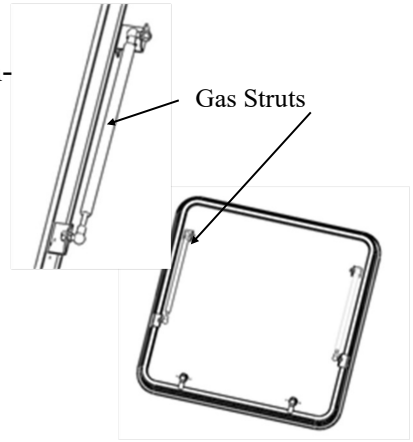


Step 8: When the adhesive is set to a soft rubbery consistency, use a razor knife to cut the squeezed-out rubber all around the frame and pull up the masking tape. This will give you a clean perfect glue edge with minimal cleanup.

Step 9: A bead of adhesive should be run around the inside of the door to fill the crack and further secure the door. Scuff and clean all glued surfaces.



Step 10: Have a helper hold the door while you install the gas struts. The gas cylinder should be attached to the door, and the rod to the frame. This ensures proper lubrication and sealing of the strut. The strut should be installed on the inside of the frame bracket, away from the sealing flange, and on the outside of the door bracket, toward the sealing lip. This gives a straighter alignment of the strut and does not obstruct the opening.



Clean the door with a cleaner or polish suitable for powder coating. We highly recommend NOVUS products. You can find out more on our website or give us a call to order.