

CycleSimplex Bike Rack Assembly Instructions

Simple Load One Trike Rack

v7.0

Precautionary and Maintenance Information:

Caution: There are sharp edges. Wear gloves during assembly so as not to harm yourself

All straps must be used at all times.

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 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 of your vehicle so caution is required not to hit the rack or your trike(s)/bike(s) on other objects.

Simple Load One Trike Rack v7.0

Parts List

Item	Qty	Item	Qty
Hex Head Bolt 1/2" x 1" - Armor	3	Tilt-Up – 2" square black tube 20" long	1
Lock Washer 1/2" - Yellow Zinc	3	Tilt Sides – Black 5" x 6 5/8" with 5 holes	2
Channel Nut 1/2" thread, 3/8" thick	3	Tilt Insert - 1.25" or 2" square black tube 16.5" long	1
Flange Head Bolt 3/8" x 3"	5	Trike Strut – 1.25" square black tube 47" long	1
Flange Head Bolt 3/8" x 1-3/4"	4	Trike Strut Channel - Silver channel 1 5/8" x 1 5/8" x 24" long	1
Flange Head Bolt 3/8" x 2"	4	Trike Crossbar black channel 1 5/8" x 1 5/8" x 36" long	1
Hex Head Bolt 3/8" x 5-1/2" Zinc	1	V-Tray for Trike Driver Side 36" w/2holes	1
Hex Head Bolt 3/8" x 4-1/2" Zinc	1	V-Tray for Trike Pass Side 36" w/8 holes	1
Clevis Pin 3/8" x 3"	1	Cam Buckle Strap 18"	7
Hair Pin for Clevis Pin	1	U-Clamp 1" high for Trike Strut	1
		U-Clamp 1 5/8" high for Trike Crossbar	1
Flat Washer Regular 3/8" Armor Coat	7	L-Bracket	2
Flat Washer Thick 3/8"	2	Flat Bracket Strap Holder – 2 Hole	1
3/8" Self-Lock Nut	13	Long Wheel Stop with 2 Holes	1
Square Washer - 3/8"	2	Shims (Only for a 1.25" Hitch)	2
Square Nut - 3/8"	3		
Spacer - 2" long	2		

Components:



Trike Strut – Square tube - 47” Long



Trike Crossbar - Black slotted channel



Tilt Up - Square tube - 2” x 20” long



Tilt Insert - Square tube - 2” or 1.25” x 16.5” long



Trike Strut Channel - Silver, slotted



V-Tray Trike Passenger Side - 8-hole



V-Tray Trike Driver Side - 2-hole



1" U-Clamp



1-5/8" U-Clamp



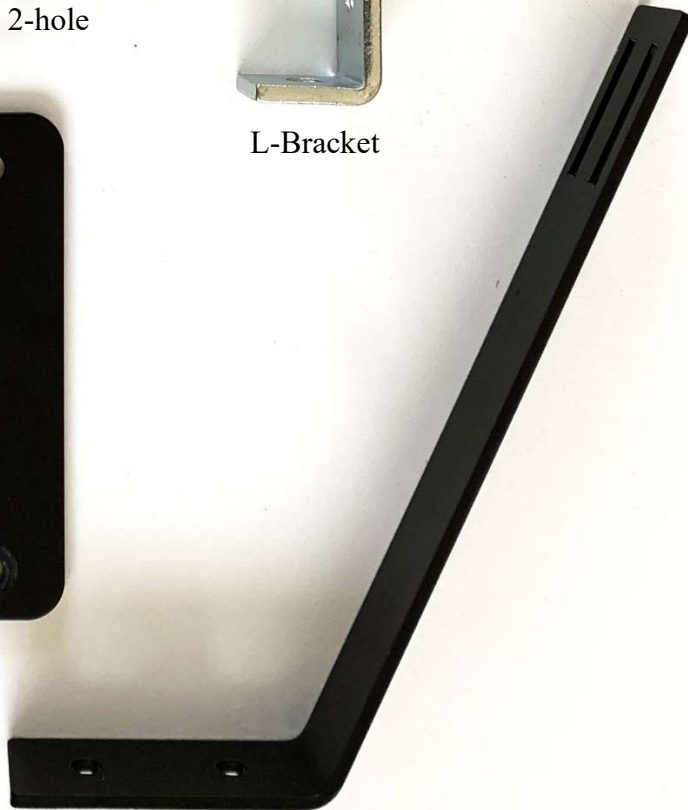
Flat Bracket Strap Holder - 2-hole



L-Bracket



Tilt Side



Long Wheel Stop

Hardware:

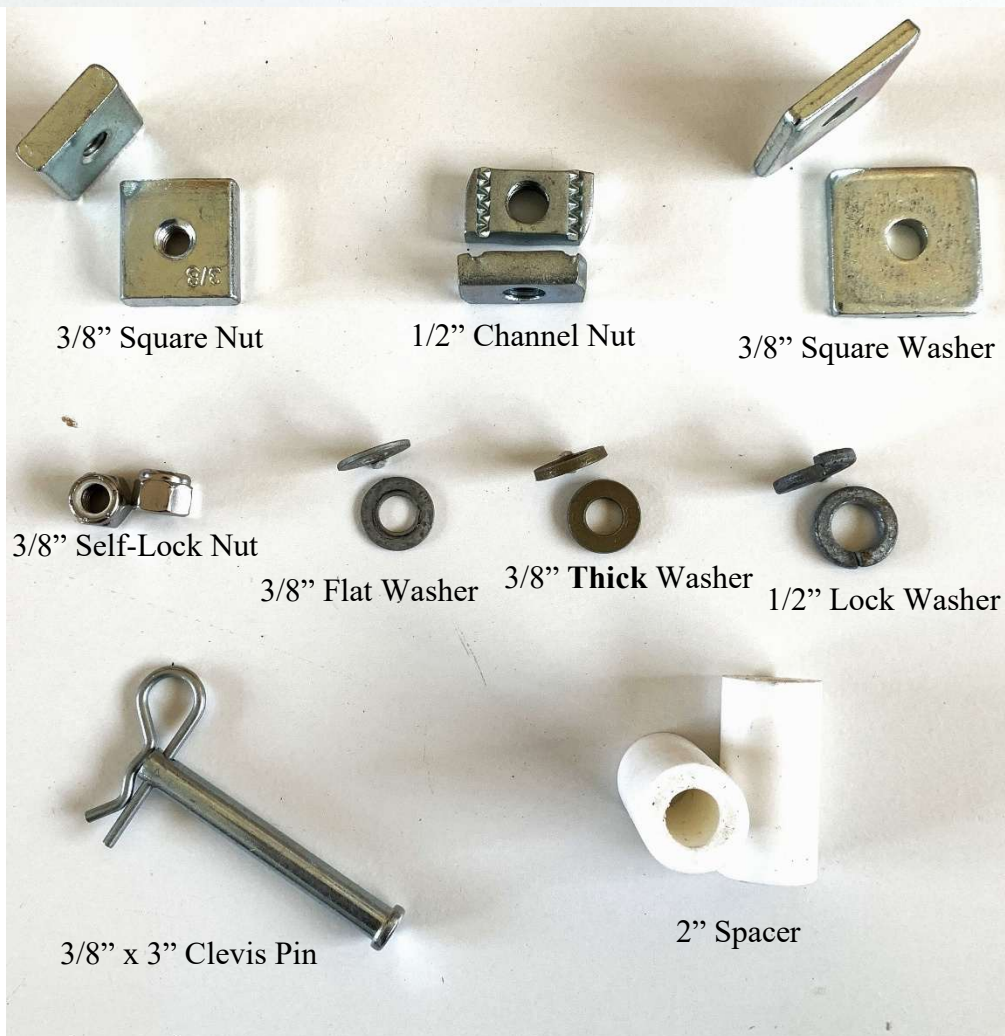
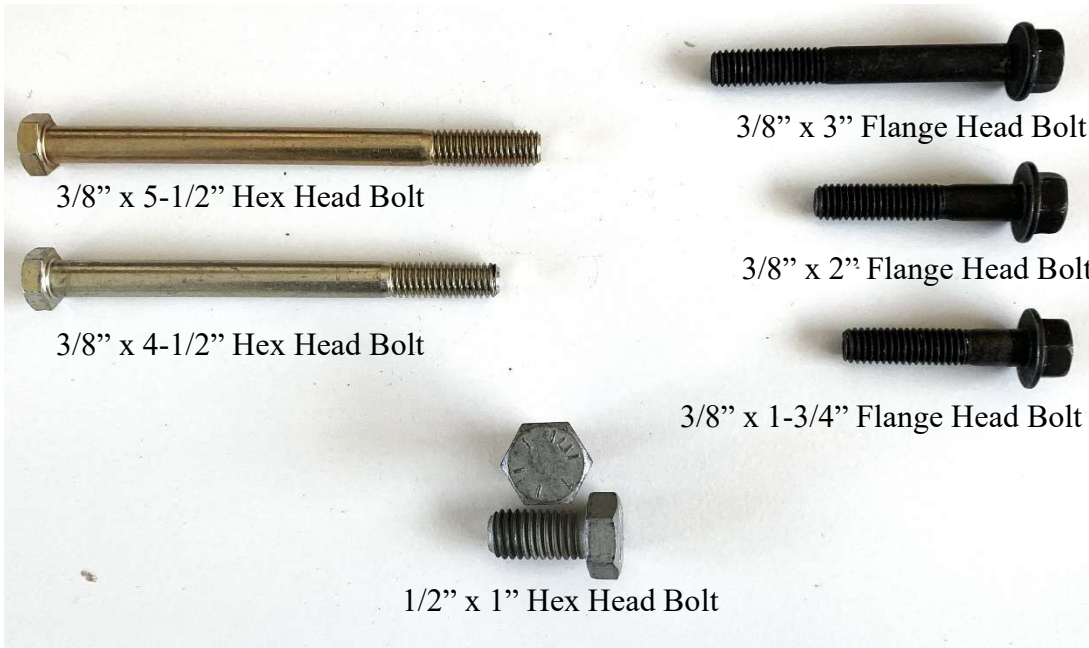


Figure 1: The strut channel comes in various sizes. When we describe something as strut channel, it will look like the following with 3” long slots in the bottom:

When attaching components to strut channel, it is critical that all Channel Nut Assemblies must be tightened with the channel nut under the rail as shown below. The grooves in the channel nut must be up and under the rail of the strut channel. Your channel nut will not have a spring under it.

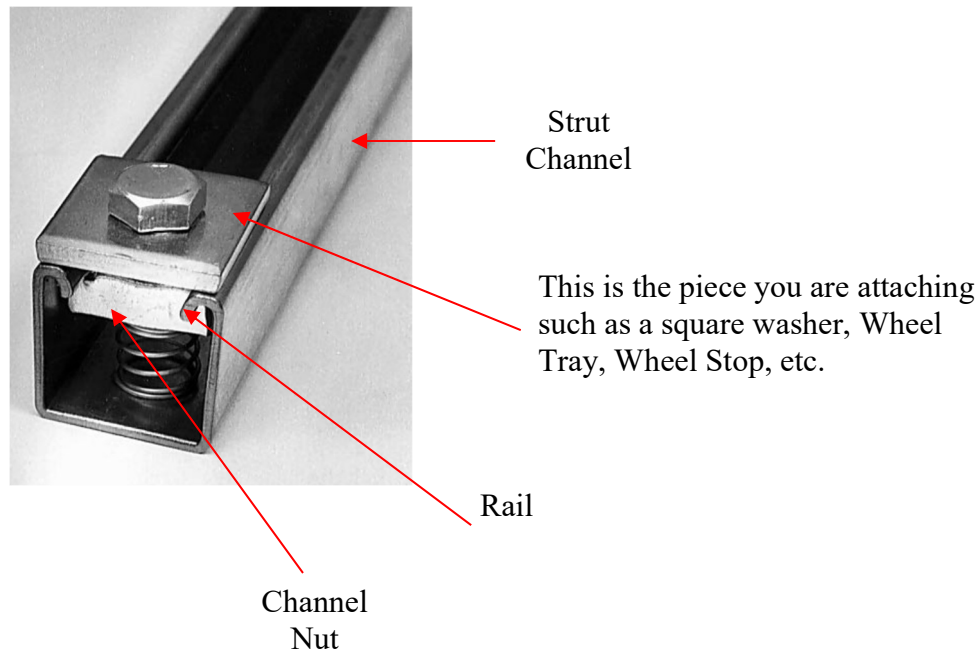
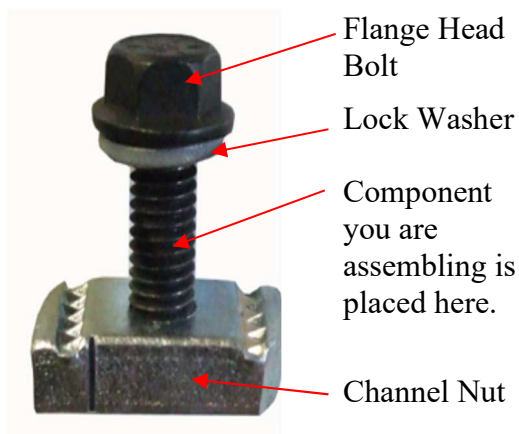


Figure 2: All Bolts requiring a Channel nut must be assembled in the following fashion. This is a Bolt and Channel Assembly. This does not come as an assembled part. You have to assemble each as required in the instructions.

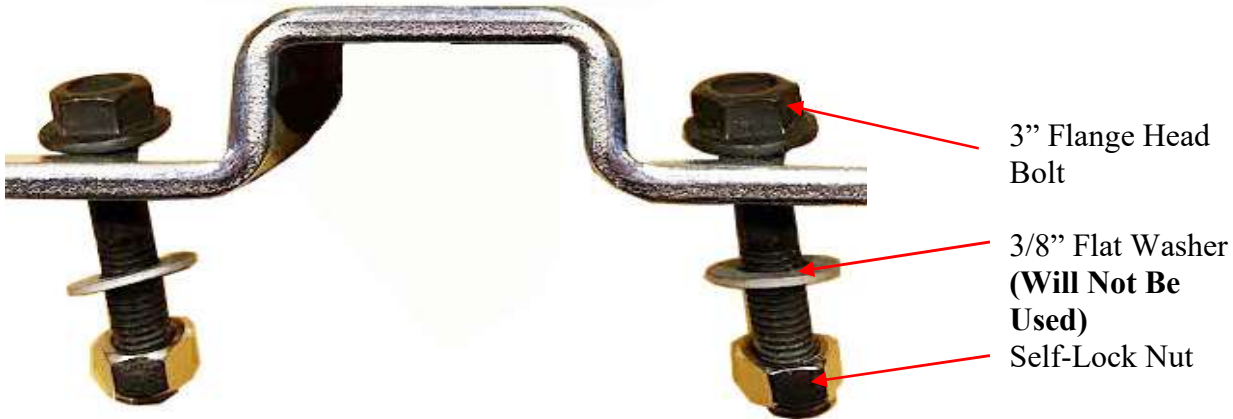


Step 1A: You will create one of each U-Clamp Assembly to be used later

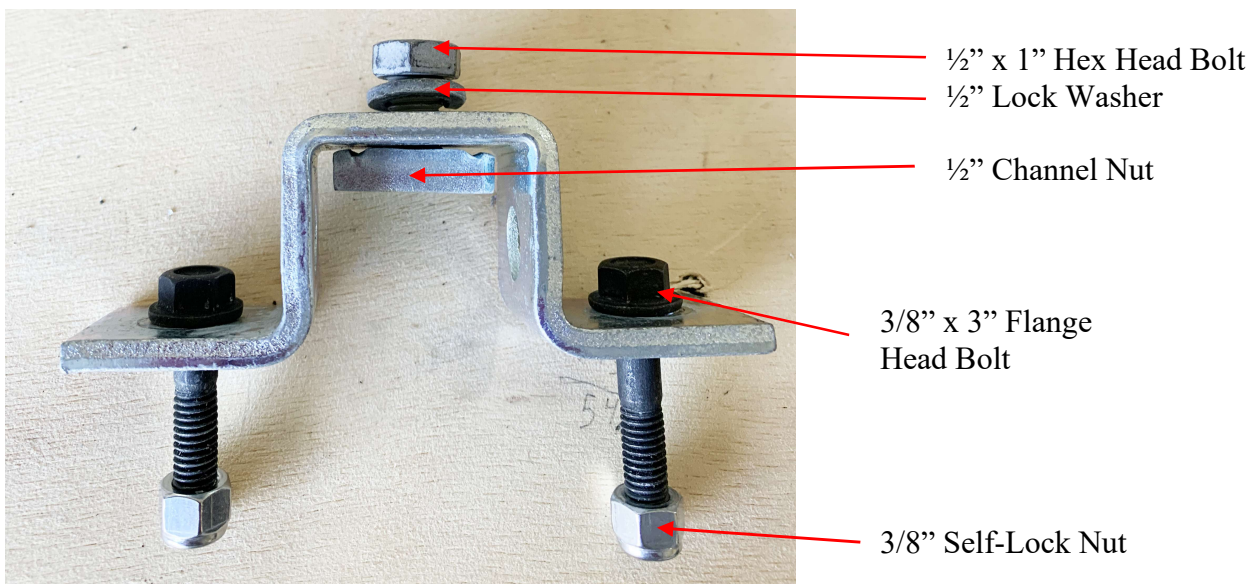
(1) Trike Crossbar to the end of the Trike Strut

(2) Trike Strut to the Tilt-Up

1. Trike Strut to Tilt-Up U-Clamp (1" Deep). This will be used in Step 4



2. Trike Crossbar to Trike Strut U-Clamp (1 5/8" Deep). This will be used in Step 7.



Step 2: Assemble Tilt Mechanism Sides, Tilt Up and Tilt Insert as shown in the picture below

If you have a 1.25" rack, do Step 2A. If you have a 2" rack, you will not use the Shims.

Step 2A

Place the two Shims on each side of the Tilt Insert so that they are over the two holes in the Tilt Insert. Pass the two 3/8" x 3" black Flange Head bolts through the two holes C and D in the bottom of the Tilt Sides, then the Shim, the Tilt Insert, the other Shim and the other Tilt Side (**the shorter distance from Hole B to Hole C should be toward the bottom of the Tilt Sides**). Place a 3/8" round silver washer and 3/8" self-locking nut on the end of the two bolts. Finger tighten. Do not tighten all the way yet.

Pass a 3/8" x 3" black flange head bolt through the Tilt Sides and the Tilt Up in Hole A. Place a 3/8" round silver washer and 3/8" self-locking nut on the end of this bolt. Finger tighten the nut

Pass the Clevis Pin through Hole E. Insert the Hair Pin into the hole in the end of the Clevis Pin.

Tighten all nuts

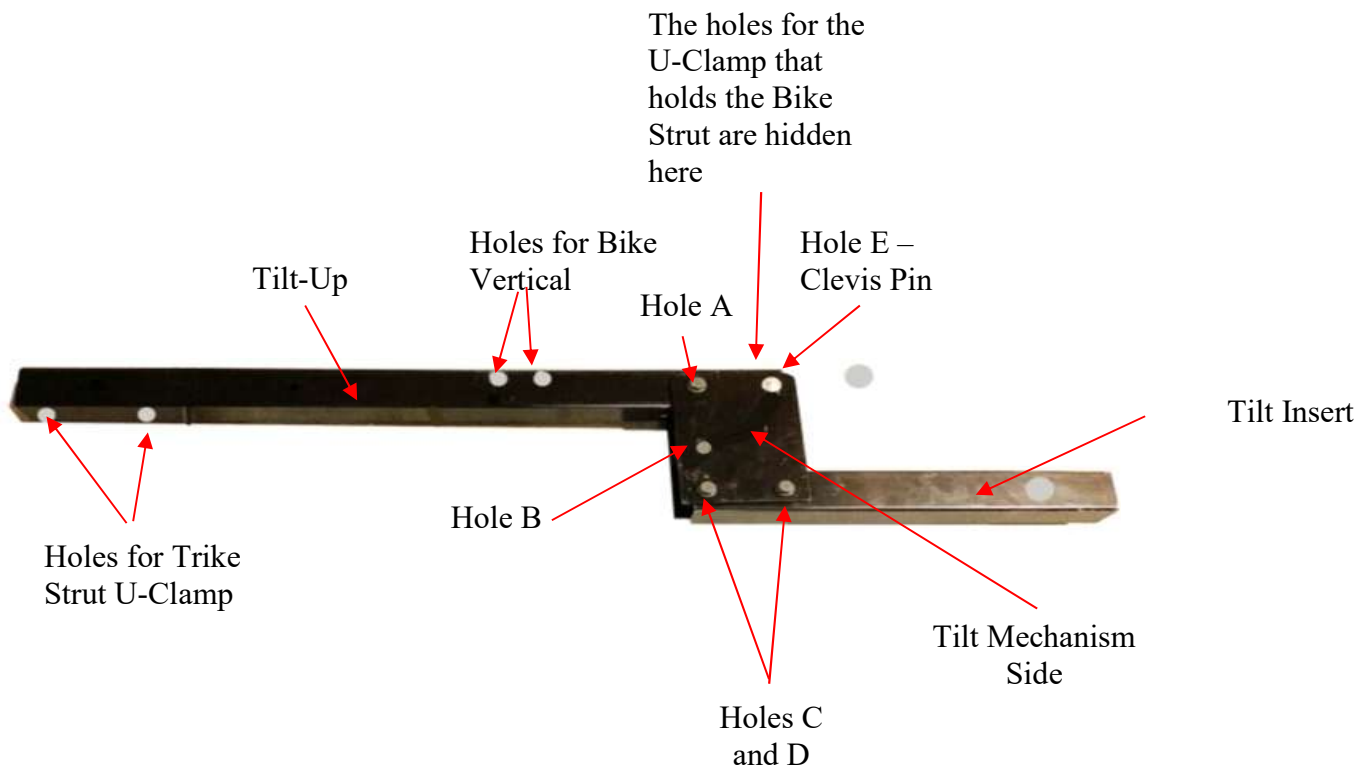
If you want to tilt the rack up, remove the Clevis Pin from Hole C, tilt the Tilt-Up up and place the Clevis Pin in Hole B.

Step 2B

If you have a 2" rack you will do all the steps in Step 3A except you will not have the 2 Shims

Tighten all nuts

If you want to tilt the rack up, loosen the nut on the carriage bolt in the slot, tip the rack up and tighten the nut.



Step 3–Assemble the Trike Strut and Trike Channel Assembly as shown below:

3A: If you have a delta trike, use this Step 3A. Lay the Trike Strut Channel (24” long) and the Trike Strut (1.25” x 1.25” x 47” long) as shown below so that the total length of the two components is your delta trike’s wheelbase plus 10 inches

3B: If you have a tadpole trike, use this Step 3B. Lay the Trike Strut Channel (24” long) and the Trike Strut as shown below so that the total length of the two components is the distance from the back edge of the rear wheel to the axel of the front wheels plus 2”.

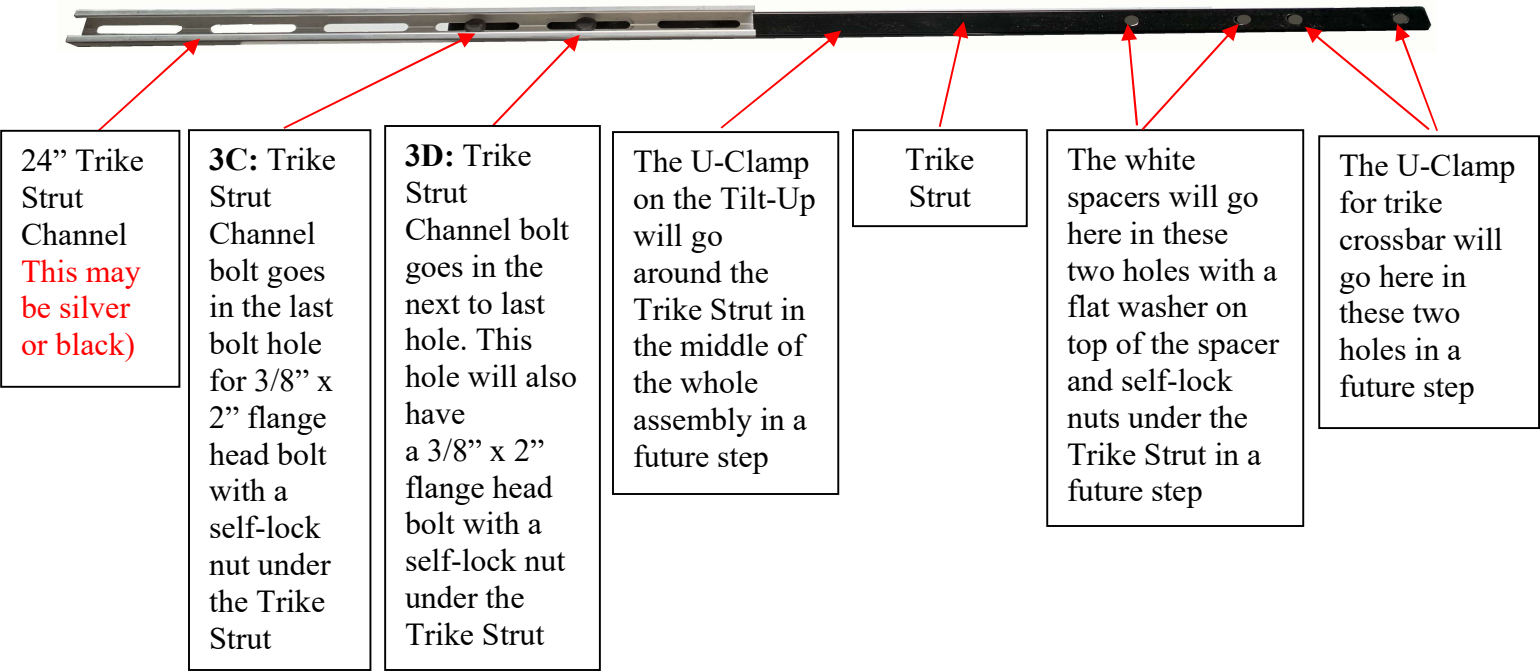
For either type trike do the following:

3C: Fasten the 24” long Trike Strut Channel on top of the Trike Strut. Using the last two holes to the left end of the Trike Strut – Square Tube. Pass a 3/8” x 2” flange head bolt through the Wheel Extension and the last hole to the left in the Trike Strut – Square Tube. Place a flat washer and then a self-lock nut on the bolt and finger tighten.

3D: Do this again for the next to last hole to the left of the Trike Strut and the Wheel Extension. This will be depicted in below.

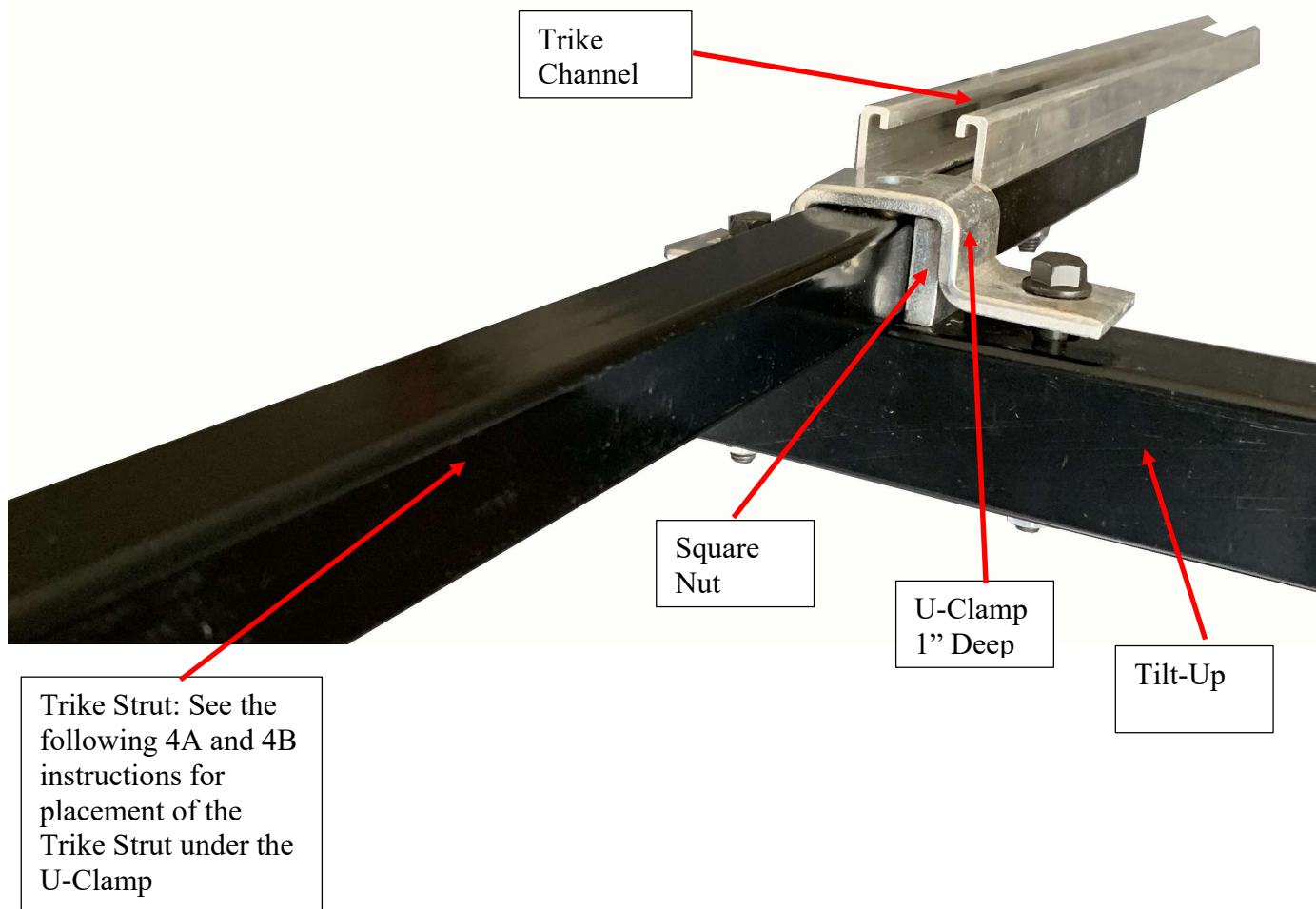
Tighten both nuts

This Assembly will be attached to the Tilt-Up with a U-Clamp later



Step 4: Attach the Trike Strut and Trike Channel Assembly made in Step 3 to the Tilt-Up using the U-Clamp.

As shown below you are going to place the U-Clamp over the Trike Strut and attach the 1" U-Clamp to the Tilt-Up using the two 3/8" x 3" flange head bolts in Step 1. The U-Clamp will not be snug against the Trike Strut so you will have to put a Square Nut inside the U-Clamp as shown below. Gradually tighten each 3/8" bolt evenly so that the U-Clamp holds the Trike Strut and the Square Nut tightly. It is OK to bend each arm of the U-Clamp a little as you tighten the bolts.



If you Have a delta rack, use Step 4A:

4A: Align the Trike Strut and Wheel Extension Assembly within the U-Clamp and over the Tilt-Up so that the Assembly is 5" longer on the side with the Trike Wheel Extension

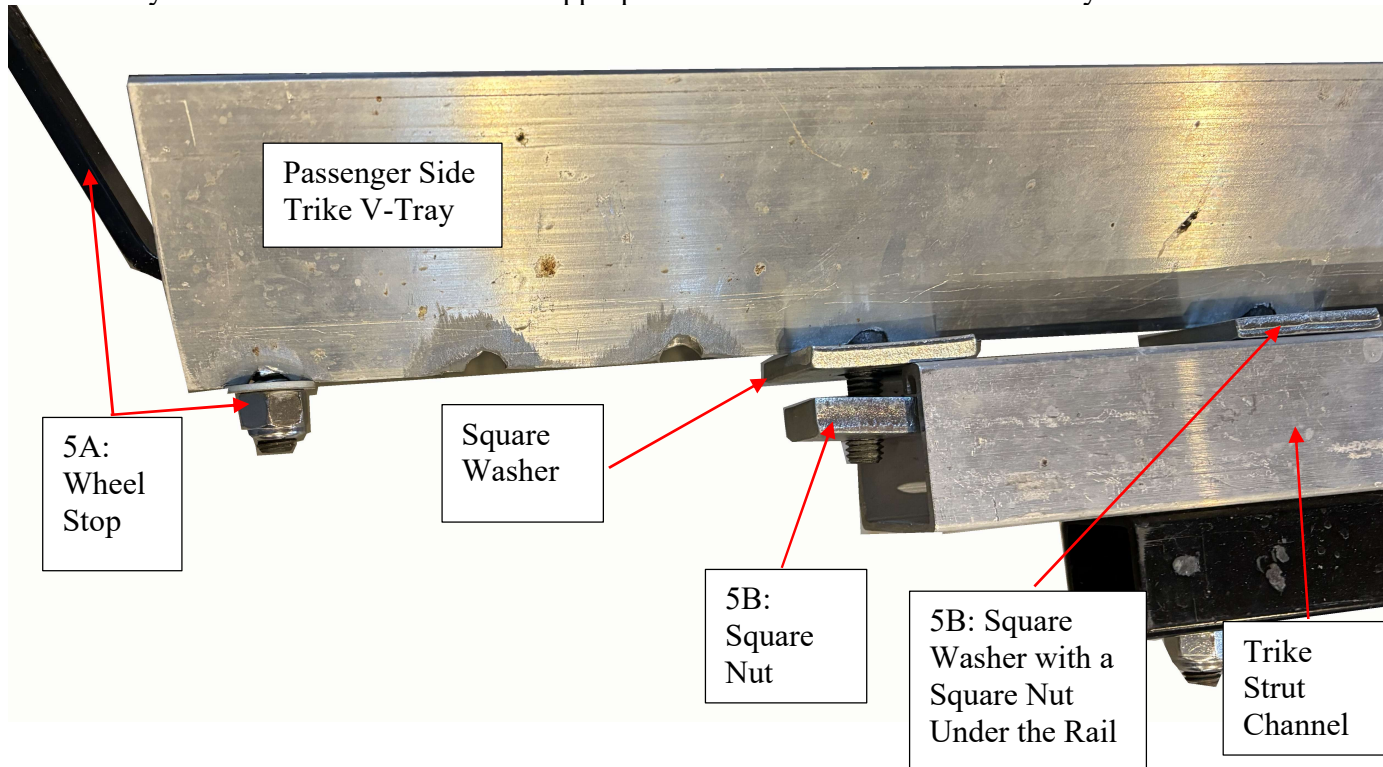
If you have a tadpole rack, use Step 4B:

4B: Measure the distance from the back edge of your rear tire to the end of the boom by the front wheels. Divide that length by 2. This is the distance from the outside end of the Wheel Extension to the U-Clamp in the picture above. You may have to slide the Trike Strut within the U-Clamp later to align the trike behind the vehicle.

Step 5: Assemble the Trike V-Tray Passenger Side and attach it to the Trike Channel. The Trike V-Trays are both 36" long.

5A: Attach the Wheel Stop to the V-Tray with two $\frac{3}{8}$ " x $1\frac{3}{4}$ " flange head bolts. Put a flat washer next to the head of each bolt and pass the bolts through the V-Tray and place a flat washer and a self-lock nut on each bolt and tighten. **The picture shows only one bolt**

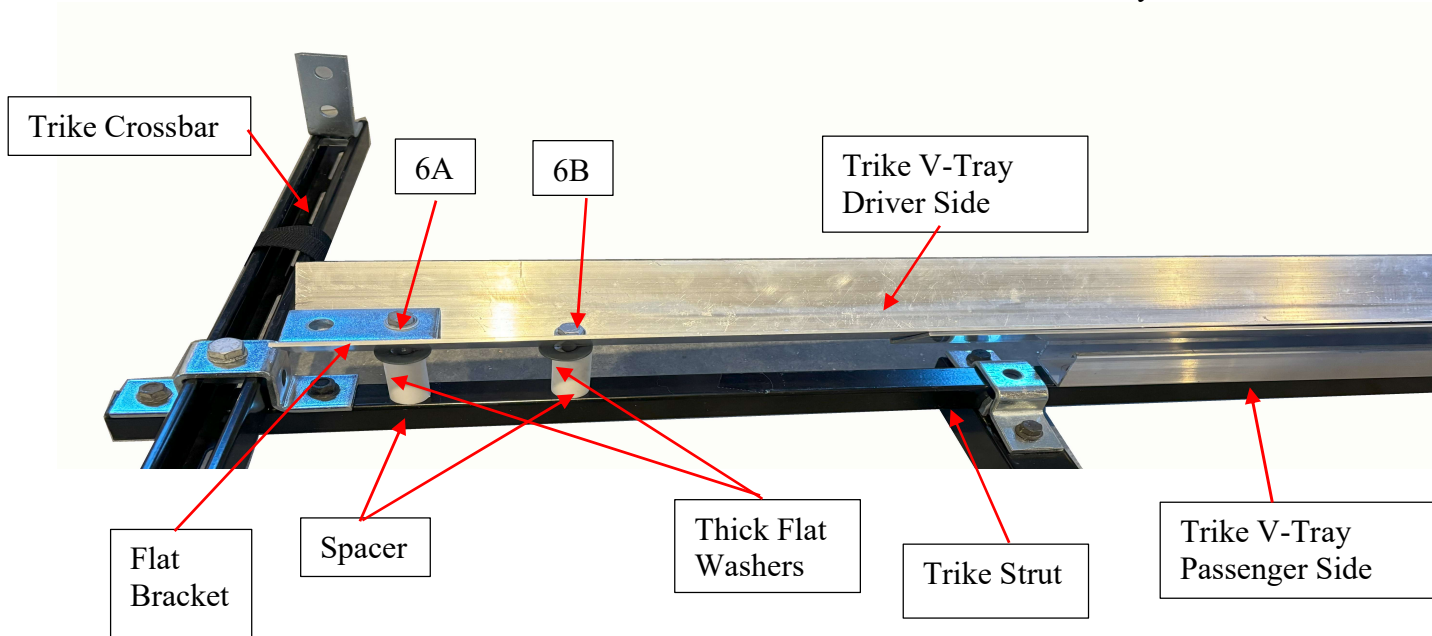
5B: Place a flat washer next to the heads of two $\frac{3}{8}$ " x $1\frac{3}{4}$ " flange head bolts and pass the bolts through the trike driver side V-Tray as shown below. The bolts go through the 4th and fifth holes from the end. There will be a square washer and square nut on the ends of the bolts. Slide the V-Tray into the Trike Channel to the appropriate distance for the wheelbase of your trike.



Step 6: Attach the Driver Side V-Tray to the Trike Strut

6A: Set the Trike V-Tray Driver Side on top of the Trike V-Tray Passenger Side as shown in the picture below. Place the two-hole flat bracket over the end hole in the trike v-tray. Place a 3/8" flat washer on the 3/8" x 5-1/2" hex head bolt and pass that through the flat bracket the V-Tray, the spacer and the trike strut. The spacer should have a thick 3/8" washer between the spacer and the v-tray. Place a 3/8" self-lock nut on the end of the bolt and tighten a little.

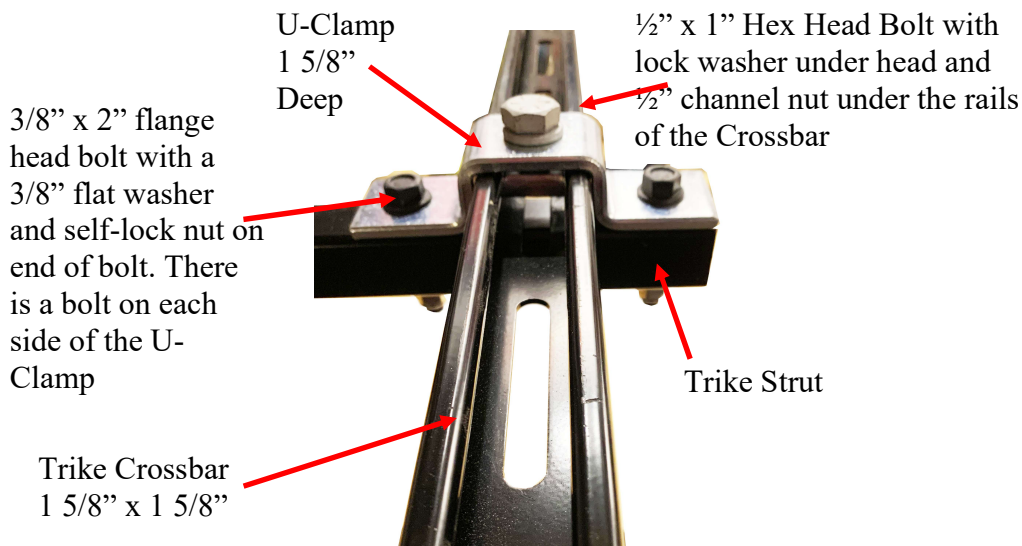
6B: Do the same with the 3/8" x 4-1/2" hex head bolt with the other hole in the v-tray.



Step 7- Assemble the Trike Crossbar to the Trike Strut

The Trike Crossbar U-Clamp and Trike Crossbar will be placed on the passenger end of the Trike Strut indicated above

The U-Clamp (Step1) will attach the Crossbar to the Trike Strut as shown below.



Step 8: Attach the (2) L-Brackets to the Trike Crossbar: Measure the distance from the outside of one tire to the outside of the other tire. This will be the distance between the L-Brackets. Place a ½” lock washer under the head of each 1” x ½” hex head bolt and place the bolts through each L-Bracket.

Place a channel nut on the end of the bolts. Slide the channel nuts inside the Trike Crossbar so that the channel nuts are on the rails of the Crossbar and tighten so that the L-Brackets are on the outside of each wheel.

The L-Brackets can also go to the inside of each wheel.



1" x ½" hex head
bolt with lock
washer under the
head and channel
nut on the end

Picture of Finished Rack



The straps holding the front wheels of the tadpole trike or the rear wheels of the delta trike will be like straps in the picture below.



Straps on both the dual wheels that go around the Crossbar and the wheel of the trike

The straps holding the rear wheel of a tadpole trike or the front wheel of a delta trike is shown below.



Straps that go around the Wheel Stop and the rear tire of a tadpole trike and the front tire on a delta trike

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 **full refund** 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