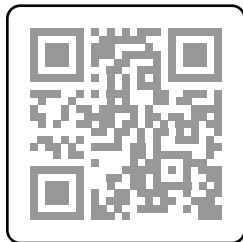


PISTON ION™

ASSEMBLY | USER GUIDE



ASSEMBLY VIDEO

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SAFETY INSTRUCTIONS

PISTON ION™

Number Of Bikes	Weight Per Bike Dedicated 2" Hitch	Weight Per Tray RV use	Max Wheelbase	Max Tire Width	Off-Road Use	Use of Strap Kit
2	100lb	80lb	57in	4.8in	50lbs	RV-Use, Off-Road Use, Bikes with Fenders, Weight Over 70lbs, Wheelbase over 53in
	45.4kg	36.3kg	1447mm	122mm	22.6kg	
		See RV Compatibility on next page			See Off-Road Warning below	

WARNING

- 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.
-When using the ION with a hitch extender, the weight capacity decreases to 80 lbs per bike. Do not use a hitch extender on an RV or off-road.
- Ensure Foot Pedal is fully engaged with Lever Lock activated each time the ION is in use.
- Do not exceed the bicycle or weight limits intended for this rack.
- Off-Road Use Warning: The ION is designed for and intended to be used on non-technical terrain, such as forest service roads and access roads at moderate speeds.
- It should not be used on rough, washed-out, boulder-and-rut-strewn roads, while rock crawling, jumping, bogging, or other technical driving conditions.
- Smooth gravel roads are not considered off-road
- Do not use tarps, rain covers or wind covers with this product.
- Do not exceed the weight rating of your vehicle's hitch receiver.
- Read the Limited Warranty for additional limitations on use with RV's and hitch extenders.

NOTICE

- Do not take through automatic car wash.

ADVERTENCIA

- 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.
-Al usar el ION con un extensor de enganche, la capacidad de peso se reduce a 36 kg por bicicleta. No use un extensor de enganche en una autocaravana.
- Si no se activa el bloqueo de palanca, las bicicletas podrían caerse durante el viaje.
- 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 exceda la capacidad de peso del receptor de enganche de su vehículo.
- Lea la Garantía limitada para conocer limitaciones adicionales sobre el uso con productos de extensión de enganche y vehículos recreativos.

AVISO

- No pase por lavado automático de autos.

AVERTISSEMENT

- 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.
-Lorsque vous utilisez l'ION avec une rallonge d'attelage, la capacité de charge est réduite à 80 lb par vélo. N'utilisez pas de rallonge d'attelage sur un camping-car.
- Le non-enclenchement du levier de verrouillage peut entraîner la chute des vélos pendant le trajet.
- 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 dépassez pas le poids nominal du récepteur d'attelage de votre véhicule.
- Lisez la garantie limitée pour connaître les limitations supplémentaires sur l'utilisation avec les produits de VR et d'extension d'attelage.

AVIS

- Ne passez pas dans un lave-auto automatique.

Küat RV Compatibility Warning

Küat RV Compatibility Warning

Küat's limited warranty only covers the use of some of its receiver hitch-mounted bicycle racks 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. Damage resulting from the use of a Küat product in violation of this section is not covered by this limited warranty.

Küat's limited warranty will cover use of any of its 2-inch receiver hitch-mounted bicycle racks on Class B type motorhomes, commonly known as van conversions (as defined in 49 C.F.R. 571.3), satisfying all of the following requirements:

The receiver hitch is directly attached to the motorhome chassis, not just to the bumper;

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

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 that 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 ION, (iii) the 2-inch receiver Piston Pro X, (iv) the 2-inch receiver Piston Pro, and (v) the Piston SR with 2" Hitch Adapter may be used on RVs (both motorhomes and trailers) satisfying all of the following requirements:

The receiver hitch is directly attached to the RV chassis, not just to the bumper;

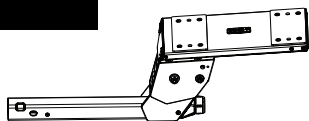
No hitch extender or swing-away rack attachment is being used; and

The bike rack is in its original configuration, with no add-on rack attachments.

Please check the product 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 RV operator is responsible for operating 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.

Parts



(1) Centerbeam Assembly



(1) Bike Ramp



(2) Fender Straps



(4) Tray Bolt Spacers



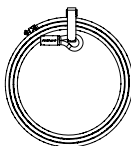
(4) M10 x 50mm
Flat Head Tray Bolts



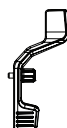
(1) Outer Tray



(1) Inner Tray



(1) Cable Lock



(1) Foot Pedal



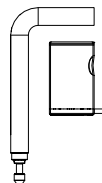
(2) Key



(1) M6x16

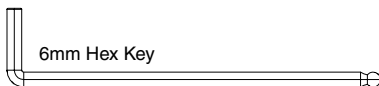


(1) M6 Washer

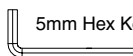


(1) Hitch Pin
(1) Hitch Lock

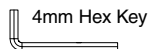
Tools



6mm Hex Key



5mm Hex Key



4mm Hex Key

We recommend that you begin by inserting the centerbeam assembly into a hitch receiver for a smoother assembly experience.

Keep your rack clean! Just like your shifter and derailleur, dirt, dust, and grime can work themselves into the mechanism resulting in sub-par performance. Periodically hose and wipe down your ION™ to keep your rack looking good and functioning smoothly.

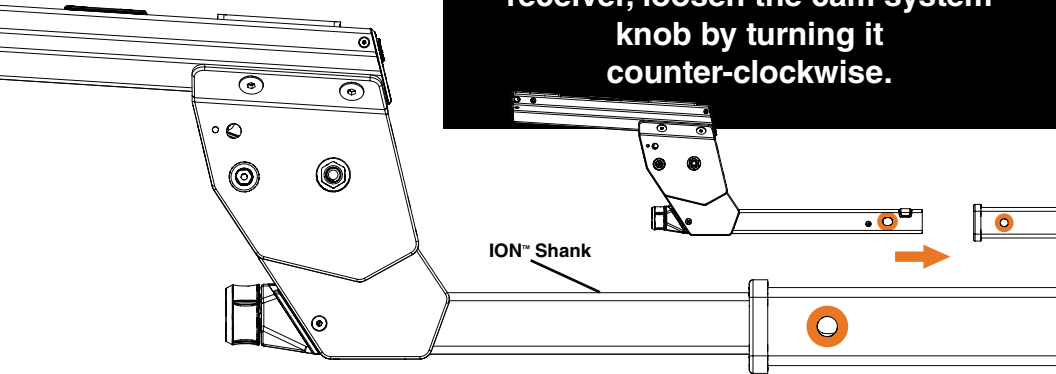
Estimated assembly time: 25 Minutes

Hitch Installation

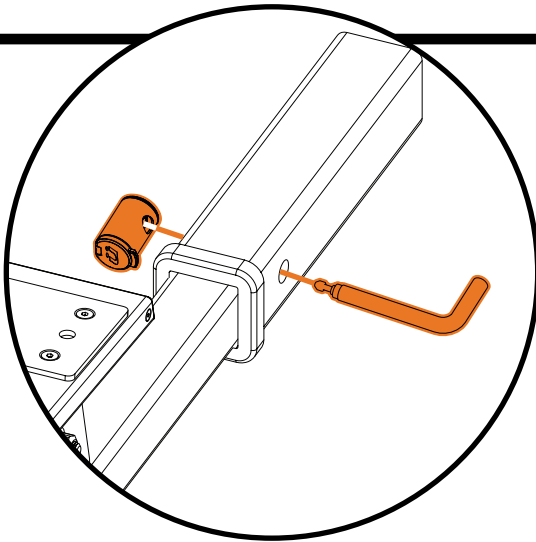
- 1 Insert ION™ Centerbeam Assembly into hitch receiver.

NOTICE

If the Centerbeam Assembly does not fit into the hitch receiver, loosen the cam system knob by turning it counter-clockwise.

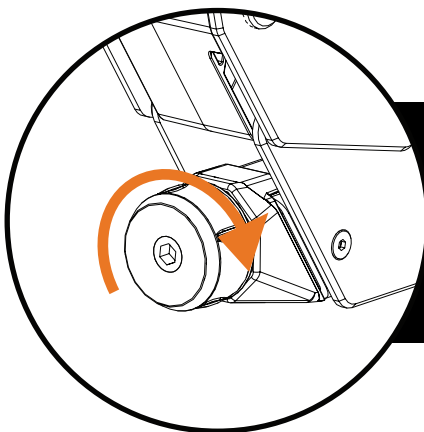


- 2 Align hitch pin holes.



- 3 Insert hitch pin through holes in hitch receiver and ION™ shank, and secure with hitch pin lock.

- 3 Fully tighten the Flatlock™ cam system into the hitch receiver by turning the cam system knob clockwise.

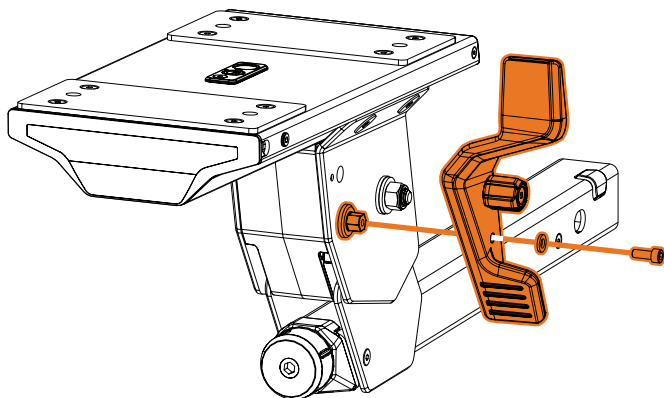


NOTICE

Helpful Tip:
Before tightening the cam system, push the rack into the hitch receiver until the hitch pin is pinched in the receiver

Foot Lever Assembly

- 1 Slide foot lever into position on Centerbeam assembly, installing the M6 x 16 Bolt and M6 Washer using the provided 5mm hex key.

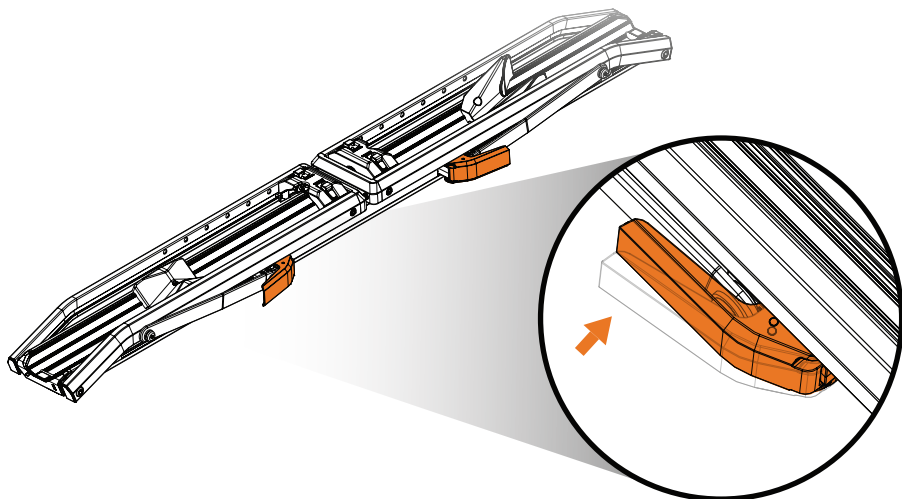


CAUTION

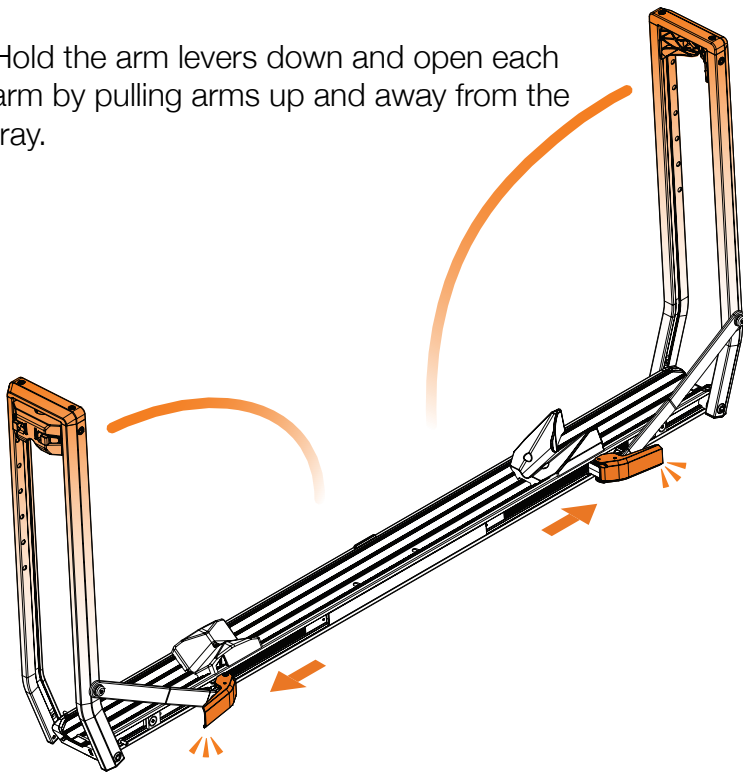
Torque Foot Lever Bolt to 10Nm.

Inner Tray Assembly

- 1 To assemble the trays for your ION™, begin by deploying the tire arms on each tray. This will provide access to the two mounting locations on each tray.

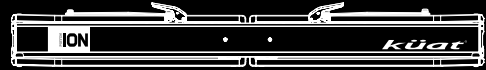


- 2 Hold the arm levers down and open each arm by pulling arms up and away from the tray.



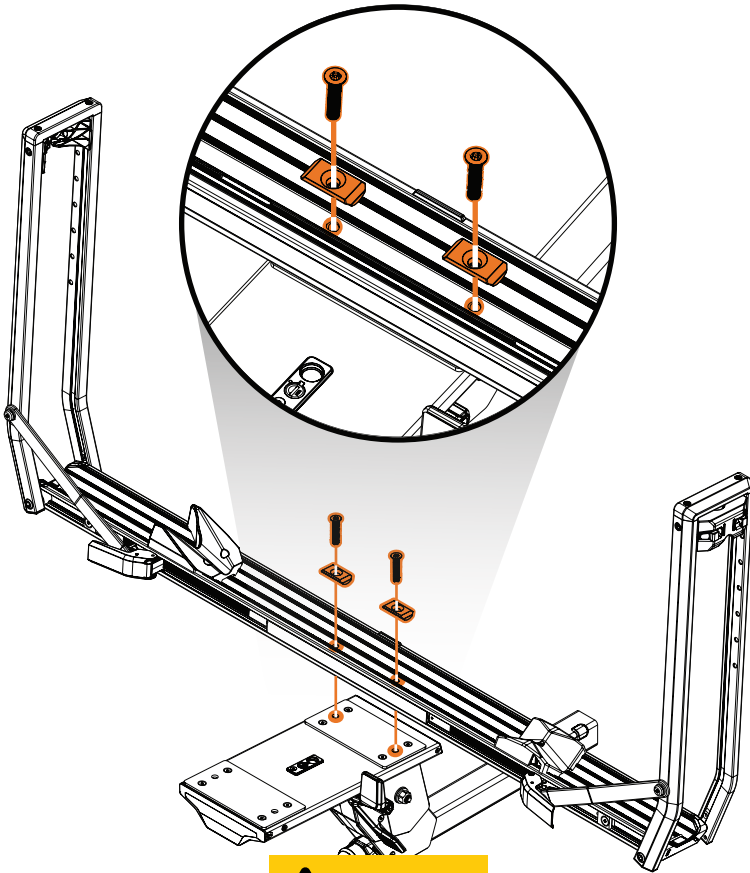
Inner Tray Assembly

- 1 Set the Inner tray over the two bolt hole locations on the inner tray seat on the Centerbeam.



The Inner Tray is labeled ION™ and Küat.

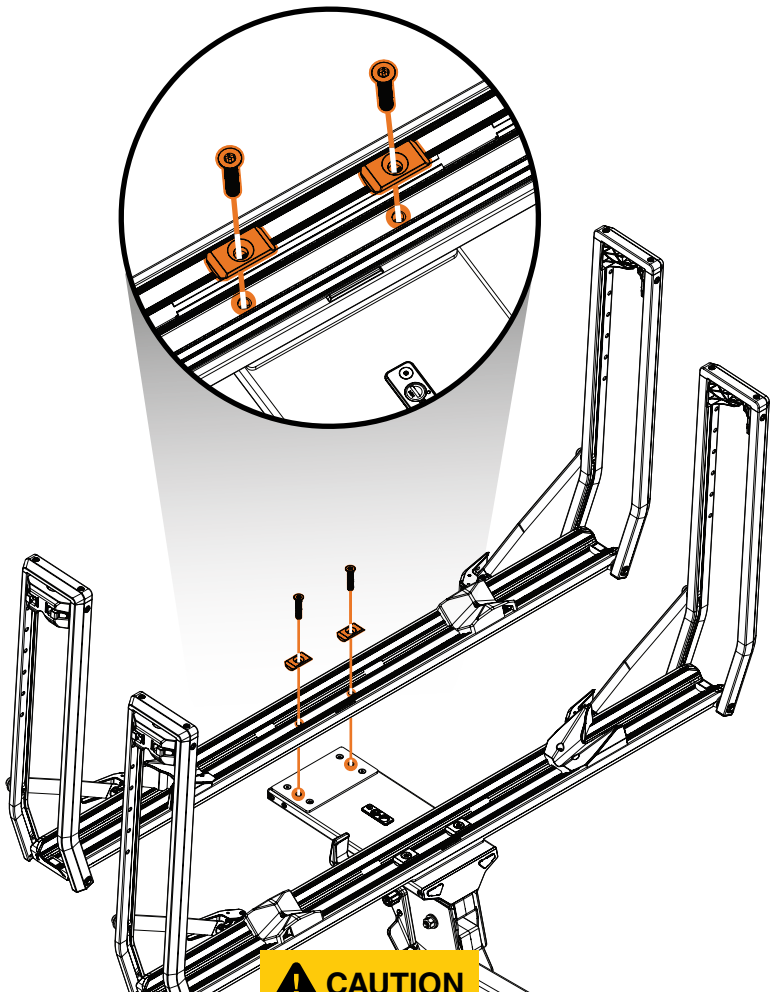
- 2 Using the M6 Hex Key, install two M10x50 Tray Bolts through two Tray Bolt Spacers, Inner ION™ tray, and into the Centerbeam assembly.



Torque M10x50 bolts to 40Nm.

Outer Tray Assembly

- 1 Position the Outer tray over the two bolt hole locations in the front of the Centerbeam.
- 2 Using the M6 Hex Key, install two additional M10x50 Tray Bolts through two tray bolt spacers, Outer ION™ tray, and into the Centerbeam assembly.

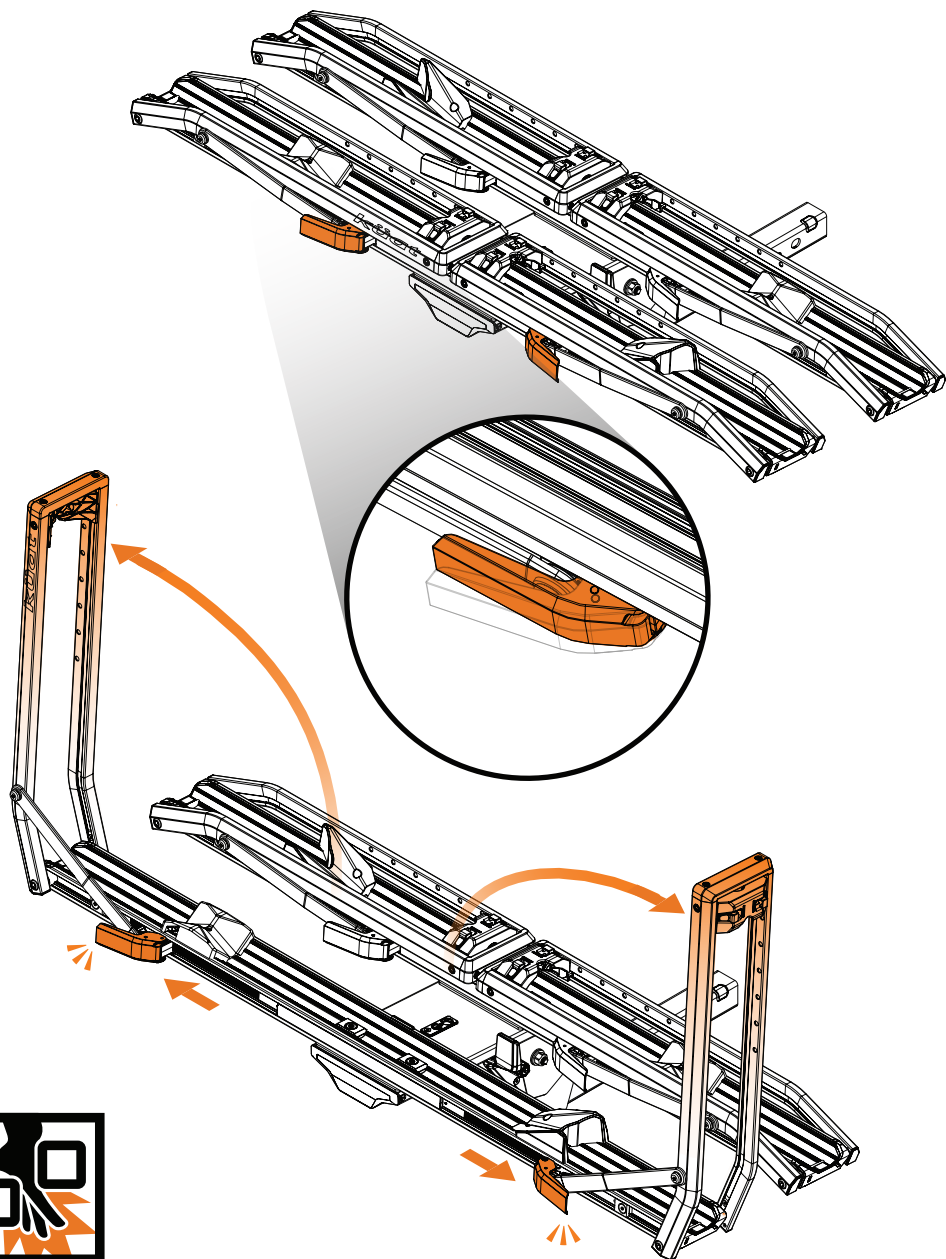


⚠ CAUTION

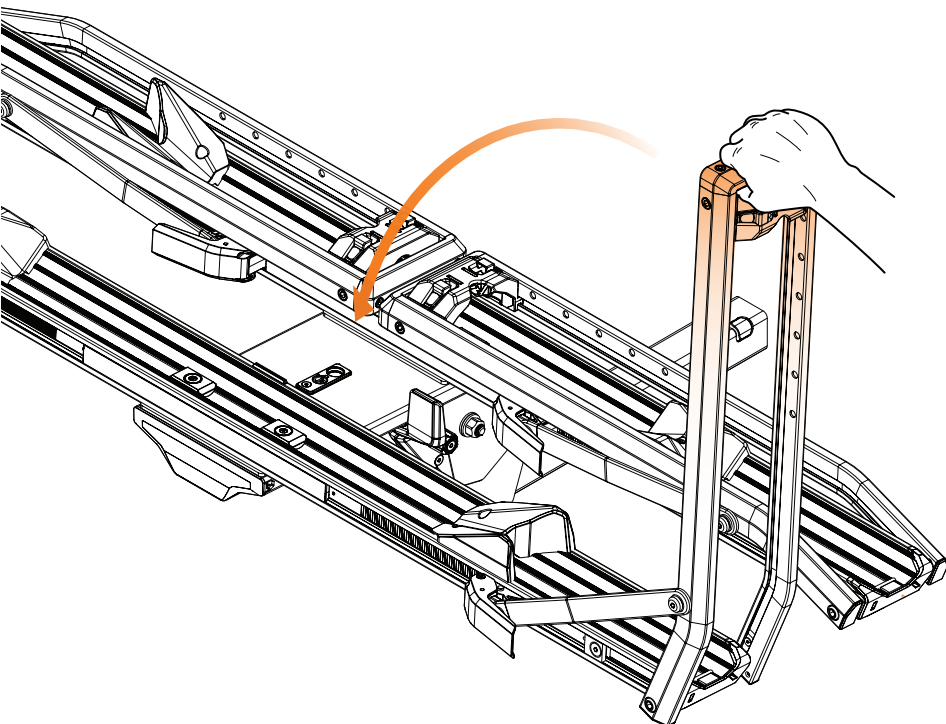
Torque M10x50 bolts to 40Nm.

Tire Arm Operation

- 1 To open the arms of your ION™, hold the arm levers down while simultaneously pulling each arm up and away from the tray.



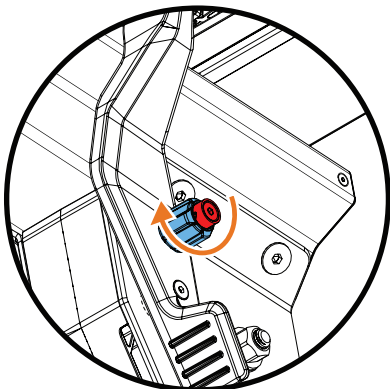
- 2 To close your ION™ tire arms, ratchet the arms back onto the bike tray.



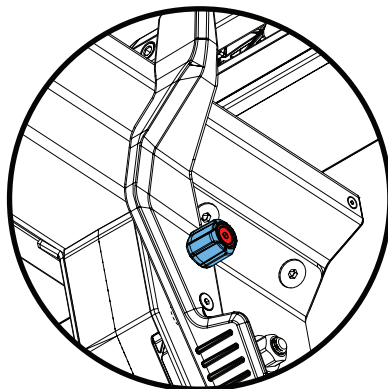
Foot Lever Operation

- 1 The ION™ foot pedal features a Foot Pedal Lock. This will need to be unlocked to use the foot pedal.

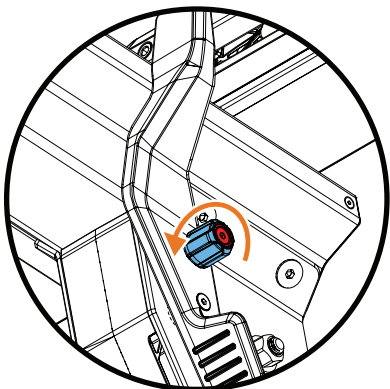
Spin the knob clockwise to engage or disengage the Foot Pedal Lock.



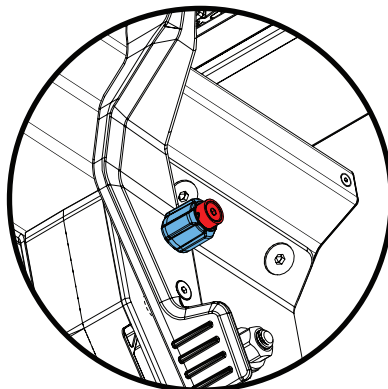
Disengaged



Engaged



Engaged



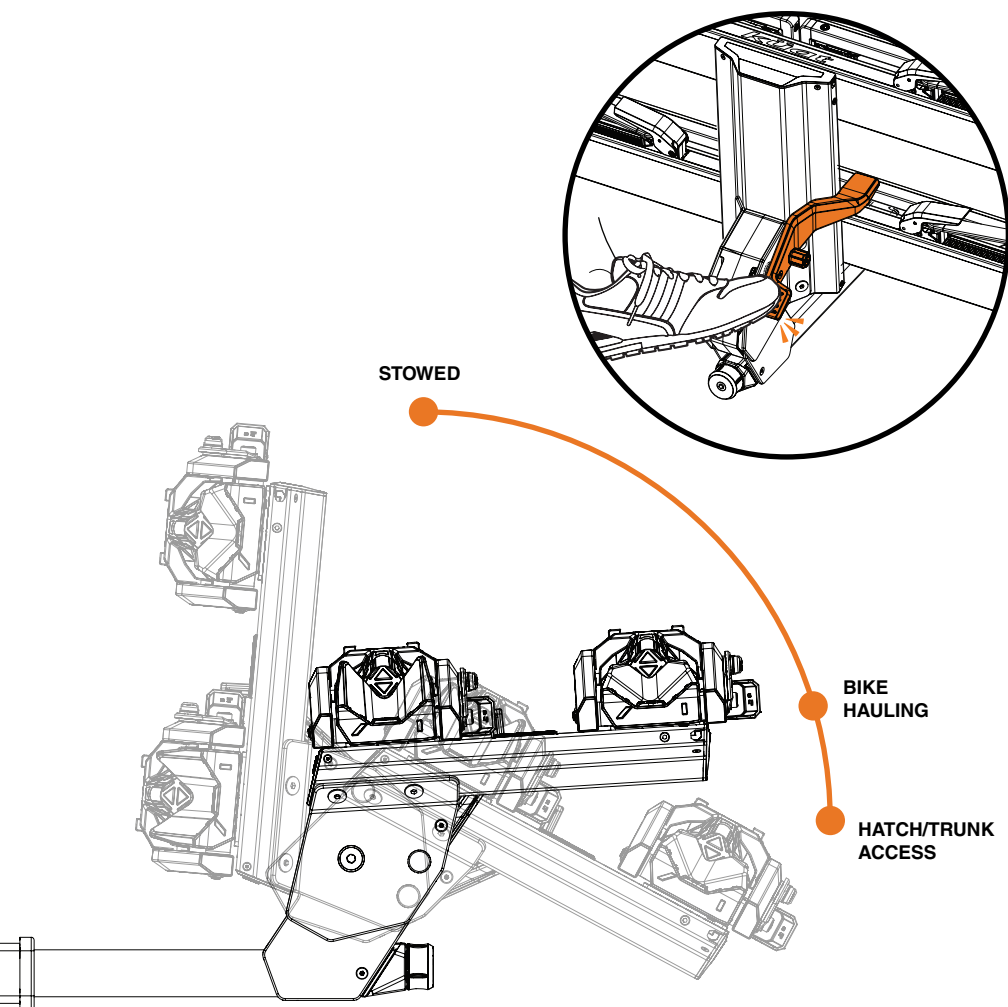
Disengaged



WARNING

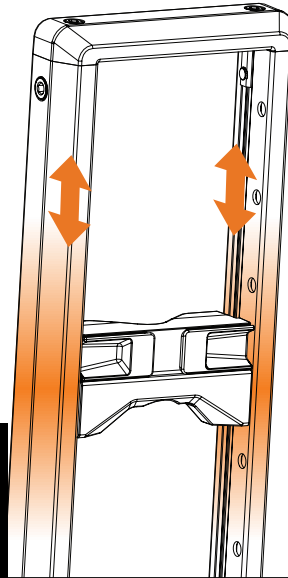
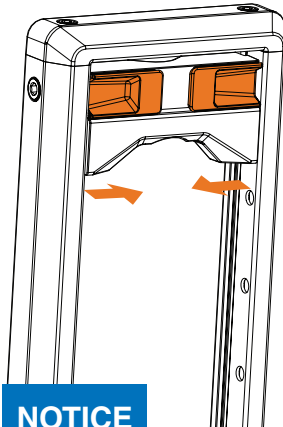
Ensure Foot Pedal is fully engaged with Lever Lock activated when ION is being used. You might need to manipulate the Lever Lock slightly to achieve proper engagement.

- 2 Use the foot pedal to tilt the rack down from the stowed position to load and haul bikes. Use the foot pedal again to tilt further down to a 45 degree angle for hatch or truck access.



Tire Cradle Operation

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

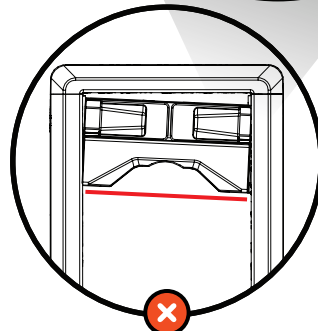
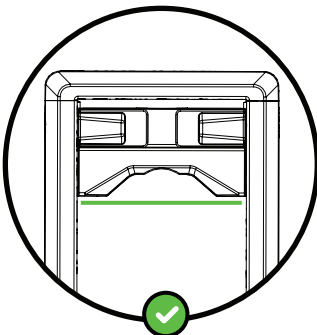
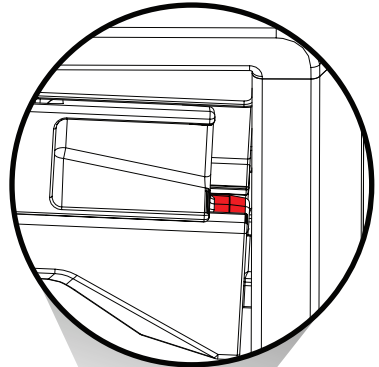


NOTICE

Periodically lubricate inside channels of Tire Arm to maintain performance.

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

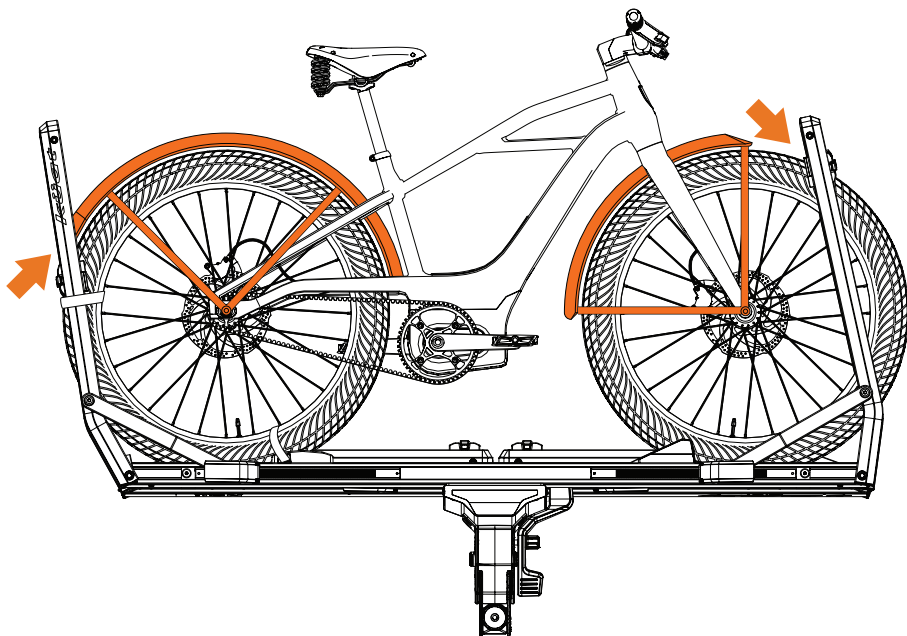
CAUTION Failure to secure both tabs may result in bikes becoming loose and falling during travel.



Tire Arm Placement

Bicycles with Fenders

Place Tire Cradles as close to fenders as possible as shown in the example below:



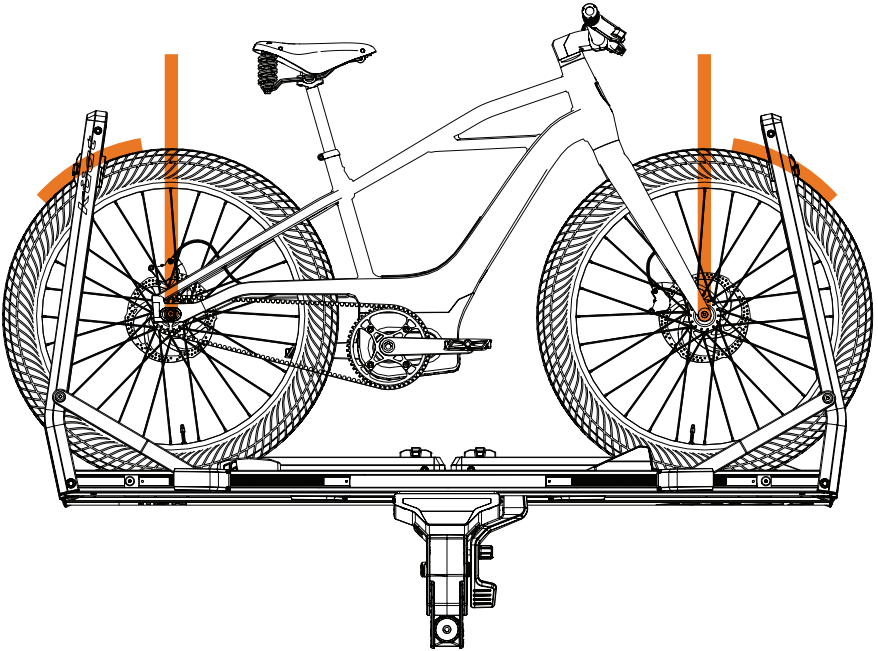
CAUTION

Placement of the Tire Cradle should be as close to the Fender as possible.
The use of an added strap for stability will be necessary.

Tire Arm Placement

Bicycles without Fenders

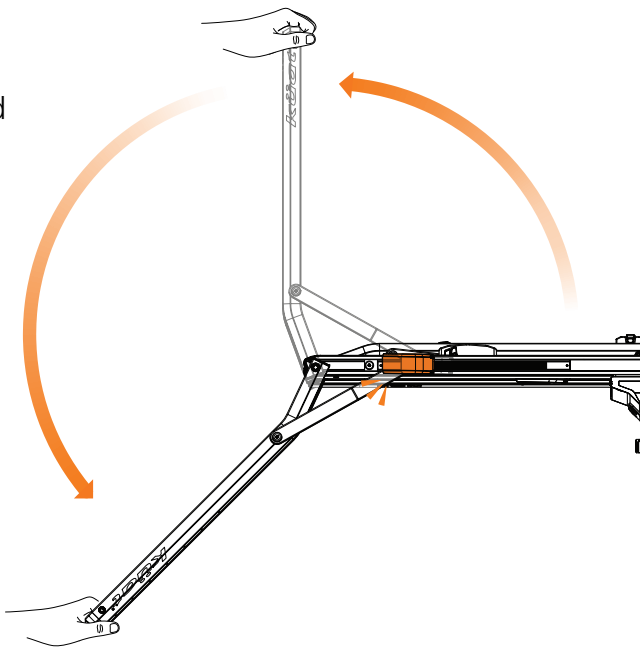
Place Tire Cradles as close to the center axis of the tire as possible.



Bike Ramp Instruction

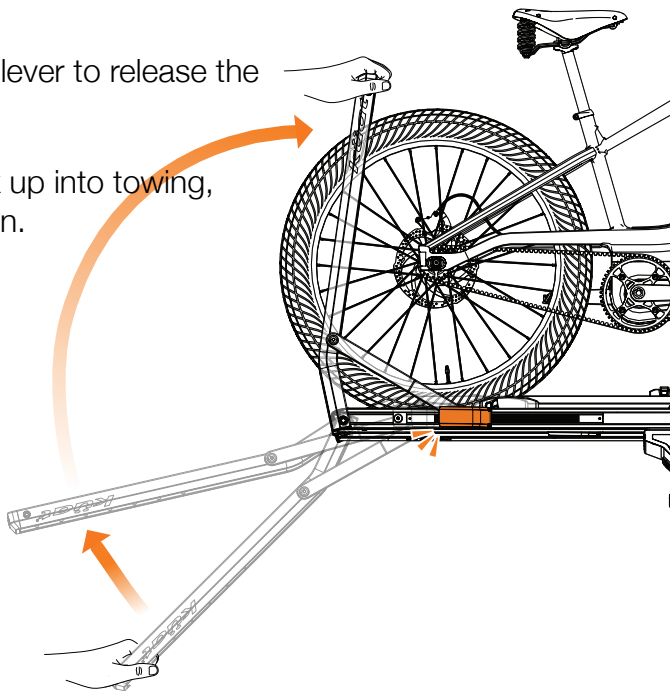
To Fold Down

- 1 Hold ION™ lever and open tire arm.
- 2 Pull arm down into negative position.
- 3 Unload selected bike or install eBike Ramp.



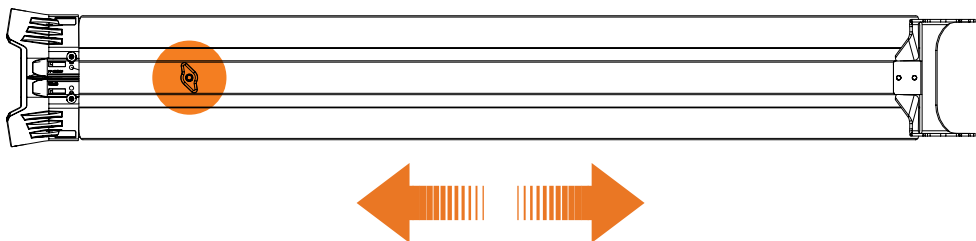
To Fold Up

- 1 Hold the tire arm lever to release the tire arm up.
- 2 Pull tire arm back up into towing, or stowed position.



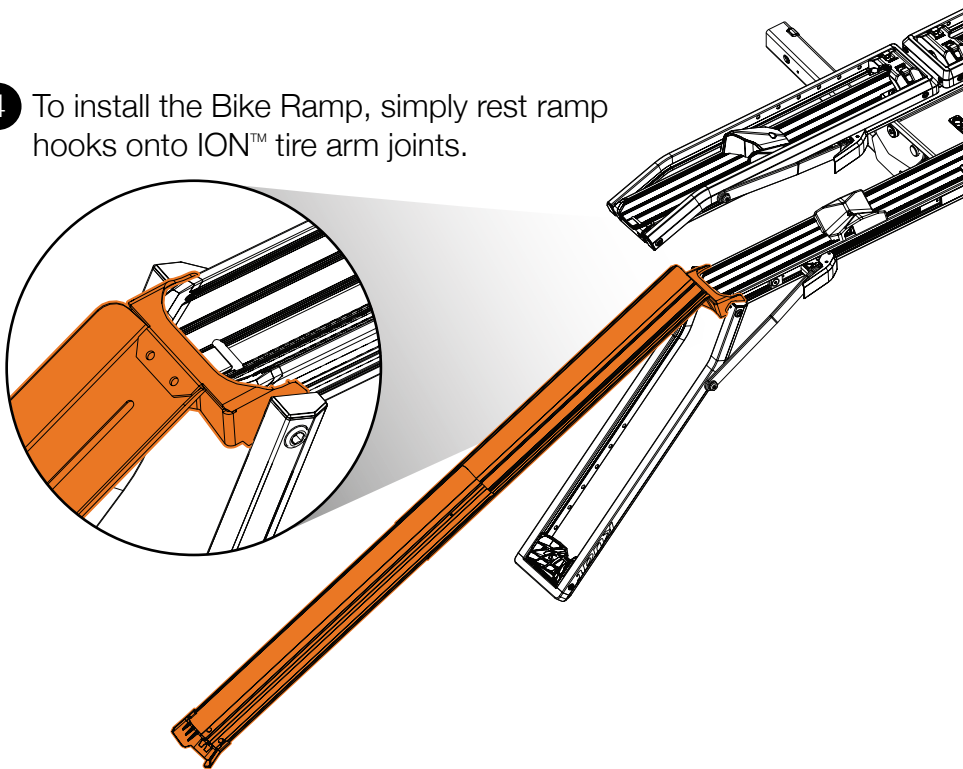
Bike Ramp Instruction

- 1 Loosen wing knob and expand tray to desired length.



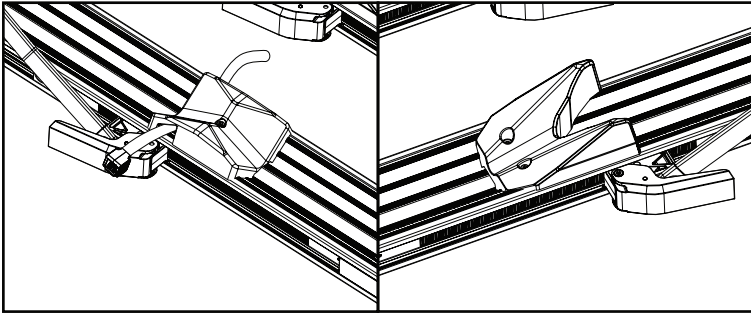
- 2 Re-tighten wing knob.

- 4 To install the Bike Ramp, simply rest ramp hooks onto ION™ tire arm joints.



ION™ Wheel Stabilizers

- 1 The ION™ comes with a front wheel stabilizer and Rear Tire Strap Kit to help secure extra heavy eBikes and bikes with fenders.



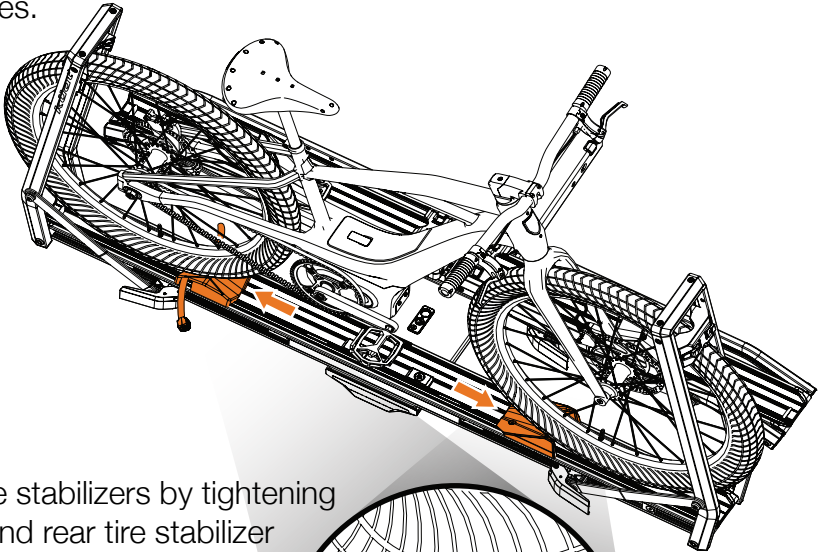
Rear Tire
Strap Kit

Front Wheel
Stabilizer

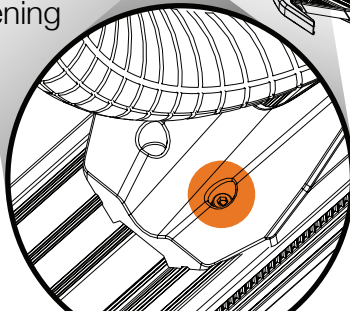
NOTICE

Loading the same bike in the same direction ensures no future adjustment is necessary.

- 2 Load your bike, then slide the stabilizers under both front and rear tires.



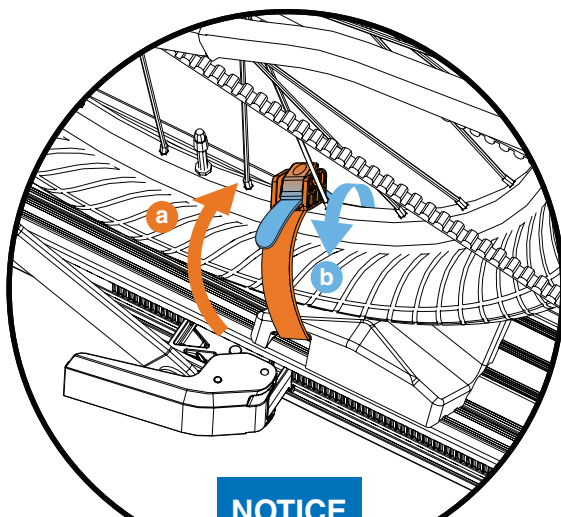
- 3 Secure stabilizers by tightening front and rear tire stabilizer bolts.



4 Secure rear wheel with the Rear Tire Strap.

- a Slide one end of the Rear Tire Strap through the slot in the wheel stabilizer then up, around and through the rear wheel.
- b Feed the end of the Rear Tire Strap through ratchet head.

Ensure Rear Tire Strap is tight against the wheel and the ratchet is fully engaged.

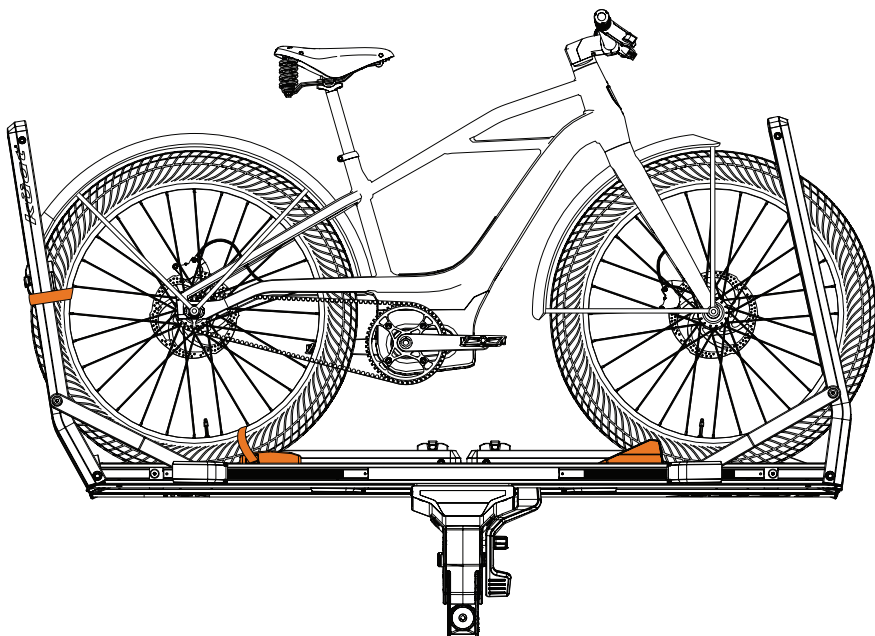


NOTICE

Be sure to place the rear tire strap so that it does not make contact with your spokes.

- 5 Positioning of the Rear Tire Strap Kit, and Front Wheel Stabilizer only needs to be done once.

Re-adjustment would only need done when transporting new bikes with different dimensions.



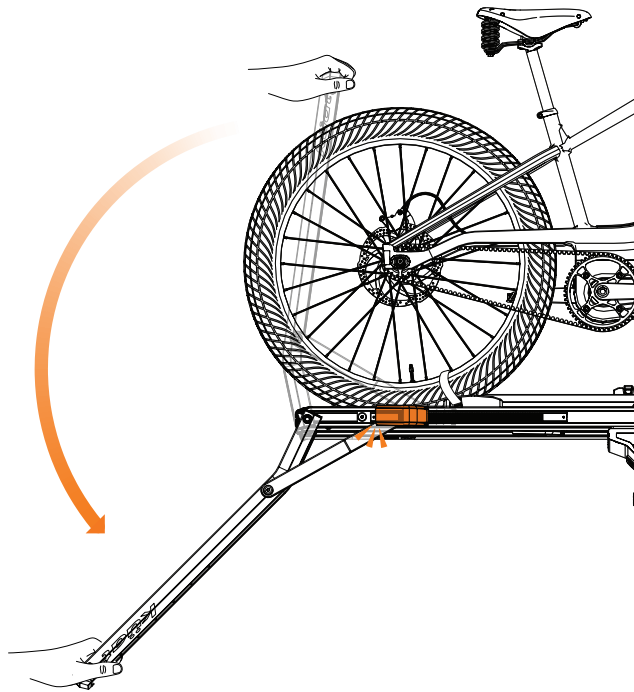
! WARNING

Failure to properly use the Rear Tire Strap Kit may result in bikes becoming loose and falling during travel. Kit must be used with: RVs, bikes weighing over 70lbs, bikes with fenders, bikes with a wheelbase over 53", or whenever off-road.

Unloading Bikes

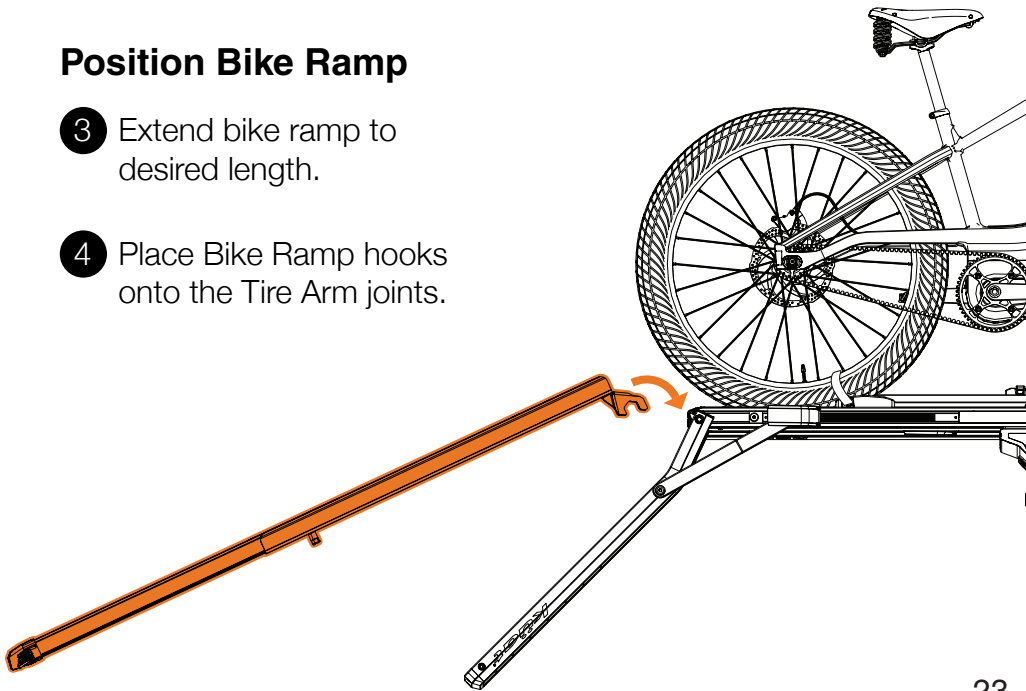
Fold Down Arm

- 1 Hold ION™ lever and open tire arm.
- 2 Pull arm down into negative position.

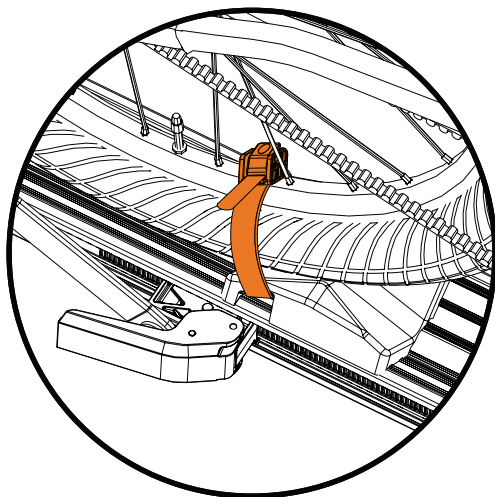


Position Bike Ramp

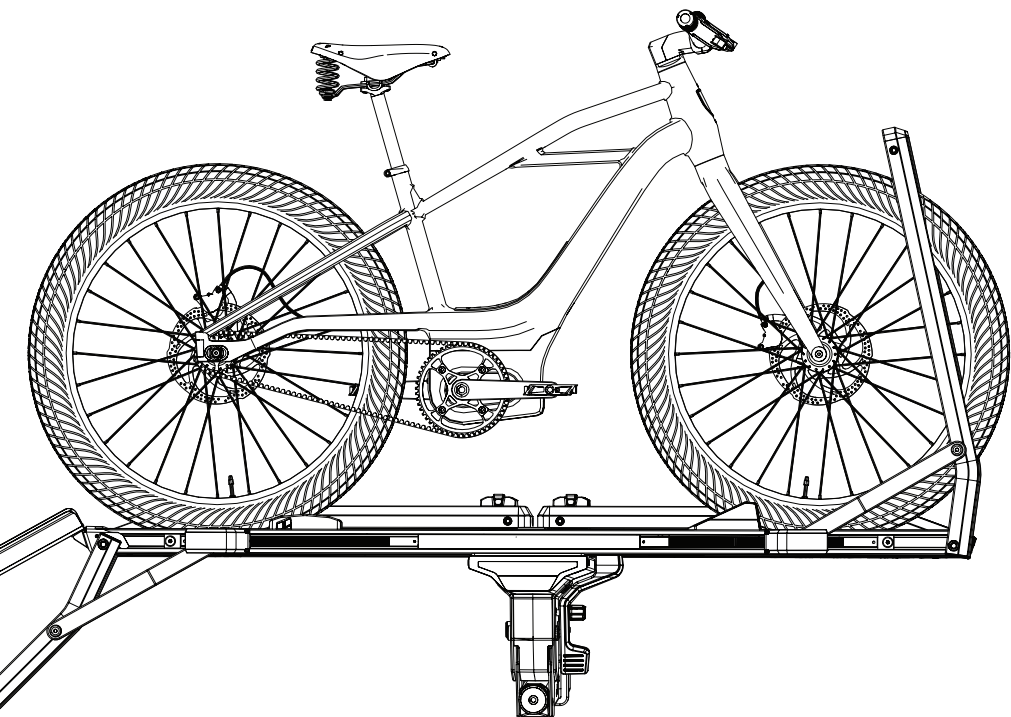
- 3 Extend bike ramp to desired length.
- 4 Place Bike Ramp hooks onto the Tire Arm joints.



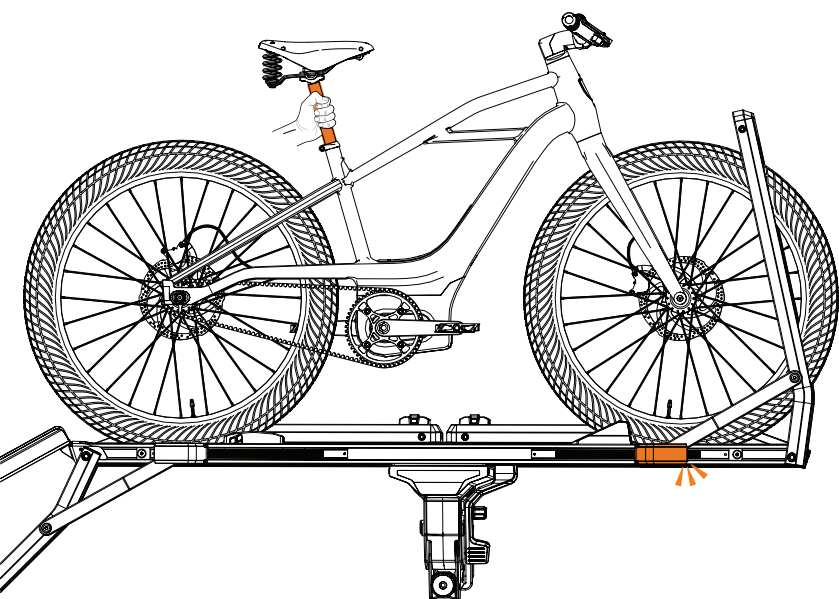
- 5 Undo the Rear Tire Strap Kit.



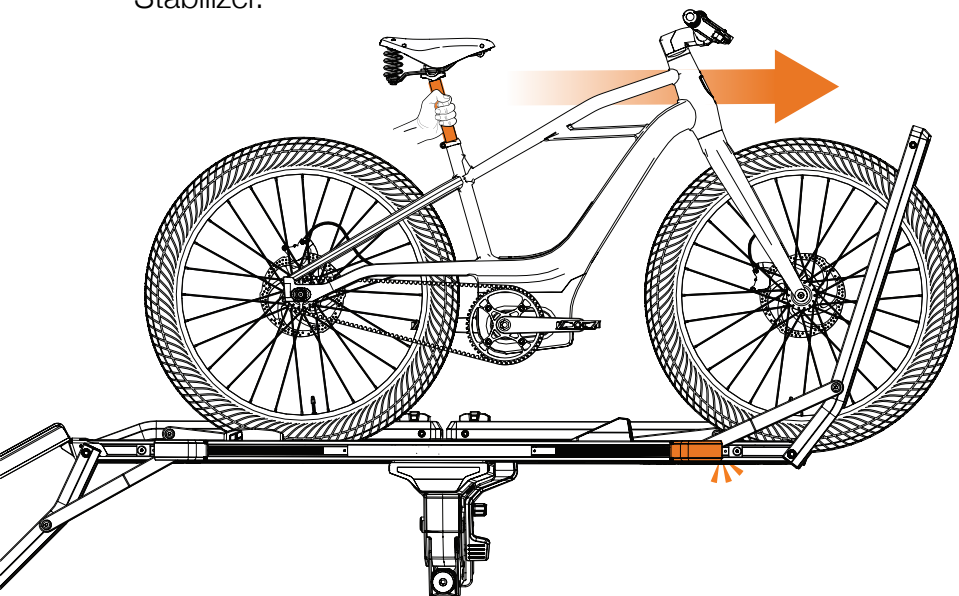
- 6 With the front tire still secure in the Front Wheel Stabilizer, The bicycle will continue to be stable in the tray.



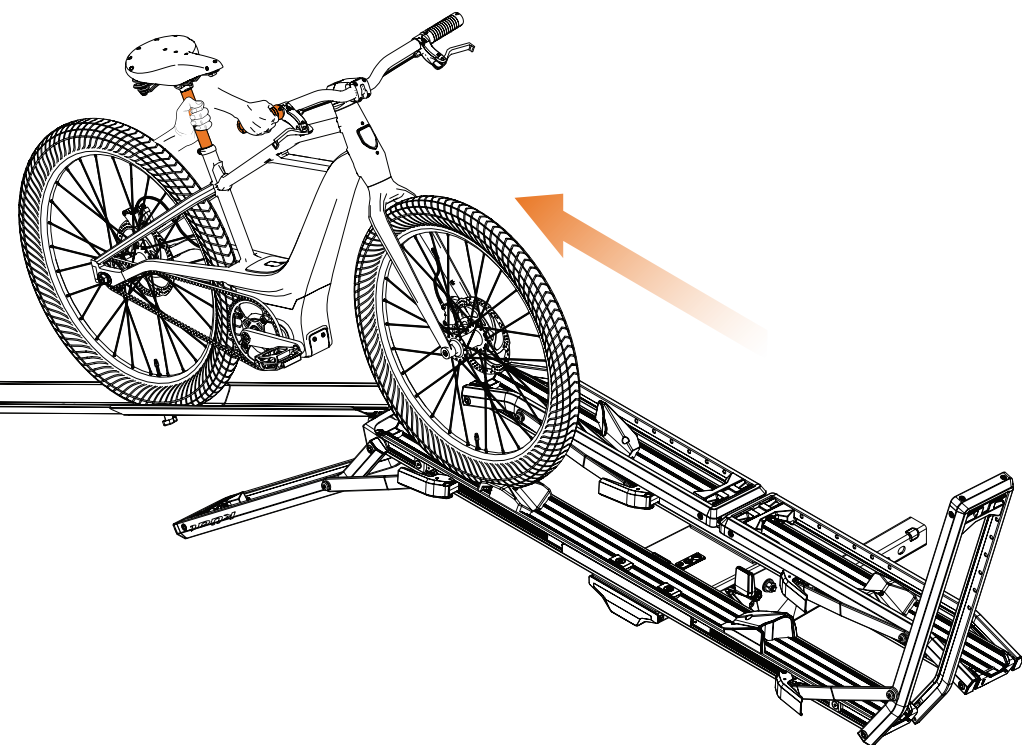
- 7 Use one hand to grip the bicycle, use your free hand to hold the ION™ Tire Arm Lever open.



- 8 With one hand on the bicycle and one hand on the lever, Push the bicycle and Front Tire Arm forward. This will provide enough clearance to free the front tire from the Front Wheel Stabilizer.



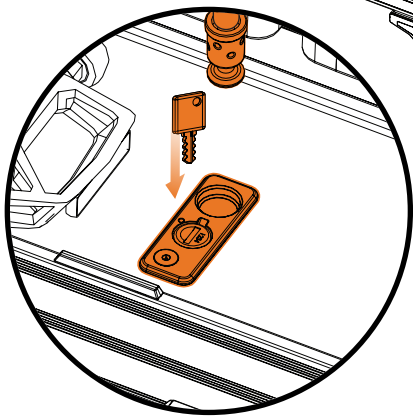
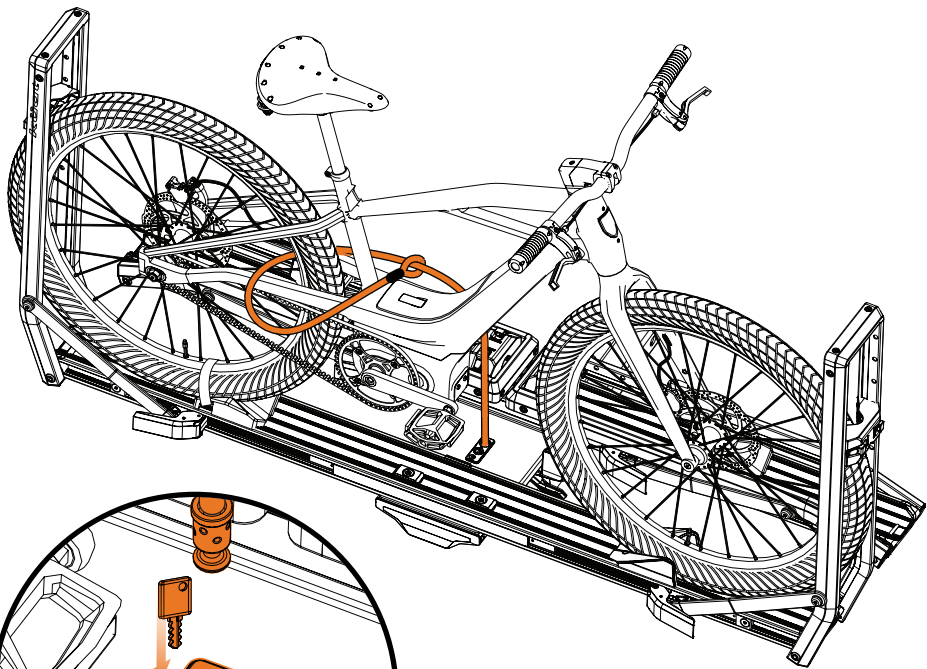
- 9 With the bicycle moving freely, roll the bicycle backwards over the Front Wheel Stabilizer, Rear Tire Strap Kit, and down the Bike Ramp.



NOTICE

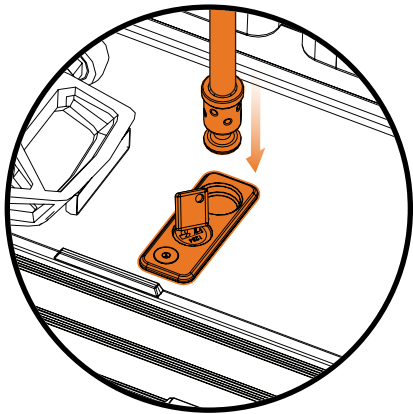
Team lift your bike with a friend if use of the provided e-bike ramp is not possible.

Securing Your Bikes with Cable Lock



1 Thread cable through rear wheel, frame, and front wheel when possible, then the cable end loop.

2 Insert the Cable Lock Key into the lock port located on ION™ centerbeam and twist the lock open.



3 While holding the lock open, secure cable tip into lock port.

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

Questions or comments?

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