

SUPERCYCLE

BICYCLE OWNER'S MANUAL

Imported by / Importé par
Trileaf Distribution Trifeuil
Toronto, Canada M4S 2B8

Thank you for purchasing a Supercycle built bicycle!

Please take the time to review this manual before riding your bicycle. We are confident that you will have years of trouble free riding, providing your bicycle receives regular maintenance and care. Your bicycle comes with a 1 year warranty against defects on components; a 5 year warranty on aluminum frames and a lifetime warranty on steel frames. Please read the full warranty details on page 52 of this manual.

Pre-assembled bicycles cannot be returned/exchanged.
Free tune-up and repair within 30 days of purchase.

Manufacturer Warranty: 1 year against defects on components; 5 years on aluminum frames and lifetime on steel frames.



This manual was written to ensure that you get the best quality, safety and performance from your bicycle. To do this, it is important that you understand your bicycle's features and operations so that you enjoy trouble free riding.

Cycling can be hazardous even when the conditions of your equipment and environment are ideal. Having proper maintenance of your bicycle performed is your responsibility, and will help reduce the risk of accident and injury.

This manual contains "warnings and cautions" in regards to improper maintenance and / or use of your bicycle. It is best to learn and follow these cautions.

Whether an avid cyclist, returning to two wheels after an extended leave, or climbing onto your first bike ever, this manual is intended for you! Bikes are ever changing and evolving. The technology in bicycles today allows for a smoother, quieter, more efficient riding experience, but with that, comes the need for greater awareness and maintenance.



NOTE

Always perform the "Supercycle 60 second safety check" before riding.



CAUTION

This bicycle is intended to be purchased fully assembled. Please do not assemble yourself. Assembling yourself will void the warranty and could result in injury.



CAUTION

Sidewalk bikes are intended for children. Children should never ride without supervision of an adult.



CAUTION

Always wear a helmet. In many municipalities, riding without a helmet is against the law. Please consult your municipal laws for confirmation, but we recommend you wear a helmet at all times.



CAUTION

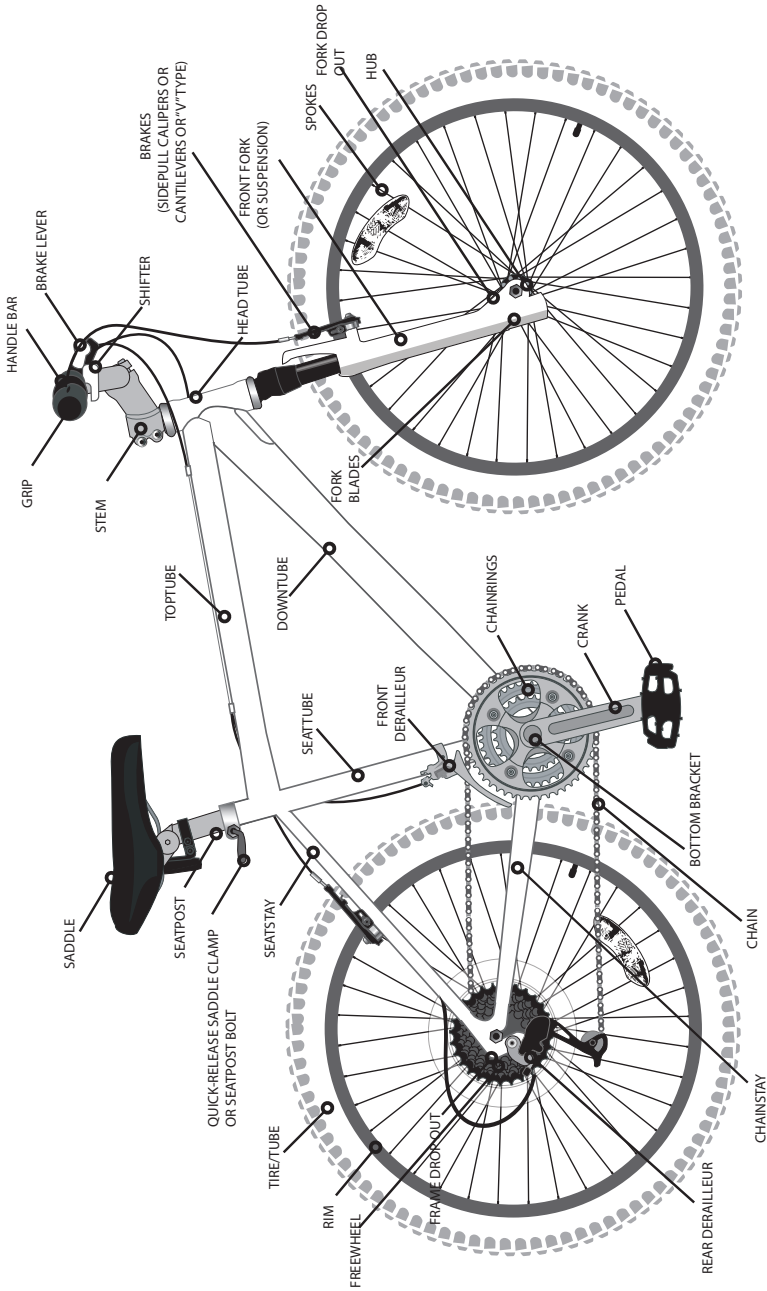
Ensure that when riding at night or in the rain, you have adequate lighting and reflective materials on both your person, and your bicycle.



CAUTION

This bicycle is only intended for a single rider . Do not attempt to "double" or ride "tandem" on this bicycle, as it could result in injury to the rider(s), or damage to the bicycle.

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Below is a quick and easy safety check that you should perform before each ride.

Step 1

Stand beside the bicycle. Grip the top of the front wheel and push and pull it side to side. You should feel some flexing in the wheel, but should not feel movement where the axle connects to the fork. If you feel any movement, or are not sure, do not ride the bicycle. Take your bicycle to a qualified bicycle mechanic for inspection. Repeat this step with the rear wheel.

Step 2

Stand in front of the bicycle with your hand on the handle bar while you are straddling the front wheel. With the front wheel firmly between your legs, try to turn the handle bar from side to side. The handle bar / stem should not come out of alignment with the front wheel. If the handle bar moves at all, do not ride the bicycle. Take your bicycle to a qualified bicycle mechanic for inspection.

Step 3

Stand beside the bicycle. Check to ensure that the pedals are securely threaded into the crank arms. There should be no threads showing and you should not be able to unthread the pedals by hand. If you see threads showing or can rotate the pedal axle in the crank arm, do not ride the bicycle. Take your bicycle to a qualified bicycle mechanic for inspection.

Step 4

Stand beside your bicycle. Place one hand on the nose of the saddle, and the other on the rear of the saddle. Attempt to rotate the saddle left to right, and then up and down. There should be no play in the saddle. If you find and play in the saddle, do not ride the bike. Take your bicycle to a qualified bicycle mechanic for inspection.

Step 5

Straddle the top tube of the bicycle with both feet on evenly on the ground. With your hands on the handle bar grips, squeeze the brake levers and try to roll the bicycle forward. The brakes should engage the wheels and the bicycle should not move forward. Release the brake levers and repeat this test two (2) more times. If there is any movement, or if the brakes do not disengage the wheels when released, do not ride the bicycle. Take your bicycle to a qualified bicycle mechanic for inspection.

Step 6

Take a few seconds to walk around the bike and check for any loose parts or frayed cables. Also, check the tire pressure by pushing down on the tires with your hand. Holding the bicycle by the handlebars and saddle, raise the bicycle 10cm off the ground. Let the bike drop onto its tires. Listen for anything that sounds loose or broken. Should anything seem loose, out of place, or the tires seem under inflated, do not ride the bike. Take your bicycle to a qualified bicycle mechanic for inspection.

It is important that your bicycle fits correctly. A bicycle that is too big, or too small, can be difficult to control and result in a poor ride or injury.

DETERMINING FRAME AND WHEEL SIZE

Adult Bicycles

Most adult bicycles come in two(2) different wheels sizes, and a variety of frame sizes. In today's bicycles, the type of cycling usually determines the wheel size. The frame size is usually determined by your height and preference.

Wheels Size

26" (diameter) wheels are considered to be multi-purpose . Depending on the type of tire design, they can be intended for anything from off-road aggressive use to commuter road to gravel or paved path. 700c (diameter) wheels are a more road specific design. They are larger than a 26" wheel and typically have a narrower, smooth tire. They are still suitable for a paved and gravel path.

Frame Size

Frames are measure from the center of the crankshaft to the top of the seat tube. (see figure 1A). Whether riding a 26" wheel or a 700c, on or off-road, it is important to by a bicycle that you can comfortably stand over. You need to be able to straddle the top tube, with both feet flat on the ground, and have at least 1" of clearance between your crotch and the top tube (see figure 1B).

Children's Bicycles

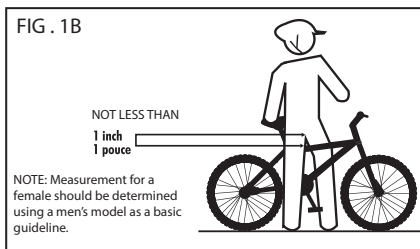
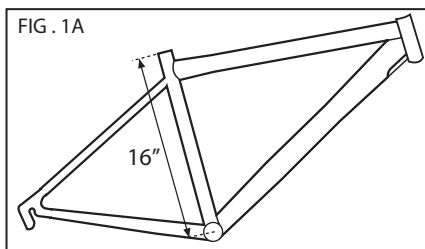
Children's bicycles are classified in two categories: (1) Sidewalk bikes (2) Non-sidewalk bikes.

Sidewalk Bikes

These are bikes with a maximum seat height between 435- 635mm from the ground. Generally they are bicycles with wheel diameters of 12" – 16". These are typically supplied with training wheels and are intended for children between the ages of 3 and 8. Children should be able to sit on the saddle and touch the ground with both feet.

Non-Sidewalk Bikes

The are bicycles with wheel diameters that are less then 24" and with maximum seat heights that are greater than 635mm. Generally these are bicycles with wheel diameters of 16" - 20". Riders should be able to sit comfortably on the saddle and be able to touch the ground with the balls of their feet.



Saddle Position

Correct saddle position is an important factor in getting the most performance and comfort from your bicycle. Your bicycle has been assembled with a standard saddle position. If you feel the position is uncomfortable, there are adjustments you can make. Your saddle can be adjusted in three directions:

Up and Down Adjustment

Your leg length determines the correct saddle height. This height can be found using a simple procedure. You will need someone to hold the bicycle while you perform this adjustment.

- a. Sit on the saddle.
- b. Place both heels on the pedals.
- c. Rotate the crank backwards until the pedal with your heel on it is in the down position (6 O'clock) and the crank arm is parallel with the seat tube. Your leg should be almost completely straight at the knee in this position. If not, you should raise the saddle.



NOTE

You do not want to lock or over extend your knee.
You should be almost fully extended with a very slight bend.

To adjust the saddle height, loosen the seat binder bolt (see figure 1C & 1D) and move the seat post up or down as required. Once you reach the desired height, make sure the saddle is parallel with the top tube of the bicycle, and tighten the seat binder bolt tight enough that the saddle can not be twisted, or moved up and down.



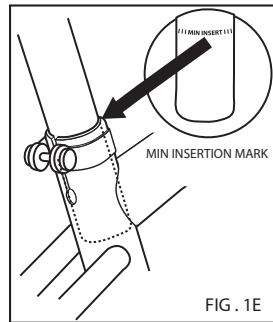
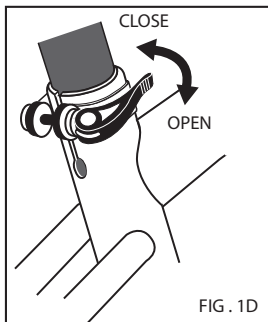
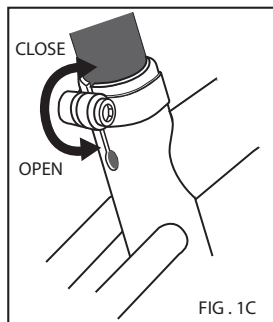
NOTE

Please refer to page 13 for instructions on using a quick release system.



CAUTION

At no time should the "minimum insertion mark" be visible after raising the saddle height. In the case that the saddle cannot be raised to the riders desired height without exposing the minimum insertion mark, a longer seat post must be used. Riding the bicycle with the seat post raised above the minimum insertion mark will result in damage to the bicycle and serious injury to the rider.



Front and Back Adjustment

Loosen the saddle clamping mechanism (see figure 2A, 2B, 2C). You will need to determine which clamping method your bicycle is equipped with. Once loose, slide the saddle back and forth on the rails. Start with the saddle clamped in the middle, then adjust forward or back until you find the position most comfortable for you. Then tighten the saddle clamping mechanism ensuring the saddle does not move.

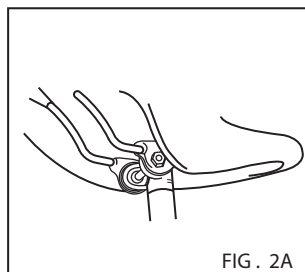


FIG . 2A

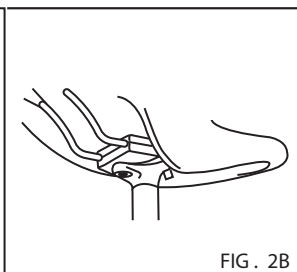


FIG . 2B

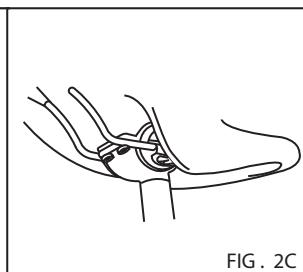


FIG . 2C

Saddle Tilt Adjustment

Your bicycle should have been assembled with a standard horizontal saddle position. Some riders prefer to have the saddle nose tilted up or down just a little. Saddles with a clamping mechanism (figure 2A) can adjust the tilt by loosening the two nuts on either side of the clamp, tilting the saddle to the desired angle, and tightening the clamp nuts again.

Bicycles equipped with a micro adjust clamp (Figure 2B) will need to use a 5mm allen wrench. Loosen the allen bolt under the saddle. Once loose, move the nose of the saddle up or down to the desired angle, then tighten the allen bolt, ensuring the saddle does not move.

BMX-type clamping mechanisms are adjusted by loosening the clamp bolt with an allen wrench, tilting the saddle, and then tightening the clamp bolts ensuring the saddle does not move

Handle Bar and Angle

Your bike is equipped with one of three handle bar and stem combinations (see figure 3A, 3B, 3C). The type your bike has determines the adjustability.

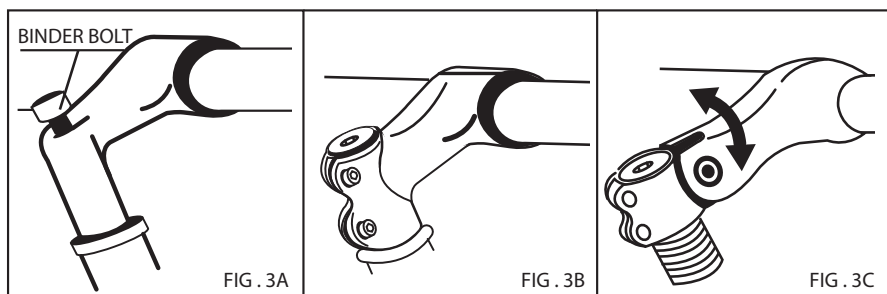
Quill Stem

With this style of stem, you can adjust the height of the stem. Loosen the stem binder bolt (figure 3A) with either an allen wrench, or a metric wrench. If the binder bolt rises but the stem doesn't loosen, use a piece of wood and a mallet and gently tap the binder bolt down, releasing the wedge bolt in the fork steer tube allowing the stem to move freely. Adjust the stem position up or down and then tighten the binder bolt. Be sure to align the stem with the front wheel before tightening the binder bolt.



CAUTION

Under no circumstances should the minimum insertion mark be visible after tightening the stem. Riding with the minimum insertion mark visible will result in damage to the bicycle and injury to the rider.



A-Head (threadless) Stem

With this style of stem (figure 3B), there is no height adjustment. Your bicycle might be equipped with removable spacers that would allow the stem to be lowered, but this is a procedure that must be performed by a qualified bicycle mechanic.

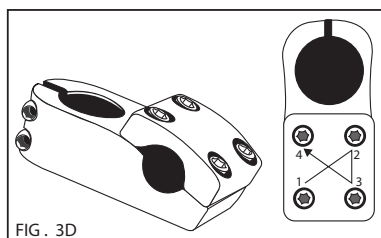
Adjustable Stem

This style of stem (Figure 3C) is commonly found on comfort style bicycles. This stem can either come in a "quill" or "A-Head" style. For height adjustment, follow the previous two instructions.

To adjust the angle of the stem and handle bars, loosen the allen bolt located under, or on the side of the stem hinge. Once loosened, the stem can be angled up or down to the desired level. Then tighten the allen bolt, ensuring there is no movement or "play" in the stem.

Bolt BMX Stem

This is a common style of stem found on BMX bicycles. It comes in either a quill, or an A-head style. For height adjustment, follow the directions for the relevant stem above. The face of the stem, which can be perpendicular or parallel to the ground, is affixed to the stem body by 4 hex bolts. It is crucial to tighten the bolts evenly when installing or adjusting the handle bar. Always tighten in a star pattern, as shown in figure 3D. Never tighten a single bolt more than a half (1/2) turn at a time



CAUTION

Failure to properly tighten the stem binder bolts, the handle bar binder bolts or the adjustable stem binder bolts may compromise the steering action, which could cause you to lose control and fall. If you can twist the stem in relation to the front wheel, turn the handlebars in relation to the stem, or change the angle of the stem in relation to the ground, tighten the bolts immediately.



CAUTION

WARNING: Do not over tighten the stem bolt or other clamping devices; there is a danger of damaging the stem and the fork and risk of injury to the rider.

Brake Lever and Shifter Angle

The brakes and shifters can be adjusted to suit a particular rider's preference. The ultimate position varies from rider to rider, but as a general guide, it should be 45 degrees in line with your arms while seat on the bicycle.

Rules for Safe Cycling

01. Always wear a helmet! Your helmet should be CSA or CPSC, EN 1078 approved and fit you properly. For assistance in purchasing a helmet, please consult the retailer where you purchased your bicycle.
02. Familiarize yourself with your bicycle and its controls before riding in traffic.
03. Be sure that your bicycle is in proper operating condition. In particular, perform the "60 second safety check" before every ride.
04. Know and obey all traffic laws. A copy of the local laws can be obtained at your local police station or online through the ministry of transportation.
05. Ride with traffic, never against it.
06. When riding in groups, ride in single file.
07. Maintain a steady course. Avoid sudden swerving.
08. Use proper hand signals to alert motorists, pedestrians and other cyclists of your intention to stop or turn.
09. Beware of cars entering traffic. Motorists entering traffic often do not see cyclists. Keep a watchful eye on side streets.
10. Beware of road hazards. The most common road hazards include sand, broken glass, storm drains, potholes, pedestrians, parked cars doors opening, dogs and railroad crossings.
11. Never ride double, or carry packages that obstruct your view or inhibit your control of the bicycle.
12. Always keep at least one hand in control of the handlebars.
13. Never stunt ride, or ride while holding onto a vehicle.
14. Do not ride with loose clothing or bare feet. Use leg clips or bands to keep pants from tangling in the chain, or chain ring.
15. Never ride at night without proper lighting and reflective clothing.
16. Be aware that wet weather riding causes longer braking distances, and a greater possibility of skidding for you and motorists.
17. Be cautious and careful. Never assume that a driver will stop at an intersection. Try to make eye contact with all drivers and even then, never assume that the driver sees you or will stop in time to avoid hitting you. Ride defensively!
18. Whenever possible when riding off-road, make sure to ride in pairs or with groups of friends. When not possible, be sure to let people know where you are going and when you will be back.

Wet Weather Riding

In wet conditions, the stopping power of your brakes is considerably reduced as well as the traction of your tires. To make sure that you slow down and stop safely in wet conditions, ride more slowly and apply your brakes earlier and more gradually than you would in dry conditions.



CAUTION

Wet weather impairs traction, braking and visibility, both for cyclists and other motorists on the road. The risk of an accident is increased in wet conditions. Please ride with caution.

Night Riding

Riding a bicycle at night is much more dangerous than riding during the day.

Therefore, children should never ride at dusk or at night. Adults riding at night should be sure to have front and rear lights, reflectors and reflective material.

Before riding at dusk or night, take the following steps to make yourself visible.

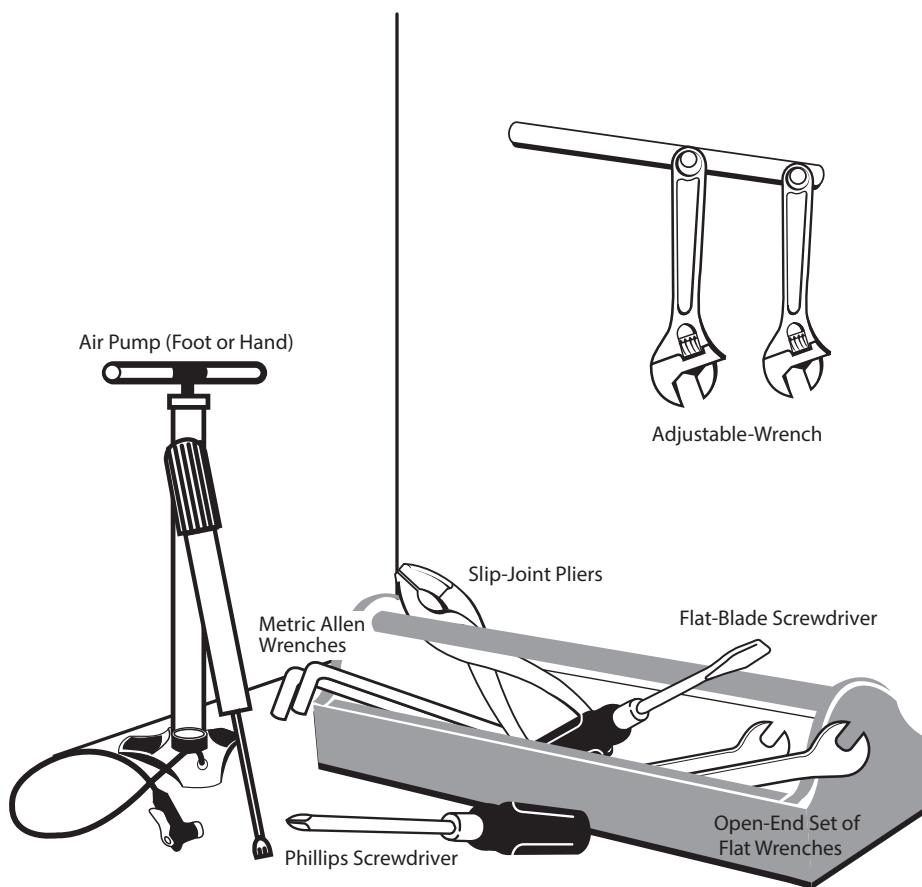
- Make sure your bicycle is equipped with correctly positioned and securely mounted reflectors.
- Purchase and install an adequate battery or generator powered head and tail light.
- Wear light coloured, reflective clothing and accessories, such as reflective vest, reflective arm and legs bands, and reflective stripes on your helmet, flashing lights.
- Make sure your clothing or anything you may be carrying on the bicycle does not obstruct a reflector or light.

Riding at Night

- Ride cautiously.
- Avoid areas of heavy traffic, dark areas, and roads with speed limits over 50kph.
- Avoid road hazards.
- If possible, ride on routes already familiar to you.
- Always obey traffic rules.

The permissible weight of the rider

Trekking:	140kg
MTB:	120kg
4X / Dirt:	120kg
Cross / Speedline:	120kg
Race:	120kg
Powerkid 24" wheel size:	100kg
Powerkid 20" wheel size:	80kg
Powerkid 12"/16" wheel size:	50kg



NOTE

The tools listed above are recommended for minor adjustment and installation. Some procedures mentioned in this manual require specialized tools and knowledge. For that reason, it is recommended that a qualified bicycle mechanic perform all adjustments, maintenance and installations.

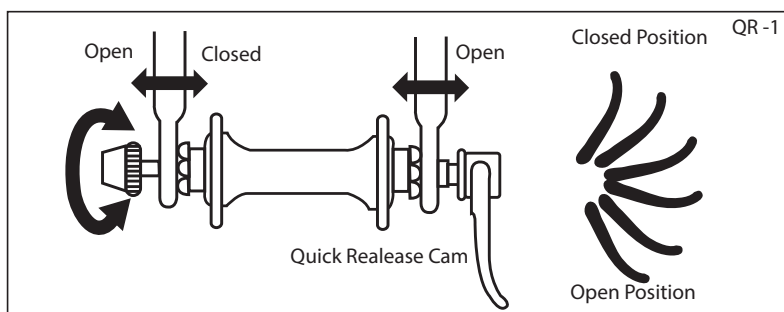
It's important to your performance, enjoyment and safety to understand how things work on your bicycle. Even if you are an experienced cyclist, don't assume the way things work on your new bicycle is the same as how they work on older bicycles. Be sure to read and understand this section of the manual. If you have even the slightest doubt as to whether you understand something, talk to a qualified bicycle mechanic.

WHEEL QUICK RELEASE

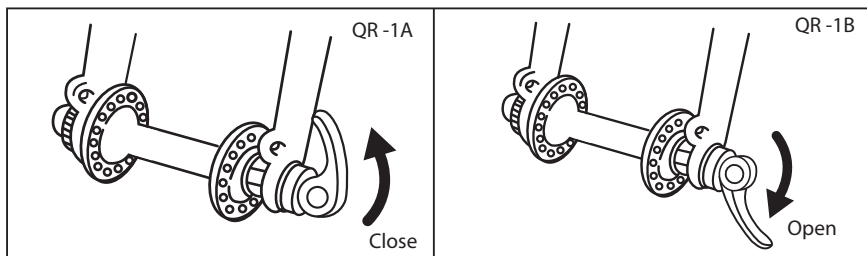


Riding with an improperly adjusted wheel quick release can cause the wheel to wobble or disengage from the bicycle, causing damage to the bicycle and serious injury or death to the rider.

1. Review the instructions and diagrams below to educate yourself on the technique for installing and removing a quick release wheel. Should you have any doubt if you have installed the quick release correctly, consult a qualified bicycle mechanic.
2. Before each ride, check that the wheel is securely clamped. Due to its adjustable nature, it is critical that you understand how the wheels quick release works and how to use and lock it properly. While it looks like a long bolt with a lever on one end and a nut on the other, the wheel quick release uses a cam action to clamp the bikes wheel in place.



Holding the nut with one hand, turning the lever like a wing nut with the other hand until everything is tight will not clamp the wheel safely in the dropouts. The full force of the cam action is needed to clamp the wheel securely.



Adjusting the quick release mechanism.

The wheel hub is clamped in place by the force of the quick release cam pushing against one drop out, and pulling the tension adjusting nut, by the way of the skewer, against the other drop out. The tension-adjusting nut controls the amount of clamping force. Turning the tension-adjusting nut clockwise while keeping the cam lever from rotating, increases clamping force.

Turning it counter clock.

wise while keeping the cam lever from rotating reduces clamping force. Less than half a turn of the tension-adjusting nut can make the difference between safe clamping force and unsafe force.



NOTE

Once the quick release is installed in the hub axle by the manufacture or assembler, it never need to be removed unless the hub or hub bearings require servicing. If the hub requires servicing, a qualified bicycle mechanic should perform it. **DO NOT** try and service yourself.

Removing and installing quick release wheels.

Removing a quick release front wheel.

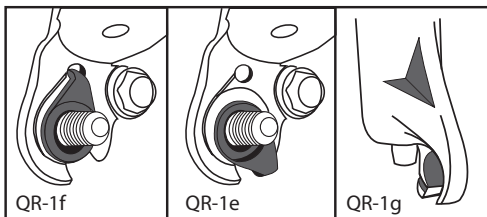
a. For Cantilever or V-type brakes, open the brake shoes (See “brakes” in this chapter. Pg 25).

b. Rotate the wheel quick cam lever from the “locked” or closed position to the open or “Unlocked” position (See figure QR-1a / QR-1b).

c. If your fork does not have a secondary retention device, go to step f.

d. If your fork has a clip on type secondary device, disengage it from the fork drop out retention holes (see figure QR-1f and QR-1e).

e. If your fork has an integrated secondary device (figure QR-1g), loosen the tension-adjusting nut about six(6) full turns.



f. Raise the front end of the bicycle off the ground a few centimeters by lifting the handlebars. Tap the top of the front wheel down with the palm of your hand. This will cause the front wheel to release from the forks.

Installing a quick release front wheel.

a. It is always best to install the front wheel while facing the front forks.

b. Rotate the quick release lever so that it curves away from the wheel. This is the open position (See figure QR-1b)



NOTE

When installing a front wheel on a bicycle with cantilever or V-brakes, the quick release cam lever should be in your right hand when facing the front of the bicycle.

When installing a front wheel on a bicycle with cable or hydraulic disc brakes, the quick release cam lever should be in your left hand when facing the front of the bicycle.

c. With the steering fork facing forward, insert the wheel between the fork blades so the axle sits firmly at the top of the slots (dropouts) which are at the tips of the fork blades. The front wheel should now be held in the front steering forks, but not be laterally tight.



NOTE

On bicycles with front disc brakes, be sure to guide the disc rotor on the front hub into the brake caliper attached to the back of the steering fork.



CAUTION

Do not force or hit the rotor into the brake caliper. It should slide between the internal caliper pads.

d. Holding the quick release lever in the open position with your right hand, tighten the tension adjusting nut with your left hand until it is finger tight against the fork dropout (See figure “QR-1”)

e. When installing a front wheel on a bicycle with cantilever or V-brakes, .With the weight of the fork and bike resting against the wheel axle, the axle should be seated firmly in the steering fork dropouts, close the brake shoes (See “brakes” in this chapter. Pg 25). With your left hand at the top of the steering fork, adjust the wheel rim slightly from left to right between the steering fork to center it between the brake shoes. Once centred, rotate the quick release cam lever upwards to the closed position (figure QR-1a). The lever should be parallel to the fork blade and curved towards the wheel.

f. When installing a front wheel on a bicycle with a cable or hydraulic disc brake.

With the weight of the fork and bike resting against the wheel axle, the axle should be seated firmly in the steering fork dropouts. With your right hand, squeeze the front brake lever on the hand bar. This will cause the brake caliper to compress against the rotor and aid in centring the rotor between the caliper (Figure Disc-1), and the wheel between the steering fork blades. Once centred, rotate the quick release cam lever upwards to the closed position (Figure QR-1a). The lever should be parallel to the fork blade and curved towards the wheel.



NOTE

If the disc brake rotor is contacting the caliper pads, causing the front brake to drag or rub when hand braking forced is not being applied, rotate the quick release cam to the open position. Once in the open position, move the wheel left or right slightly to center the rotor. Next, rotate the quick release cam to the closed position as explained in Step F.



CAUTION

If you can fully close the quick release cam lever without needing to wrap your fingers around the fork blades for leverage, the tension is insufficient. You should feel resistance from the quick release cam lever no later than at 90 degrees, of its 180 degree locking rotation.

g. If the lever cannot be pushed all the way to the to a position parallel to the fork blade, return the lever to the open position. Turn the tension-adjusting nut counterclockwise one quarter turn and try tightening the quick release cam lever again.



CAUTION

Secondary retention devices are not suitable for correct quick release adjustment. Failure to properly adjust the quick release mechanism can cause the wheel to wobble or disengage, which will result in serious injury to the rider.

Removing a quick release rear wheel.

- a. It is always best to remove a rear wheel while standing behind the bicycle.
- b. For Cantilever or V-type brakes, open the brake shoes (See “brakes” in this chapter ,Pg 25).
- c. Shift the rear derailleur to the outter most gear (the smallest rear sprocket) and pull the rear derailleur body back with your right hand (figure Der-1a).
- d. Rotate the quick release cam lever to the open position. (figure QR-1b).
- e. Lift the rear of the bicycle off the ground a few centimeters with your left hand holding the left side of the rear bicycle frame. With the derailleur body still pulled back (figure Der-1a), push the wheel forward and down until it comes out of the rear dropouts.



NOTE

If the rear wheel will not release from the frame, turn the quick release tension-adjusting nut a full turn counterclockwise while holding the quick release cam lever stationary.

FIG. Der-1

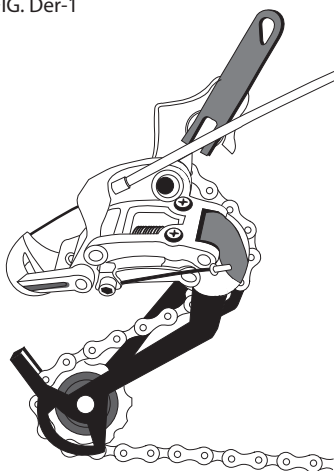
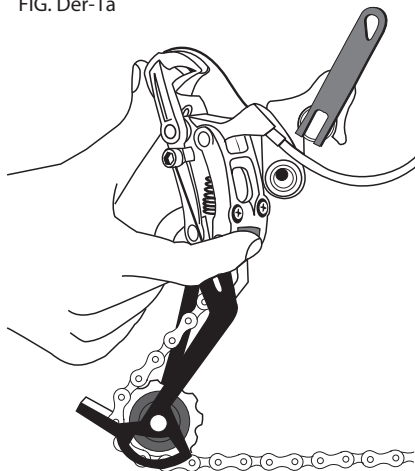


FIG. Der-1a



Installing a quick release rear wheel.

- a. Shift the rear derailleur to its outermost position and pull the rear derailleur body back with your right hand (see figure Der-1).
- b. Rotate the quick release lever to the open position (see figure QR-1b). The quick release cam lever should be on the side of the wheel opposite the derailleur and freewheel sprockets.
- c. Pull the chain on top of the smallest freewheel sprocket. Then insert the wheel into the frame dropouts by pulling up and back.



NOTE

On bicycles with rear disc brakes, be sure to guide the disc rotor on the opposite side of the hub from the freewheel sprockets, into the brake caliper attached to the left side of the frame dropout.

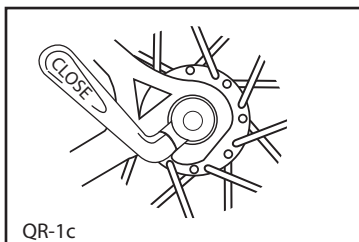
- d. Tighten the tension-adjusting nut until it is finger tight against the frame dropout. Rotate the lever toward the front of the bicycle until it is parallel to the frame's chain stay or seat stay tube, and is curved towards the wheel (see figure QR-1c).



CAUTION

If you can fully close the quick release cam lever without needing to wrap your fingers around the frame seat stay or chain stay tubes, the tension is insufficient. You should feel resistance from the quick release cam lever no later than at 90 degrees, of its 180 degree locking rotation.

- e. If the lever cannot be pushed all the way to a open position parallel to the chain stay or seat stay tube, return the lever to the open position. Once in the open position, turn the tension-adjusting nut counterclockwise a quarter turn and try again.
- f. Push the rear derailleur body back into position (see figure Der-1).
- g. For bicycles with cantilever or V-type brakes, close the brake shoes and ensure the rim is centered between them. If the brake shoes drag or contact continuously on one side of the rim, return the quick release cam lever to the open position and adjust the rim between the brake shoes. Once adjusted, follow the previous steps to ensure the quick release mechanism is properly locked.
- h. For bicycles with cable or hydraulic disc brake, spin the rear wheel to make sure the brake caliper pads are not contacting the hub rotor. If there is contact, return the quick release cam lever to the open position and adjust the wheel slightly left or right to eliminate the rotor contact. Once adjusted, follow the previous steps to ensure the quick release mechanism is properly locked.



QR-1c

Removing and Installing bolt on front and rear wheels.**Removing a bolt -on front wheel.**

- a. For Cantilever or V-type brakes, open the brake shoes (See “brakes” in this chapter. Pg 25)
- b. With the correct size box wrench or a 6” long adjustable wrench, loosen the two axles nuts
- c. If your fork has a clip on type secondary device, disengage it from the fork drop out retention holes (see figure QR-1e). If your fork has an integral retention device (figure QR-1g), loosen the axle nuts about six full turns.
- d. Raise the front end of the bicycle off the ground a few centimeters by lifting the handlebars . Tap the top of the front wheel down with the palm of your hand. This will cause the front wheel to release from the forks.

Installing a bolt on front wheel.

- a. With the steering fork facing forward, insert the wheel between the fork blades so the axle sits firmly at the top of the slots (dropouts), which are at the tips of the fork blades. The axle nut washers should be on the outside between the fork blade and the axle nut. If your bicycle has a clip-on secondary retention device, engage it now.
- b. With the steering fork facing forward, insert the wheel between the fork blades so the axle sits firmly at the top of the slots (dropouts) which are at the tips of the fork blades. The front wheel should be held in the front steering forks now, but not be laterally tight.



On bicycles with front disc brakes, be sure to guide the disc rotor on the front hub into the brake caliper attached to the back of the steering fork.



Do not force or hit the rotor into the brake caliper. It should slide between the internal caliper pads.

- c. For bicycles with cantilever or V-type brakes, close the brake shoes.
- d. Using the correct size box wrench or a 6” long adjustable wrench ,firmly tighten axle nuts.
- e. Spin the wheel to make sure the brake pads are not touching the rotor (disc brakes) or rim (cantilever or V-type brakes). If there is contact, loosen the axle nuts and adjust the wheel slightly right or left and re-tighten.

Removing a bolt-on rear wheel.

- a. For Cantilever or V-type brakes, open the brake shoes (See “brakes” in this chapter Pg 25).
- b. Shift the rear derailleur to the out most gear (the smallest rear sprocket) and pull the rear derailleur body back with your right hand (figure Der-1a).
- c. With the correct size box wrench or a 6” long adjustable wrench, loosen the two axle nuts.
- d. Lift the rear of the bicycle off the ground a few centimeters with your left hand holding the left side of the rear bicycle frame. With the derailleur body still pulled back (figure Der-1a), push the wheel forward and down until it comes out of the rear dropouts.

Installing a bolt-on rear wheel.

- a. Shift the rear derailleur to its outermost position and pull the rear derailleur body back with your right hand (see figure Der-1).
- b. Pull the chain on top of the smallest freewheel sprocket. Then insert the wheel into the frame dropouts by pulling up and back. The axle nuts should be on the outside, between the frame and the axle nut.



On bicycles with rear disc brakes, be sure to guide the disc rotor on the opposite side of the hub from the freewheel sprockets into the brake caliper attached left side of the frame dropout.

- c. For bicycles with cantilever or V-type brakes, close the brake shoes. (See “brakes” in this chapter Pg 25).
- d. With the correct box wrench or a 6” long adjustable wrench, firmly tighten axle nuts.
- e. Spin the wheel to make sure the brake pads are not touching the rotor (disc brakes) or rim (cantilever or V-type brakes). If there is contact, loosen the axle nuts and adjust the wheel slightly right or left and re-tighten.

WHEEL INSPECTION

Traditional rim brake systems work by creating friction between the rim and brake pad when the rider applies the brakes. This friction, plus the introduction of dirt, grease, sand and other contaminants between the rim and brake pad, will eventually cause the outer wall of the rim (braking surface) to wear thin. In extreme conditions, the thin out wall can crack and fail resulting in damage to the bicycle and the possibility of injury to the rider. It is important to have your bicycle maintained at regular intervals by a qualified bicycle mechanic and to inspect the outside walls of the rims regularly. Please refer to the maintenance chart in this manual.



CAUTION

Many rims are equipped with “wear indicating lines” on the outer surface of the rims. If this line is no longer visible on your clean rim surface, do NOT ride your bicycle. Take your bicycle to a qualified bicycle mechanic to have a new rim installed.”

The condition of the wheels and their relationship to your brake performance is very important. The best maintenance for a wheel is preventive maintenance. If you are aware of the things that can go wrong, you may be able to stop potential problems before they happen.

Dirty or greasy rims or disc brake rotors can render your brakes ineffective. Do not clean rims with solvent such as WD-40 or household cleaners, this can leave an oily film. Wipe your rims with a clean rag or wash them with soap and water, rinse, and let them air dry. Do not ride while they are wet. When lubricating your bike, be sure not to get oil on any braking surfaces or pads.

Bicycle wheels must withstand great force and weight. Spokes need to be tightened to the correct tension to keep your wheels both round and centered within the bicycle frame or fork. Because wheel truing is a complicated procedure, we recommend that you take your bicycle to a qualified bicycle mechanic for this service.

TIRES

Bicycle tires are available in many different styles, shapes and tread patterns. Your bicycle has been equipped with the tire that Pride feels is the best balance of performance and value for your bicycles intended use. Once you’ve gained experience with your new bicycle and feel that a different tire might suit your riding needs, your bicycle retailer has a wide selection to choose from. The size, pressure rating, and in some cases, rotation direction are marked on the sidewall. The most important information is the tire pressure. The best way to inflate your tire is with a bicycle pump and pressure gauge.



CAUTION

Never inflate a tire beyond the maximum pressure marked on the tire’s sidewall. Exceeding the pressure can result in the tire slipping from the rim, causing the rider to lose control and resulting in injury or damage to the bicycle.



CAUTION

Gas station air hose and industrial compressors move a large volume of air very rapidly. To avoid over inflation when using a gas station pump, put air into your tires in short, spaced bursts.

Tire pressure is given as either a maximum pressure or a pressure range. How a tire performs under different terrain or weather conditions depends largely on its pressure. Inflating the tire near its recommended maximum pressure gives the lowest rolling resistance, but transfers the most bumps to the rider. High pressure works best on hard surfaces such as pavement or hard packed dirt.

Low pressure, at the bottom of the recommended range, gives the best performance on loose surfaces, or uneven terrain.

Tire pressure that is too low for your weight and riding conditions can cause a puncture of the tube, by allowing the tire to deform sufficiently to pinch the inner tube between the rim and the riding surface.



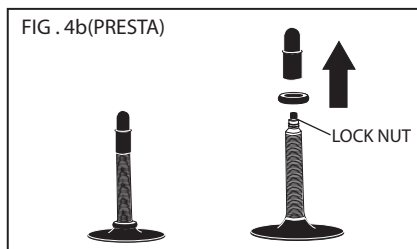
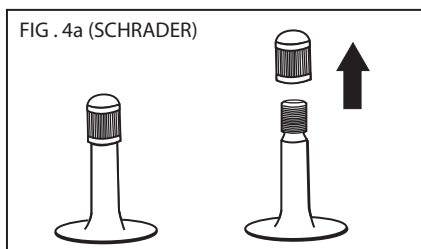
CAUTION

Check your tire pressure before every ride.

Some special tires have unidirectional tread designs. Their tread patterns are designed to work in one direction for better performance. The sidewall marking of a unidirectional tire will have an arrow showing the correct rotation direction. If your bike has unidirectional tires, be sure they are mounted to rotate in the correct direction.

INNER TUBE VALVES.

Your bicycle is equipped with one of two styles of air valves. Depending on the style, you may need to purchase an adapter to put air into the inner tubes (tires).



Schrader Valve.

This is a standard air valve (figure 4A). It is found on most bicycles and cars. It can be filled using a standard bicycle pump, or gas station pump. To release air from the tire, simply press down on the small pin in the centre of the valve.

Presta Valve.

This is considered to be a high-pressure valve and is found on racing and performance style bicycles (figure 4B). To fill these tires, an adapter is needed. These adapters can be purchased from the retailer where you purchased this bicycle. To inflate these tires, unscrew the small lock nut at the tip of the valve. Press down on the tip of the valve until you hear some air leak out. Completely thread the adapter fully onto the tip of the valve. The tire can now be inflated using a standard bicycle or gas station pump.



CAUTION

After inflating the tire, be sure and remove the adapter and tighten the lock nut. Failure to do this will result in gradual or immediate loss of air.

REPAIRING A TIRE**Follow the steps below when you need to replace a tire or tube.**

- a. Remove the wheel from the bicycles (see "removing wheels" section).
- b. Completely deflate the tire by following the directions above for your bicycle's related valve.
- c. By pushing inward, loosen the tire bead from the rim all the way around.
- d. Using a plastic tire removal wrench, work one side of the tire off the rim.



CAUTION

Only use plastic tire removal wrenches. Never use screwdrivers or other metal tools. This will damage the rim.

- e. Remove the inner tube from inside the tire, while leaving one side of the tire on the rim.
- f. Locate any leaks, tears or holes in the inner tube. Patch according to the instructions provided with your patch kit or replace the tube if necessary.
- g. Match the location of the inner tube puncture with the location of the tire. Remove the tire from the rim and check the inner wall of the tire for the source of the puncture. Be sure to remove any object(s) that may have caused the puncture (nail, thorn, glass) before installing the repaired inner tube.
- h. Remount one side of the tire to the rim.
- i. With a hand pump, put enough air in the tire to give it some shape.
- j. Put the valve stem through the hole in the rim and work the tube into the tire. Do not let it twist.
- k. Using both hands, start to work the unmounted side of the tire onto the rim. Start at the valve and work evenly around the tire.
- l. With one third of the tire mounted on the rim, push the valve half way up into the rim to allow the tire to sit squarely.
- m. Fit the rest of the tire onto the rim, rolling the last part on with the balls of your thumbs. Do not use tools, as this could result in pinching the inner tube.
- n. Check that the inner tube is not caught between the tire and rim at any point.
- o. Inflate the tire to 25psi using a hand pump and check the tire for proper seating on the rim. Make sure the tire bead sits in the rim at the same depth at all points and on both sides. When properly seated, inflate to the pressure stamped on the side of the tire. Use a tire gauge to check for proper inflation.
- p. Re-install the wheel. Check gears, brakes and quick release levers as previously instructed in this manual. If a new inner tube is needed, ensure you buy the correct size as stated on the side of the tire and the correct valve to suit your bicycle rim.

BICYCLE SUSPENSION

Many Mountain Bikes come with suspension forks or rear suspension frames. These are designed to absorb a portion of the bumps and allow for a smoother, more controlled ride. There are many types of suspension with many different types of features. This section will outline the general points about front and rear suspension. For more information, read the suspension manufacturer's manual supplied with your bicycle, or contact your retailer.

FRONT SUSPENSION FORKS

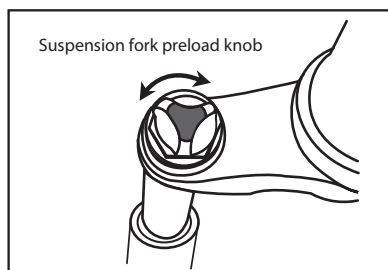
Most suspension forks use one of three main internal systems.

Coil Springs: These are located inside the suspension fork and in some cases, are adjustable. If your suspension fork has an adjustment knob, it will be located on the top of the left suspension fork blade. Turn the knob clockwise to increase the amount of force needed to compress the fork and counterclockwise to decrease the amount of force needed to compress the fork.

Elastomers: These are small pieces of polymer that react well to compression and create a more control response to bumps. Like the coil suspension forks, some are adjustable. Follow the same instructions for as the coil forks for to adjust.

Air Sprung: These suspension forks are usually found on a higher level bicycle. They typically have a range of adjustment including compression adjustment, rebound or return speed adjustment, and lock out features. Compression adjustment must be done with a high-pressure hand pump. If your bicycle did not come with one, you can purchase one at your bicycle retailer. Rebound and Lock out features can better be explained in the suspension fork manufacturer's manual supplied with your bicycle.

Suspension Fork Preload: For optimum performance from a suspension fork with preload functions, the suspension fork should be adjusted to compress 15 – 20% of its total length of travel under the rider's weight when in a static position.



Suspension Fork Rebound: This is found mainly in air sprung or oil dampened suspension forks. In most cases, if this feature is available on a suspension fork, the adjustment is made by turning a control knob located at the bottom of one of the suspension forks blades. By turning the rebound control knob you can adjust the speed of which the fork returns to static position after being compressed. For more information, consult the suspension fork manufacturer's manual, or your bicycle retailer.

REAR SUSPENSION SHOCKS

As with suspension forks, rear suspension shocks can come in a variety of different designs and have a range of adjustment capability. This manual describes the two most common designs. For more information, consult your rear suspension shock manual, or your bicycle retailer.

Coil Shocks

Found on a large variety of rear suspended bicycles, this has a large, usually visible coil spring fixed in the centre of the shock. This style allows for preload adjustment and can also come with rebound adjustment.

Air Shocks

Similar to the air sprung suspension fork, these are usually found on higher end bicycles. They typically have a range of adjustment including compression adjustment, rebound or return speed adjustment, and lock out features. Compression adjustment must be done with a high-pressure pump. If your bicycle did not come with one, you can purchase one at your bicycle retailer. Rebound and lock out features can better be explained in the rear suspension shock manufacturer's manual supplied with your bicycle.

Rear Suspension Shock Preload: For optimum performance from a rear suspension shock with preload functions, the suspension shock should be adjusted to compress 15 – 20% of its total length of travel under the riders weight when in a static position.

For an air sprung shock, air must be added using a high-pressure hand pump. If your bicycle did not come with one, you can purchase one at your bicycle retailer.

For a coil rear shock, preload can be adjusted by turning the spring adjustment and retention device (figure SX.1). For more information consult your rear suspension manufacturer's manual, or your retailer.

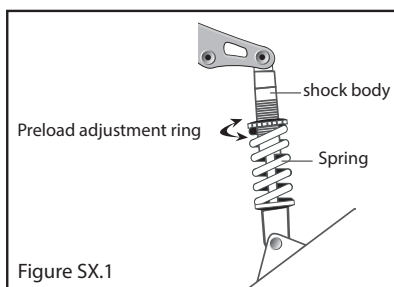


Figure SX.1



Changing suspension adjustment can change the handling and braking characteristics of your bicycle. Never change suspension adjustment unless you are thoroughly familiar with the suspension system manufactures instruction manuals and recommendations. Always check for changes in the braking and handling characteristics of the bicycle after a suspension adjustment, by taking a careful test ride in a hazard free area.



Not all bicycles can be safely retrofitted with some types of suspension systems. Before retrofitting a bicycle with suspension, check with the bicycles manufacturer to make sure what you want to do is compatible with your bikes design.



Never attempt to service the internals of your rear suspension shock yourself. Doing so could lead to damage to the shock, and rider injury. Always have a qualified bicycle mechanic service your suspension fork.

BRAKES

NOTE

The most effective and safe braking, when riding bicycles equipped with front and rear brakes, comes from applying them simultaneously.



CAUTION

Applying the front brake first can force the rider over the handlebars, which can cause serious injury.



NOTE

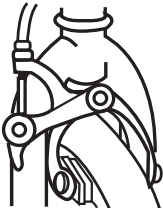
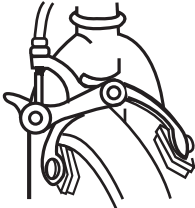
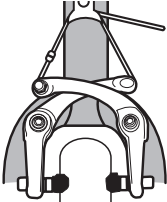
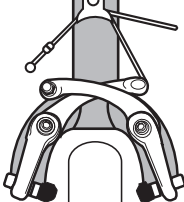
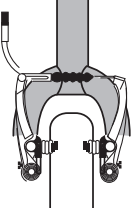
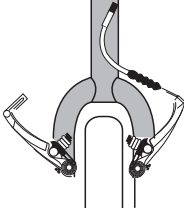
Right brake lever may control rear wheel brake or front wheel brake, depend on what country the bike was manufactured for. Please refer to the list of standard set up for your location.

Country	Front Brake Lever	Rear Brake Lever
UK	Right	Left
France	Left	Right
Germany	Left	Right
Austria	Left	Right
Switzerland	Left	Right
Italy	Left	Right
Belgium	Left	Right
Spain	Left	Right
Denmark	Left	Right
Finland	Left	Right
Norway	Left	Right
Netherlands	Left	Right
Sweden	Left	Right
Greece	Left	Right
Slovenia	Left	Right
Hungary	Left	Right

HOW BRAKES WORK

It's important to your safety that you instinctively know which brake lever controls which brake on your bike. The braking action of a bicycle is a function of the friction between the brake surfaces. To make sure you have maximum friction available, keep all braking surfaces clean and free of lubricants, waxes and polishes.

Hand controlled Caliper, U-brake and Linear-pull brakes: Make sure your hands can reach and squeeze the brake levers comfortably. The lever reach may be adjustable, or you may need to purchase a different lever design. Most brakes have some form of release mechanism to allow the brake shoes to clear the tire when the wheels is removed or reinstalled. When the brake release mechanism is in the open position, the brakes are inoperative. Make sure you understand how the release mechanism works and are familiar with the visual difference between the "off" and "on" position. It is important to make sure both brakes work correctly before each ride.

CALIPER BRAKE	
	
"ON" (CLOSED POSITION)	"OFF" (OPEN POSITION)
U-BRAKE (BMX Bicycles)	
	
"ON" (CLOSED POSITION)	"OFF" (OPEN POSITION)
LINEAR PULL (V-brakes)	
	
"ON" (CLOSED POSITION)	"OFF" (OPEN POSITION)

Brakes are designed to control your speed, not just stop the bike. Maximum braking force for each wheel occurs at the point just before the wheel “locks up” (stops rotating) and starts to skid. Once the tire skids you lose some of your stopping force and directional control. You need to practice slowing and stopping smoothly without locking up a wheel. The technique is called progressive brake modulation. To avoid locking up a wheel, squeeze the brake levers, progressively increasing the braking force. If you feel the wheel locking up at any time, release the lever a little to keep the wheel rotating, but still braking. This will take some practice so it is recommended to ride in a hazard free area until you are comfortable with this technique.

Braking performance will change depending on the terrain on which you are riding. Wet pavement, loose gravel, sand or dirt provide less tire adhesion, which will cause the wheels to lock up under lower braking forces. Be aware of the terrain on which that you are riding and adjust or modulate your braking accordingly. V-brakes and hydraulic disc brakes have more stopping power than conventional calipers. You will need less braking force when using these systems. Brake power modulator: Some bicycles may be equipped with a brake power modulator. Brake power modulators are intended to allow for controlled distribution of braking power from the brake lever to the brake caliper without the chance of sudden and / or unsafe braking. Power modulators should be installed and adjusted by a qualified bicycle technician.



CAUTION

Power modulators can change the feel and performance of the brakes. Before riding with newly installed brake modulators, you should practice in a safe, low traffic area. Always keep your brake adjusted and in good working condition.”

Hydraulic disc brakes: This braking system is usually found on off road specific bicycles. It works much the same way as your car or motorcycle braking. Steel braided hydraulic oil brake lines are connected between the lever and caliper located on the front fork, and/or the rear end of the bicycle frame. Rotors are attached to the wheel hubs. Hydraulic disc brakes offer a greater amount of braking force than conventional caliper brakes. If your bike is equipped with these brakes, you should practice riding in a hazard free area to familiarize yourself with the braking system and required stopping power.



CAUTION

Do not attempted to adjust a hydraulic brake. Tampering with the brake lines, or pad adjustment could compromise the braking system. If your brakes do not pass the safety check before riding, take your bicycle to a qualified bicycle mechanic for adjustment.

Cable Actuated Disc Brakes: This braking system works much the same as the hydraulic system, but is controlled by steel cables like a conventional caliper. The disc caliper is mounted to the front fork, and/or the rear end of the bicycle's frame. The disc rotors are mounted to the wheel hubs.

As with conventional caliper brakes, the cables will stretch over time and your brakes will need minor adjustments. You can make minor adjustments by turning the barrel adjuster counterclockwise (away from the mechanism), located at either the lever or disc brake caliper (see figure DSK_1/2). Be sure to lock the barrel lock nut after adjustment.

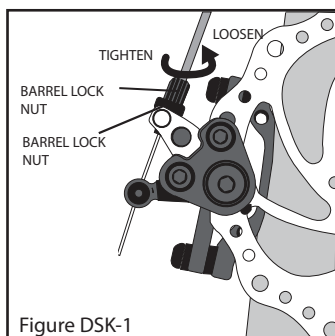


Figure DSK-1

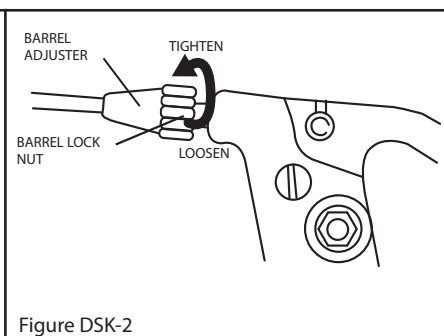


Figure DSK-2

Cable actuated disc brakes work best when the lever travels a minimum of 25mm (see figure DSK_3). For that reason, they do not feel the same as V-brakes or calipers. You should familiarize yourself with the amount of travel needed to brake safely, before you ride your bicycle.

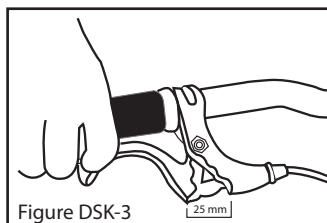


Figure DSK-3



NOTE

It is recommended that you take your bicycle to a qualified bicycle mechanic for any adjustment.



NOTE

Disc brakes do not need to be released or opened like conventional calipers or V-brakes when removing the front or rear wheels.



CAUTION

When making minor adjustments by rotating the barrel adjusters, ensure that the barrel adjuster always has a minimum of 50% of its length still threaded in either the lever or caliper. Failure to do so could result in the brake system failing and causing serious damage to the rider.



CAUTION

Do not try and adjust the tension of the disc brakes by tightening the cable on the caliper control arm. This will shorten the length of distance the control arm travels and will reduce the available braking force.

BRAKE ADJUSTMENT INSTRUCTIONS

Adjusting Cable Disc Brakes: Your cable disc brake bicycle comes supplied with a "brake adjustment tool" (Figure DSK-4). This tool will aid in the set up and adjustment of your disc brakes. It is recommended that the following steps be performed by a qualified bicycle mechanic.

Step 1: Install the front wheel into the fork mounts, with the disc rotor between the caliper pads.

Step 2: Loosen the fixing bolts that attach the caliper to the fork-mounting adaptor. The caliper should be loose enough to be moved by hand.

Step 3: Loosen the adjustment screw of the fixed pad side of the caliper two(2) full turns.

Step 4: With the brake adjustment tool attached to the rotor, rotate the wheel until it is sitting between the caliper pads.

Step 5: Tighten the adjustment screw on the fixed pad side of the caliper until there is no space between the rotor or either caliper pad. Note: do not over tighten. Over tightening will result in difficulty removing the adjustment tool.

Step 6: With one hand squeezing the brake lever to hold the caliper in place, tighten the fixing bolts that attach the caliper to the fork-mounting adaptor.

Step 7: Release the brake lever and rotate the wheel forward to remove the adjustment tool. The brake should be centered between the caliper. If there is excessive play, you can tighten the fixed side adjustment screw



NOTE

The cable connection between the lever and caliper comes installed from the factory. It should not require major adjustment. If adjustment is needed, please use the barrel adjusters at the lever or caliper whenever possible. Tightening the brake by pulling the cable through the fixing bolt on the control arm could have a negative effect in brake performance.

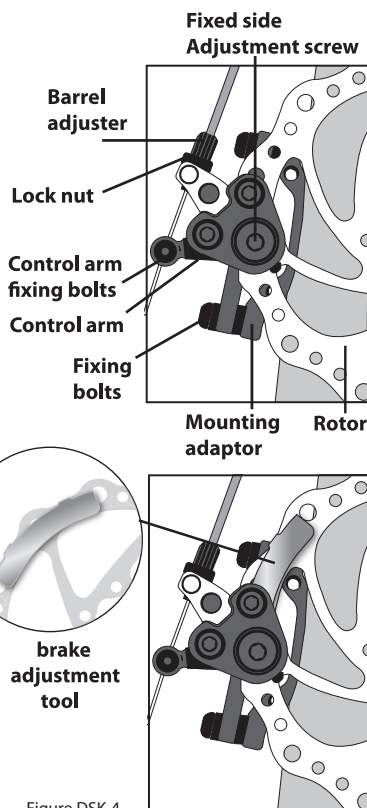
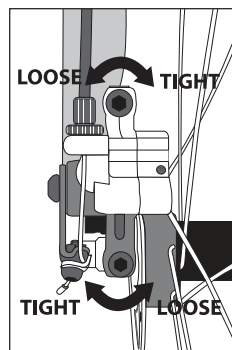


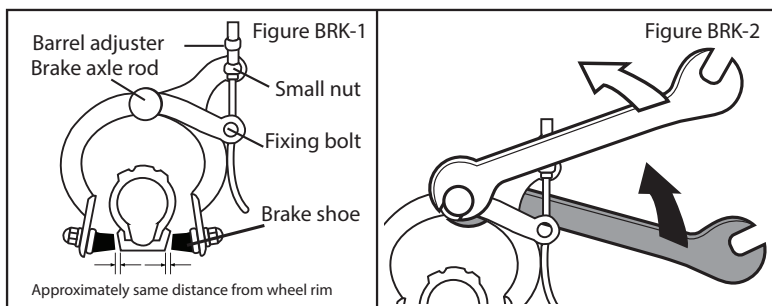
Figure DSK-4



Adjusting Caliper or Side Pull Brakes: For minor cable adjustments, you can rotate the cable barrel adjuster located on the caliper (figure BRK-1) or on the lever (figure DSK-2) counter clockwise or clockwise.

To centre a side pull caliper so that the brake pads contact the rim evenly when the brake is applied you will need two 10mm open end, closed ended or adjustable wrenches.

- a. Place one wrench on the dome nut on the front of the brake axle rod. Place the other wrench on the fixing nut on the back of the brake axle rod as show below (figure BRK-2).
- b. While holding both wrenches at the same time, rotate the entire caliper in the direction necessary to move the brake pads evenly.
- c. Pull the brake lever to check the brake function and movement. If necessary, repeat Step "b" until the brake pads contact evenly (figure BRK-1).



- d. Once the brake pads are even, check to ensure the caliper-fixing bolt is still secure and has not come loose during the adjustment.



CAUTION

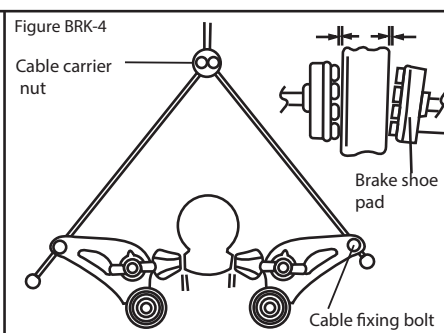
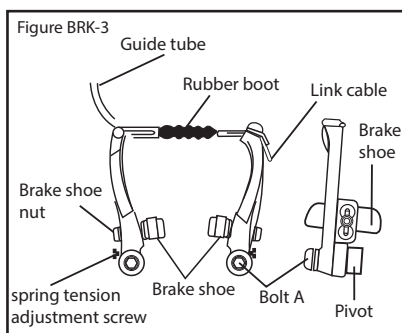
A qualified bicycle mechanic should perform this adjustment. Failure to adjust properly, or secure the brake axle rod, could compromise the braking system, resulting in damage to the bicycle and could seriously injure the rider.

Adjusting Cantilever and Linear Pull brakes: These two braking systems have similar characteristics. Both have independent levers on either side of the wheel that work together through even cable and spring tension.

To adjust these systems, you will need: an (1) Phillips head screwdriver or 2.5mm Allen wrench (2) 10mm open or closed head wrench, or adjustable wrench (3) 5mm Allen wrench.

- a. Lever tension is created from either a coil or linear spring on each lever arm. To adjust the levers to contact the wheel rims evenly, tighten or loosen the spring tension adjustment screw (figure BRK-3/4) while pulling the brake lever with your free hand. Continue until the brake pads contact the rims evenly.

- b. For minor cable adjustments, rotate the barrel adjuster located at the brake lever (figure DSK-2) counter clockwise or clockwise.



CAUTION

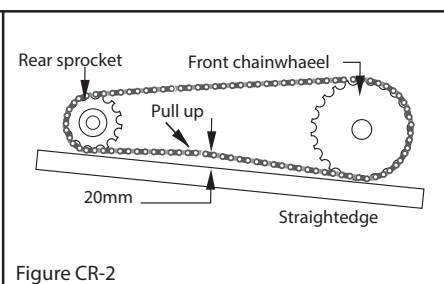
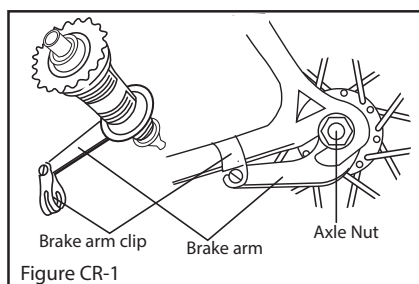
Do NOT over tighten the spring tension adjustment screws. Doing so could damage the brake assembly and compromise the braking system resulting in damage to the bicycle and could seriously injure the rider.



CAUTION

A qualified bicycle mechanic should perform this adjustment. Failure to adjust properly could compromise the braking system resulting in damage to the bicycle and could seriously injure the rider.

Foot Controlled Brakes / Hub Brakes: These brakes, commonly called “coaster” brakes, are found on a wide variety of children’s and adult bicycles. No adjustment is necessary as they are a semi-sealed mechanism, adjusted by the manufacture. Pedaling backwards initiates the braking force. Before riding, ensure that the brake arm is securely attached to the chain stay of the bicycle (Figure CR-1). There should be more than 20mm of slack in the chain at its loosest spot (figure CR-2). If the chain is found to be looser than 20mm, it can be adjusted by moving the rear wheel back. A qualified bicycle mechanic should perform this adjustment.





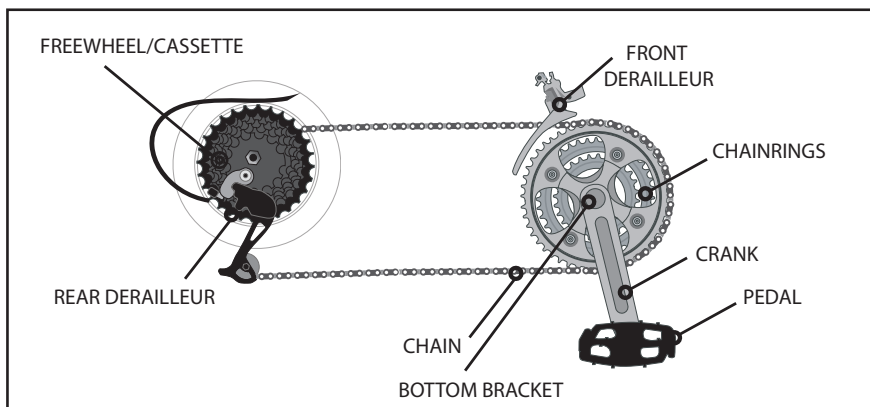
CAUTION

Do NOT attempt to open the hub mechanism. If you experience any problems with your coaster brake, do not ride your bicycle. Take your bicycle to a qualified bicycle mechanic for inspection and adjustment.

Band Brakes: If your bicycle is equipped with band brakes, please refer to the manufactures instructions included with your bicycle literature.

GEARS

The diagram below shows the components of your bicycle's drive train that are referenced through out this section.



Index Shifting

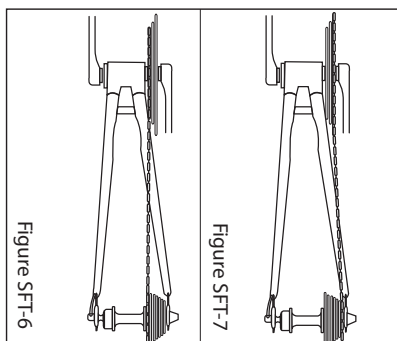
Your bicycle may be equipped with both front and rear, or only rear index shifting. This means that each time the shifter is engaged and moves one "click" or gear, the derailleur moves the chain into a new gear. This eliminates the need to "find the gear" by feel, as is the case with non-index systems of the past. Index gear systems must stay adjusted to work properly. It is recommended that a qualified bicycle mechanic perform all adjustments on the drive train.

Why all those gears?

The number of possible gear combinations ("speeds") is the product of multiplying the number of cogs (rings) on the rear freewheel or cassette, with the number of chain rings on the front crank. You will have the greatest fitness benefit, produce the greatest sustained power and have the greatest endurance if you learn to spin the pedals at high revolutions per minute (called cadence) against low resistance. Like wise, you will get the least fitness benefits from pushing hard on the pedals at a low cadence. The purpose of having all the gears on a bicycle is to let you choose the gear that allows you to maintain your optimum cadence under the widest range of riding conditions and variances in terrain grades (angles). Depending on your fitness level and experience (the higher your level, the higher the cadence), the optimum cadence is between 60 - 90 pedal rotations per minute (RPM).

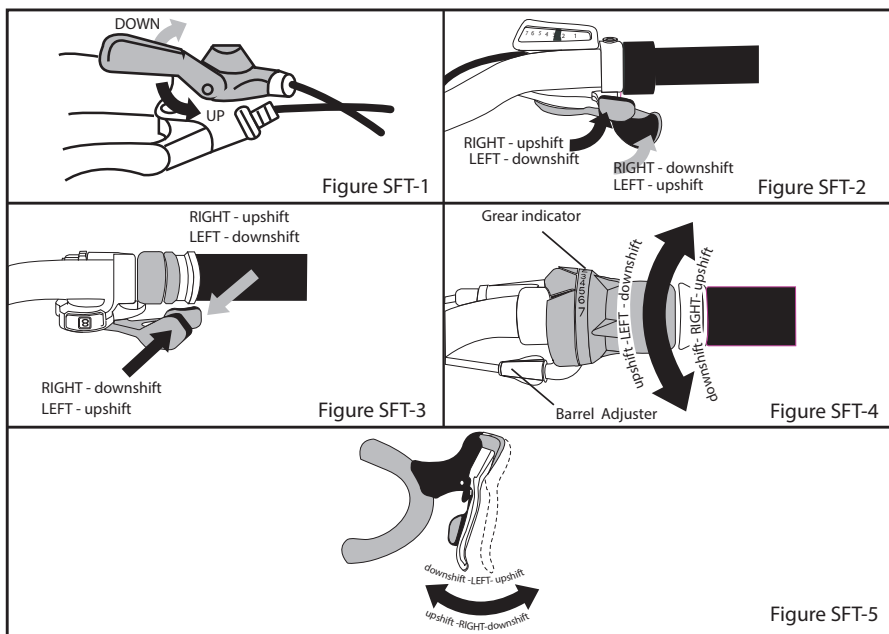
Which Gear Should I Be in?

The combination of the largest rear, smallest front (figure SFT-6) is for the steepest hills. The smallest rear, largest front combination (Figure SFT-7) is for the greatest speed. It is not necessary to shift gears in sequence. Instead, find the "starting gear" which is right for your level of ability and fitness. It should be a gear that is hard enough for quick acceleration, but easy enough to allow you to start from a stop without wobbling. Experiment with up shifting and downshifting in a hazard free area to get a feel for the function of the shifters and gears that are best suited for you.



NOTE

Depending on the shifter mechanism equipped on your bicycle, you may be able to shift from the largest to the smallest gear at one time, or only three or four gears at a time. There are many different types of shifters mechanisms. The designers of your bicycle have selected the shifter design that they believe best suits this type of bicycle and its intended use. The different types of shifters are shown in the below figures SFT-1 to SFT-5. Identify the shifter on your bicycle before continuing.





CAUTION

Never move the front or rear shifter while pedaling backwards, or pedal backwards after having moved the shifter. The shifter mechanism and drive train are not designed to shift gears when pedaling backwards. Doing so could bind the chain and cause serious damage to the bicycle.



CAUTION

Never shift a misadjusted derailleur onto the largest or smallest rear freewheel cog. Doing so could bind the chain and cause serious damage to the bicycle.



CAUTION

Always shift gears when seated in the saddle. Extreme pressure applied to the pedals from a standing position when shifting could result in the chain slipping. This could cause the rider to lose control, resulting in serious injury.

REAR DERAILLEUR

Shifting the Rear Derailleur: the right shifter on your handlebar controls the rear derailleur. The function of the rear derailleur is to move the chain from one rear freewheel cog to another, thereby changing the gear ratio and affecting your cadence. The smaller the freewheel cog, the higher the gear ratios. Pedaling in the higher gears (smaller) requires greater pedaling effort, but takes you a greater distance with each pedal stroke. The larger cogs on the rear freewheel produce lower gear ratios. Pedaling in the lower cogs (larger) requires less pedaling effort, but takes you less distance with each pedal stroke. Moving the chain from a smaller to larger cog results in a “downshift” or easier pedal stroke. Moving the chain from a larger to smaller cog, results in a “up shift” or harder pedal stroke.



NOTE

For the chain to disengage one cog and move to another, the chain must be moving forward (the rider must be pedaling forward).

Adjusting the Rear Derailleur: There are many different types of rear derailleurs available for bicycles, but they all share similar characteristics, range of adjustment and function. Below outlines some minor adjustments.

Rear Derailleur Limit Screw Adjustment:

Rear derailleurs are intended to move the chain between the rear cogs. To prevent them from being able to move the chain past the largest cog into the wheel spokes, and past the smallest cog against the frame drop out, they are equipped with limit screws (figure SFT-6). The limit screws are marked on the rear derailleur with the letters “H” (High gear) and “L” (low gear). Follow below to properly set these limits.

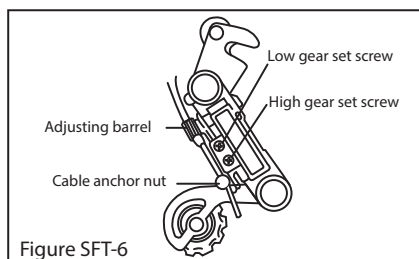


Figure SFT-6

a. With the rear wheel raised off the ground, move the right shifter while pedaling forward with your hand, to the lowest gear (the lowest gear is indicated on the shifter as “L”).

- b. With a Phillips head screwdriver, turn the limit screw marked "L" clockwise until you feel slight resistance. When resistance is met, turn the screw counter clockwise a half ($\frac{1}{2}$) turn to allow the derailleur free range of motion to reach the low gear during riding.
- c. With the rear wheel raised off the ground move the right shifter while pedaling forward with your hand, to the highest gear (the highest gear is indicated on the shifter as the greatest number).
- d. With a Phillips head screwdriver, turn the limit screw marked "H" clockwise until you feel a slight resistance. When resistance is met, turn the screw counter clockwise a half ($\frac{1}{2}$) turn to allow the derailleur free range of motion to reach the highest gear during riding



The limit screws are set during assembly at the manufacturer, they should not need adjustment. If adjustment is needed, it is recommended that you take your bicycle to a qualified bicycle mechanic.



The limit screws are not used to adjust the movement of the chain between cogs.

Rear Derailleur Cable Tension Adjustment:

How accurately the rear derailleur moves the chain between cogs depends on cable tension. Depending on the type of rear derailleur your bicycle is equipped with, it could have a cable barrel adjuster at the shifter and rear derailleur, or only the shifter. Identify what configuration your bicycle has before continuing.

Gear cables naturally stretch over time. As a result of this stretching, the gears will begin to shift poorly, skip or make noise. Adjustment of the cable tension is a standard procedure in a bicycle tune up or scheduled maintenance and it is recommended that a authorized bicycle mechanic check and adjust them once every three (3) to six (6) months. The following steps outline minor cable adjustment.

- a. With the rear wheel raised off the ground pedal forward with your right hand on the drive side of the bicycle.
- b. Shift the chain so it is on the highest (smallest) rear cog and middle front chain wheel.
- c. While continuing to pedal forward, shift the chain one position to the next lower cog. (One position is indicated by a single click at the shifter).
- d. If the chain moves smoothly to the next lowest cog, continue to shift the chain lower until you have reached the lowest gear, or until the chain does not shift smoothly.
- e. If the chain does not shift smoothly between the highest and next cog, rotate the barrel adjuster at the rear derailleur, or right shifter, counter-clockwise a half ($\frac{1}{2}$) turn and repeat step "c". If it still fails to shift smoothly, rotate another half ($\frac{1}{2}$) turn. Repeat this step until the chain moves smoothly, one shifter position at a time, between each cog from highest to lowest.

f. With the rear derailleur and chain on the lowest gear (largest), shift the chain one position to the next highest gear.

g. If the chain moves smoothly to the next highest cog, continue to shift the chain lower until you have reached the highest gear, or until the chain does not shift smoothly.

h. If the chain does not shift smoothly between the lowest and the next cog, rotate the barrel adjuster at the rear derailleur, or right shifter, clockwise a half (1/2) turn and repeat Step “f”. If it still fails to shift smoothly, rotate another half (1/2) turn. Repeat this step until the chain moves smoothly, one shifter position at a time, between each cog from highest to lowest.



CAUTION

The barrel adjuster at the rear derailleur and shifter must always have half (1/2) its thread length still securely threaded into the mechanism. Failure to do so could result in the barrel adjuster breaking and damaging the rear derailleur or shifter. Do NOT over extend the barrel adjuster.



CAUTION

Do NOT attempt to adjust the derailleur by tampering with the derailleur anchor bolt; derailleur cable anchor bolt or derailleur pulley bolts. If you do not experience improved shifting following these directions, or question the end result of your adjustment, do NOT ride your bicycle. Take your bicycle to a qualified bicycle mechanic for inspection.

FRONT DERAILLEUR

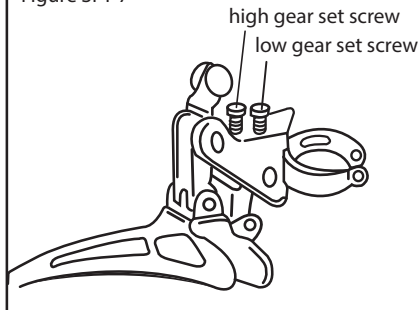
Shifting the Front Derailleur: The left shifter on your handlebar controls the front derailleur. It shifts the chain between the larger and smaller chainrings. Shifting the chain onto a smaller chainring makes pedaling easier and is called a “downshift”. Shifting to a larger chainring makes pedaling harder and is called an “up shift”. As is with the rear derailleurs, (or gear ratios) harder pedaling gears will take you a greater distance per pedal stroke, while easier pedaling gears will take less distance per pedal stroke.

Adjusting the Front Derailleur: There are many different types of front derailleurs available for bicycles, but they all share similar characteristics, range of adjustment and function. Below outlines some minor adjustments.

Front Derailleur Limit Screw Adjustment:

Front derailleurs are intended to move the chain between the front chainrings. To prevent them from being able to move the chain past the largest or smallest chainring, they are equipped with limit screws (figure SFT-7). The limit screws are marked on the front derailleur with the letters “H” (High gear) and “L” (low gear). Follow below to properly set these limits :

Figure SFT-7



- a. With the rear wheel raised off the ground, move the left shifter while pedaling forward with your hand to the lowest (smallest chainring) gear (the lowest gear is indicated on the shifter as "1").
- b. With a Philips head screwdriver, turn the limit screw marked "L" clockwise until you feel slight resistance. When resistance is met, turn the screw counter clockwise a half ($\frac{1}{2}$) turn to allow the derailleur free range of motion to reach the low gear during riding.
- c. With the rear wheel raised off the ground, move the left shifter while pedaling forward with your hand to the highest (largest chain ring) gear (the highest gear is indicated on the shifter as the greatest number).
- d. With a Philips head screwdriver, turn the limit screw marked "H" clockwise until you feel slight resistance. When resistance is met, turn the screw counter clockwise a half ($\frac{1}{2}$) turn to allow the derailleur free range of motion to reach the highest gear during riding.



CAUTION

The limit screws are set during assembly at the manufacture. They should not need adjustment. If adjustment is needed, it is recommended that you take your bicycle to a qualified bicycle mechanic.



NOTE

The limit screws are not used to adjust the movement of the chain between chainrings.

Front Derailleur Cable Tension Adjustment: How accurately the front derailleur moves the chain between chainrings, depends on cable tension. Unlike the rear derailleur, there is no barrel adjuster on the front derailleur. All the minor, or "micro" adjustment, is done from the barrel adjuster located on the left shifter. Gear cables naturally stretch over time. As a result of this stretching, the gears will begin to shift poorly, skip or make noise. Adjustment of the cable tension is a standard procedure in a bicycle tune up or scheduled maintenance. It is recommended that a qualified bicycle mechanic check and adjust them once every three (3) to six (6) months. The following steps outline minor cable adjustment.

- a. With the rear wheel raised off the ground, pedal forward with your right hand while on the drive side of the bicycle.
- b. Shift the chain so it is on the lowest (smallest) chain ring and lowest (largest) rear cog.
- c. While continuing to pedal forward, shift the chain one position to the next largest chainring. One position is indicated by a single click at the shifter. In many cases, the left shifter is not indexed and does not click to indicate a change of gears. In this case, refer to the visual indicator on the shifter to identify when you have changed gears.
- d. If the chain moves smoothly to the next largest chainring, continue to shift the chain until you have reached the largest outer chainring or until the chain does not shift smoothly.
- e. If the chain does not shift smoothly between the lowest and middle chainring, rotate the barrel adjuster at the left shifter counter-clockwise a half ($\frac{1}{2}$) turn and repeat Step "c". If it still fails to shift smoothly, rotate another half ($\frac{1}{2}$) turn. Repeat this step until the chain moves smoothly, one shifter position at a time, between each chainring from highest to lowest.

f. With the front derailleur and chain on the highest chainring (largest), shift the chain one position to the next lowest chainring.

g. If the chain moves smoothly to the next lowest chainring, continue to shift the chain lower until you have reached the smallest chainring, or until the chain does not shift smoothly.

h. If the chain does not shift smoothly between the highest and the middle chainring, rotate the barrel adjuster at the left shifter clockwise a half (1/2) turn and repeat Step “f”. If it still fails to shift smoothly, rotate another half (1/2) turn. Repeat this step until the chain moves smoothly, one shifter position at a time, between each cog from highest to lowest.



CAUTION

The barrel adjuster at the shifter must always have half (1/2) its thread length still securely threaded into the mechanism. Failure to do so could result in the barrel adjuster breaking and damaging the shifter. Do NOT over extend the barrel adjuster.



CAUTION

Do NOT attempt to adjust the derailleur by tampering with the derailleur band clamp, derailleur cable anchor bolt or by bending the derailleur cage. If you do not experience improved shifting following these directions, or question the end result of your adjustment, do NOT ride your bicycle. Take your bicycle to a qualified bicycle mechanic for inspection.

Internal Gear Systems: This type of system does not use an external derailleur; instead the gear ratio is changed through a mechanism inside the rear hub. The shifters and rider operation are the same as an external system. Refer to the hub manufacture’s manual to learn more about adjustment, maintenance and operation.



NOTE

With new bicycles, over time, the cables will stretch or become contaminated with rust or dirt between the inner and outer casings. If you experience bad shifting or stiff brakes, the problem could be as simple as dirt, rust or kinked cables. It is recommended that you take you bicycle to a qualified bicycle mechanic for adjustment, service, or cable replacement.



CAUTION

If you notice a frayed or rusting cable, do not ride your bicycle. Have the cable replaced immediately. Riding with a frayed or rusted cable could result in a system to fail and injury to the rider.

Replaceable Derailleur Hanger: Many aluminum frames come with a replaceable rear derailleur hanger. This is the piece at the rear of the bike to which the rear derailleur mounts to. This piece is intended to break in the event an object hits or bend the rear derailleur. This ensures that both your frame and derailleur are not damaged; instead the derailleur hanger absorbs the damage of this impact. This part cannot be claimed under warranty, but can be bought as a replacement part at a fraction of the cost of a new frame and /or rear derailleur.

PEDALS

Before attempting to install, remove or tighten your pedals, it is important to understand which is the left side and which side right side of your bicycle. The right side is the drive train side, or the side with the gears. The left side is opposite from that.

Your pedals can be removed or installed by using a 15mm spanner wrench. If you have difficulty removing old or corroded pedals, it is best to use a bicycle pedal wrench, which provides more torque, or have a qualified bicycle mechanic remove them.

The right side pedal is a standard English thread. Clockwise to tighten, counterclockwise to loosen. The left side pedal is a "reverse thread". Clockwise to loosen, counterclockwise to tighten.

When installing new pedal or re-installing old ones, it is important to apply a thin layer of grease to the threads of the pedal. This will prevent corrosion and help when removing the pedals again in the future.



CAUTION

Never force a pedal thread. If you feel resistance beginning the installation or mid-way through, stop and remove the pedal. Forcing the pedal onto the crank arm can damage the threads and cause the pedal to fall off during riding. Causing injury to the rider. It is recommended that a qualified bicycle mechanic handling this installation.

WHEEL TRUING

Your wheels run straight or "true" due to an even tension of the spokes in the wheel. Wheel truing is a difficult process and requires a great amount of experience to perform. Should you notice your wheel being untrue, or hear the rims touching the brake pads as it rotates, it is recommended that you take your bicycle to a qualified bicycle mechanic for wheel adjustment.

REFLECTORS

Reflectors are supplied with all "SMS Built" bikes with a wheel diameter over 16". These reflectors are tested to the North American and European standard for reflective properties and distance and degree of visibility. It is important when riding at night, to ensure that your reflectors are clean, visible free from obstruction by any accessory, bag or clothing.

KICK STANDS

Your bicycle will come equipped with one of two types of kickstands. The first is a “centre type”, which is a traditional kickstand and does not have a locking device. The second is a rear kickstand.

Rear Kick Stands

In many cases, rear kickstands have a locking device that prevents them from moving when in the “down” position. To move the kick stand into the “up” position, which is needed for riding, push your foot against the lock release lever at the top of the kickstand (See figure KS_1).

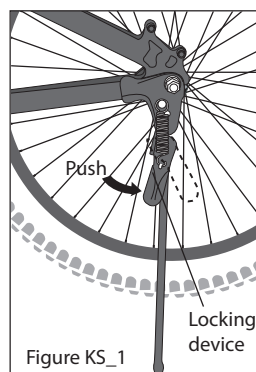


Figure KS_1



CAUTION

Ensure that the kickstand is in the “up” position before riding.

TOE CLIPS AND STRAPS

Toe clips and straps are a traditional means, which experienced cyclists use to keep their feet correctly positioned and engaged with the pedals. The toe clip positions the ball of the foot to the pedal axle, which is the optimal pedaling position to transfer maximum downward force to the pedals. While toe clips and straps give some benefit with any kind of shoe, they work most effectively with cycling shoes designed for use with toe clips. These can be bought at most bicycle retailers.



NOTE

Toe clips and straps are after market accessories and are not included with your bicycle. Not all pedals are able to have toe clips and straps attached to them. Consult your bicycle retailer to see if your bicycle pedals can be adapted to use toe clips and straps.



CAUTION

Getting into and out of pedals with toe clips and straps requires skill which can only be acquired with practice. Until it becomes a reflex action, the technique requires concentration, which can distract the rider’s attention from his or her surrounding. This can cause the rider to lose control and result in injury. Practice using toe clips and straps in a hazard free area. Keep the straps loose and don’t tighten them until your technique and confidence in getting in and out of them is warranted. Never ride in traffic with your toe clips tight.

BMX**CABLE DETANGLER (ROTOR)**

If your bicycle is equipped with a cable rotor it will be installed at the assembly factory and adjusted by the bicycle assembler prior to purchase. No additional adjustment should be necessary. If adjustment is needed after use, a qualified bicycle mechanic should do it. Please refer to the rotor manufacturer's instruction supplied with your bicycle.

Replacement cables and parts for your rotor are available at your bicycle retailer.

Refer to figure RT_1 for parts description.

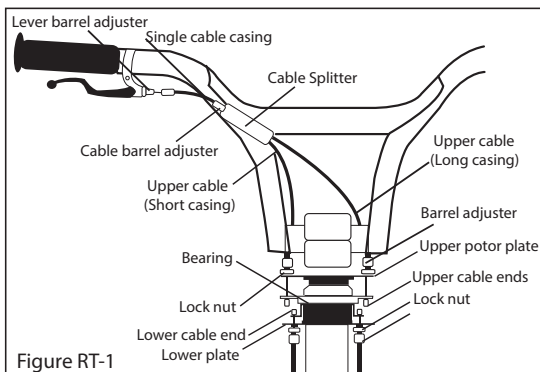


Figure RT-1

AXLE PEGS

In some cases, your bicycle may be equipped with axle pegs. These come in sets that can be installed onto the front, rear or both axles. There are typically two types of axle pegs and installation:

"Thread-on" Axle Pegs:

"Thread on" axle pegs come pre-threaded to fit onto your wheel axles. No disassembly of the wheel axle or wheel axle nuts is needed. Simply thread the end of the peg onto the wheel axle and ensure that it is tightened against the wheel axle nut. See figure PG_1.

"Bolt-on" Axle Pegs:

"Bolt on" axle pegs come without threads. They are designed to be assembled between the wheel axle nuts, and the bicycle frame or fork. To install these, remove the right wheel axle nut and washers.

With the wheel still in the frame or fork, slide the axle peg over the wheel axle and against the frame or fork. Using a long socket wrench, thread the washer and axle nut inside the opening in the peg and onto the wheel axle. Using your free hand, move the wheel back to centre in the frame or fork, and then fully tighten the axle nut. See figure PG_2.

Figure PG-1

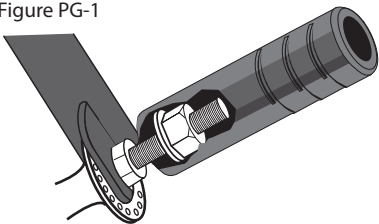
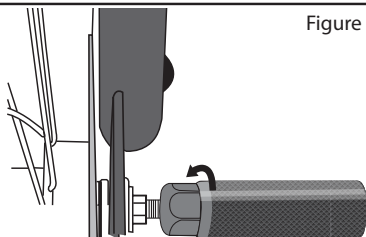


Figure PG-2



NOTE

Always keep one side of the wheel axle firmly tightened when installing axle pegs.



NOTE

Before purchasing, check to see that your wheel axles are long enough to accommodate axle pegs.



CAUTION

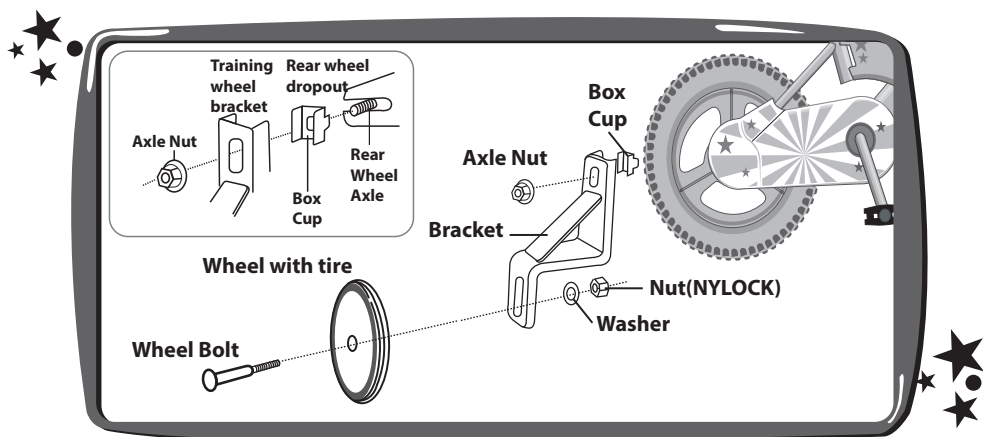
Be sure to check that all axle nuts are fully tightened after installing axle pegs. Failure to do so could result in damage to the bicycle and rider injury.

This section covers subjects that are specific to bicycles with a wheel size of 16" or smaller.

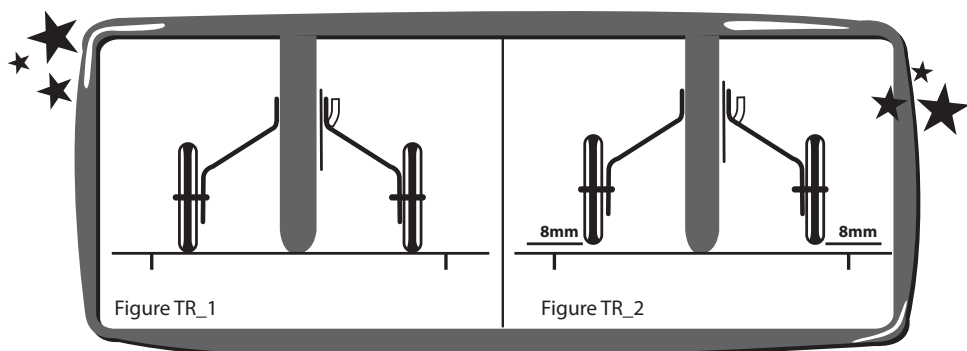
TRAINING WHEELS

Training wheels are attached to the rear wheel axle. Your bicycle could come equipped with training wheels, or you could choose to buy them as an addition, after purchasing your bicycle.

There are many different designs of training wheels and many different installation methods. For this reason, it is recommended to follow the instructions provided by the training wheel manufacturer when installing after market training wheels.



For new riders, it is recommended that the training wheels and rear tire contact the ground evenly. This will give the most stability to the bike and rider (Fig. Tr_1). As the rider becomes more experienced, it is recommended that the training wheels be raised slightly off the ground. This is done so the rider can experience a more natural riding feel by allowing the bike to lean when turning (fig. Tr_2).



The height of the training wheels can be adjusted by loosening the rear axle nuts and sliding the bracket up or down.



CAUTION

Ensure that the rear axle nuts are fully tightened after adjustment or installation before riding the bike.



NOTE

If your bicycle did not come equipped with training wheels and you are planning to install them, it is recommended that you first check to ensure the rear wheel axle is long enough to accommodate them. To install training wheels to your bicycle, please refer to the instructions supplied by the training wheel manufacture.



NOTE

Training wheels cannot be installed on a bicycle with a rear derailleur.

ACCESSORIES

There are a variety of accessories and noisemakers that can be installed on your bicycle. Please refer to the instructions supplied by the manufacturer for installation.

SAFETY

Bicycles with a wheel diameter less than 16" and a maximum saddle height of between 435-635mm are considered "sidewalk bikes". All Supercycle Built "sidewalk bikes" meet national standards for minimum levels of toxic material content. All bikes have been tested by an accredited testing laboratory and have been certified as passed. Children riding "sidewalk bikes" should be supervised at all times, not ride at night, and not ride in any area with motor vehicle traffic.

Chain Guards

All Supercycle Built kids bicycles come equipped with full or semi-full chain guards. This is a requirement and should not be removed. If the chain guard becomes damaged and exposes any of the chain or chain ring, be sure to replace the guard before riding.

How much of your bicycle's service and maintenance can be done by yourself depends on your level of skill and experience, and on whether you have the required bicycle specific tools.

Many bicycle service and repair tasks require special knowledge and tools. Do not begin any adjustments or service on your bicycle if you have the slightest doubt about your ability to properly compete them. Improper adjustment or service of a seemingly minor fix could worsen the problem, and result in costly professional repairs or the need to replace parts.



CAUTION

If you have any doubt of the result of a repair that you performed, do not ride the bicycle. Take the bicycle to a qualified bicycle mechanic to check or finish the repair.

Break in Period: Your bike will last longer and work better if you break it in before riding it hard. Control cables will stretch and spokes will "seat" during the first 30 days of a new bicycle being ridden. At that time, your bicycle will need to be adjusted. The "60 second safety check" will identify things that need readjustment, but even if everything seems fine to you, it is recommended that you have your bike adjusted at the end of the 30-day period.



NOTE

The normal signs of the bike breaking in are mis-shifting gears, loose brakes and wheels that are not true. This is normal and should be expected.

GENERAL MAINTENANCE

1. Before every ride: perform the "60 Second Safety Check"

2. After every long or hard ride: If the bike has been exposed to water, dirt, sand or grit, or at least every 160km, clean the bike and lightly oil the chain and drive train : wipe off excess oil. Wipe down the cables to free any dirt from the points when the inner wire enters and exits the outer casings.



NOTE

Different lubrications work for different climates. Talk to your bicycle retailer to find out which lubrication is best suited for your climate.



CAUTION

Never use WD-40 or other solvents to oil your chain or cables.

3. After every long or hard ride or after 10 to 20 hours of riding, squeeze the front brake and rock the bike forward and back . Does everything feel solid? If you feel or hear a clunk with each forward and backward movement of your bicycle, you probably have a loose headset. Do not perform this adjustment yourself. Take it to an qualified bicycle mechanic to perform.

4. Hold one pedal and rock it to and from the centreline of the bike. Repeat on the other pedal. Does anything feel loose? If so, you could have a loose bottom bracket bearing, or pedal bearing. Take it to a qualified bicycle mechanic to perform.

5. Take a look at the brake shoes. Are they starting to look worn or not touching the wheel rim squarely? Are you starting to hear squeaking when you brake? This is an indication that you should have the brake pads replaced.

6. Check the control cables and casings. Is there any rust? Kinks? Fraying? If so, have them replaced.

7. Squeeze each adjoining (crossing) pair of spokes on both sides of the wheel. Do they all feel about the same tension? If any feel loose, you need to have the wheels trued.

8. Check the frame, especially in the area around the tube welds, the handlebars, the stem and the seat post for any deep scratches, cracks or discolourization. These are signs of stress and fatigue to the metal. Depending on the type and location, it could be natural wear and tear, or signs that a part is liable to fail. Regardless, you should show these to your qualified bicycle mechanic.

9. Check to make sure that all after market accessories and original parts are secure and tight.

10. When riding, do you notice the chain slipping even when the gears are shifting correctly? If so, you may need to replace the chain and/or freewheel.

TORQUE REQUIREMENT

When performing routine adjustments on nuts and bolts it is recommended that a torque wrench be used to prevent overtightening and damage to the threads. The following are key components that should be tightened using a torque wrench.

Component	Torque
Front axle nuts	22 - 27 Newton metres
Rear axle nuts	24 - 29 Newton metres
Handlebar clamp nut	17 - 19 Newton metres
Head stem expander bolt	17 - 19 Newton metres
Seat clamp nuts	12 - 17 Newton metres
Seat post binder nut	15 - 19 Newton metres
Brake cable fixing nut	7 - 11 Newton metres
Brake caliper centre bolt nut	12 - 17 Newton metres
Cotterless crank nut	27 Newton metres
Forged direct-connect stem	Torque
Handlebar clamp bolt	6 - 8 Newton metres
Steerer clamp bolt	11.3 - 13.6 Newton metres

Below is a general guideline for regular service and replacement of parts on your bicycle. Should you notice any of the warning signs, either when performing the 60 second safety check before riding, or while riding, have you bicycle inspected immediately.

PART	ACTION	WHEN	WARNING SIGNS
Bicycle tune up	Service	6 - 12 months	Gears not shifting, brakes loose, wheels out of true, knocking or clunking sounds
Head set bearings	Adjustment & Grease / Replacement	6 - 12 months	Stiffness in steering, knocking or clunking sounds
Bottom bracket bearings	Adjustment & Grease / Replacement	6 - 12 months	Stiffness or looseness in pedaling, knocking or clunking sounds
Wheel hub bearings	Adjustment & Grease / Replacement	6 - 12 months	Lateral movement of the wheels, knocking or clunking sounds
Wheel truing	Adjustment	3 - 6 months	Wobble in wheels, loose spokes
Cables	Oil	1 per week	Sticking when shifting and braking
Cable replacement	Replacement	6 - 12 months	Rusted inner cables, fraying cables, poor shifting and stiff braking
Tires	Replacement	12 months	Loss of traction, reduced tire tread, bald spots
Brake pads	Replacement / adjustment	12 months	Misalignment to rim, squeaking when braking
Pedal replacement	Replacement	24 months	Knocking or clunking sounds, looseness when riding
Chain	Lubrication	1 per week	Grinding sound
Chain Replacement	Replacement	12 - 24 months	Slipping when not shifting **1
Freewheel / cassette replacement	Replacement	12 - 24 months	Slipping when not shifting **1
Front Chain ring replacement	Replacement	12 - 24 months	Slipping when not shifting
Derailleur jockey wheels	Oil / Replacement	12 - 24 months	Poor shifting
Derailleurs Replacement	Replacement	When needed	Poor shifting

(**1) Always replace a chain and freewheel / cassette at the same time. Do not replace one without replacing both.

CLEANING

To keep your bicycle running smoothly, it is essential to keep all moving parts free from dirt. Use warm soapy water to wash, and then finish with a soft dry cloth. For detailed components such as derailleurs, you may find that a small stiff paintbrush or toothbrush will be helpful.



CAUTION

Do not clean rims or disc brake rotors with any form of solvent. This can leave an oily film that seriously impairs the function and safety of the braking system. Use a clean dry cloth, or wash with soap and water.



CAUTION

Never use a high-pressure hose to wash your bicycle. High-pressure water sprayed at some areas of the bicycle and components will force grease and oil out and water in.



CAUTION

Avoid riding your bike through salt water. Salt water will corrode your bicycle frame, parts and cables.

Chrome Surfaces: Many parts and frames have chrome-plated surfaces. Chrome plated surfaces are more susceptible to rust and tarnish than regular painted surfaces. To properly care for them, we recommend a chrome-protecting barrier, which can be bought through automotive retail channels.

LUBRICATION

After cleaning your bike and before storage it is important that you lubricate your bicycle. To keep your bicycle in top running order it is important to lubricate it when new and at regular intervals, especially after riding in rain, through water, or over muddy terrain. Consult your bicycle retailer for the best kind of lubrication for your bicycle. You should pay particular attention to the following instruction : Chain: Apply oil to the top of the chain while pedaling backwards with your hand when beside the bicycle. Make sure oil is applied to the complete length of the chain. Wipe off the surplus oil with a dry cloth.

STORAGE

If your bicycle is not in regular use or is not going to be used during the winter, a few simple tips will ensure your bicycle remains in good condition.

- a. Make sure it is cleaned and lubricated before storage.
- b. Always store it in a dry area.
- c. Do not store it in direct sunlight, as the ultra-violet rays will fade the paint and dry out the tires and plastic parts.
- d. To protect the tires, we suggest you store the bicycle off the ground by hanging it.
- e. Make sure the tires are always kept slightly inflated.
- f. Do not store near electric motors.
- g. Do not cover with plastic, as this will trap condensation and cause rusting of the parts and frame.
- h. If the bicycle is being stored for a season (winter) or longer, it is recommended that you lightly coat main parts with grease to avoid rust.



CAUTION

Do NOT grease wheel rims.

GENUINE REPLACEMENT PARTS

Your bicycle is made up of over 50 different parts. Each one has been picked by our designers and product managers to ensure that they are compatible with your frame, of high quality and work in conjunction with other parts to give you the best quality and performance for your money. For this reason, it is important to only use genuine original replacement parts wherever possible. This will help to keep your bicycle working in the same condition as when you first bought it. A qualified bicycle mechanic can recommend alternative replacement parts in the case the genuine originals are not available.



CAUTION

Please note the importance of using only genuine replacement parts for safety-critical components

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SECURITY AND THEFT PREVENTION

As you read this bicycle manual a bicycle is probably being stolen, and most are never returned to their rightful owner, even if they are eventually found. To help to avoid this happening to you, there are a few simple precautions to follow :

Record the serial number of your bicycle. This is permanently marked onto the frame of your bicycle at the factory. It is located in one of a few positions. (1) Under the bottom bracket (2) on the front of the head tube (3) on the inside of the rear drop out. If you have to leave your bicycle unattended, even for a minute, make sure you lock it to a secure object with a high quality lock. These locks can be purchased at the retailer where you purchased your bicycle.



NOTE

Your bicycle retailer does not keep a record of your bicycle's serial number. It is your responsibility to record this after purchase.



NOTE

When locking your bicycle, be sure to remove any loose accessories such as pumps, saddlebags or computers. Also, be sure to lock or remove any quick release parts such as saddles and wheels.

WHAT TO TAKE

Unless you're going for a short ride in the neighborhood, or you can walk home or call someone to pick you up if something brakes, you should never go for a bike ride without the following emergency equipment:

- 4mm, 5mm, and 6mm Allen Keys (hex wrenches). These are used to tighten the majority of bolts on your bicycle.
- Patch kit and spare inner tube.
- Tire levers.
- Tire pump with correct head type to fit your bicycle's inner tube valve.
- Some kind of identification, in case of an accident.

The above items (with the exception of your is) can be purchased from your bicycler retailer.

ACCESSORIES

As you use your bicycle more often you will find that you have certain personal preferences and requirements depending on your cycling style, the distance you generally travel in a ride, and your required comfort level. To meet these requirements, there is a wide range of aftermarket accessories available to you from your bicycle retailer. Depending on the bicycle that you purchased, some will need to be professionally installed or custom fit, and other you will be able to install yourself. Regardless, they are all intended to help you in enjoy your new bicycle. Below are a few recommendations can be done by yourself :

Cycling Computer

Acting much like a car dashboard, this accessory gives you information on your bicycles and your own performance. A backlit LED screen, mounted to your handle bar, retrieves information about your speed and distance traveled from a wheel-mounted sensor. Additional features available on certain models can include, cadence, heart rate, interval stopwatch, and wattage output. It is best to have this professionally installed.

Battery Powered Lights

A must if you are riding at night, there are many front and rear lighting options available. Most can quickly be mounted to your handle bar and seat post with a screwdriver. They increase your visibility to oncoming and tailing motorists as well as provide visibility to you on dimly light streets.

Water Bottles and Cages / Hydration Solutions

If you are planning to ride for any length of time, you need to have quick access to hydration. Aluminum and plastic cages are available to mount to your bicycle to hold water bottles. You can also choose to try a hydration backpack that has a large bladder system, accessible by a drink tube attached to the shoulder strap. **Not all bicycle frames are designed to hold a water bottle cage. Please consult your retailer to be sure your bicycle can accomodate this accessory.

Cycling Clothing, Gloves and Shoes

Technical fabrics and stiff soled shoes are a staple of the modern cyclist. They will add to your comfort, performance and enjoyment of your new bicycle.

Saddles

The designer of your bicycle did their best to pick a saddle that best suits your bicycle and its intended use. That being said, they also knew they could not pick one that fits every persons body. Upgrading your saddle is an easy task and there are many to choose from. You can change your saddle completely, and go with something more comfort oriented with gel inserts, coil springs and a wider seating area, or more performance oriented with a narrower seating area, lighter materials and less flex in the base. As an alternative to a full saddle change, there are also gel covers that slip over your existing saddle with no hassle.

Horns and Bells

If you are commuting to work, or live in an area of heavy traffic, it is highly recommended that you equip your bicycle with a bell or horn.

WARRANTY

Defective Bike Frames (cracked or broken)

- Steel: Lifetime
- Aluminum: 5 years

Defective Forks (cracked or broken)

- Rigid Steel: Lifetime
- Rigid Aluminum: 5 years
- Suspension: 1 year

Defective E-bike Motors: 2 years

Defective E-bike Components: 1 year

All other defective bike components: 1 year

The warranty is also void if product is used for stunt riding, jumping, acrobatics, or similar activity, used for competitive sport, installed with a motor or modified in any way, ridden by more than one person, exceeds weight limit or is rented.

Items or services not covered by warranty: Rims, tires, tubes, brake adjustment, derailleur adjustment, bearing adjustment, abuse/misuse, normal wear and tear (brake pads and cables), wheel truing.

Returns, exchanges or refunds of bicycles are not permitted.

For further information regarding the warranty, please contact the store where the bike was purchased.