



Alpaca Carriers, Inc. manufactures multi-purpose carriers or racks in Kimball, Minnesota. The carriers feature a patented system of pins that can be easily relocated on a frame along with our patented Alpaca Cinch™, a fastening system that self adjusts to articles of any shape or size, making our carriers very versatile, and easy to use.



**1500 2DELTA 2**

**Alpaca Trike & Bike Carriers™**

**We have a carrier line designed to carry a combination of trikes & bikes.**



**Alpaca Carriers, Inc.**

**14087 State Hwy 15**

**Kimball, MN 55353**

**John Stein**

**Ed Stein**

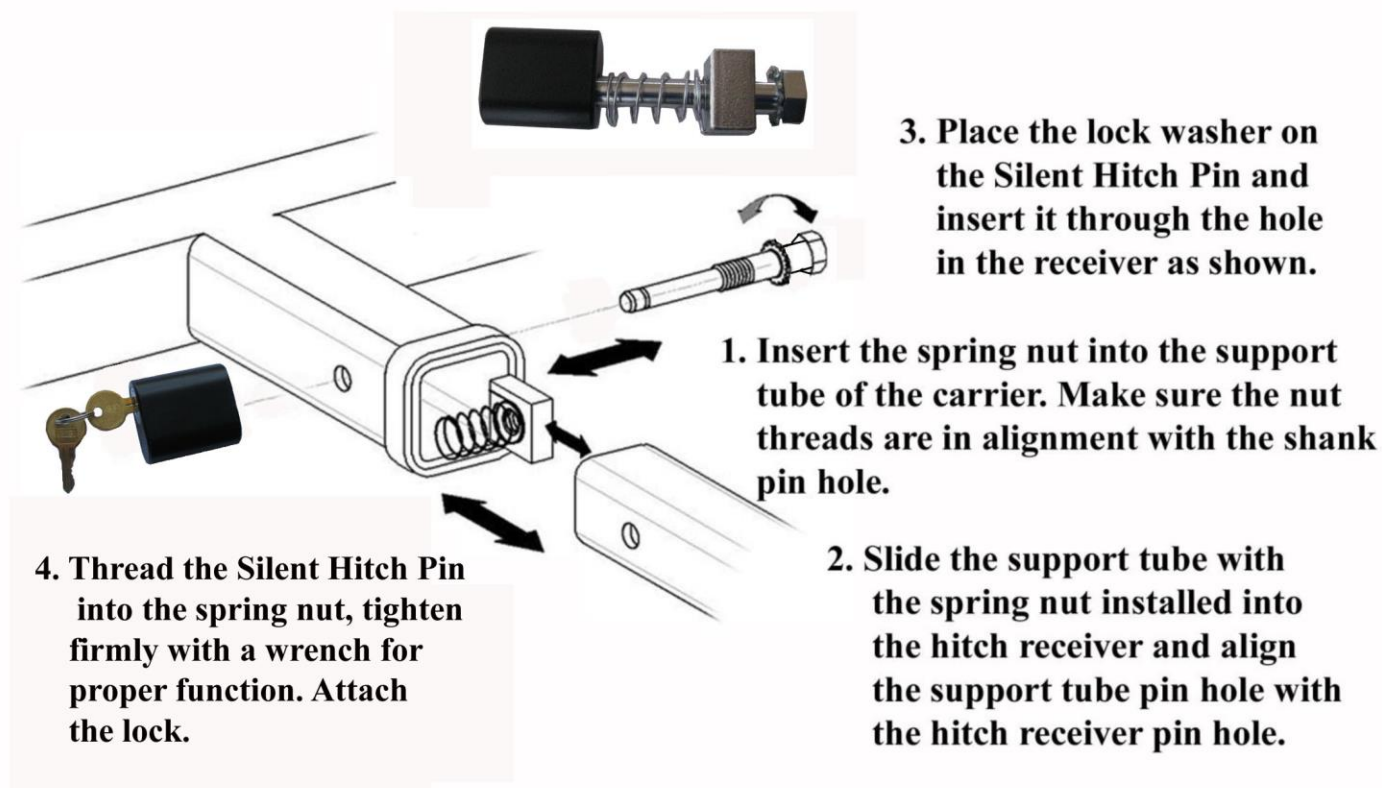
**E-mail: [alpaca2@msn.com](mailto:alpaca2@msn.com) [edstein2@meltel.net](mailto:edstein2@meltel.net)**

**Business: 320-398-2497 or 877-350-3361**

**<http://www.alpacarriers.com>**

**Protected by US Patent  
#6,772,929 B1**

## (OPTIONAL) Silent Hitch Pin Lock Assembly & Use



## (OPTIONAL) Anti-Sway Device Assembly & Use

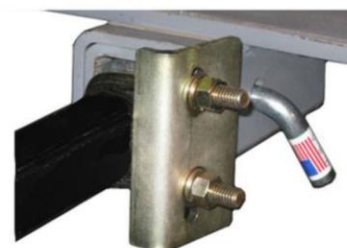
Slide U-Bolt through the slotted holes in the compression plate as shown.



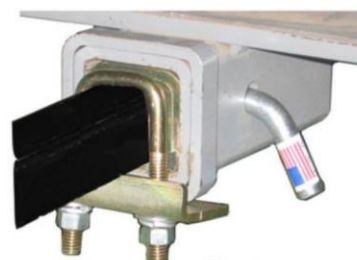
Put flat washer, lock washer and nut on each side of U-bolt.



The anti-sway device is used to tighten the support tube against the receiver hitch reducing sway and rattle. This will work with any 1 1/4 or 2-inch receiver hitch, ball mount or rack. It can be used on the side or bottom of the hitch. Specify the hitch and support tube size and we will furnish the correct U-bolt.



Side use



Bottom use



## Assembling the 1500 2DELTA 2 Carrier Frame

(1) Insert the load support tube into your receiver hitch. Align hole in receiver hitch with hole in load support tube. Insert hitch pin through the hole. Slide hitch pin clip into hole in hitch pin. If you purchased the silent hitch pin lock as recommended it replaces the hitch pin.



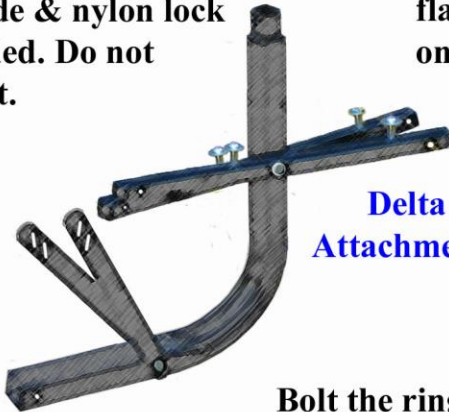
(2) Bolt the delta adjusting braces to the load support tube as shown. Use the 3/8-16 X 3 inch grade 5 bolt & nylon lock nut provided. Do not tighten nut.

Delta  
Adjusting  
Braces.

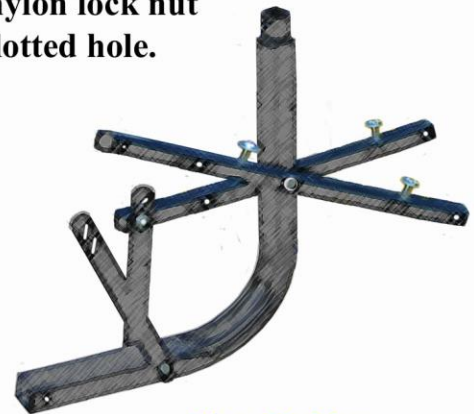


(3) Bolt the delta attachments to the load support tube as shown. Use the 3/8-16 X 5.5 inch grade 5 bolt, a washer on each side & nylon lock nut provided. Do not tighten nut.

Delta  
Attachments



(4) Bolt one delta attachment to the bottom slot in the delta attachment adjusting brace as shown. Use the 3/8-16 X 2 inch grade 5 bolt and a flat washer with the nylon lock nut on the side with the slotted hole.



Bolt the ring holders to the locations shown in the pictures.



Coupling



(5) Repeat for the other side using the top slot in the delta adjusting brace. Do not tighten nuts.

Ring Holder  
Frame  
Top

(6) Slide the frame top into the coupling on the support tube to the desired setting, align holes, start with the middle hole, it will usually work best, use the 3/8-16 X 2.25 inch grade 5 bolt, a washer on each side & nylon lock nut provided to tighten the connection. A long shackle padlock can be used to attach straps or provide a loop for a cable lock.

Ring  
Holder



## Attaching Pins to Alpaca Trike & Bike Racks

Go to [www.alpacacarriers.com](http://www.alpacacarriers.com) and watch the videos. The frames and some components on Alpaca Racks will differ to accommodate different items, hitches and vehicles, but the racks are based on the same system of pins and cinches. The combination of videos will help understand how to use the Alpaca Racks. The video Attaching Pins & Cinches to the Alpaca 1700 Road Trip Adventure Rack demonstrates how to attach a through pin and a cinch to a rack with no strap clip.

### Through Pin 36



These pins are used for loads when two 5-inch or two 10-inch pin spacings are needed. One sleeve can be slid on the pin as pictured above, then the pin is slid through the desired hole in the frame top before the second sleeve is slid onto the other side of the pin. The sleeves hold the pins in place.

If you hold onto the sleeve at the location of the steel pin it will not slide on, push the sleeve from the end. To remove the sleeve pull it against the hole from the opposite side.

The same material is used on the other pins and spacers, but it is not binded to the pin. The sleeves, are easy and inexpensive to replace. They will not be as durable if cut with a sharp object. The sleeve may move slightly in warm conditions, but will be difficult to remove when temperatures are below 60 degrees.

One of these pins can be used with two of the standard pins to create a different combination of spacings if necessary, however these pins are 1.5 inches longer.



### Carrier Pin 18



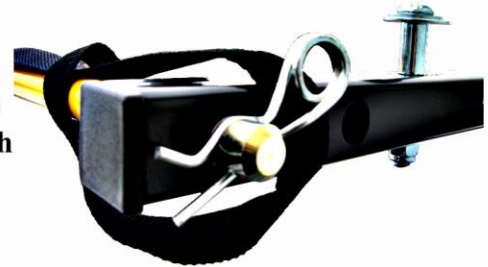
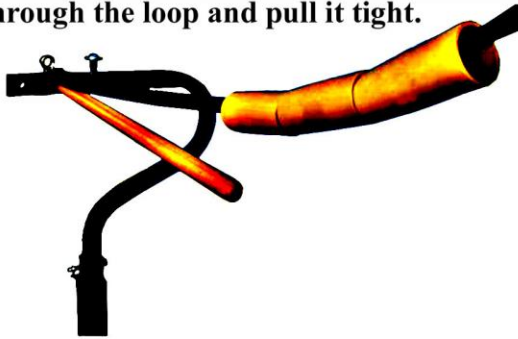
Slide pins through the desired holes from the preferred direction, insert double loop hitch pin clips into the grooves in the pins.



## Attaching Alpaca Cinch™ to Trike & Bike Carriers

Go to [www.alpacacarriers.com](http://www.alpacacarriers.com) and watch the videos. The frames and some components on Alpaca Racks will differ to accommodate different items, hitches and vehicles, but the racks are based on the same system of pins and cinches. The combination of videos will help understand how to use the Alpaca Racks. The video Attaching Pins & Cinches to the Alpaca 1700 Road Trip Adventure Rack demonstrates how to attach a through pin and a cinch to a rack with no strap clip.

Slide the loop on the end of the strap over the pin and against the carrier frame, run the other end of the strap around the carrier frame from the bottom so the strap is on the side of the pin toward the center of the rack between the double loop hitch pin clip and the frame. Take the end without the loop, run it through the loop and pull it tight.



The desired number of spacers are slid over the end of the strap to space the trike from the carrier frame and other trike. With delta trikes start with two spacer/pin on the top pins and three spacers/pin on the bottom pins. Make the necessary adjustments after you try the trikes on the carrier.

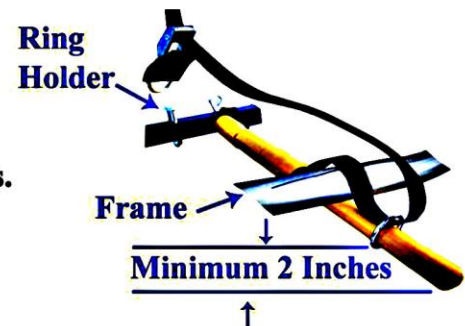
Then slide the spacers over the end of the pin. They hold the strap close to the pin and the trike at the desired location on the pins. The spacers remain on the pin. Slide a steel ring onto the strap.

Press the clasp on the cam-buckle, slide the end of the strap through the opening from the bottom as shown and let go of the clasp. The cinch is ready to use. Repeat the process for the other cinches.



After the carrier is set up with the desired number of spacers and the buckle is attached to the strap as shown, the carrier is ready to load.

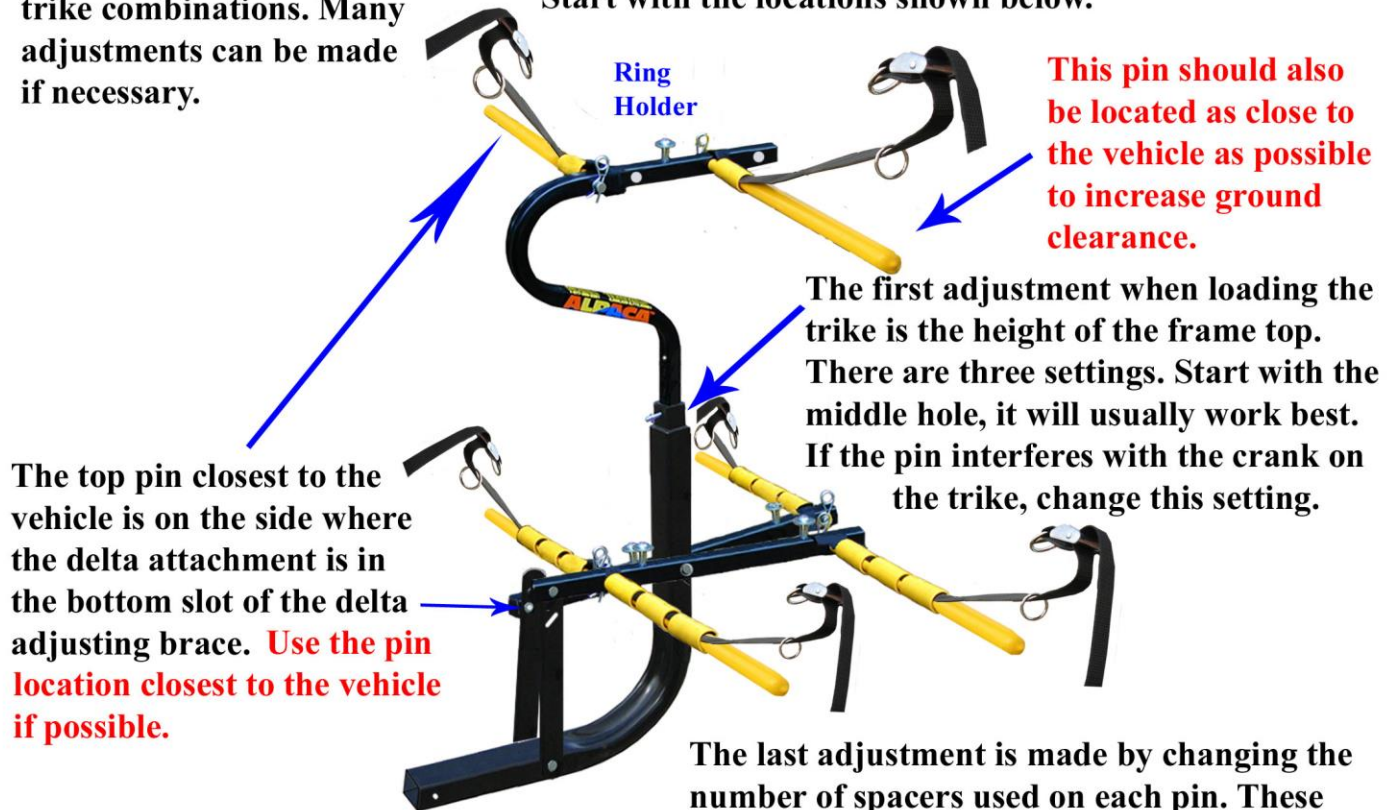
The cinch is quick and easy to use. Load the trike or bike, run the strap over the frame, slide the ring over the end of the pin to the frame, pull the strap tight, run the strap back over the frame, hook the ring on the short strap with the cambuckle over the ring holder and tighten the strap. Repeat for all cinches. This method of cinching will hold the trike or bike very secure and can be used for other items. The pin must extend at least 2-inches past the last ring and the strap must be tight enough so the last ring or spacer cannot slide off the end of the pin for the item to be secure.



## Delta Carrier Setup and Loading

The carrier set up this way will work with most delta trike combinations. Many adjustments can be made if necessary.

There are two extra pin locations on the top frame if needed. The delta attachment will pivot to the proper location to use any pin location and any side of the pin. Start with the locations shown below.



Load the delta trike on the side of the carrier with the pin closest to the vehicle first, as shown. Run the top strap over the frame of the trike avoiding as many obstacles as possible, slide the ring over the end of the pin to the trike frame, pull the strap tight, run the strap back over the frame, hook the ring on the short strap with the cam buckle over the ring holder and tighten the strap. Repeat for the bottom two cinches.

**Load the narrower trike with the smallest tires last. Use the pin location as close to the vehicle as possible for maximum ground clearance. This is very important as a lot of clearance is necessary because of the distance from the vehicle. If you set this so the tire is too close to the ground you will damage your trike.**



# Using the Alpaca Cinch™ with Trikes & Bikes

Load the trike or bike, run the strap over the frame, slide the ring over the end of the pin to the frame, pull the strap tight, run the strap back over the frame, hook the ring on the short strap with the cambuckle over the ring holder and tighten the strap. Repeat with all cinches. This method of cinching can be used for all item.



A bike can be carried with a trike.

There may be situations when it is easier or better to use the cinching method shown bottom right picture. There is no right or wrong method. Every load is different. This carrier is built to last. Like a trailer if you can stay within the vehicle, hitch and carrier load limits and secure the item to the carrier you can carry it. If you feel an extra strap is necessary for your load use it.



In the cutaway view on the delta trike rear tire notice how a spacer is used to prevent the ring from touching paint if necessary.

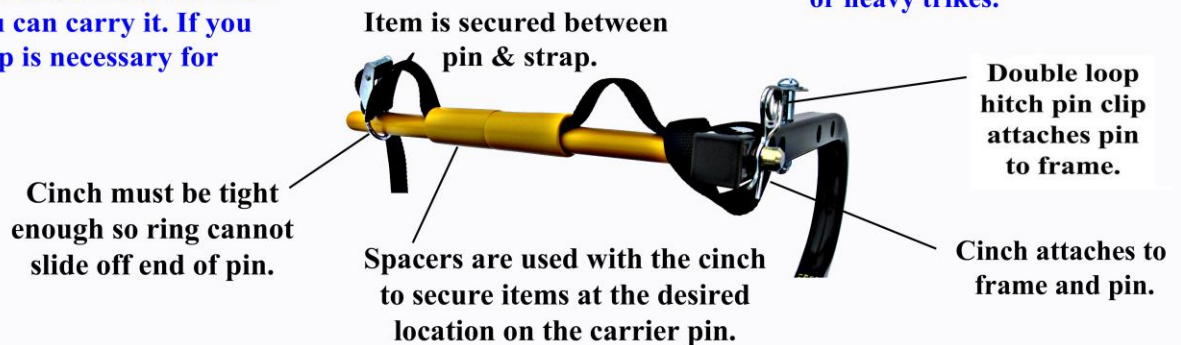
When carried with a delta trike the rear tire of the tadpole trike is secured to the delta attachment with the spring buckle strap provided.



Do not carry a single large heavy trike as pictured above. This works fine with small light trikes.



This centered approach is a better way to transport a single large trike. With the load centered there will be less stress on the vehicle, hitch and rack. Use 'vehicle to carrier' straps with large or heavy trikes.





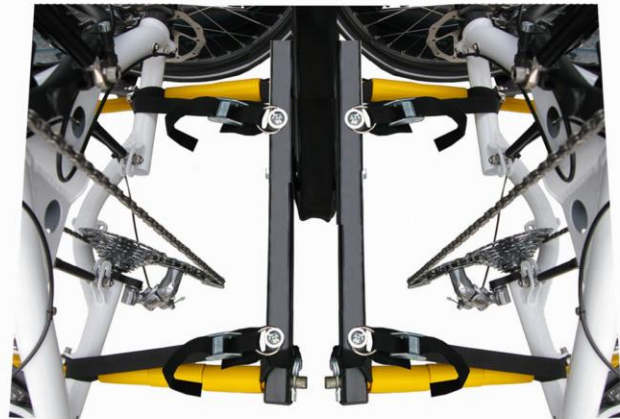
## Using the Alpaca Cinch™ with Delta Trikes

Notice the difference in the two cinches in the picture below they both will work, but the one on the right will tighten best.



### TOP CINCH LOADED & TIGHT

If the trike has two large tubes on the frame cinch the one closest to the carrier frame and the cinch will work better. If the trike is on the same side of the pin as the ring holder so the strap runs a straighter path back to the ring holder, the cinch will tighten better. See picture above.



### BOTTOM CINCHES LOADED & TIGHT

It is not necessary to have an equal number of spacers on each pin.

With these Hase Trikes the steering mechanism runs along the frame to the front tire, by simply adding an extra spacer to the bottom pin farthest from the vehicle the trike is rotated enough so the strap doesn't interfere with this mechanism.

**ONCE THE TRIKES ARE LOADED AND CINCHED TO THE CARRIER TIGHTEN ALL BOLTS.** The carrier is set up for this trike combination. Load them the same each time and no additional adjustments are needed.

**Warning: When loaded the carrier will exceed the height of most vehicles. Do not go where there is not enough clearance.**

**Warning: Remove luggage bags from trikes before transporting.**

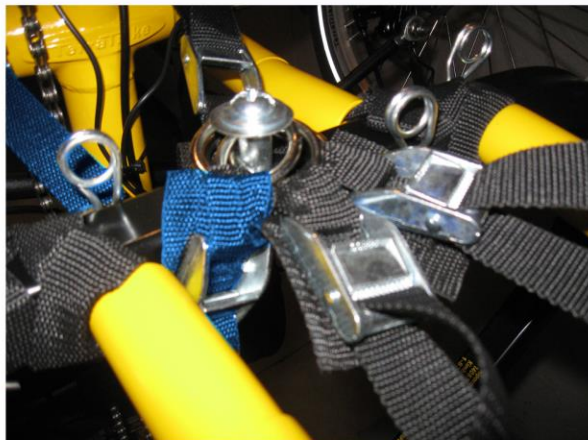


## Cinch Possibilities.

Go to [www.alpacacarriers.com](http://www.alpacacarriers.com). Watch the videos to learn how the cinch works. The pictures show variations of the cinch that will help in some situations.



The method used in most situations. Steel ring goes over end of pin, tight against object, strap takes direct path to ring holder, ring on end of strap placed over ring holder and strap is tightened.



Run the last strap (the blue one in this picture) under the frame, then hook the ring over the ring holder, when pulled tight all rings are secure to the ring holder.



Hooking the ring so the buckle faces down makes the strap easier to reach for tightening high loads.



When it is too difficult to get back to the ring holder go over the end of the pin.

Do not get hung up on the idea that everything needs to be done a certain way. The load dictates what you do. The difference between our cinch and a strap used to secure an item to a trailer, the ring has infinite adjustment on the pin, forcing the strap to perfectly conform to the item carried, making it much more secure. Choose the straightest return path to the ring holder for the strap that avoids the obstacles and tightens the bikes to the carrier. Sometimes it is better to hook the ring over the end of the pin. A simple adjustment or change can make a huge difference, especially on larger loads. People do different things to adapt the carrier to their particular situation. You are responsible for your load, do what works for you. If you intend to carry multiple items on a set of pins, go to [www.alpacacarriers.com](http://www.alpacacarriers.com); Alpaca Compact Carrier; Using the Cinch.

**Warning:** This carrier has been designed to carry trikes & bikes on vehicle receiver hitches. User must inspect components for tightness, wear, deformation, cracks or elongation before each use. It is the user's responsibility to attach the carrier correctly to the vehicle, and secure the articles to the carrier. The manufacturer and seller expressly disclaim any and all liability for personal injury, property damage, or loss whether direct, indirect or incidental, resulting from the incorrect attachment, improper use, inadequate maintenance, or neglect of the carrier.

**Alpaca Carriers, Inc.**  
14087 State Hwy 15  
Kimball, MN 55353  
**Toll free: 1-877-350-3361**  
Protected by US patent  
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## **LIMITED WARRANTY**

Alpaca Carriers, Inc. warrants this product to the first consumer to be free from defects in material and workmanship under normal use for a period of twelve (12) months from the date of purchase. Alpaca Carriers, Inc.'s sole responsibility under this warranty is limited to the repair or replacement of any defective part of such product. The cost of such replacement, including labor and parts, but excluding shipping, is the responsibility of Alpaca Carriers, Inc. This warranty is void if this product has been subject to any unauthorized modification, use with any unauthorized attachment, device or feature, accident, neglect, misuse, or any event other than ordinary use. Consumer must provide proof of purchase to validate warranty.

Alpaca Carriers, Inc. does not warrant the products of any third party manufacturer, which may be supplied with this product, and the purchaser agrees to look only to such third party for any warranty claim relating to such product. ALPACA CARRIERS, INC. LIMITED WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OR MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.