

# PISTON<sup>®</sup> PRO

**TWO BIKE**

ASSEMBLY



ASSEMBLY VIDEO

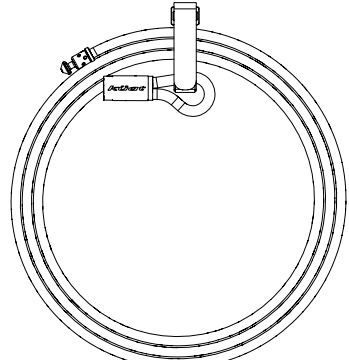
## Parts



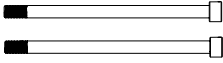
(1) Foot Lever



(2) Key



(1) Cable Lock



(2) M10 x 165 Bolt



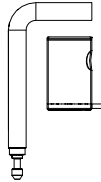
(2) M10 Nut



(1) M6 x 45



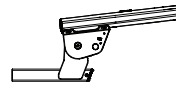
(1) M6 Lock Washer



(1) Hitch Pin  
(1) Hitch Lock

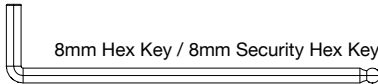


(4) Tray

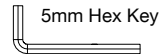


(1) Centerbeam

## Tools



8mm Hex Key / 8mm Security Hex Key



5mm Hex Key

**1** Before attaching trays we recommend inserting centerbeam assembly into a hitch for an easier assembly experience.

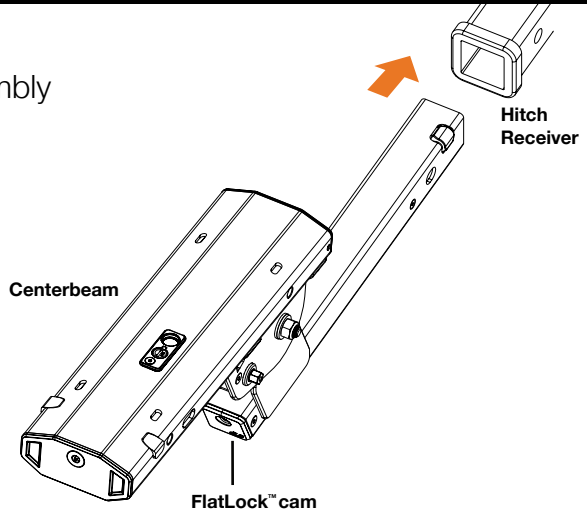
**2** Keep your struts clean! Just like your shifter and derailleur, dirt, dust, and grime can work themselves into the mechanism resulting in sub-par performance. Periodically run a cloth around each Piston® Pro tube to keep your rack looking good and functioning smoothly.

**3** Assembly of the 2" Receiver and 1.25" Receiver versions of the Piston® Pro are virtually identical. Minor differences in the hitch installation processes are shown.

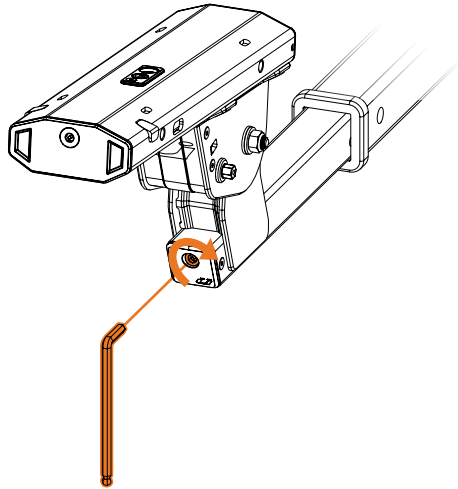
# Pre-Assembly Hitch Installation

(Optional)

- 1 Insert centerbeam assembly into your hitch receiver.



- 2 Using the provided 8mm security hex key fully tighten the FlatLock™ cam and secure Piston® in your hitch.



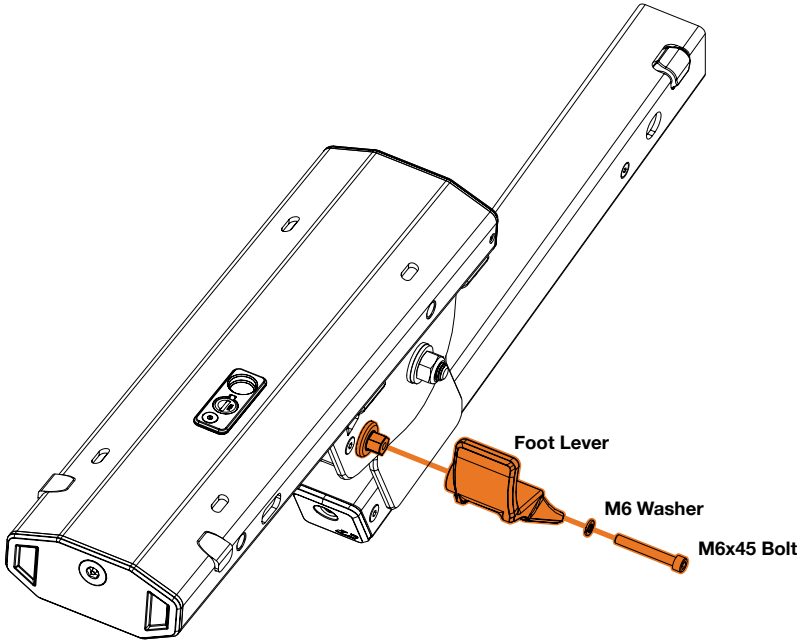
- 3 Fully tighten FlatLock™ cam to secure centerbeam in hitch receiver.



**Keep the 8mm Security Allen in a safe, convenient location.**

# Foot Lever Assembly

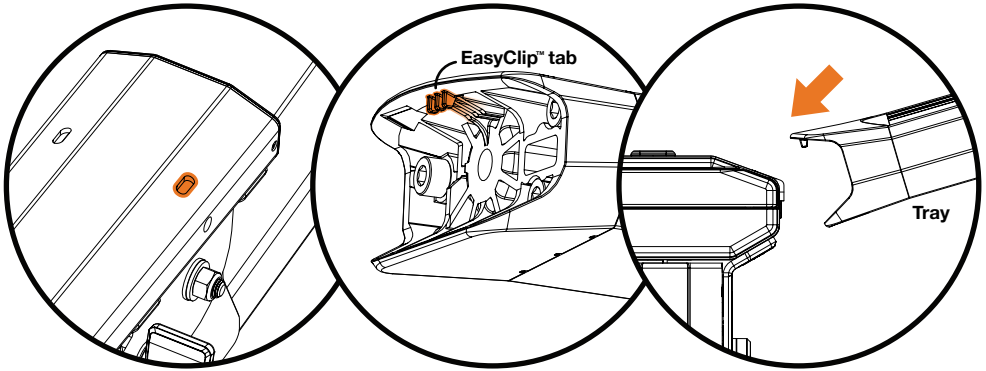
- 1 Slide foot lever into position on centerbeam assembly, installing M6 Lock Washer and M6x45 bolt using the provided 5mm hex key.



**Tighten M6x45 bolt to 15Nm.**

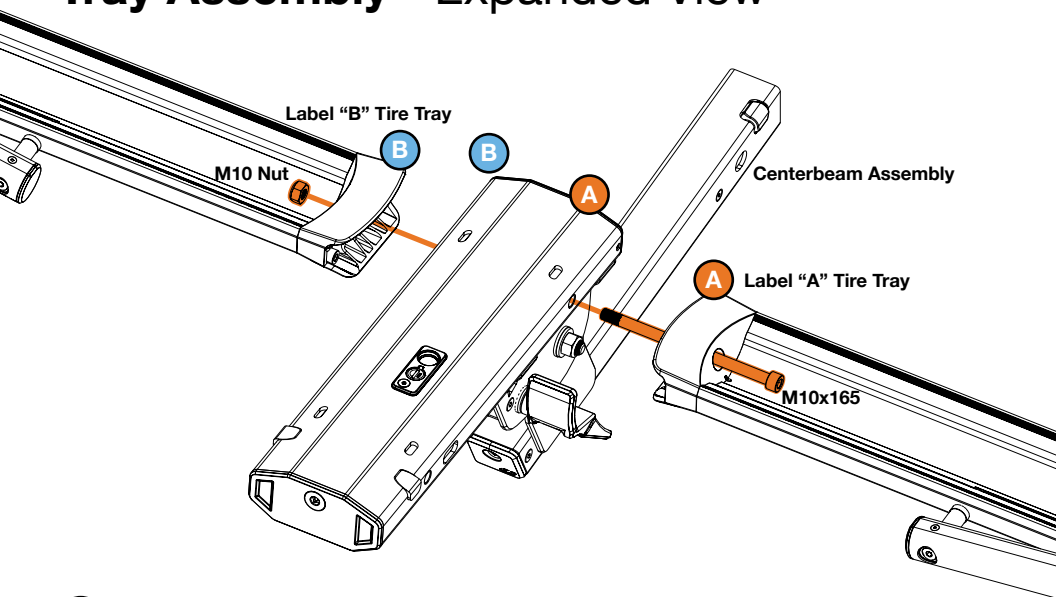
# Tray Assembly - Part 1

- 1 Each Piston® Pro tire tray features an EasyClip™ tab that will hook into a slot on the centerbeam, allowing the tire tray to hang in place during assembly.



! Angle tire tray to help guide tab as it clips into slot.

## Tray Assembly - Expanded View

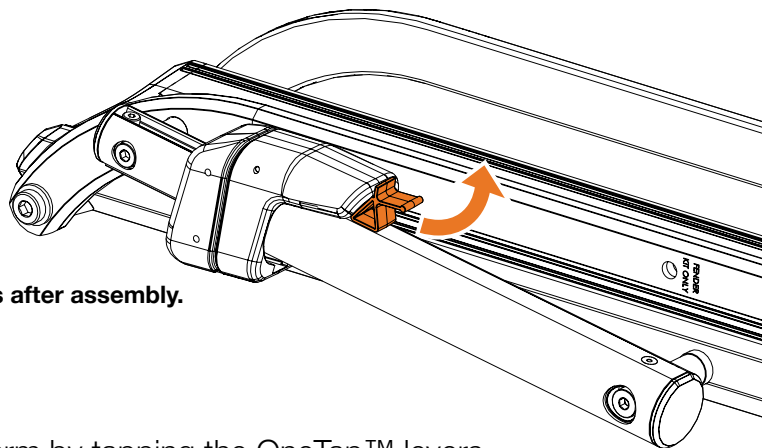


- 2 Hook labeled **A** tray to **A** position on centerbeam.  
Hook labeled **B** tray to **B** position on centerbeam.

# OneTap™ Operation

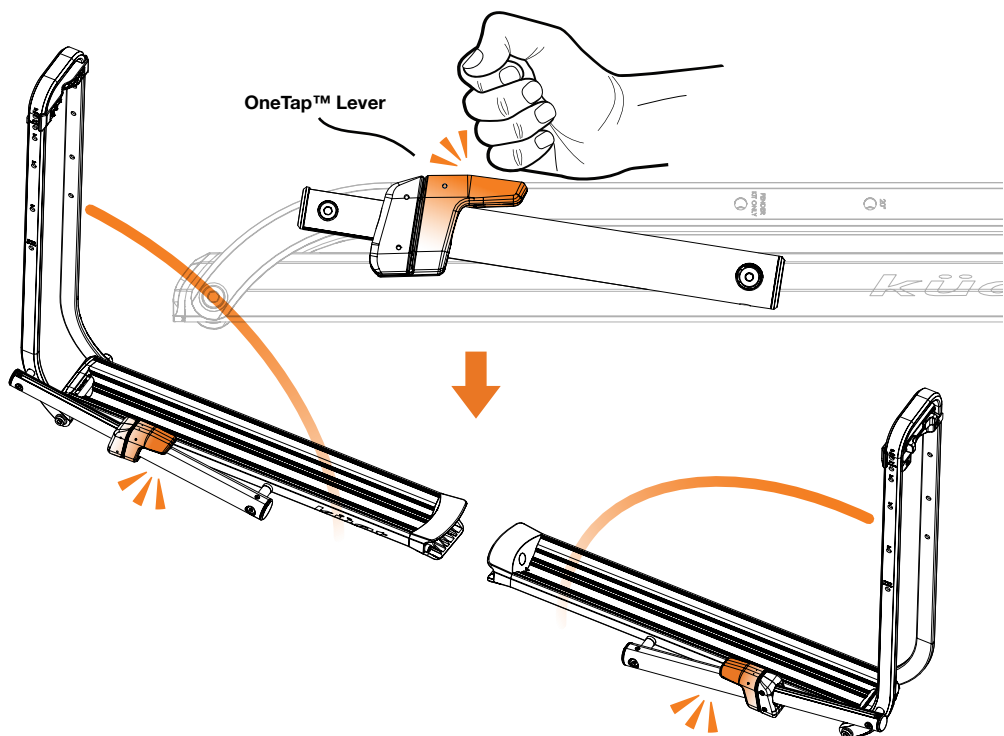
Opening Piston® arms provides easier access to tray bolt and tray nut locations.

- 1 Your Piston® Pro arrived with security tabs beneath each OneTap™ lever to ensure safe shipping. Pull each tab upward to remove them and operate the lever.



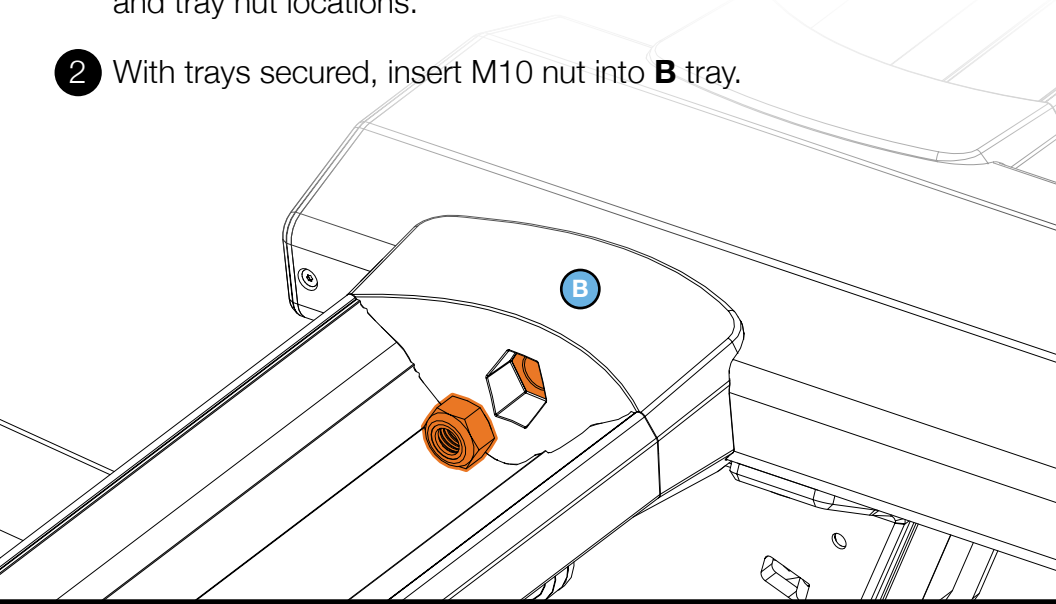
! Dispose of tabs after assembly.

- 2 Open each arm by tapping the OneTap™ levers. **Do not hold the lever down when opening or closing.**

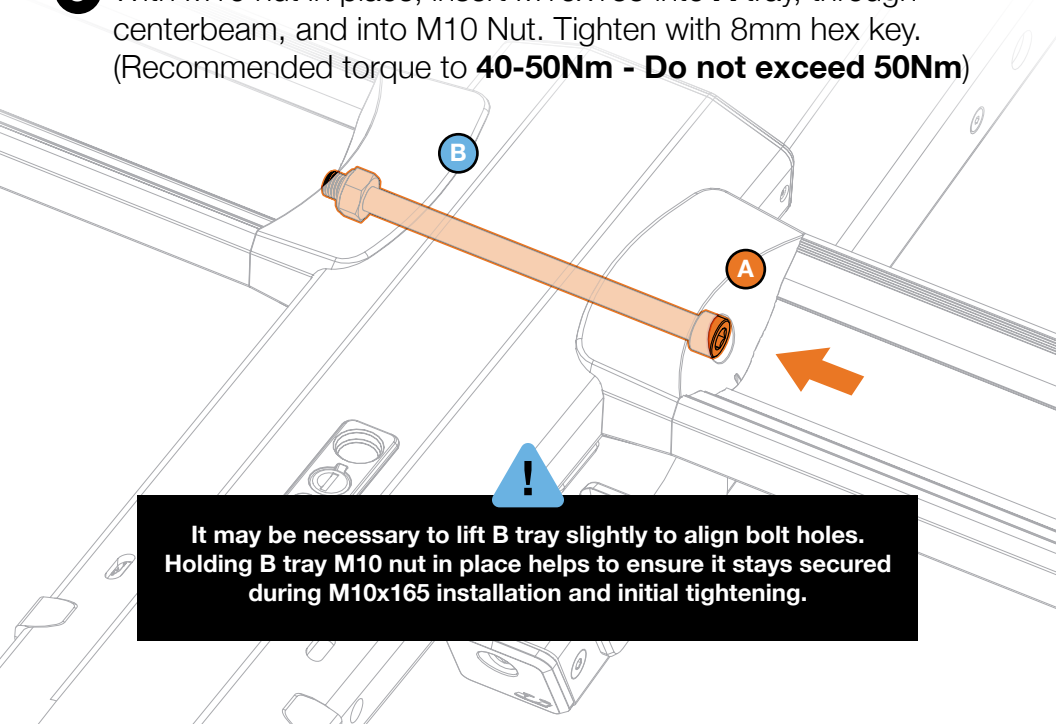


# Tray Assembly - Part 2

- 1 Opening Piston® Pro arms provides easier access to tray bolt and tray nut locations.
- 2 With trays secured, insert M10 nut into **B** tray.

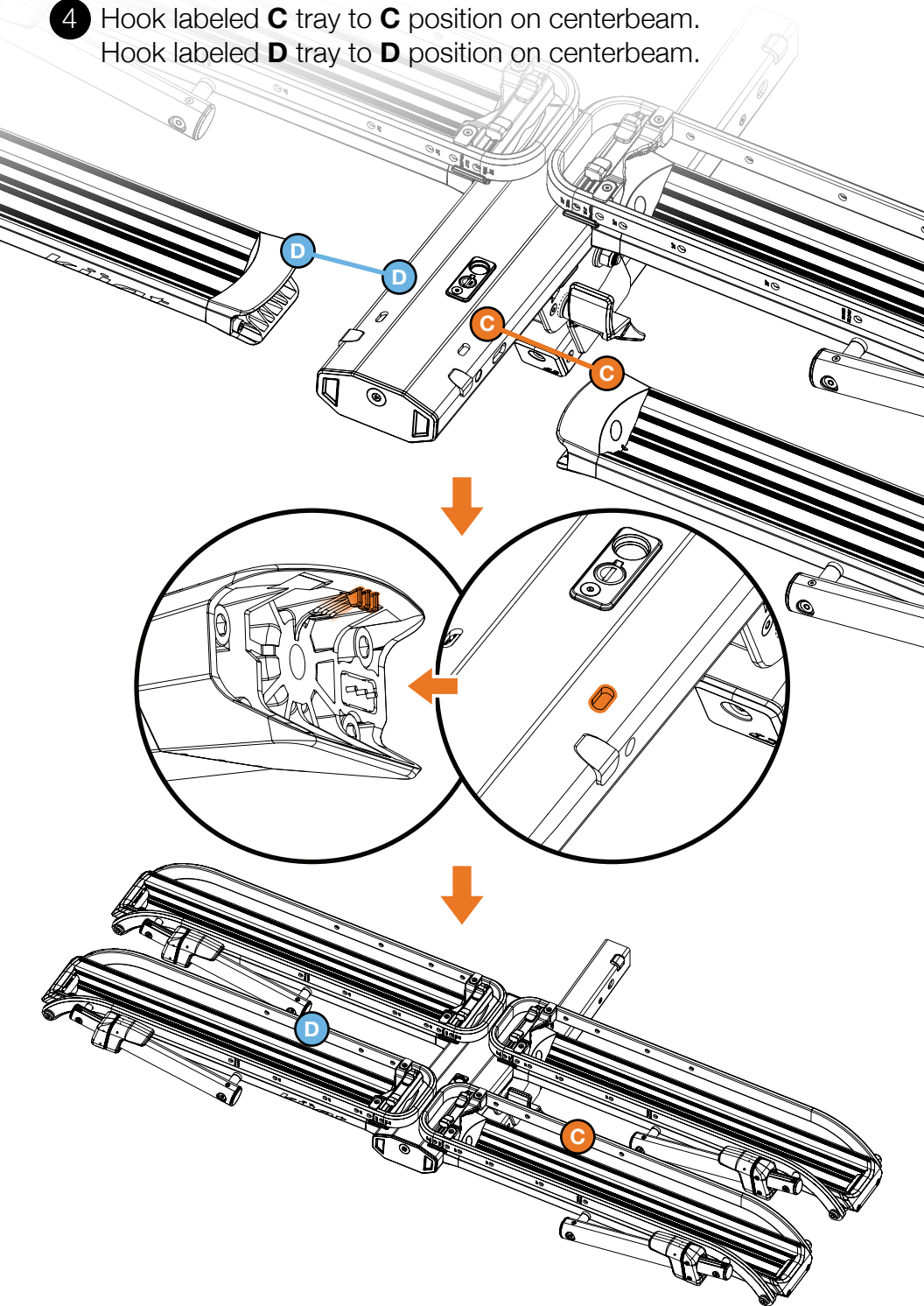


- 3 With M10 nut in place, insert M10x165 into **A** tray, through centerbeam, and into M10 Nut. Tighten with 8mm hex key. (Recommended torque to **40-50Nm - Do not exceed 50Nm**)



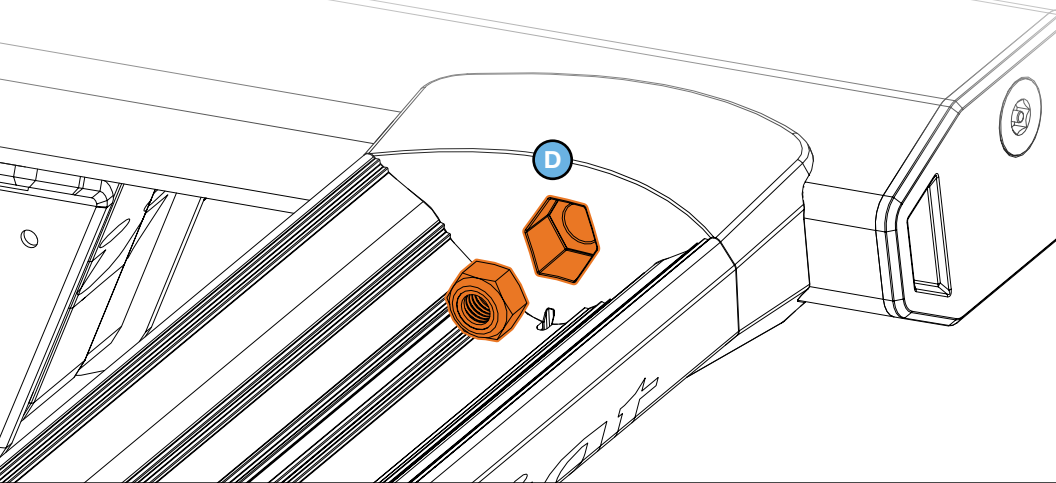
It may be necessary to lift **B** tray slightly to align bolt holes. Holding **B** tray M10 nut in place helps to ensure it stays secured during M10x165 installation and initial tightening.

- 4 Hook labeled **C** tray to **C** position on centerbeam.  
Hook labeled **D** tray to **D** position on centerbeam.

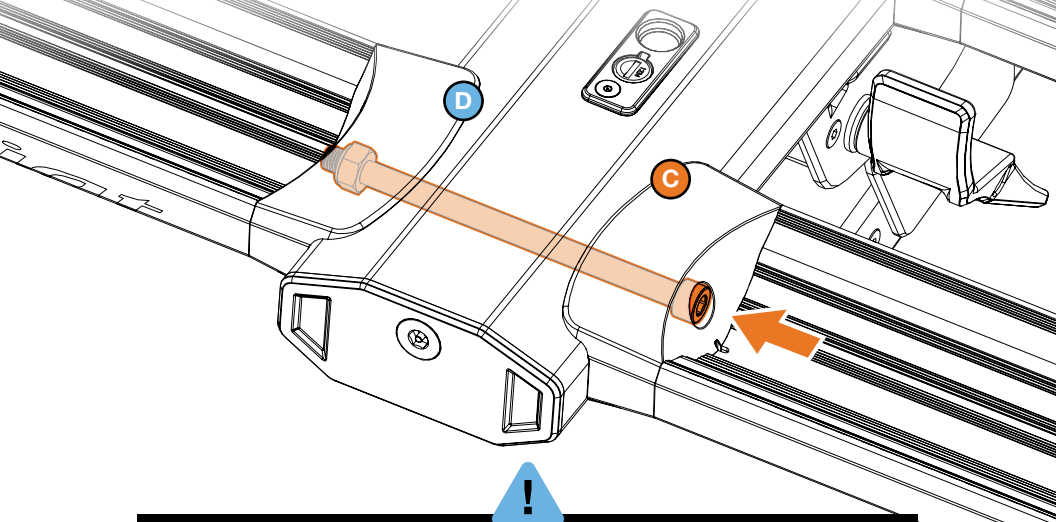




- 5 Opening Piston® Pro arms provides easier access to tray bolt and tray nut locations.
- 6 With **C** and **D** trays secured, insert M10 nut into **D** tray.



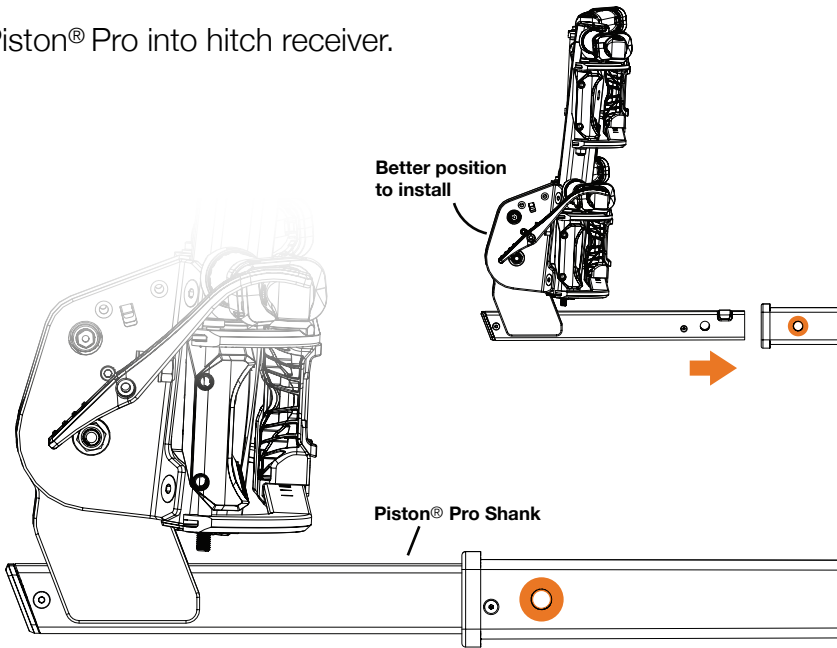
- 7 With M10 nut in place, insert M10x165 into **C** tray, through centerbeam, and into M10 nut. Tighten with 8mm hex key. (Recommended torque to **40-50Nm - Do not exceed 50Nm**)



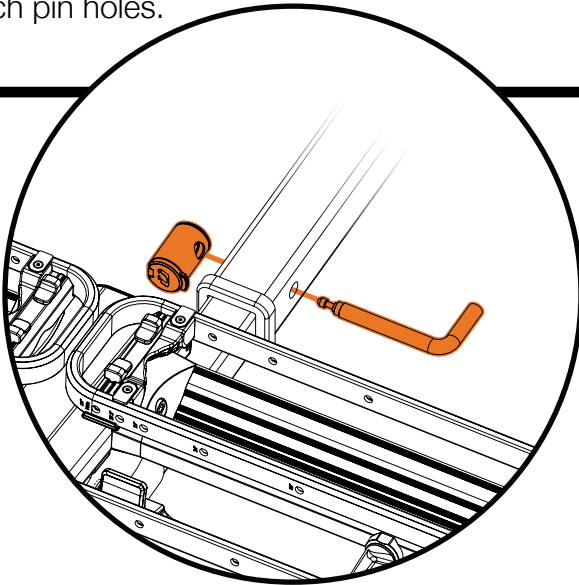
It may be necessary to lift **D** tray slightly to align bolt holes. Holding **D** tray M10 nut in place helps to ensure it stays secured during M10x165 installation and initial tightening.

# Installing Assembled Piston Pro®

- 1 Insert Piston® Pro into hitch receiver.




- 2 Align hitch pin holes.



- 3 Insert hitch pin through holes in hitch receiver and Piston® Pro shank, and secure with hitch pin lock.

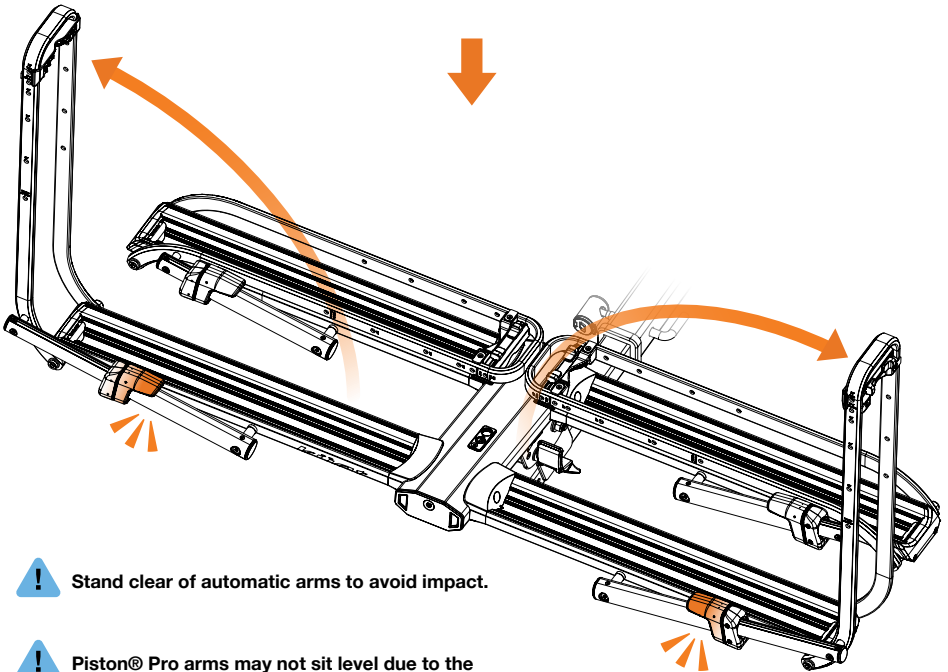
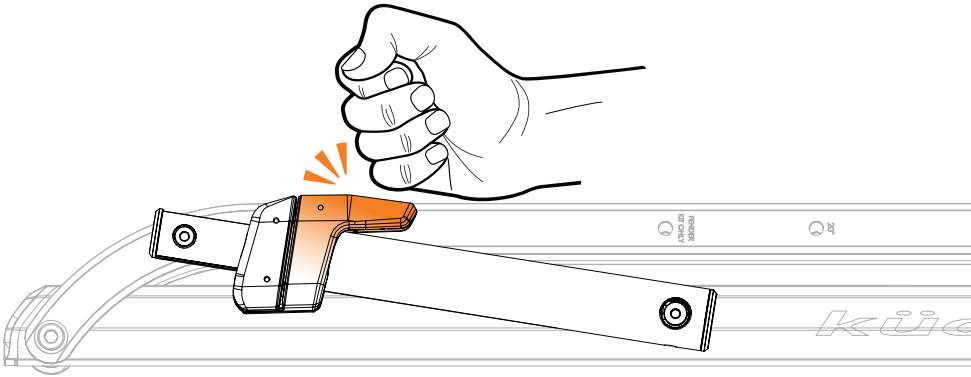
- 
- 5 Fully tighten FlatLock™ cam to secure Piston® Pro shank in hitch receiver.  
**(Do not exceed 30 Nm)**

 Remember to keep your hex key with your vehicle.

- 6 To remove your Piston Pro® from the vehicle hitch, reverse these steps.

# OneTap™ Operation

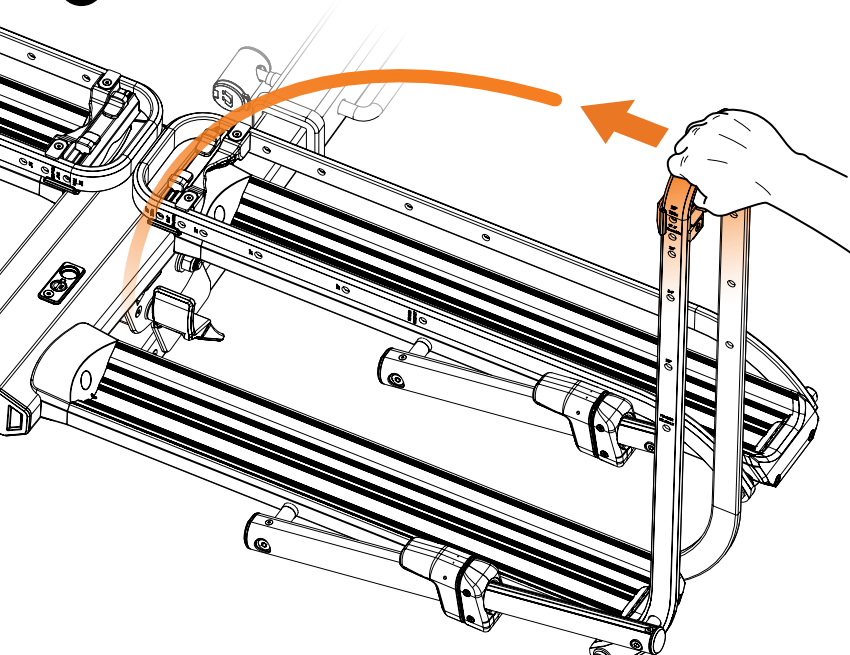
- 1 Open each arm by tapping the OneTap™ levers. Stand back and watch! Each arm will fully open automatically. **Do not hold the lever while opening or closing.**



! Stand clear of automatic arms to avoid impact.

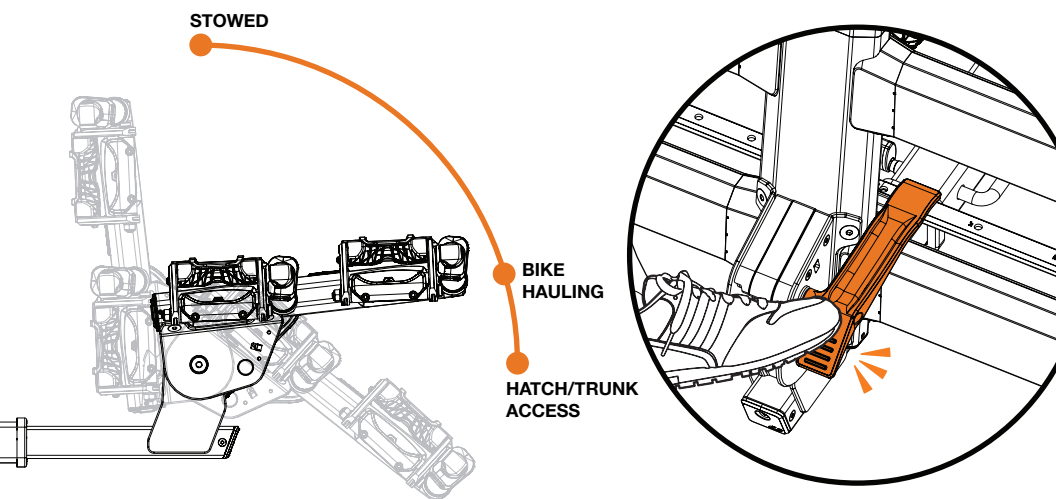
! Piston® Pro arms may not sit level due to the back pressure on the piston strut. This is the nature of the design and does not affect the function of the rack.

- 2 To close, simply push arms back down into stowed position.



## Foot Lever Operation

- 1 Fold rack up and down using the pivot lever.

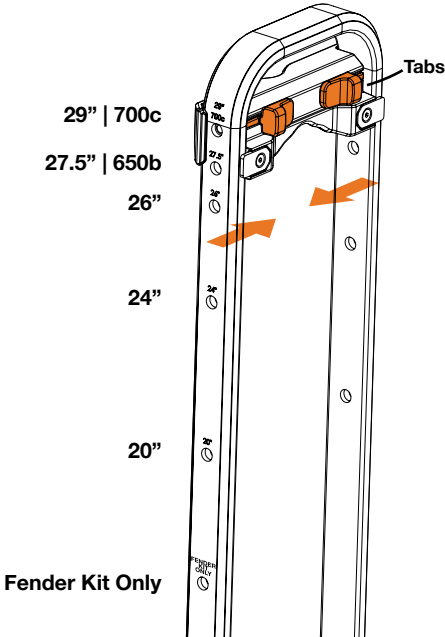
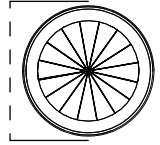


**!** When your rack is in the stowed position, please ensure that your rack will not come into contact with your bumper.

# Loading | Unloading Bikes

- 1 Push tabs inward and slide tire cradle up or down tire arm to adjust for measured wheel size.

! How to measure wheel.

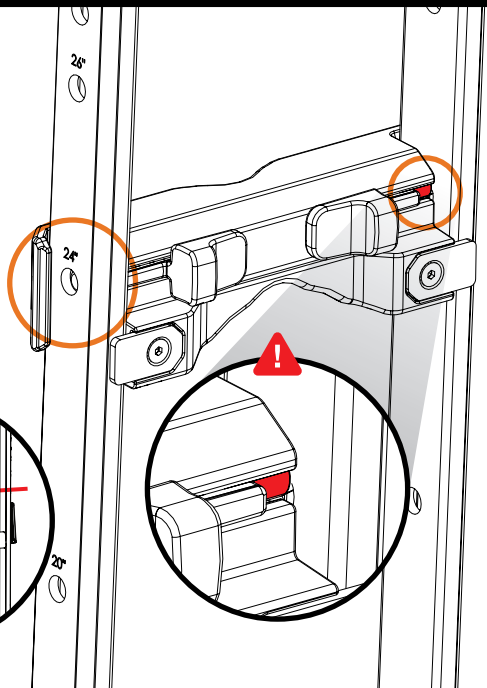
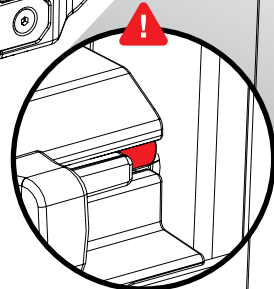
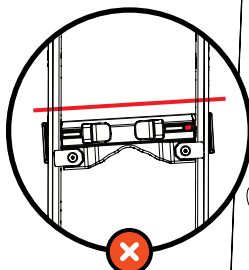
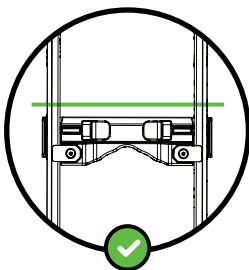


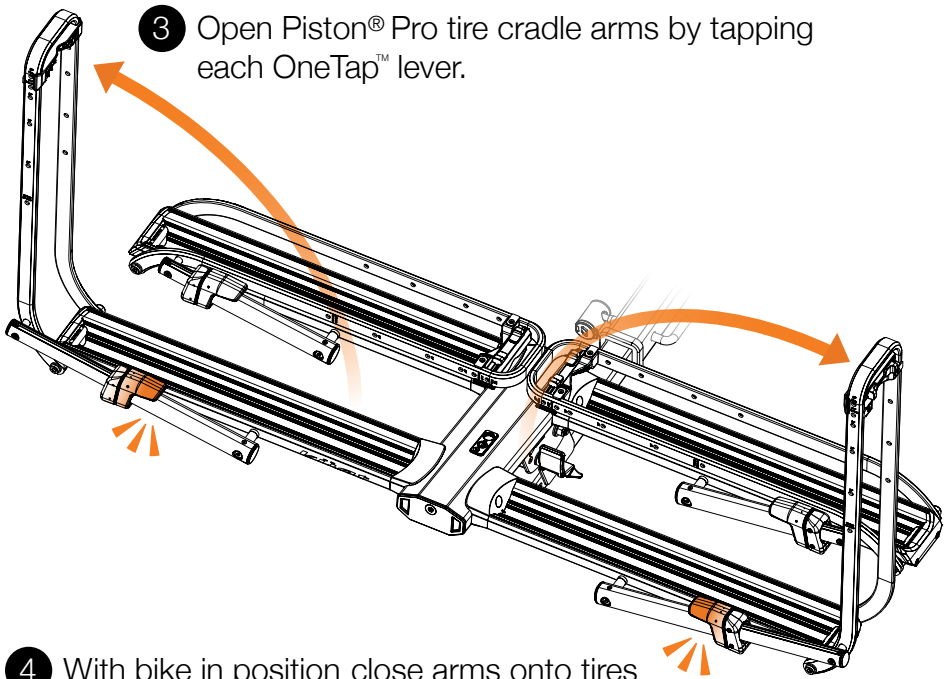
! Scan QR to order Fender Kit or visit <http://kuat.com/px2/fk>



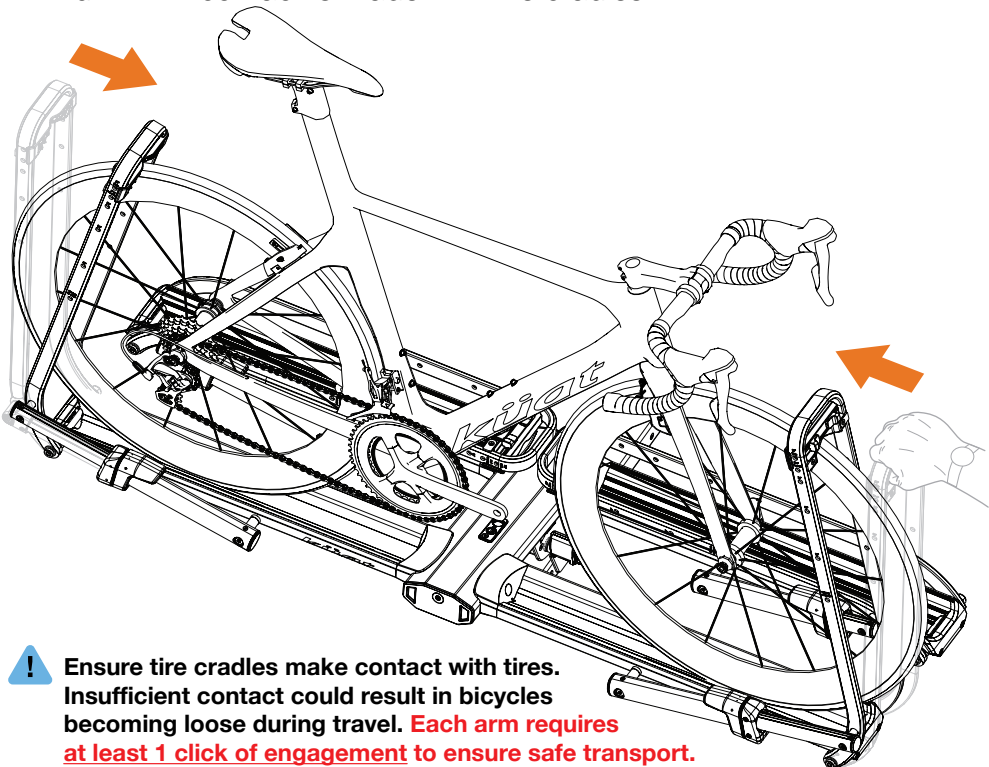
- 2 Visually ensure tabs are fully secured in notches. Misaligned tabs or tabs not fully secured will show a red warning indicator.

! Failure to secure both tabs may result in bikes becoming loose and falling during travel.



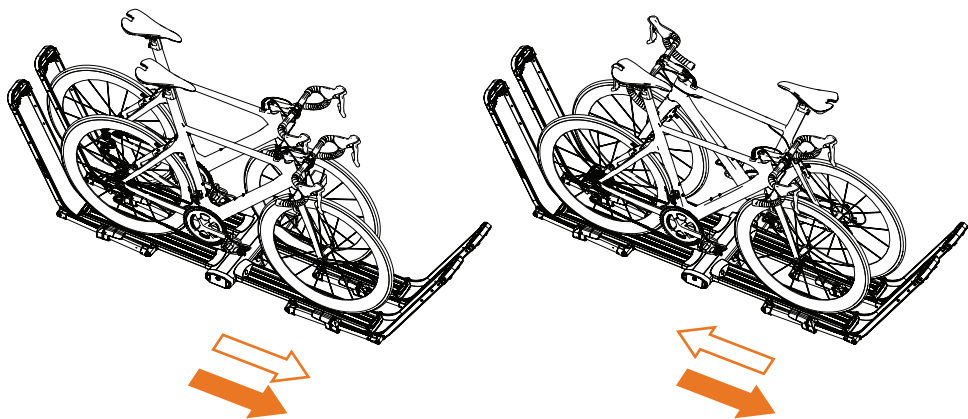


4 With bike in position close arms onto tires until firm contact is made with tire cradles.

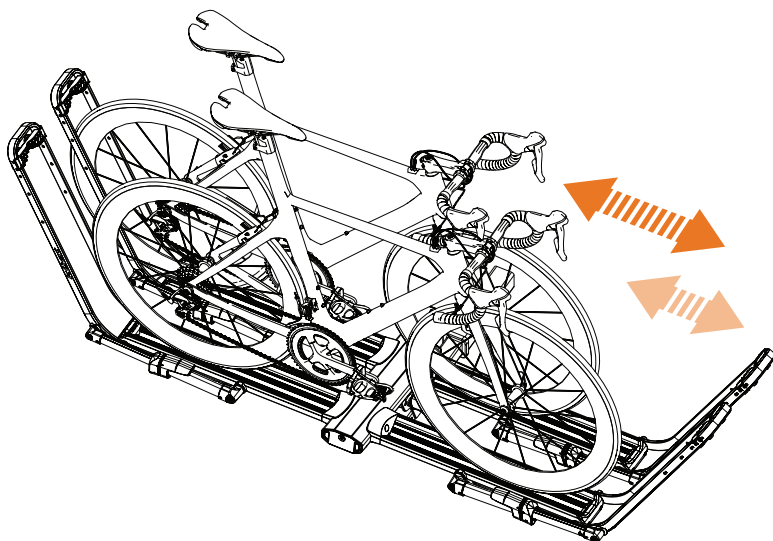


! Ensure tire cradles make contact with tires. Insufficient contact could result in bicycles becoming loose during travel. **Each arm requires at least 1 click of engagement to ensure safe transport.**

- 5 Should the need arise, bikes can be loaded asymmetrically, or oriented in the same direction to accommodate different fitment problems.

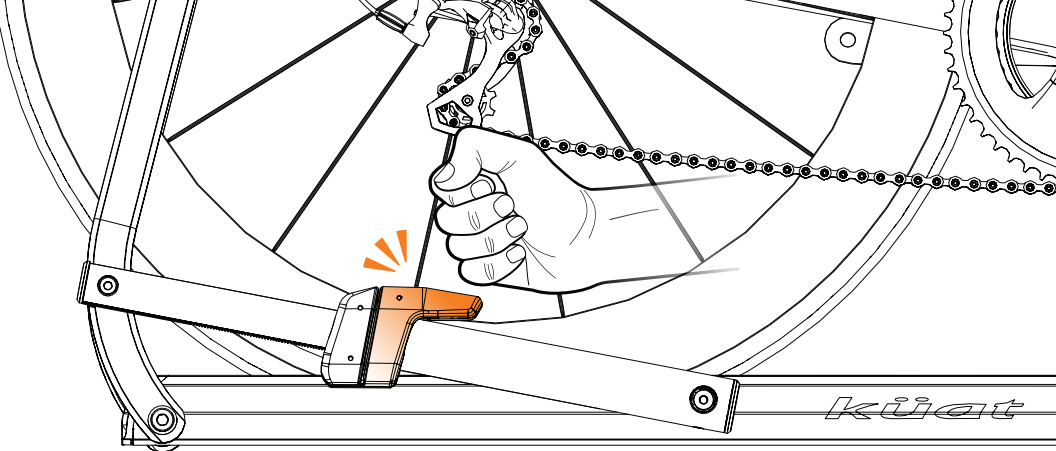


- 6 To further fine tune the fitment, bikes can be adjusted left and right on their individual trays.



**!** Ensure tire cradles make contact with tires. Insufficient contact could result in bicycles becoming loose during travel.  
Each arm requires **at least 1 click of engagement** to ensure safe transport.

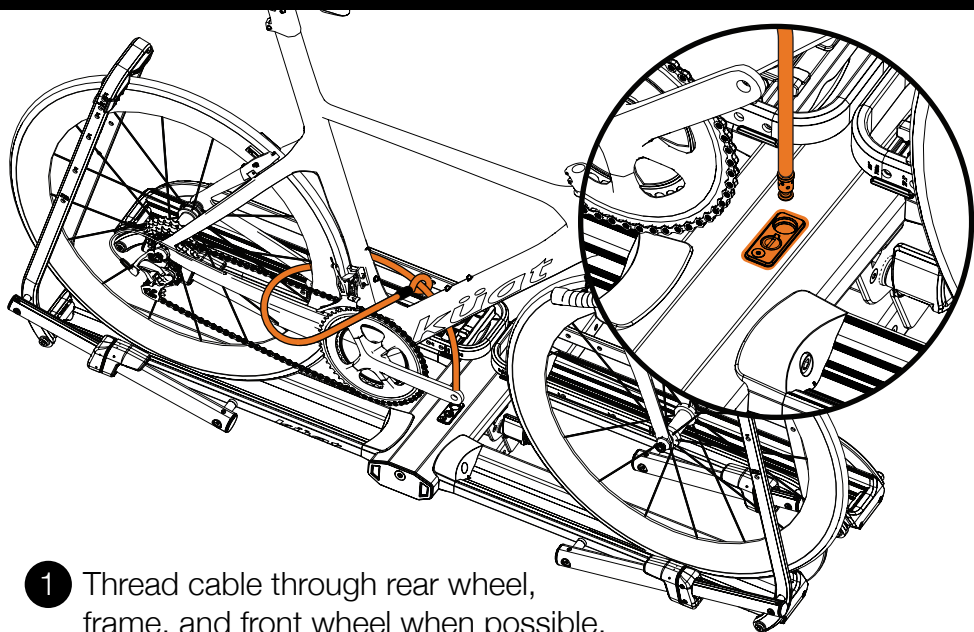




- 7 Tap each OneTap™ lever to release tire arms and unload bike.

! After pushing the OneTap™ lever, it may be necessary to push the tire arm up off the tire. Always keep one hand on bike when releasing tire arms.

## Securing Your Bikes with Cable Lock



- 1 Thread cable through rear wheel, frame, and front wheel when possible, then cable end loop. Secure cable tip into lock port located on Piston® Pro centerbeam.

# eBike Ramp | Selective Bike Unloading

(Sold Separately)

The Piston® Pro OneTap™ system allows users to rotate tire arms into a negative position for the installation of the Piston® eBike Ramp, or conveniently unload a bike in tray 2 without needing to unload tray 1.

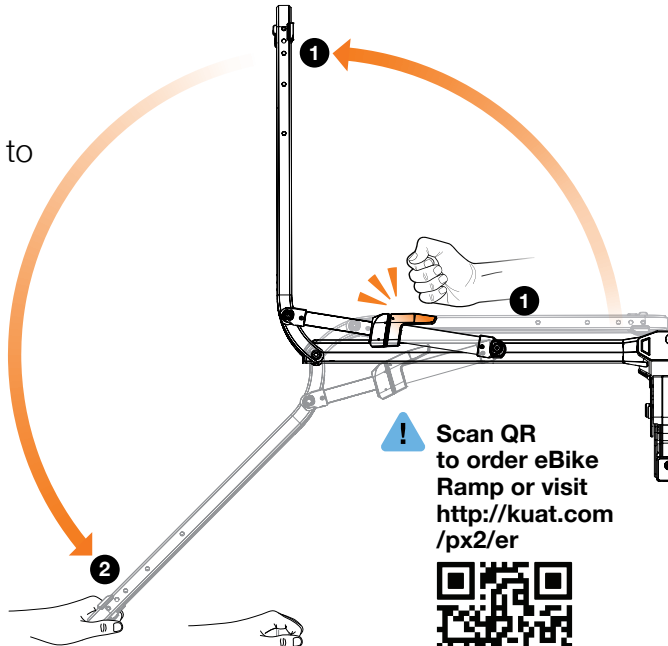
## To Fold Down

1 Tap OneTap™ lever to open tire arm.

2 Pull arm down into negative position.

! Do not hold OneTap™ lever while pulling arm into negative position.

3 Unload selected bike or install eBike Ramp.  
(Sold Separately)

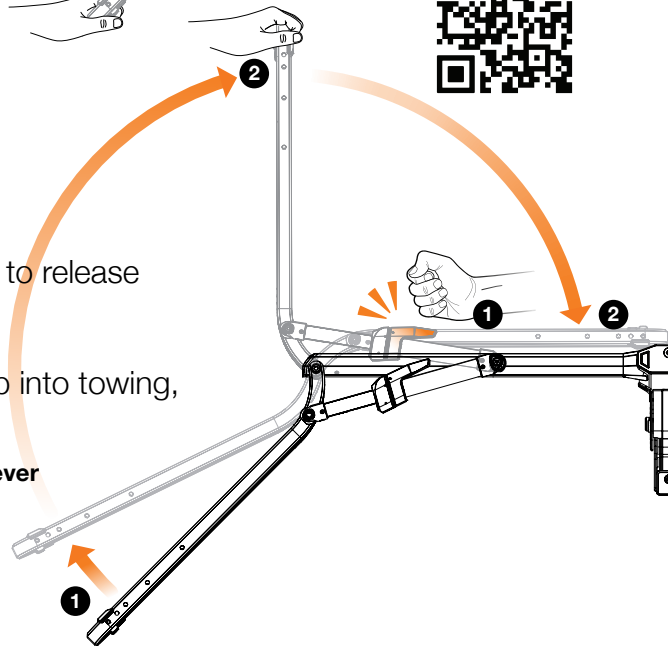


## To Fold Up

1 Tap OneTap™ lever to release ratchet tension.

2 Pull tire arm back up into towing, or stowed position.

! Do not hold OneTap™ lever while moving arm into position.



## Warnings

# PISTON® PRO

Number Of Bikes

2
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Weight Per Bike  
Dedicated 2" Hitch

67 lb
30.4kg

Weight Per Bike  
RV use(2" only)

42 lb
19kg
See RV Compatibility Warning

Weight Per Bike  
1.25" Hitch Version

60 lb
27.2kg
No RV use

Max Wheelbase

53 in
1346 mm

Max Tire Width

5 in
127 mm

### WARNINGS

- Follow instructions for proper assembly, installation and use.
- Check tightness of all bolts and screws periodically.
- Make sure rack and vehicle receiver are in working condition before each use.
- Only use hitch extenders with a tightening mechanism like Küat hitch extenders.
- Do not use bicycle fenders or cargo racks with this product without Piston® Fender Kit.
- Do not exceed the bicycle or weight limits intended for this rack.
- Do not use rack off road (rough, washed out, boulder-and-rut-strewn backroads).
  - Smooth gravel roads are not considered off-road.
- Do not use tarps, rain covers or wind covers with this product.
- Do not take through automatic car wash.
- Read the Limited Warranty for additional limitations on use with RV's and hitch extender products.
- Drive responsibly.

**If you have questions or problems, please contact Küat Racks directly by calling toll free 1(877)822-KUAT, or by email: [info@kuat.com](mailto:info@kuat.com)**

### ADVERTENCIAS

- Siga las instrucciones para un montaje, instalación y uso adecuados.
- Verifique periódicamente el apriete de todos los pernos y tornillos.
- Asegúrese de que el portaequipajes y el receptor del vehículo estén en buenas condiciones antes de cada uso.
- Utilice únicamente extensores de enganche con un mecanismo de apriete como los extensores de enganche Küat.
- No use guardabarros de bicicleta o soportes de carga con este producto sin el kit de guardabarros Piston®.
- No exceda los límites de bicicleta o peso previstos para este portabicicletas.
- No utilice la rejilla fuera de la carretera (carreteras secundarias irregulares, arrasadas, llenas de cantos rodados y surcos).
  - Los caminos de ripio liso no se consideran fuera de la carretera.
- No use lonas, cubiertas para la lluvia o cubiertas contra el viento con este producto.
- No pase por lavado automático de autos.
- Lea la Garantía limitada para conocer limitaciones adicionales sobre el uso con productos de extensión de enganche y vehículos recreativos.
- Conduzca con responsabilidad.

### AVERTISSEMENTS

- Suivez les instructions pour un assemblage, une installation et une utilisation appropriés.
- Vérifiez périodiquement le serrage de tous les boulons et vis.
- Assurez-vous que le porte-bagages et le récepteur du véhicule sont en bon état de fonctionnement avant chaque utilisation.
- Utilisez uniquement des rallonges d'attelage avec un mécanisme de serrage comme les rallonges d'attelage Küat.
- N'utilisez pas de garde-boue de vélo ou de porte-bagages avec ce produit sans le kit de garde-boue Piston®.
- Ne dépassez pas les limites de vélo ou de poids prévues pour ce porte-bagages.
- N'utilisez pas de crémaillère hors route (routes secondaires accidentées, délavées, parsemées de rochers et d'ornières).
  - Les routes en gravier lisse ne sont pas considérées comme hors route.
- N'utilisez pas de bâches, de housses de pluie ou de housses contre le vent avec ce produit.
- Ne passez pas dans un lave-auto automatique.
- Lisez la garantie limitée pour connaître les limitations supplémentaires sur l'utilisation avec les produits de VR et d'extension d'attelage.
- Conduisez de façon responsable.

# LIMITED WARRANTY

We stand behind our products, and our customer service reps are waiting to help you out if you have any problems with your product. Our limited warranty covers your purchase for life. You can review our limited warranty on our website or call customer service at the number below if you have questions or need a repair, replacement, refund, or a copy of the limited warranty.

**[www.kuat.com/warranty](http://www.kuat.com/warranty)**

## **Questions or comments?**

Drop us an email or call us directly!

**[kuat.com](http://kuat.com) | [info@kuat.com](mailto:info@kuat.com) | [877.822.5828](tel:877.822.5828)**

# Küat RV Compatibility Warning

Küat's receiver hitch-mounted bicycle racks may be used with some recreational vehicles (RVs) as described below. Many types of RVs subject the rack and bicycles on it to high forces and extreme movements. As a result, Küat does not recommend using our receiver hitch-mounted products on RVs that will likely expose the rack to unacceptable conditions.

Küat's standard warranty will cover use of any of its 2-inch receiver hitch-mounted bicycle racks on motorhomes (as defined in 49 C.F.R. 571.3) satisfying all of the following requirements:

- 1) The receiver hitch is directly attached to the motorhome chassis, not just to the bumper;
- 2) The rear-most point of the receiver hitch where the bicycle rack will be attached is no more than 64 inches from the rear axle of the motorhome; and
- 3) The vehicle is a class B type motorhome as described below.

Class B type motorhomes are commonly known as van conversions and comprise a completed van-type vehicle which has been altered to provide temporary living quarters. Class B type motorhomes have a gross vehicle weight rating of 10,000 lbs or less.

In addition, (i) the 2 inch receiver Transfer™ v2, (ii) the 2-inch receiver Piston® Pro X, and (iii) the Piston® SR with 2" Hitch Adapter may be used on RVs (both motorhomes and trailers) satisfying all of the following requirements:

- 1) The receiver hitch is directly attached to the RV chassis, not just to the bumper; and
- 2) The bicycle rack is in the 2-bike configuration with no add-on unit attached.

Please check the Warnings section of the User Guide for load weight limits applicable to your rack when used on an RV. Lower weight limits apply.

Even if the conditions above are met, any RV may be operated in a way that will expose Küat's products to conditions that they are not designed to handle. The operator of the RV is responsible to operate the RV in a manner that will not overload the rack, such as by excessive speed over rough roads or speed bumps, rapid turning movements, driving the RV over changes in gradient that will bring the rack in contact with the ground, or other similar actions.

***kuat***<sup>®</sup>

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