BICYCLE PREPARATION GUIDE

Bringing your bike to life

If you need assistance call 1 800 426 4840
or contact REI at cyclinghelp@rei.com

v. 3/20

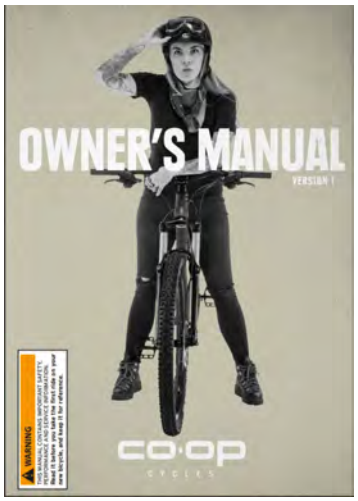
Dear REI Customer:

Congratulations on choosing a high quality bicycle from REI! Your bike has been carefully and completely assembled, tuned, and adjusted by a professional REI bicycle technician. This bike has been test ridden for safety. Please excuse any light wear that may have occurred during the test ride.

In order to fit your bike into its shipping container, it was partially disassembled. All it needs to be road or trail worthy is following a few minor reassembly steps and adjusting the bike to fit properly.

To aid in reassembly, we have included these tools:

- Multi tool including a 4,5,6 mm hex wrench
- Bicycle Owner's Manual



Additional tools that may be required:

- Tire pump. Tires may have been deflated so the bike would fit in the box
- A 15mm open-end wrench or adjustable wrench to install pedals
- Phillips screwdriver
- Suspension pump if the bike has air spring suspension
- **IMPORTANT**: Before assembling your bike, please read through all of these step by step assembly instructions, as well as your owner's manual.
- **IMPORTANT**: If the shipping container has been damaged in any way, inspect the bike carefully. If the frame or components appear damaged, DO NOT assemble or ride the bike. Notify the shipper and contact REI as soon as possible for further instructions.
- Call toll free: 1 800 426-4840 or contact REI at cyclinghelp@rei.com

Step 1: Prepare Your Work Area:

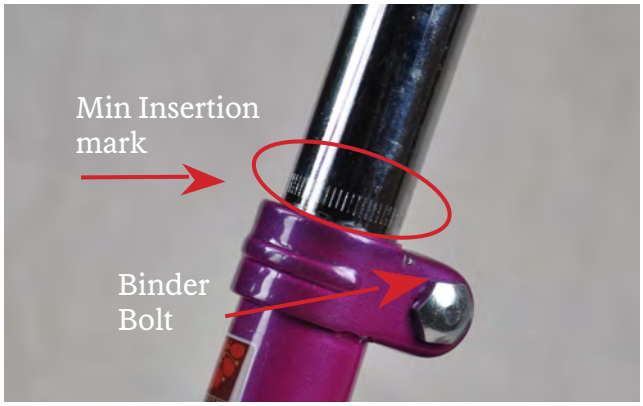
- A well lit garage or outside area is ideal. If building indoors, protect the carpet and furniture with some sort of covering like old towels or bedding.
- It's very helpful to have another person assist you by holding the bike.

Prepare For Assembly

Step 1: Install the Seatpost/Saddle to the Bike

- If the seat post/saddle has been removed for shipping, pull it out of the box and install it in seat tube.
- You may need to slightly loosen the clamp bolt or quick release clamping mechanism. You should see a liberal coating of grease inside the seat tube.
- Tighten the clamp bolt or quick release clamping mechanism.

- **IMPORTANT**: the seatpost has a minimum insertion marking engraved on it. Make sure the seat post is inserted far enough to conceal this line.
- **WARNING**: do not ride without adjusting the seat post height and securely tightening the seat post binder bolt or quick release clamping mechanism.
- For further information on installation of the seat post, refer to the *Bicycle Owner's Manual*.
- If the bike is equipped with a hydraulic dropper post, over tightening of the seat post binder bolt can negatively impact the functionality of the dropper post.



Step 2: Wheel and Parts

- Take the front wheel, small parts box and any other parts or information out of the shipping container.

Step 3: Remove the Bike

- Carefully remove the bike from the shipping container.

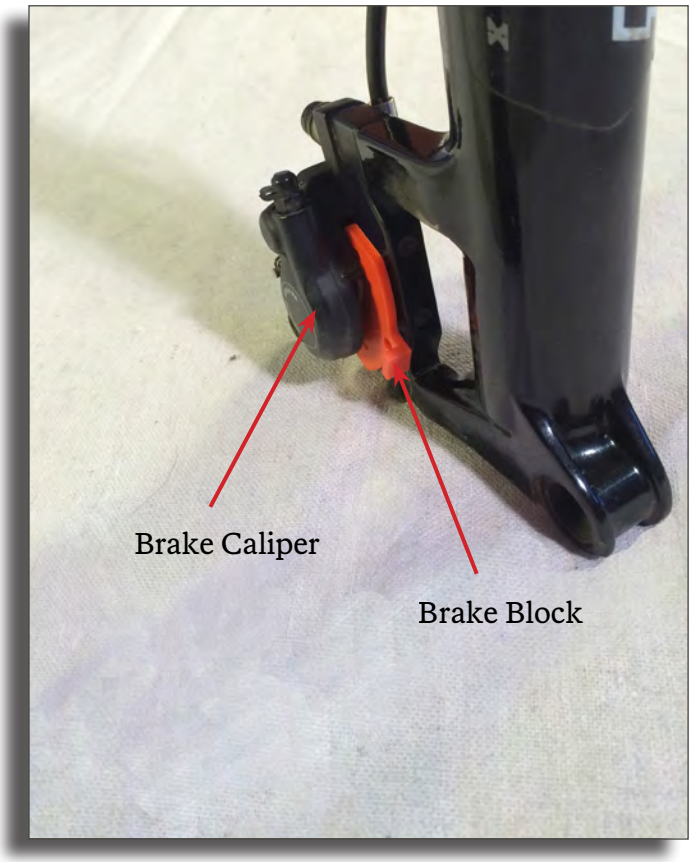
Installing the Front Wheel

Step 1: Release the Front Brake

Prior to installing the front wheel, the front brake may need to be released to allow the wheel to slide between the brake pads. The brake type will be one of these:

- Disc Brake
- Linear Pull
- Cantilever
- Caliper

Match the brake on your new bike with the type pictured below and follow the release instructions for that type of brake.



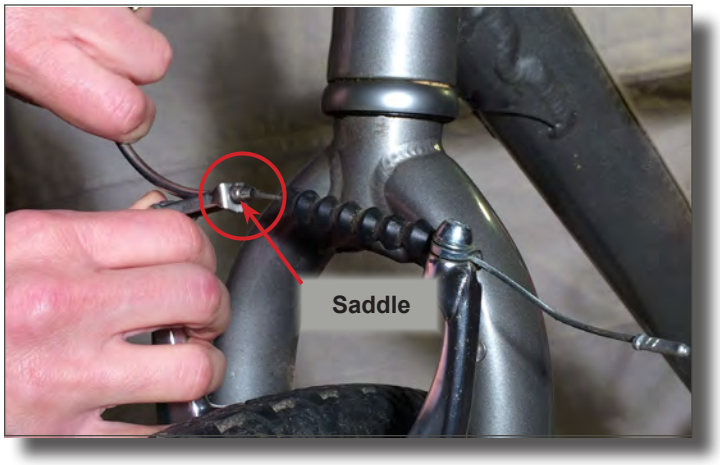
Hydraulic Disc Brakes:

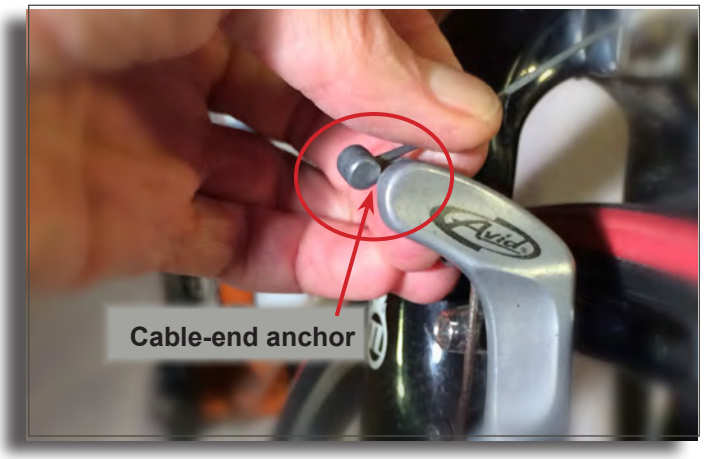
- Remove the plastic spacer (brake block) from the brake caliper near the bottom end of the fork (cable actuated disc brakes might not have this spacer).
- **WARNING**: avoid squeezing the brake lever until the wheel is installed.

Installing the Front Wheel

Linear Pull Brake

Pull the brake cable guide from the saddle to release the brake caliper arms.



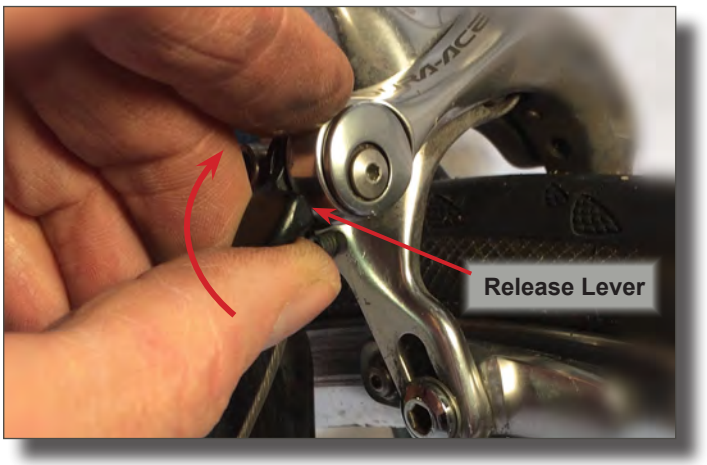


Cantilever Brake

Lightly squeeze the caliper arms toward each other and pull the cable-end anchor from the saddle.

Caliper Brake

Rotate brake release lever upward to allow brake pads to retract.



Installing the Front Wheel

Step 2: Determine the Type of Front Wheel Attachment

The front wheel of your bike will be 1 of 3 types; which type you have will dictate how the front wheel attaches to the bike. Types include:

- Quick Release
- Through axle
- Nutted

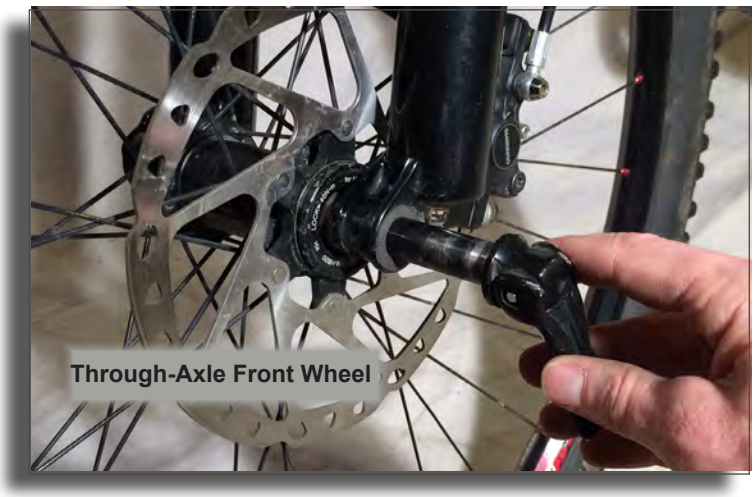
Match the front wheel of your bike to one of the styles shown below.

Quick Release Skewer

If the front wheel is a Quick Release Skewer (QR) type, the skewer will be in the parts box that came with the bike.

Through Axle

Through axle type mechanisms are similar to the quick release mechanism but are typically 12-15mm in diameter, distinguishing this type from the quick release type. It might not have a QR type lever, having a hex fitting instead.



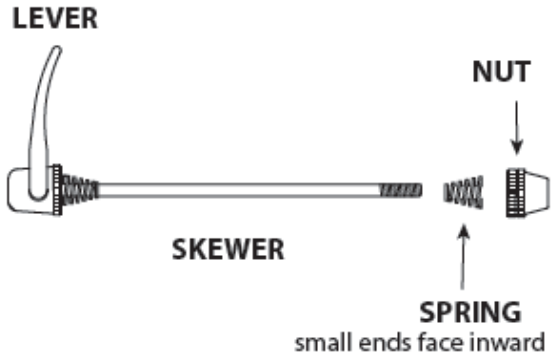
Nutted Axle

This type of wheel is attached to the fork dropouts with a nut on each side.

Installing the Front Wheel

Quick Release (QR) Skewer installation :

- The quick release assembly will be in the small parts box. Remove the adjusting nut and the first conical spring. Insert the skewer through the hollow axle in the center of the hub.
- Reinstall the conical spring over the threaded end of the skewer, small end first. The quick release lever may be positioned on the opposite side of the brake rotor to keep hands away from it.
- Reinstall the adjusting nut, threading it onto the threaded end of the skewer. A few turns are enough at this stage.
- The critical final adjustment will be made after the wheel is installed in the fork.

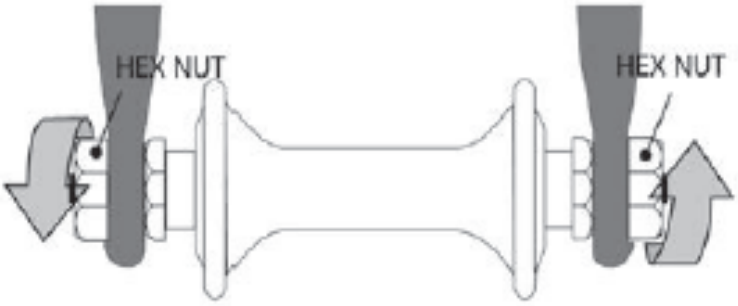


Through Axle:

- The through axle assembly will be in the small parts box.
- Your through axle may have an end with an integrated lever or that requires an Allen wrench.

Nutted Axle:

- The nutted axle is one where outer hex nuts are used to hold the wheel axle in the dropouts.
- When installing a nutted axle, you may have to turn the nuts counter-clockwise and spread the axle washers out to create some space on the axle so that it fits into the fork dropouts.
- Place wheel in fork dropouts and use a 15mm or adjustable wrench to tighten the nuts down with a force equivalent to 30 pounds of downward force on a 6" long wrench.



Installing the Front Wheel

Step 3: Inflate/Adjust Air Pressure in Tires

- Use a floor or hand pump. Avoid using air compressors.
- To add air to a presta valve equipped tube:
  - Remove plastic cap if present
  - Partially loosen knurled valve tip. Stop when resistance is felt. Lightly tap the tip into the valve to ensure there isn't a blockage
- Attach pump head to the valve and inflate to the middle of the air pressure range of the tire, which will be written on the sidewall of the tire.

Step 4: Install the Front Wheel In Fork Dropouts

- Lift the fork and position the front wheel under the fork.
- If your bike has disc brakes:
  - Install the front wheel by lining up the rotor (silver disc attached to the front wheel) with the slot in the caliper (unit mounted to the fork).
  - Gently move the wheel so the rotor slides into the caliper and the axle ends slide into the fork dropouts.
- Tip: If the bike has disc brakes, the lever end of the skewer could be placed on either side of the brake caliper, depending on lever shape and presence of suspension controls. All other brake types, the lever goes on the rider's left side of the wheel.

Please note:
This photo (right) shows:

- The wheel installed correctly in the fork dropouts.
- The Quick Release lever is positioned on the side opposite the brake disc.
- The Quick Release lever closed and pointing toward the back of the bike. The lever is not prevented from closing and is clear of any part of the fork leg. Alternately, the Quick Release lever may be oriented with the lever pointing upwards, just in front of the fork.

Installing the Front Wheel

- If your bike has Linear Pull or Caliper brakes:
  - Lift the fork and position the front wheel under the fork.
  - First align the wheel so that the tire fits between the brake pads.
  - Next, lower the fork further and align the hub axle ends with the fork dropouts.

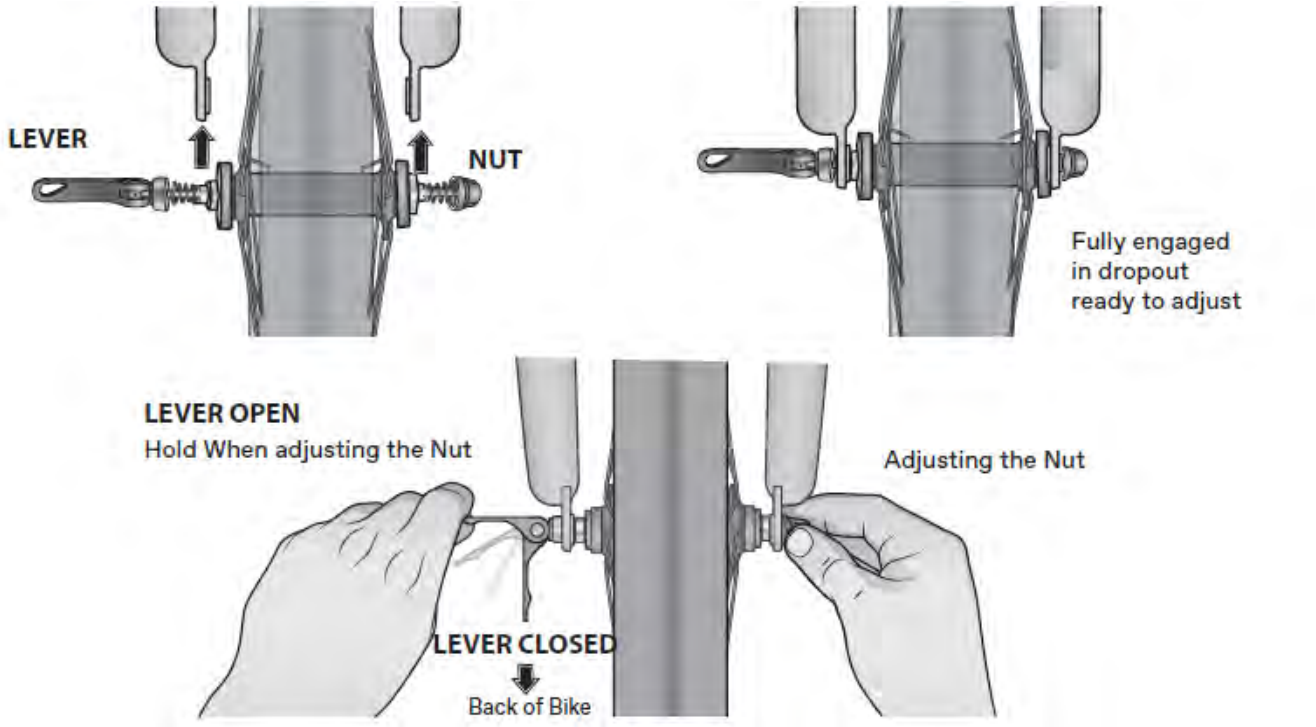
Step 5: Secure The Front Wheel

⚠ WARNING

RIDING WITH AN IMPROPERLY SECURED WHEEL CAN ALLOW THE WHEEL TO WOBBLE OR FALL OFF THE BICYCLE, OR TO SUDDENLY STOP, WHICH CAN CAUSE SERIOUS INJURY OR DEATH. THEREFORE, IT IS ESSENTIAL THAT YOU:

1. Understand and apply the correct technique for clamping your wheel in place.
2. Each time, before you ride the bike, check that the wheel is securely clamped. The clamping action of a correctly secured wheel must emboss the surfaces of the dropouts.

Quick Release (QR) adjustment:



- Make sure both sides of the axle are fully engaged into the fork dropouts. Ask your helper to hold the bike while you push down on the front of the bike so the wheel and QR skewer enter the dropouts correctly.

Installing the Front Wheel

- Hold the lever end of the quick release open and stationary. Turn the skewer adjusting nut clockwise to tighten it. Keep turning the adjusting nut until you see or feel the nut contact the face of the dropout.
- Try closing the lever. Your goal is to tighten the adjusting nut enough so that the lever can be fully closed and closing it requires significant force. You want it to be hard to close, you want to see a lever mark on your hand. If the lever is not hard to close, hold the lever and further tighten the adjusting nut, try again. If not possible to close or its very, very hard to close, hold the lever and slightly loosen the adjusting nut, try again. Towards the end of the adjustment process, quite small changes, like ½ turn, of the adjusting nut are necessary.
  Your goal is to tighten the adjusting nut enough so that the lever can be closed but requires significant force to close. You want it to be hard to close, you want to see a mark on your hand.
- Orient the QR lever so that it faces towards the rear of the bike or pointing upwards, just in front of the fork. Also, be sure the movement of the lever isn't restricted by contact with the fork or caliper.

Through Axle:

- To begin, be sure that the axle at both ends of the hub is fully engaged with the dropouts on the fork. If you have one, ask your helper to push down on the front of the bike and to hold the bike upright.
- Next, push the threaded end of the through axle through the hole in the dropout, through the hub until it stops. Some wiggling may be needed.
- Next, turn clockwise the integrated lever on your through axle or the Allen wrench that fits the head of your specific through axle. Keep turning, you will see and feel the through axle threading in until it stops. Now turn with the lever or wrench to make the through axle quite tight.

- Suntour Q Loc:
  - Axle can be inserted from either side of fork.
  - To remove:
    - Flip lever to open position
    - Twist opposing end clockwise while pressing it inwards until the thru axle slides freely out of the hub.
  - To install:
    - Ensure lever is in open position
    - Twist opposing end counter-clockwise while pressing it inwards. When spring loaded bushing is flexed outwards, align wheel in fork, and insert through the fork.
    - Use nutted end to tune the clamping force of the lever. Clamping force is appropriate when lever cannot be twisted while in the closed position.

Installing the Handlebars

Your bike will normally be shipped to you with the handlebar assembly removed. Follow one of these 3 instructions depending how the bike was shipped

1. Handlebars attached (typically small kids bikes). No installation is required.
2. Install the handlebar only
3. Install the handlebar with the stem attached

Handlebar Only Installation

If only the handlebar has been removed, you only need to install the handlebars.

- The stem will already be aligned and secured to the fork steerer tube.
- Depending on the particular model, your handlebar will be secured using either 2 or 4 bolts.

Step 1: Remove the Stem Faceplate

- Remove the 2 or 4 bolts holding the faceplate on the stem using the 4mm or 5mm hex wrench provided.

Step 2: Install the Handlebars

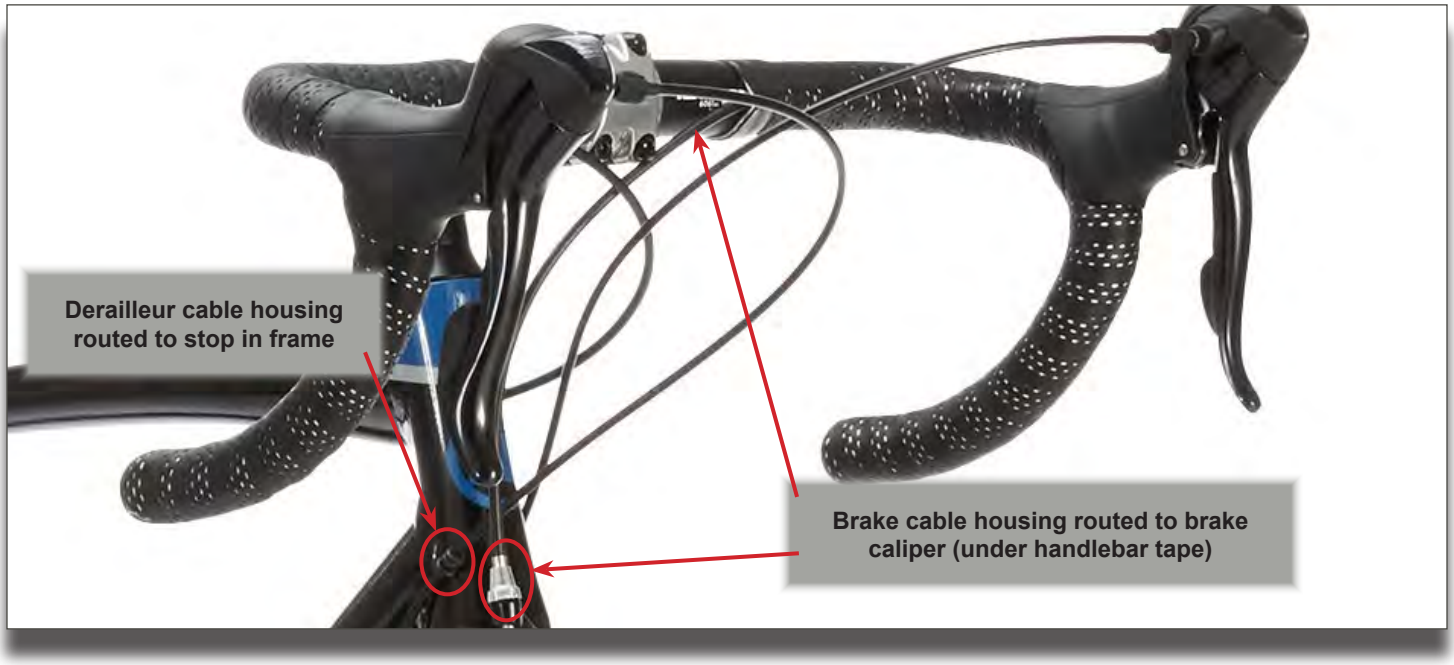
- Rotate the handlebar to reduce cable/housing tangle. The rear shifter should be on the rider's right side.
- Holding bars against the front end of stem, secure the face plate over the bars and gently install all bolts through the faceplate and into the stem. **At this point hand tighten only.**

Installing the Handlebars

Step 3: Inspect for Correct Cable Orientation:

Before securing bolts to the proper torque, make sure of the following (this applies to both flat and curved handlebars):

- The rear brake housing will typically run from the right brake lever around the left side of the head tube and into the cable stop. The left brake housing will run directly to the brake caliper on the fork.
- The two derailleur housings will run along the head tube and into the cable housing stops near the front of the frame.

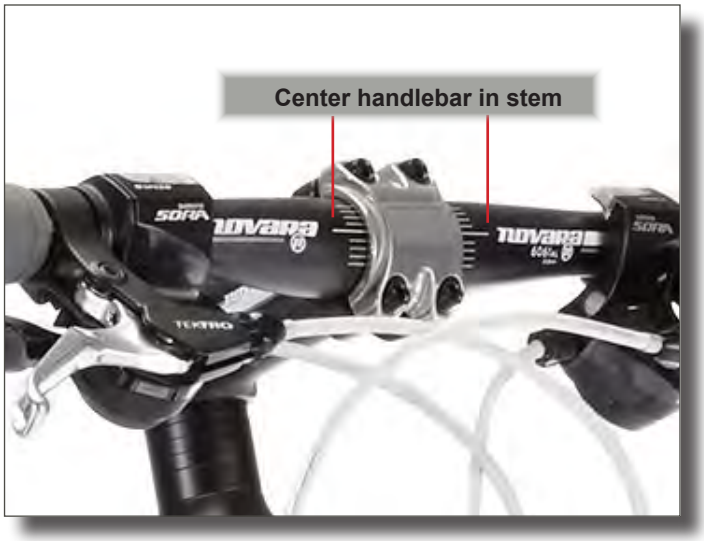


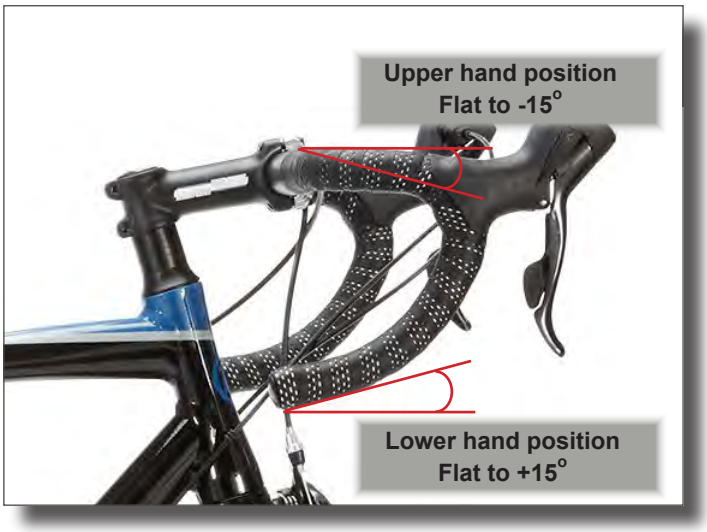
Installing the Handlebars

Step 4: Position Handlebar/Brake Lever Angle

With the clamp bolts still loose:

- Center the handlebar in the stem
- Set the brake lever angle:
- On a mountain bike or flat bar road bike, most riders find it comfortable when the brake levers are positioned in a 45 degree plane with the ground. (Half between completely vertical and completely horizontal).
- On a road bike with drop bars; most riders rotate the bar somewhere between where the top or the bottom of the bar is parallel to the ground.

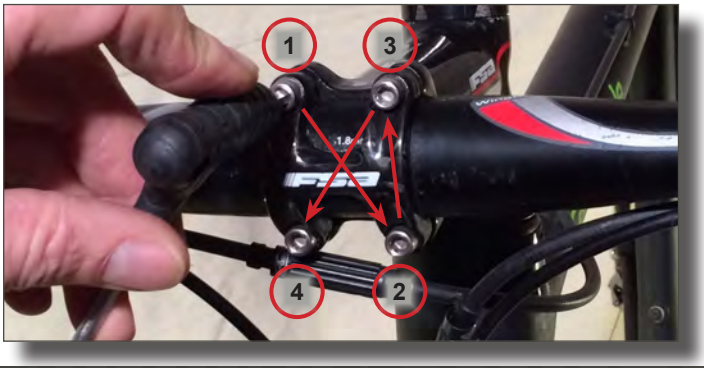




Step 5: Tighten the Handlebar Clamp

Once bars are positioned, tighten the bolts (2 or 4) as evenly as possible; alternating in a star pattern (shown below) so that the gap between the stem and faceplate is equal – top / bottom, left / right.

- If you have a torque wrench (highly recommended), secure to the torque value etched on the stem faceplate or handlebar
- For additional information about installation of bars and stem, consult the owner's manual
- Secure grips and handlebars are critical for safe riding. Check that none of these parts move prior to riding



Installing the Handlebars

Handlebar with Stem Attached

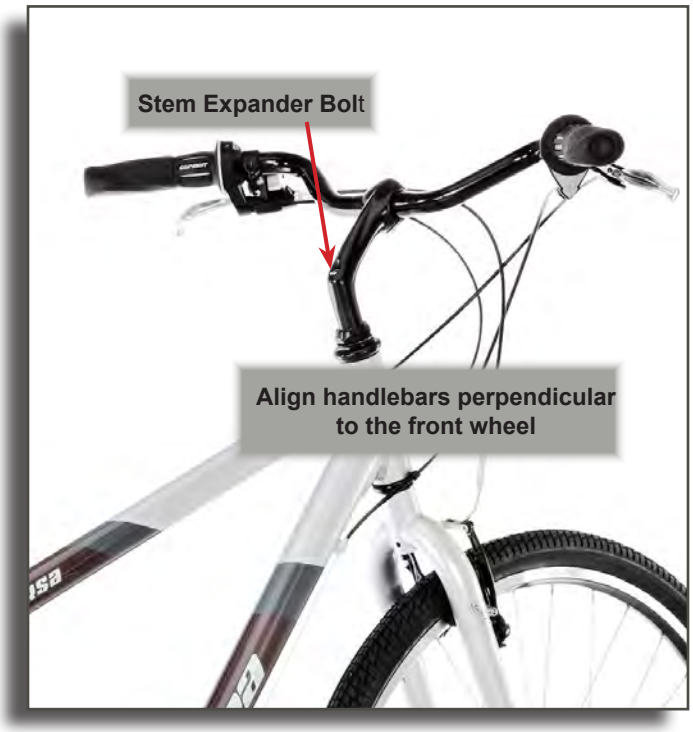
If the stem was removed from the bike and is attached to the handlebars, you most likely have a quill style stem.

Step 1: Install the Stem/Handlebar Assembly

Prior to installing the stem into the bike, locate the minimum insertion mark engraved on the stem post.

- Slide the stem into the steerer tube at the front of the bike frame making sure the **MINIMUM INSERTION line is below** the top of the headset locknut.

IMPORTANT: Under no circumstances should the stem ever extend above the top of the headset beyond this mark. In other words, if you can see the minimum insertion mark after inserting the stem into the fork steerer tube, the stem is not inserted deep enough for safe riding.



Step 2: Align the Handlebars and Secure the Stem

Align the bars perpendicular to the front wheel and tighten the stem expander bolt to secure the stem to the steering mechanism.

- If you have a torque wrench, refer to owner's manual for the specified torque range.

Installing the Handlebars

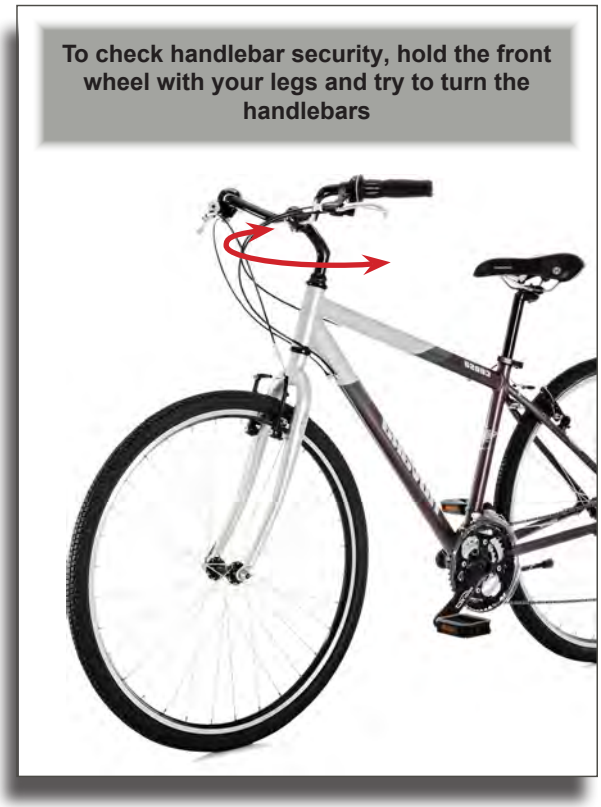
Step 3: Test Handlebar Security

Before riding the bike, use the following test to determine whether the handlebars are secure:

- Stand facing the bike and straddle the (installed) front wheel.
- On a drop style bar, grasp the brake lever body and slowly apply weight to until your feet lift off the floor. The bar should not move.
- On a flat handlebar, slowly apply body weight to the bar end extensions (if applicable) until your feet lift off the floor. The handlebar and bar ends should not move.
- With either style, if the bar slips, increase the torque to the upper torque value specified on the stem/bar or in the owner's manual and test again.

DO NOT exceed upper limit of torque range.

If the bars still move, contact REI at cyclinghelp@rei.com for further assistance. DO NOT RIDE THE BIKE.



Step 4: Test Stem Security

Before riding the bike, use the following test to determine whether the stem is secure:

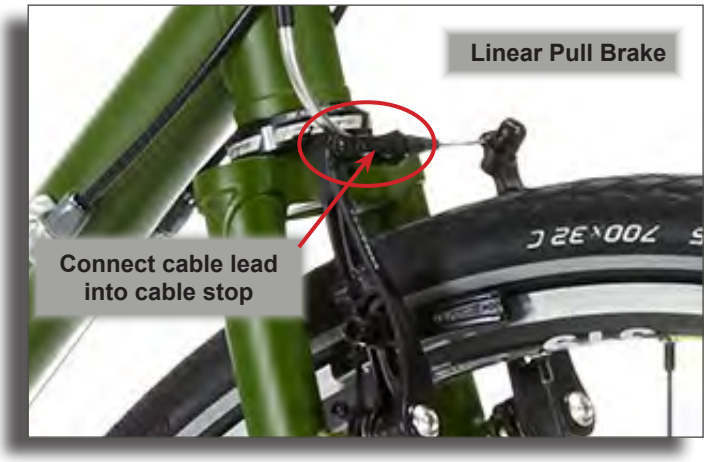
- Place the (installed) front wheel of the bike between your legs and try to twist the handlebar/stem assembly with about 30-40 lbs. of force.
- If you can twist the stem in relation to the front wheel, the stem bolt(s) is/are too loose and you must tighten to the upper limit value specified on the stem or in the owner's manual and test again.

DO NOT exceed upper limit of torque range.

If the stem still moves, contact REI at cyclinghelp@rei.com for further assistance. DO NOT RIDE THE BIKE.

For additional information about installation of bars and stem, consult the *Bicycle Owner's Manual*.

IMPORTANT: DO NOT ride your bike without tightening the handlebar/stem.



Step 1: Reconnect the Front Brake

Depending upon the type of brake you have, you may need to reconnect the brake.

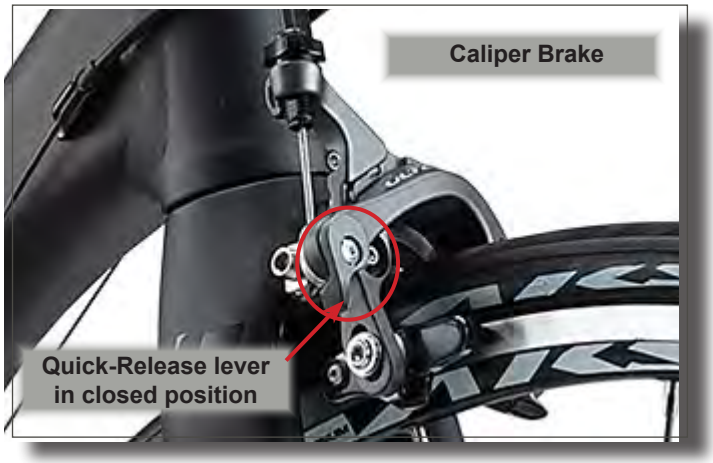
- *Linear pull Brake:* Insert the end of the inner cable lead into the cable stop mounted on the brake arm (Look at the rear brake as an exam-ple).
- *Caliper Brake:* Follow the brake cable housing from the bars toward the bike frame and make sure the brake housing is routed into the cable stop
- Make sure the brake quick release lever is in the closed position (when engaged, the brake pads move closer to the rim).

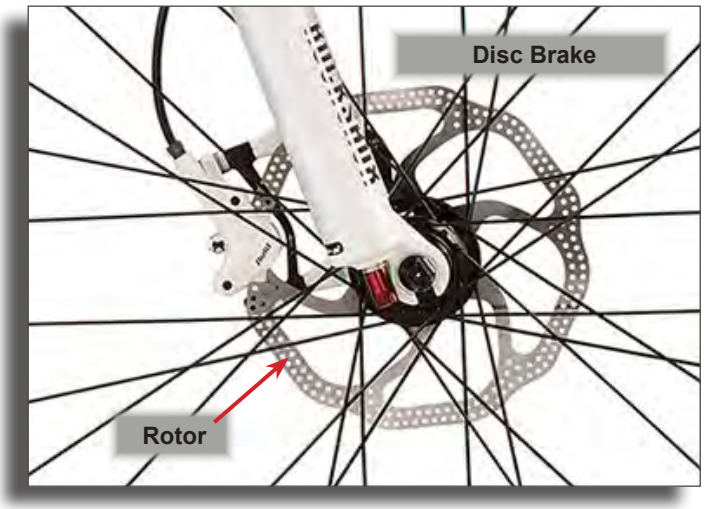
Step 2: Check Your Brakes

Check the brakes for proper operation by following these steps:

- Squeeze both brake levers as far as possible about 10 times.
- The brake cables should not slip or loosen and the brake pads should not rotate.
- The brake pads should fully engage the rim/ rotor within 1 inch of brake lever movement.
- For caliper and linear pull type brakes, check that the brake pads contact the wheel rim squarely and make full contact with the rim.

If you discover an issue with your brakes, please bring it to your local REI Co-op shop or contact REI at cyclinghelp@rei.com.





Notes on Disc Brakes

Your disc brakes were adjusted and set up prior to shipping so there is nothing required for you to do.

- It may take anywhere from 20 to 40 complete stops to “break in” your disc brakes. You may begin to notice an increase in braking power after the first ride.
- **Do not touch the disc brake rotors** with your fingers or expose them to oils and lubricants. Doing so will significantly degrade braking performance.

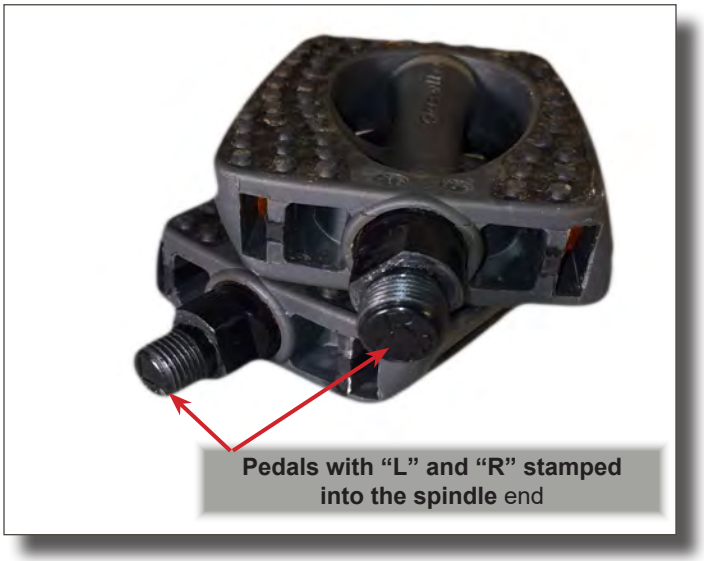
Install the Pedals

Step 1: Determine the Left and Right Pedal

Depending on the model of bike, your bike may have one or no pedals installed.

There is a left pedal and a right pedal – they are not interchangeable. Each one has different threading. **Never force the wrong pedal into the wrong crank arm.**

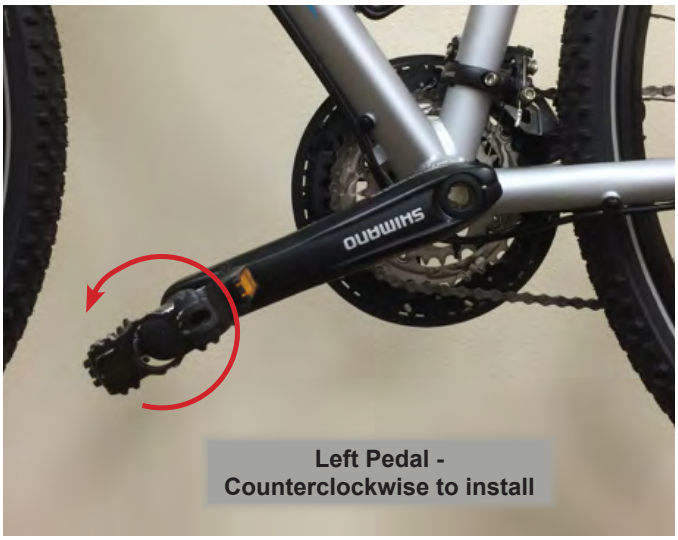
- The RIGHT PEDAL may be identified with a "D" or "R". When held with the threaded end pointing towards the ceiling, the threads climb to the right
- The LEFT PEDAL may be identified with an "S" or "L". These marks are usually found on the wrench flats near the threads or the end of the pedal spindle near the threads. When held with the threaded end pointing towards the ceiling, the threads climb to the left



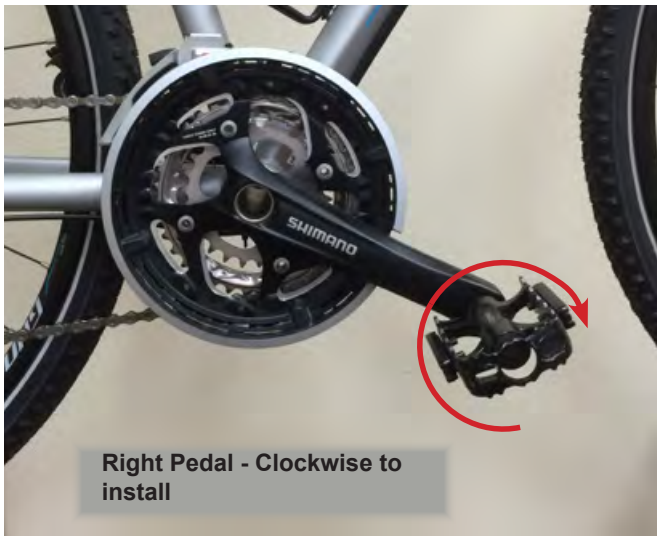
Pedals with "L" and "R" stamped into the spindle end

Step 2: Install the Pedals

- If you notice a washer(s) secured to the crank arm, make sure you install one washer on each pedal prior to installation.
- Standing on the left side (side without the chain) take the pedal marked "S" or "L", align and turn carefully in a **counter-clockwise** direction (toward the front of the bike). Thread it in carefully by hand. Tighten securely with the wrench. If your wrench is 6" long, "tight enough" will require 50 pounds of downward force on the wrench.
- Stand on the right side (side with the chain) and insert the pedal marked "D" or "R" (if not already installed) and turn clockwise (toward the front). Tighten securely with the wrench.
- DO NOT ride your bike without tightening the pedals.



Left Pedal - Counterclockwise to install



Right Pedal - Clockwise to install

Training wheels (if applicable)

Prior to shipment, the training wheels have been fully assembled, installed and tested to ensure proper operation. They were then removed (with minimal disassembly) for packaging purposes.

Step 1: Identify the Training Wheel Type

There are two basic types of training wheels

1. Training wheel assembly with channel brackets.
2. Training wheel assembly with a horizontal brackets.

NOTE: Before installation, ensure the rear wheel is inflated to the manufacturers recommended tire pressure.

Step 2: Remove the Axle Nut

Remove the outer most axle nut from ONE side of the bike.

- Install one training wheel assembly at a time to prevent the rear wheel from moving out of position.

Install the Training Wheels

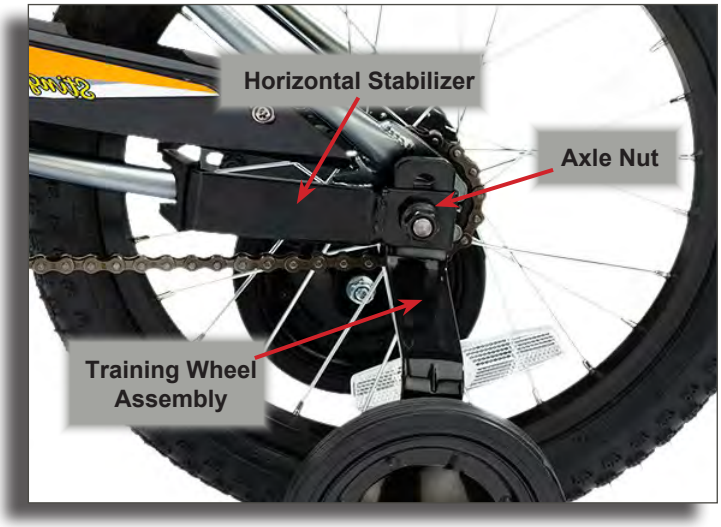
Step 3: Install the Training Wheel

- *Training Wheel Assembly with Channel Brackets:*
- assemble in this order:

1. Channel Bracket
2. Training wheel assembly
3. Washer and axle nut

- *Training Wheel Assembly with Horizontal Stabilizer:*
- assemble in this order

1. Training wheel assembly
2. Horizontal stabilizer
3. Washer (if applicable) and axle nut



Step 4: Tighten Axle Nut

- Lightly tighten axle nut to hold the training wheel assembly in place.

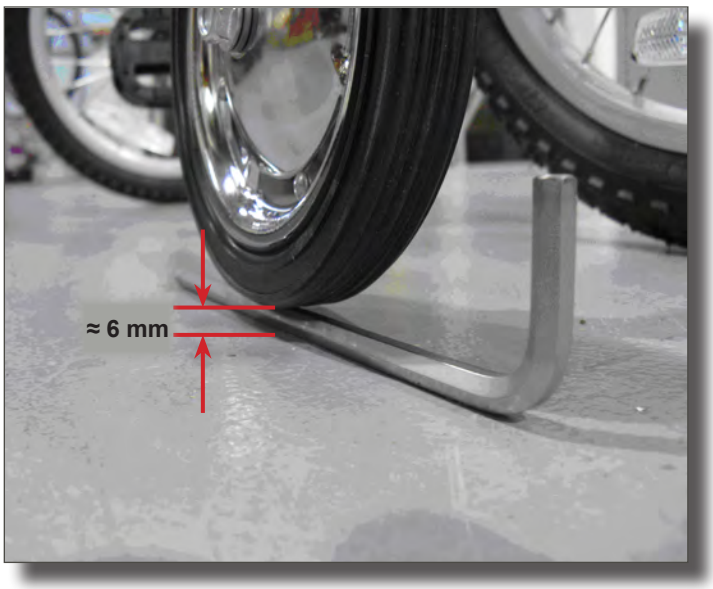
Step 5: Install the Second Training Wheel Assembly

- Install the second training wheel assembly following the same steps as the first and lightly secure it.

Step 6: Set Training Wheel Height

- Working back and forth between the two training wheel assemblies:
- Loosen the axle nut.
- Move the training wheel assembly up or down so there is approximately 6mm (≈ 1/4") clearance under each training wheel.
- Tighten the axle nuts on both sides of the bike.

WARNING: With the training wheels installed, the rear wheel must firmly reach the ground to ensure proper braking.



Final Assembly Checklist

To ensure the bike is ready ride, please review this important checklist:

- □ Are all wheel axle nuts or quick release levers securely tightened?
- □ Is the handlebar/stem securely tightened (twist test)?
- □ Is the seat post binder bolt securely tightened?
- □ Is the saddle clamp securely tightened?
- □ Do the brakes have proper clearance and are they properly adjusted? Inspect and test them.
- □ Are the pedals securely tightened to the crank arms?
- □ Are your tires inflated to the correct pressure? This information is located on the tire's sidewall.
- □ If your bike has suspension, is the sag properly set?

In addition to this checklist, familiarize yourself with the bike's owner's manual. This will help you make the minor adjustments necessary to keep your bike operating smoothly.

Prepare for Your First Ride:

- □ Do you have a spare inner tube, patch kit, tire pump, and tire levers?
- □ Do you have proper cycling gear; helmet, cycling gloves and eye protection?
- □ Do you know how to properly shift the bike and use the brakes?
- □ Is your bike adjusted to fit you?

Get Expert Advice

For information on a variety of cycling topics including how to equip, fit, ride, and maintain your bike, see :

- *Expert Advice* articles and videos at www.rei.com
- Visit conversations.rei.com or contact REI at cyclinghelp@rei.com for consultation with expert REI staff and techs
- Take a class with REI's Outdoor School

Pre Ride Checklist

Check these areas of your bike before every ride to prevent issues during your ride:

☐ **A**ir:Check for adequate air pressure in the tires as they will lose pressure over time

☐ **B**rakes: Squeeze levers and ensure bike stops as you walk it out of storage. If levers don't work the brakes properly, bring it to your local REI Co-op shop or contact REI at cyclinghelp@rei.com.

☐ **C**hain: Does it still feel lubricated when touched? If not, more chain lube needs to be properly applied. If you're unsure how to do this, please visit www.rei.com/learn/expert-advice/bike-maintenance.html for advice on how to keep your bike in great shape so you get the most enjoyment out of your next ride.