CycleSimplex Bike Rack Assembly Instructions

Vertical Tandem Bike Rack

v5.0

2” Receiver Insert

Precautionary and Maintenance Information:

Each wheel and Wheel Stop must be secured with the straps.

When you are not carrying trike(s)/bike(s), you can either leave the straps attached through the slots or remove them. If you leave the straps on the rack, they should be connected just as they would with the trike or bike on the rack, otherwise they may be lost.

There is always some flex in metal. Because of this you should check and tighten bolts before each use.

You should check the straps for wear before each use and replace if they show any wear.

This trike or bike rack will extend quite a distance behind or above your vehicle. Caution must be used not to “bottom out” on sharp dips or rises in your path. Your rack or trike(s)/bike(s) may also extend beyond the sides or roof of your vehicle so caution is required not to hit the rack or your trike(s)/bike(s) on other objects.

Vertical Tandem Bike Rack v5.0

Parts List

Small Parts Bag

	Item	Qty
1.	Hex Head Bolt - 1/2" thread x 1-1/2" long - Armor Coat	2
2.	Hex Head Bolt - 1/4" thread x 1" long - Armor Coat	4
3.	Lock Washer - 1/2” - Armor Coat	2
4.	Lock Washer - 3/8" - Yellow Zinc	2
5.	Lock Washer - 1/4" - Yellow Zinc	4
6.	Channel Nut - 1/2" thread	2
7.	Channel Nut - 3/8" thread	1
8.	Channel Nut - 1/4" thread	4
9.	Flange Head Bolt - 3/8" thread x 3” long - Black	4
10.	Flange Head Bolt - 3/8" thread x 1-1/4” long - Black	1
11.	Flat Washer - 3/8" - Black Nylon	2
12.	Flat Washer - 3/8” - Armor Coat	4
13.	Flat Washer - 1/4" Armor Coat	4
14.	Self-Locking Nut - 3/8"	3
15	Square Washer - 3/8"	1
16	Rubber Pad - 5-pack	1

Rack Components

	Item	Qty
A	Receiver Insert – Black, square tube, 2” x 32” long	1
B	Tandem Tower Bottom Strut - Silver, w/ 2 holes - 36" long	1
C	Tandem Tower Top Strut - Silver, slotted channel - 36" long	1
D	Tandem Tower Insert - Black, slotted channel, w/ welded Nut - 12" long	1
E	Slide - Silver, slotted channel - 18" long	1
F	Wheel Tray w/ strap	1
G	Long Wheel Stop w/ strap	1
H	Short Wheel Stop	1
I	7” J-Bolt Assembly	2
J	Z-Bracket	2
K	Flat Bracket - 2 Hole	2
L	Cam Buckle Strap - 25”	2
M	Cam Buckle Strap - 18”	2

Hardware:



1/2” x 1-1/2” Hex Head Bolt - Armor Coat



3/8" x 3” Flange Head Bolt



1/4” x 1” Hex Head Bolt - Armor Coat



3/8" x 1-1/4” Flange Head Bolt



1/4’ Lock Washer



3/8” Lock Washer



1/2” Lock Washer



1/4” Flat Washer



3/8” Flat Washer



3/8” Nylon Washer



3/8” Square Nut



3/8” Self-Locking Nut



1/4” Channel Nut



3/8” Channel Nut



1/2” Channel Nut



Rubber Pad - 5-pack

Components:



Tandem Tower Bottom Strut - 2 Holes (36” x 1 7/8” x 1 7/8”)



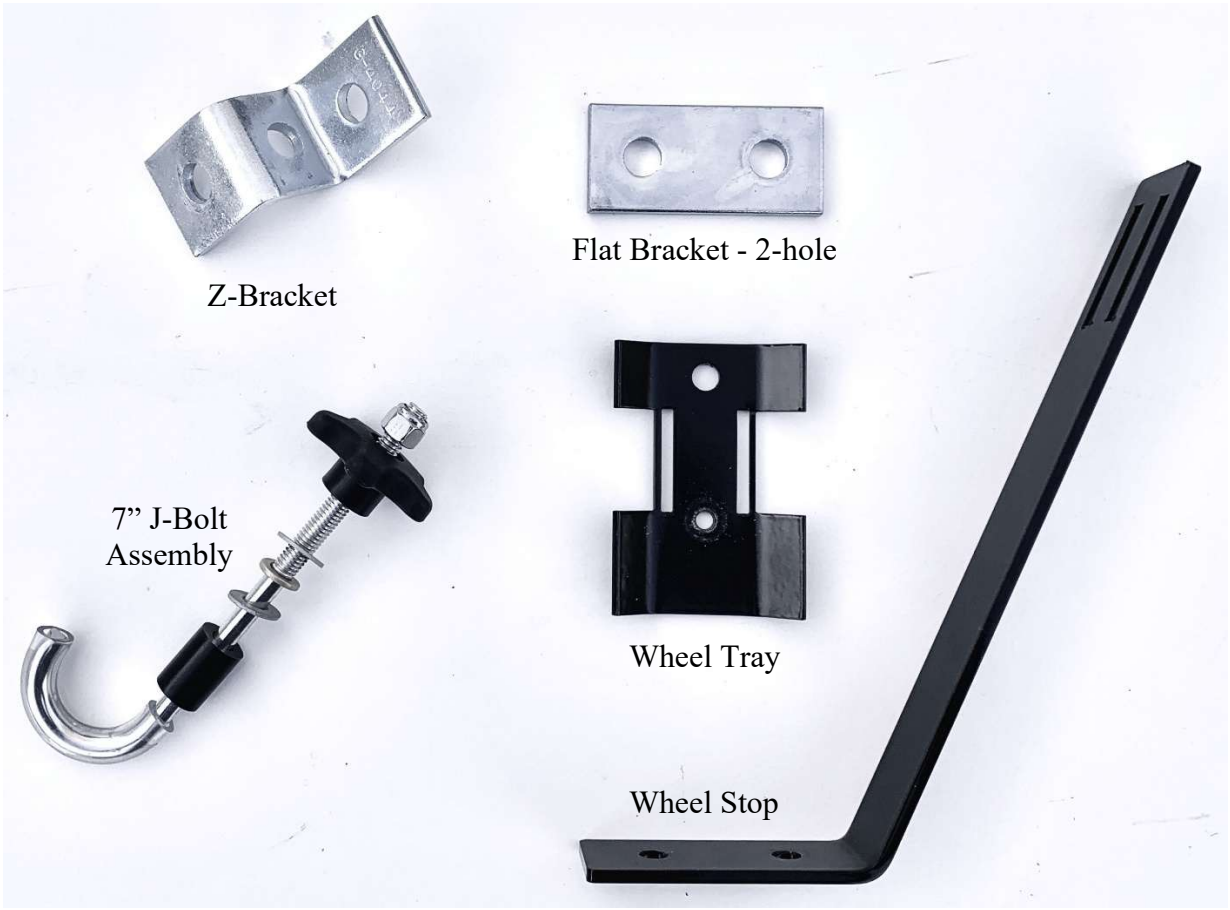
Tandem Tower Top Strut - Slotted (36” x 1 5/8” x 1 5/8”)



Tower Insert w/ Welded Nut - Slotted (12” x 1 5/8” x 1 5/8”)



Slide - Slotted (black or silver) - 18” long



WARNING:

The use of a 1.25” to 2” adapter is not recommended. If you use one in spite of this warning, only do so with anti-rattle bolts at each joint.

Figure 1: All Bolts requiring a Channel Nut or Square Nut must be assembled in the following fashion. This is a Bolt and Channel Nut or Bolt and Square Nut Assembly. The various kinds are shown below. Each may have either a square nut or a channel nut in accordance with the instructions

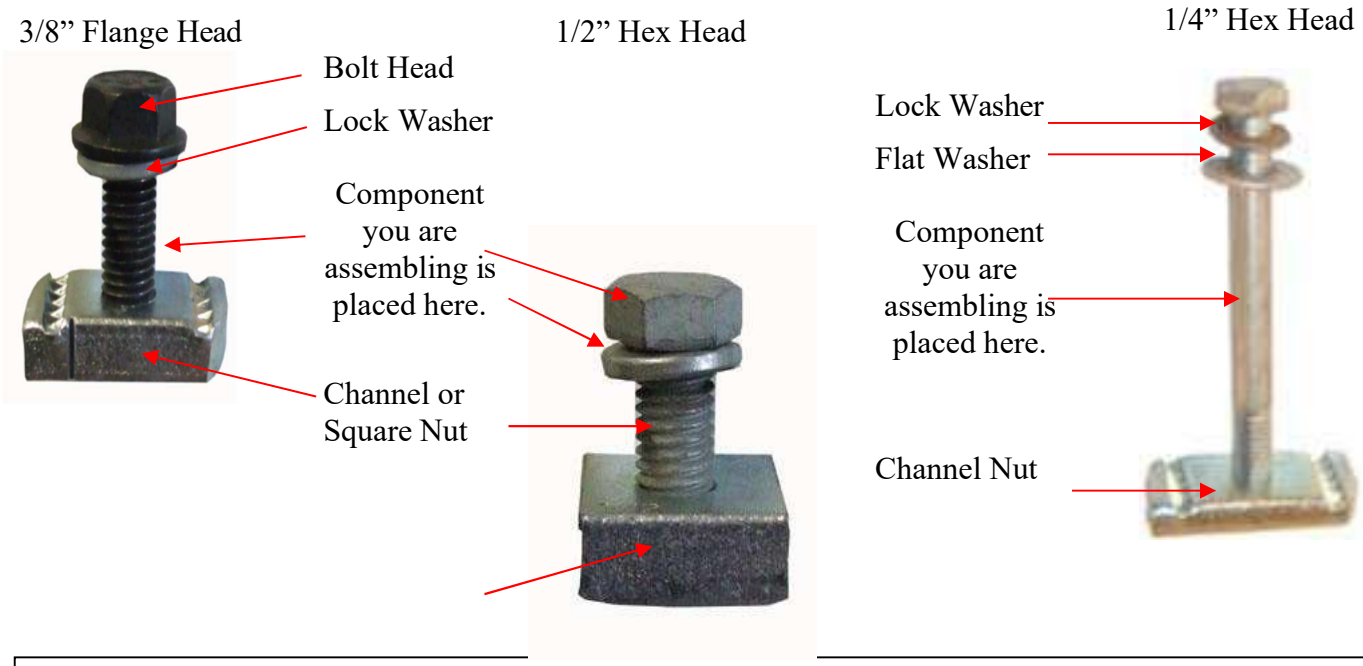
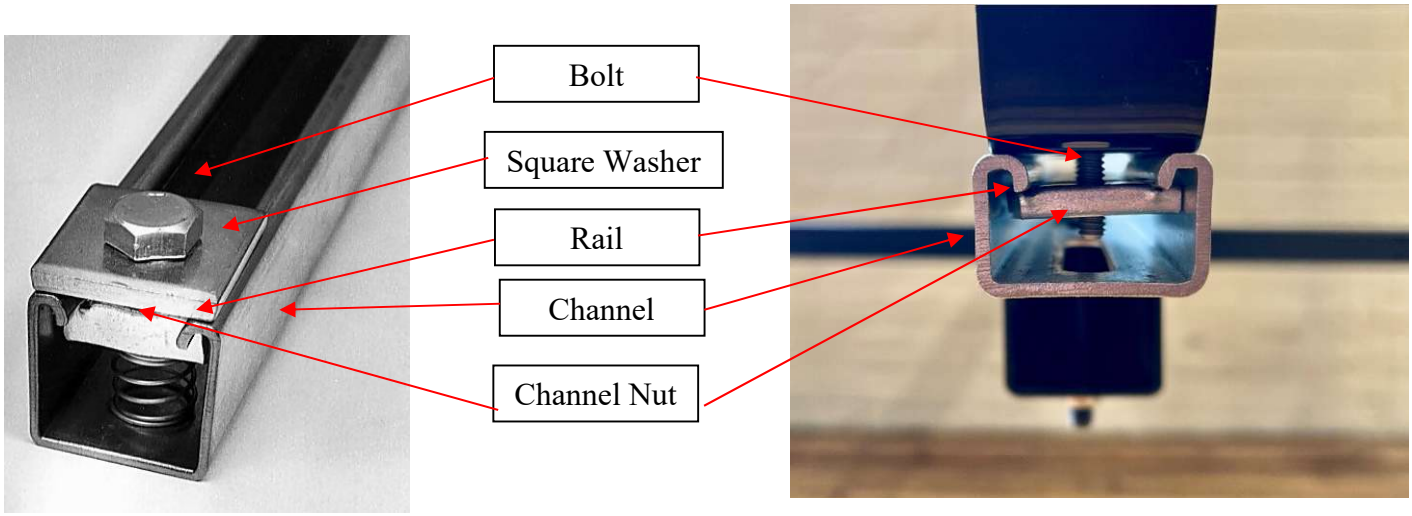


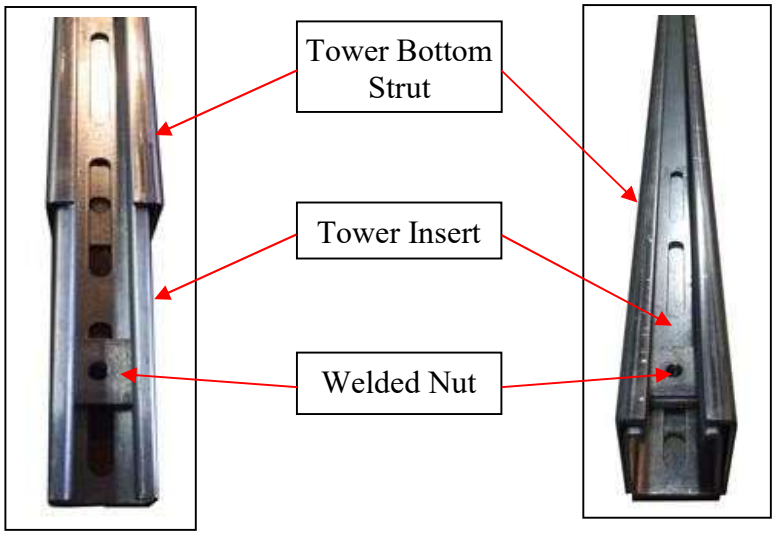
Figure 2: All Bolt and Nut Assemblies must be tightened with the nut under the rail of the channel as shown below. The grooves in the channel nut must be up and under the rail of the channel. Your channel or square nut will not have a spring under it as shown below.



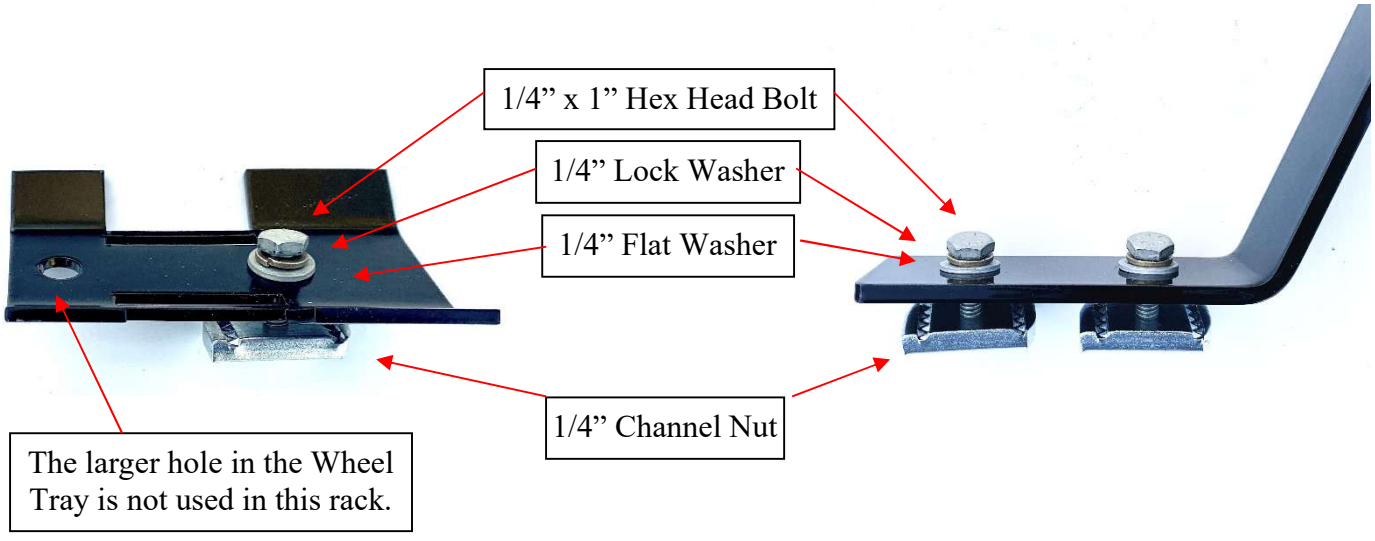
Step 1: Place the Tower Insert w/ Welded Nut inside the Tower Bottom Strut as shown in Picture A. Slide the Insert inside the Tower Bottom Strut until the hole in the nut aligns with the 3/8” hole that is furthest from the end of the Bottom Strut (Picture B)

Picture A

Picture B

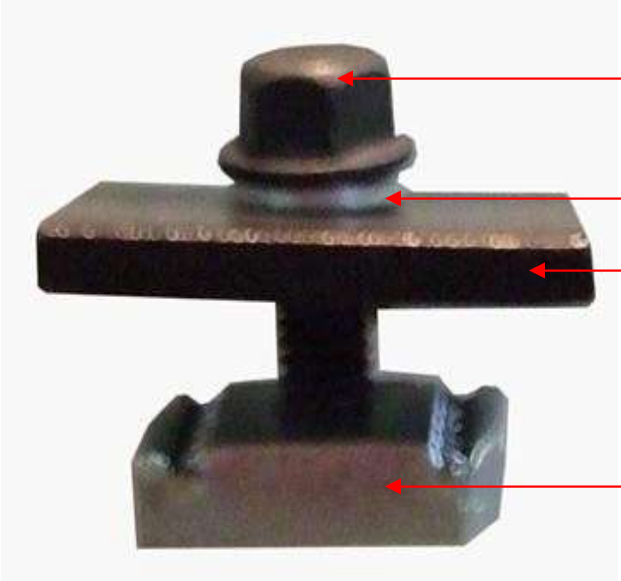


Step 2. Complete the Wheel Tray and Wheel Stop Assemblies as follows:



Step 3: Create one 3/8” x 1” Channel Nut Assembly:

Place a lock washer then a 1 5/8” square silver washer under the heads of the bolts. Put 3/8” channel nuts on the end of the bolts. This is a 3/8” Channel Nut Assembly.

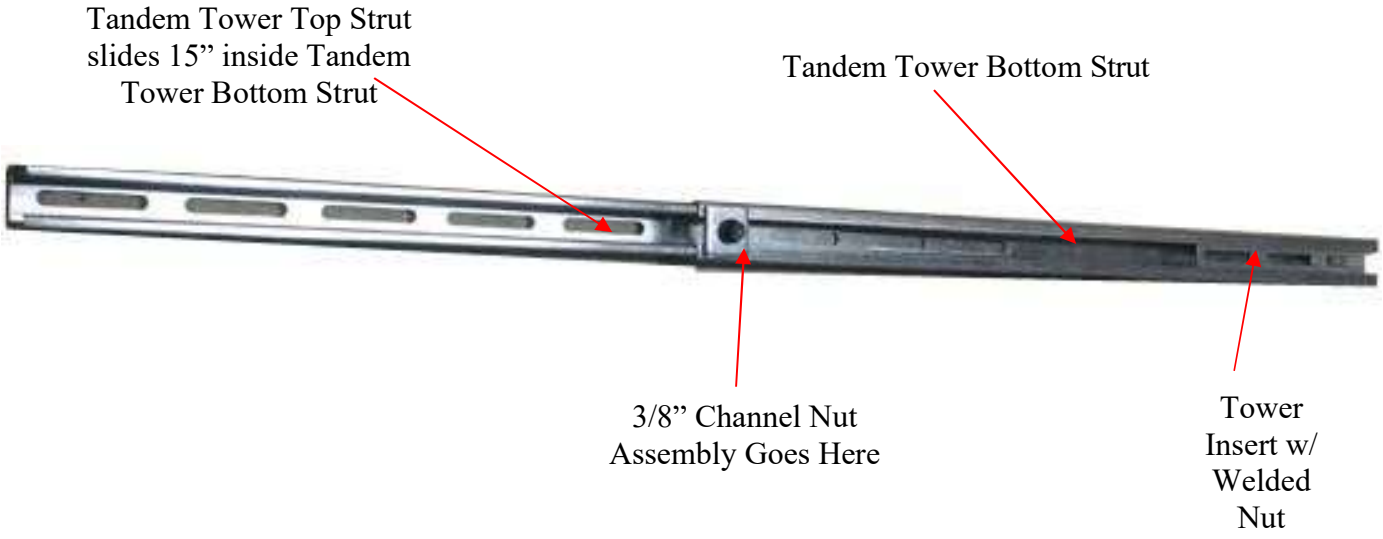


Step 4. Create the Tandem Tower Assembly:

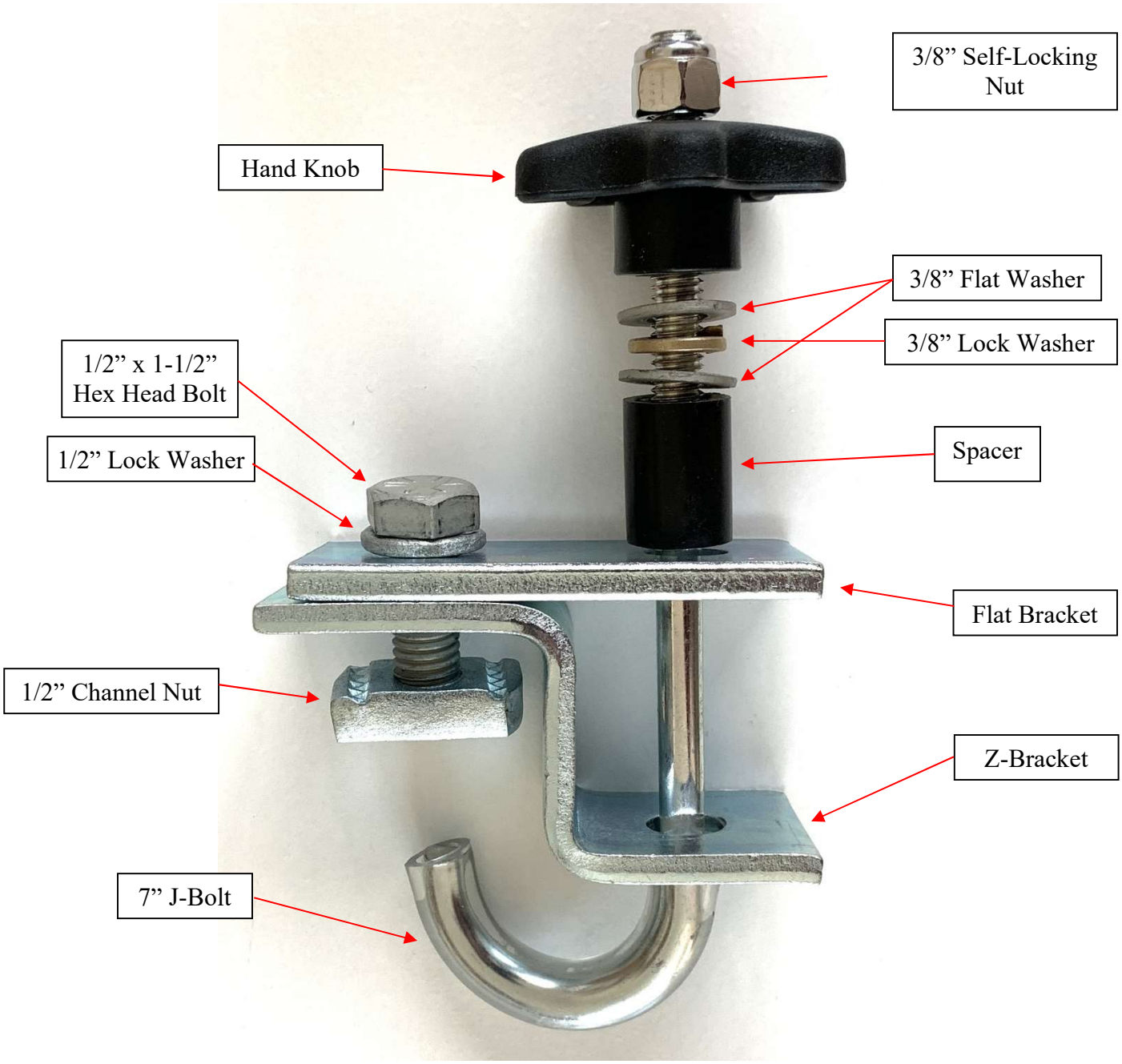
Slide the Tandem Tower Top Strut inside the Tandem Tower Bottom Strut approximately 15”. NOTE: One end of the Tandem Tower Top Strut may slide inside easier than the other end. If it is difficult to insert, flip the Tandem Tower Top Strut end-for-end.

Place the 3/8” Channel Nut Assembly made in the previous step inside the two Tower struts. It should be placed 2” from the top of the Tandem Tower Bottom Strut. Turn the channel nut so that it is under the rails of the Tandem Tower Top Strut (as previously shown in the Figure 2 example) and tighten the bolt.

The completed Tandem Tower Assembly is shown below.



Step 5: Make (2) J-Bolt Bracket Assemblies as shown below:



Step 6: Attach the J-Bolt Bracket Assemblies to the Tandem Tower:

Measure from the back of the back tire to each seat post tube on your tandem. Add 4” to each measurement. These will be the approximate Rear Seat Tube and Front Seat Tube measurements from the very bottom of the tower.

6A: Place the first J-Bolt Bracket Assembly on the Tandem Tower so that the distance from the center of the hole to the bottom of the Tandem Tower Assembly is equal to the Rear Seat Tube measurement from above. Make sure the channel nut is seated properly under the channel rails before tightening.

It is likely that the Rear Seat Tube Bracket is placed where the Top and Bottom Tower Struts overlap. Be sure to capture both.

Adjust the final location of the bracket so that it holds your seat post firmly. Tighten the bolt and place a Rubber Pad where the seat post makes contact with the Tandem Tower.



6B: Place the second J-Bolt Bracket Assembly on the Tandem Tower so that distance from the center of the hole to the bottom of the Tandem Tower Assembly is equal to the Front Seat Tube measurement from above. Make sure the channel nut is seated properly under the channel rails before tightening.

Adjust the final location of the bracket so that it holds your seat post firmly.

Tighten the bolt and place a Rubber Pad where the seat post makes contact with the Tandem Tower.

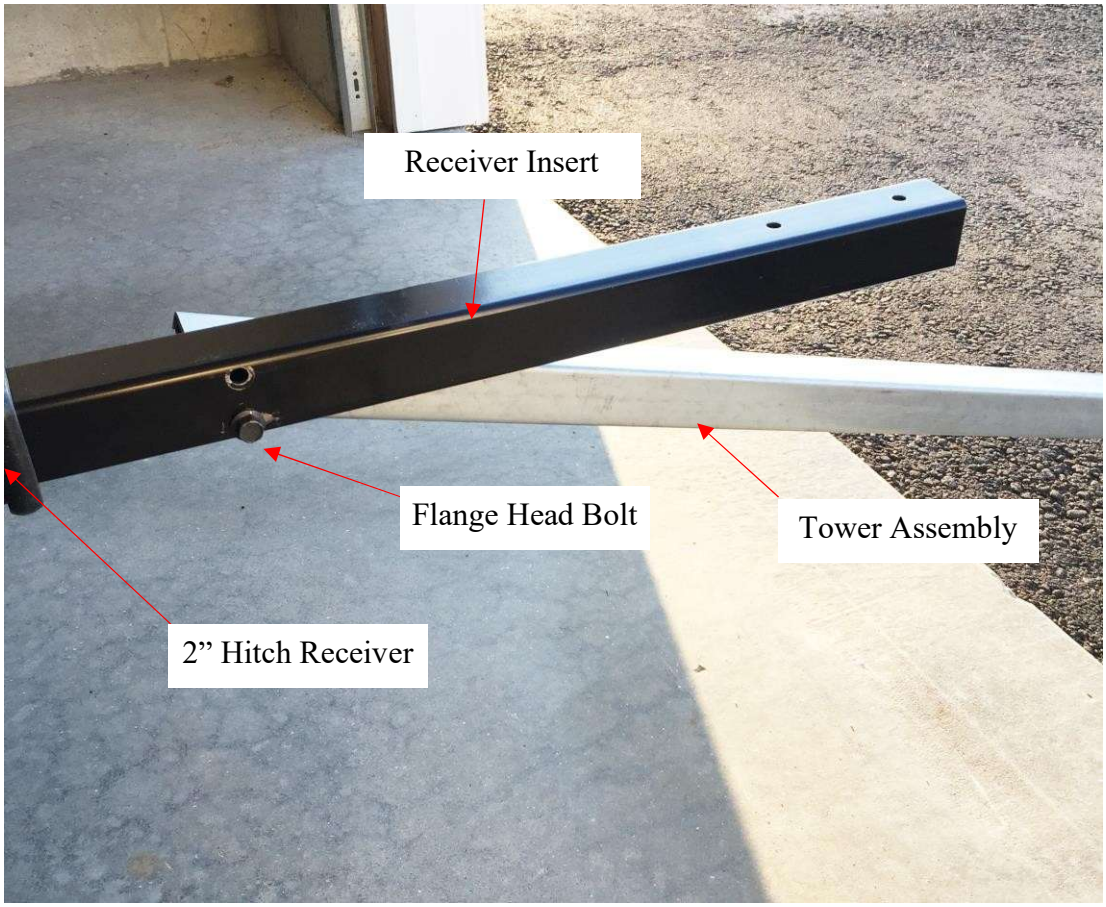


Step 7: Attach the Tandem Tower Assembly to the Receiver Insert:

It is easiest to attach the Tower Assembly to the Receiver Insert if you slide the Receiver Insert into the receiver hitch on your vehicle.

1. Place the Receiver Insert into the receiver hitch with the large holes in the Receiver Insert aligning with the holes in your receiver hitch as shown in Picture C below. Secure with a locking pin.
2. Slide a 3/8" x 3" black flange head bolt through the bottom hole in the Receiver Insert as shown in Picture C. Place a 3/8" nylon washer on the bolt and then place the flange head bolt through the hole closest to the end of the Tower Assembly. The solid side of the Tower Assembly should be against the passenger side of the Receiver Insert. Place another 3/8" nylon washer, a silver 3/8" flat washer and then a 3/8" self-locking nut on the end of the flange head bolt and finger tighten

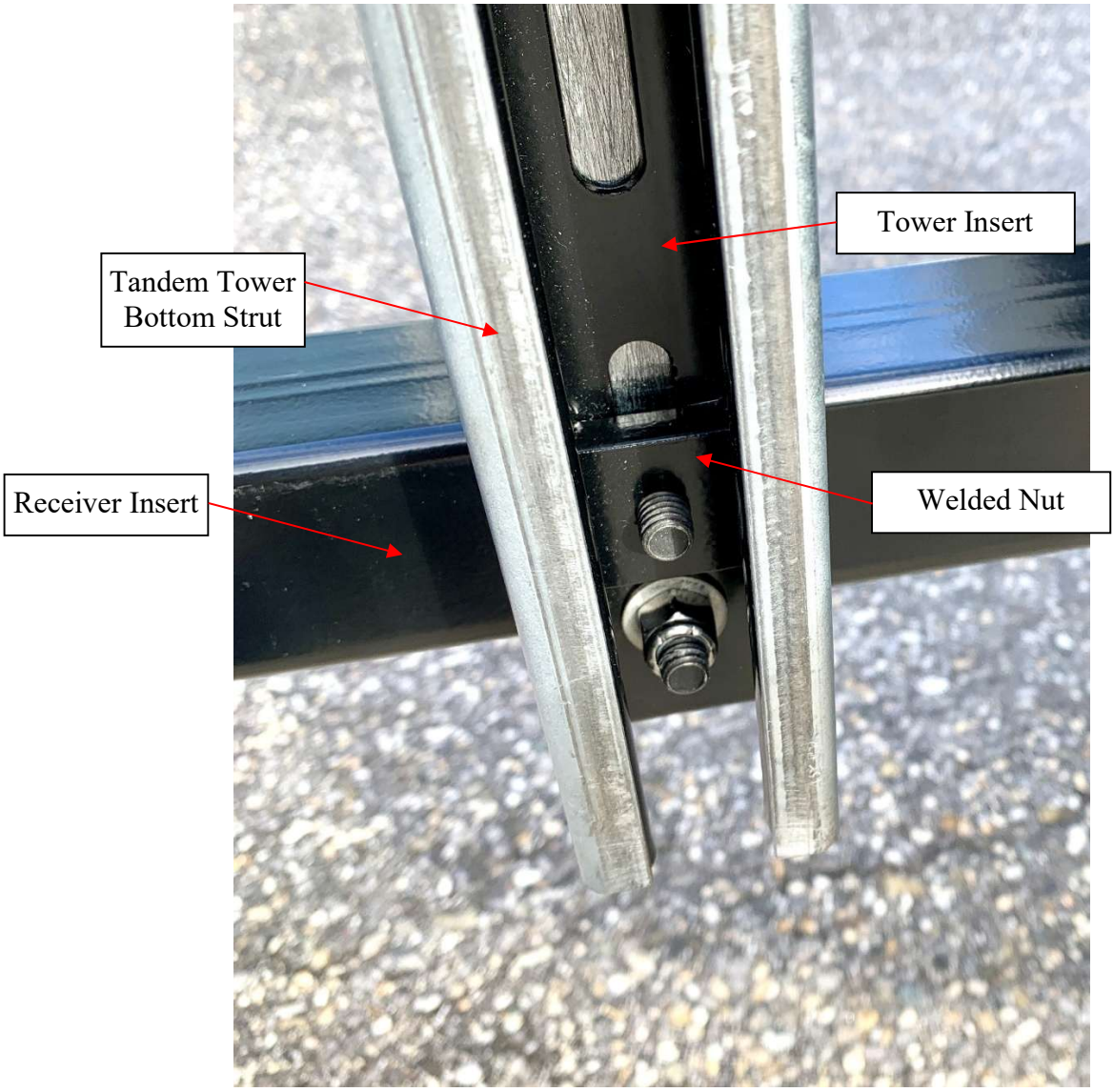
Picture C



Step 8: Swivel The Tower Assembly into the upright position. Make certain the welded nut is still over the upper hole in the Tower Assembly. Place a 3/8" lock washer, then a 3/8" flat washer next to the head of a 3/8" x 3" flange Head Bolt and insert that through the top hole of the Receiver Insert into the Welded Nut in the Tower Assembly as shown in Picture D below. Tighten all nuts and bolts.

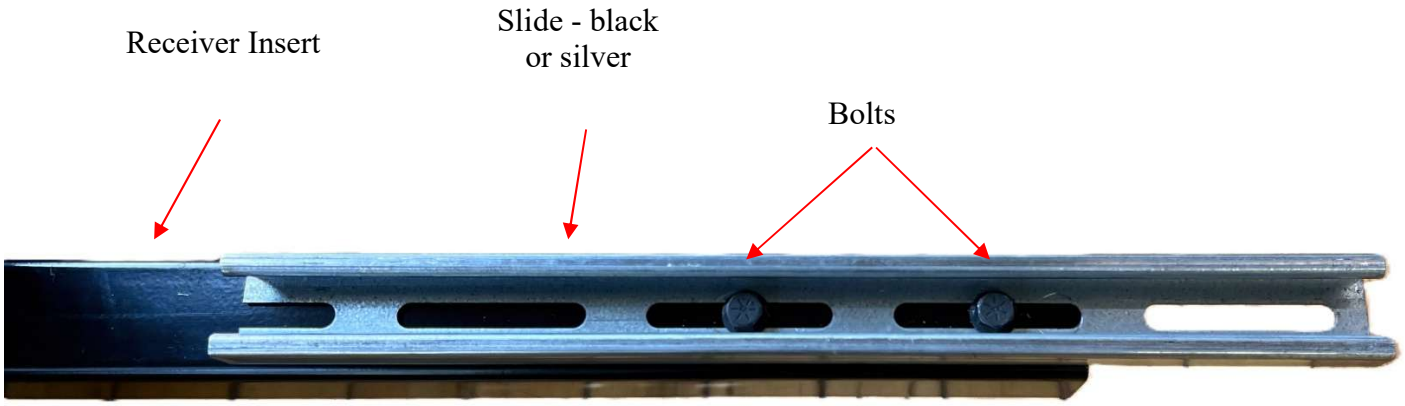
NOTE: This rack is not marketed as a tilting rack (up or down), but if you would like to tilt that rack down instead of removing it from the vehicle, you will remove the upper Flange Head Bolt to tip the Tandem Tower Assembly down to open your tailgate or trunk.

Picture D



Step 9: Attach the Slide to the Receiver Insert:

Set the Slide on the Receiver Insert so that it overhangs 5” or more as shown in the picture below. Place two 3/8” x 3” flange head bolts through the slots in the Slide and the holes in the Receiver Insert. Place a 3/8” flat washer and a self-locking nut on each bolt and tighten enough to allow the Slide to still be adjusted. The final position will be determined later, based on your tandem.



Step 10: Attach the Long Wheel Stop to the Slide:

Place the Long Wheel Stop Assembly from Step 2 at the rear end of the Slide and tighten. Make certain the Channel Nuts are properly seated under the rail, and that the entire Long Wheel Stop rests on the Slide.



Step 11: Attach the Short Wheel Stop to the Slide:

Place the rear wheel of your bike on the Slide and against the Long Wheel Stop. Place the Short Wheel Stop Assembly from Step 2 at the forward end of the Slide. Position it so that it securely holds the rear wheel of your bike and tighten.



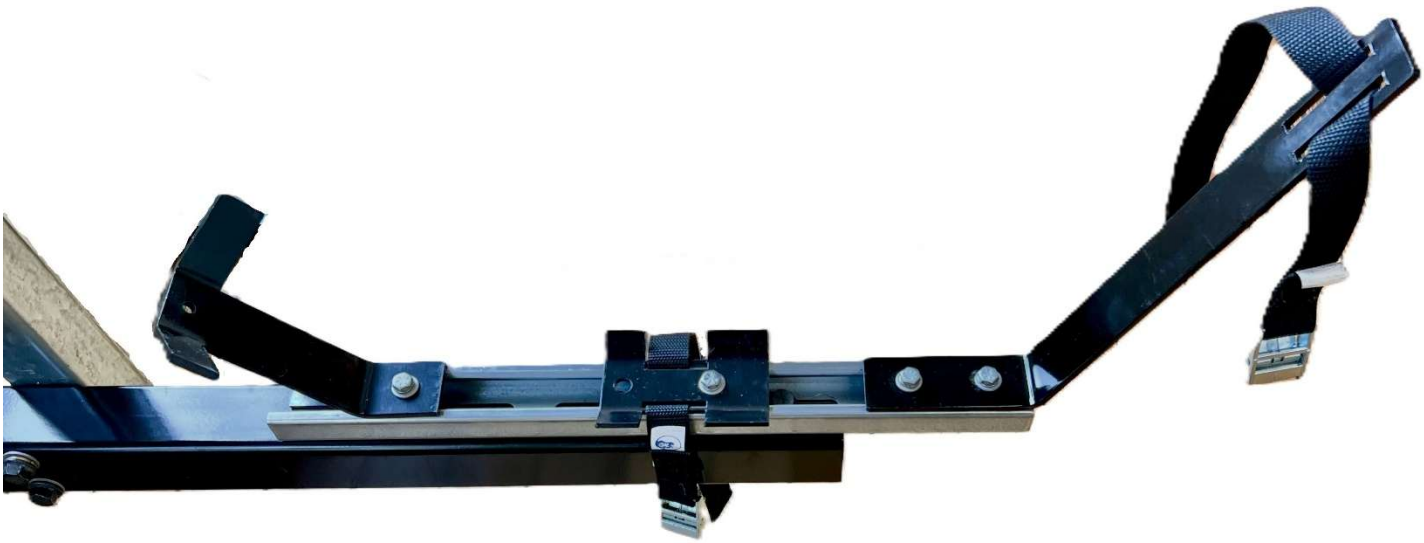
Step 12: Position the Slide:

Rotate your bike so that it is vertical, and adjust the position of the Slide (forward or backward) so that both seat posts make contact with the Tandem Tower and are able to be secured using the J-bolt Assemblies. Remove bike and fully tighten Slide.



Step 13: Attach Wheel Tray to the Slide:

Place the Wheel Tray Assembly from Step 2, along with an 18” Strap on the Slide. Center between both Wheel Stops and tighten. Make certain the Channel Nut is properly seated under the rail.



WARNING:

Your Seat Posts must fit tightly in the Seat Post Tube. If this is not the case, Do Not Use the Bike Rack

There may be some movement of the Tower from front to back. This is normal.

Your completed rack should look like the picture below. One 18” strap goes in the Wheel Tray, the other 18” strap goes is the Long Wheel Stop. One 25” strap should secure the front wheel to the bike frame. The other 25” strap should go around the tandem’s frame and the vertical post on the rack as a safety precaution. The 18” and 25” may be interchanged as needed.



CycleSimplex Return Policy

At CycleSimplex, we aim to provide high-quality trike and bike racks built for safety, convenience, and durability. We understand that sometimes a purchase may not meet your expectations, or you may need to return a product due to defect or other reasons. This page outlines our **return policy**, **warranty information**, and **shipping guidelines**, so you know exactly what to expect.

Returns

CycleSimplex accepts returns of unused trike or bike racks within **15 days of delivery**. To be eligible for a return:

- The product must be **unused and in like-new condition**.
- It should be **packaged carefully** to prevent any damage during shipment.

Once your return is received and inspected, we will process a **refund of the full product cost** to the original payment method.

If the returned rack arrives damaged due to improper packaging or shipping, we may **deduct the cost of repairing the damage** from your refund. To avoid this, please use the original packaging if possible, or secure the rack adequately to prevent any dents, scratches, or other damage during transit.

Returns can be initiated by contacting our customer support team, who will provide instructions and a return address. Please include your order information so the process can be completed smoothly.

Warranty Information

CycleSimplex provides a **90-day warranty** on all trike and bike racks, covering defects in **materials or workmanship**. This warranty starts from the **date the product is received** by the purchaser.

During the 90-day period, if a defect is identified, CycleSimplex may, at its discretion:

1. **Replace the defective component**, or
2. **Refund the full product cost**, provided the rack is returned in like-new condition.

The warranty does **not cover damage caused by misuse, improper installation, accidents, or normal wear and tear**. Our goal is to ensure that every rack functions as designed, providing safe and secure transport for your bicycles or trikes.

Liability Limitation

CycleSimplex limits its liability from all causes to the **purchase price of the trike or bike rack**. This means that in the event of a defect or other issue, the maximum amount CycleSimplex is responsible for is the amount you paid for the rack. Any other losses, damages, or consequential costs are not covered under this policy.

Shipping and Handling

We normally **ship all orders within a week** of receiving them. Orders are carefully packaged to prevent damage during transit.

If you select **expedited shipping** at checkout, please note that this only ensures faster delivery **once the product leaves our facility**. Expedited shipping does not guarantee that your order will ship sooner than the standard timeframe.

For returned items, the customer is responsible for shipping costs unless the return is due to a defect or an error on our part. We recommend using a **trackable shipping method** for all returns to ensure the product arrives safely.

Tips for a Smooth Return Process

- **Keep the original packaging** whenever possible.
- **Inspect the rack immediately upon delivery** to report any damage or defects promptly.
- **Use secure packaging** when returning the rack to prevent additional charges for repairs.
- **Include all components** and accessories that came with the rack.

Following these steps will ensure your return or warranty claim is handled efficiently.

Why This Policy Matters

At CycleSimplex, our goal is to provide **reliable, safe, and convenient bicycle transport solutions**. We know that returns and warranties are part of giving our customers confidence in their purchase. A clear and fair return policy ensures that you can order with peace of mind, knowing you have options if a product does not meet your needs or has a defect.

We encourage customers to review this policy before purchasing and to reach out to our support team for any questions. By following the outlined steps, both CycleSimplex and our customers can ensure that returns, refunds, or warranty claims are processed smoothly, quickly, and transparently.

For Customer Service & Support:

Please contact us at cyclesimplexllc@gmail.com