



ASSEMBLY INSTRUCTIONS & USER'S MANUAL



158146 MARAUDER 20IN BMX

THIS INSTRUCTION BOOKLET CONTAINS IMPORTANT SAFETY INFORMATION. PLEASE READ AND KEEP FOR FUTURE REFERENCE.

FOR ASSISTANCE CONTACT CUSTOMER SERVICE TOLL-FREE AT

800.451.5368

(MONDAY – FRIDAY 8:00A.M. TO 4:00P.M. E.S.T.)

MADE IN CHINA

FOR SERVICE ASSISTANCE

CALL TOLL FREE 1.800.451.5368

Monday - Friday 8:00 a.m. to 4:00 p.m. Eastern Standard Time

Congratulations on the purchase of your new bike! With proper assembly and maintenance it will offer you years of enjoyable riding!

IMPORTANT:

Carefully read and follow this manual (and any other materials included with this bike) before riding. Please retain this manual for future use. If this bike was purchased for a child, it is the responsibility of the purchaser to verify the bike has been properly assembled, and that the user has been properly trained and instructed in use of the bike.

This manual is provided to assist you and is not intended to be a comprehensive manual covering all aspects of maintaining and repairing your bicycle. The bicycle you have purchased is a complex piece of equipment that must be properly assembled and maintained in order to be ridden safely. **If you have any doubts about the assembly or your ability to properly assemble and maintain the bicycle. You must have it assembled and maintained by a professional bicycle mechanic.**

 **DANGER!** Failure to properly assemble and maintain your bicycle could result in serious injury or death to the rider.

Check and read this decal on
your bicycle before each ride:

WARNING!
ALWAYS WEAR A HELMET
Make Sure Stem And Pedals Are Tight.
Check Your Brakes.
Do Not Ride At Night.
Read Owners Manual.
For A Free Owner's Manual Or Questions Call 1-800-451-5368
MADE IN CHINA

**ALWAYS WEAR A PROPERLY FITTED
HELMET WHEN YOU RIDE YOUR
BICYCLE. DO NOT RIDE AT NIGHT. AVOID
RIDING IN WET CONDITIONS.**

RESPONSIBILITY OF THE OWNER!

IMPORTANT: Reading and following the information and instructions in this manual are essential to your ability to ride safely.

1. It is the responsibility of the owner or in the case of a younger rider the parents of the rider to be certain all assembly instructions have been followed, even if the bike has been assembled by the seller or a professional assembly company.
2. Brakes are essential to safety. Be sure they are checked and working properly before each use. Remember that any mechanical system changes condition during use and must be maintained and checked before each use.
3. Rules for bicycle use (bicycle laws) vary from location to location so be certain the rider knows and understands the rules that apply to bicycle usage in your area. Wearing a helmet and using lights and reflectors are two examples of rules which may exist and which make sense as rider safety precautions at all times.
4. Know how to operate the bicycle and all equipment on it before first use and be certain anyone else allowed to use the bike knows how to properly and safely use the bike as well.
5. There are many different types of bicycles and often these types are designed for different uses. Make sure you know what type unit you have and do not exceed its service limitations. Be sure you check and understand the bicycle classifications set forth below, including size of the unit that is proper for the rider to insure good control during use. Do not overload a unit with a rider that is too heavy or too large, and do not attempt to carry extra passengers, packages or loads on the bicycle. Do not attempt to use street bikes for off road riding.

Children's Bikes: (Max. weight of rider+luggage+bike=105lbs/47.6kg). These bikes are intended for use by children in safe areas with riding surfaces that are in good condition and free of traffic. Children must always ride within their abilities under parental supervision and should wear a safety helmet and use other safety equipment at all times. A parent should check the bike regularly and do required maintenance.

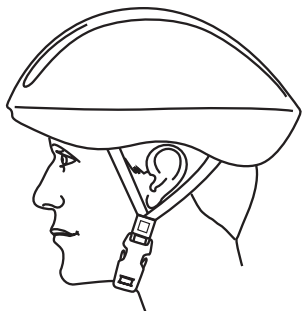
Condition 1—This is a set of conditions for the operation of a bicycle on a regular paved surface or smooth unpaved surface where the tires may unintentionally lose ground contact.

OWNER'S RESPONSIBILITY *continued*

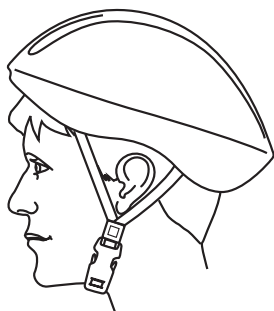
NOTE. Carefully read this manual and follow instructions. Your bicycle may come with additional instruction sheets that cover features unique to your bike. Please ensure that you read and become familiar with their contents. Always wear a CPSC approved helmet when riding your bike. Familiarize yourself with local and state traffic and use laws. Keep all materials which come with the bike for future reference.

Any major service or adjustments on your bike should be carried out by a competent adult or professional bike mechanic. If you wish to make adjustments yourself, this manual contains important tips on how to do it. **CAUTION:** Any adjustments you make are entirely at your own risk. Do **NOT** use your bike for freestyle and stunt riding, jumping or competitive events. Even if you are riding a mountain bike, you should know that off-road use or any similar activities can be dangerous, and you are warned that you assume the risk for personal injury, damages or losses incurred from such use. Do not ride your bike when any part is damaged or not working properly. **If you are unsure how to carry out repairs or maintenance on your bike, it is vital that you consult a local bike mechanic for professional assistance and support.**

WARNING: As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components may react to wear or stress fatigue in different ways. If the design life of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider. Any form of crack, scratches or change of coloring in highly stressed areas indicate that the life of the component has been reached and should be replaced.



Correct
Forehead covered



Incorrect
Forehead exposed



ALWAYS WEAR A HELMET- IT COULD SAVE YOUR LIFE!

A properly fitting, CPSC approved, bicycle helmet should be worn at all times when riding your bicycle. In addition, if you are carrying a passenger (only use an approved child safety seat), and remember, the passenger must also be wearing a helmet

The correct helmet should:

- be comfortable
- be lightweight
- have good ventilation
- fit correctly
- cover the forehead
- be securely fastened on the rider.

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WARNING / CAUTION

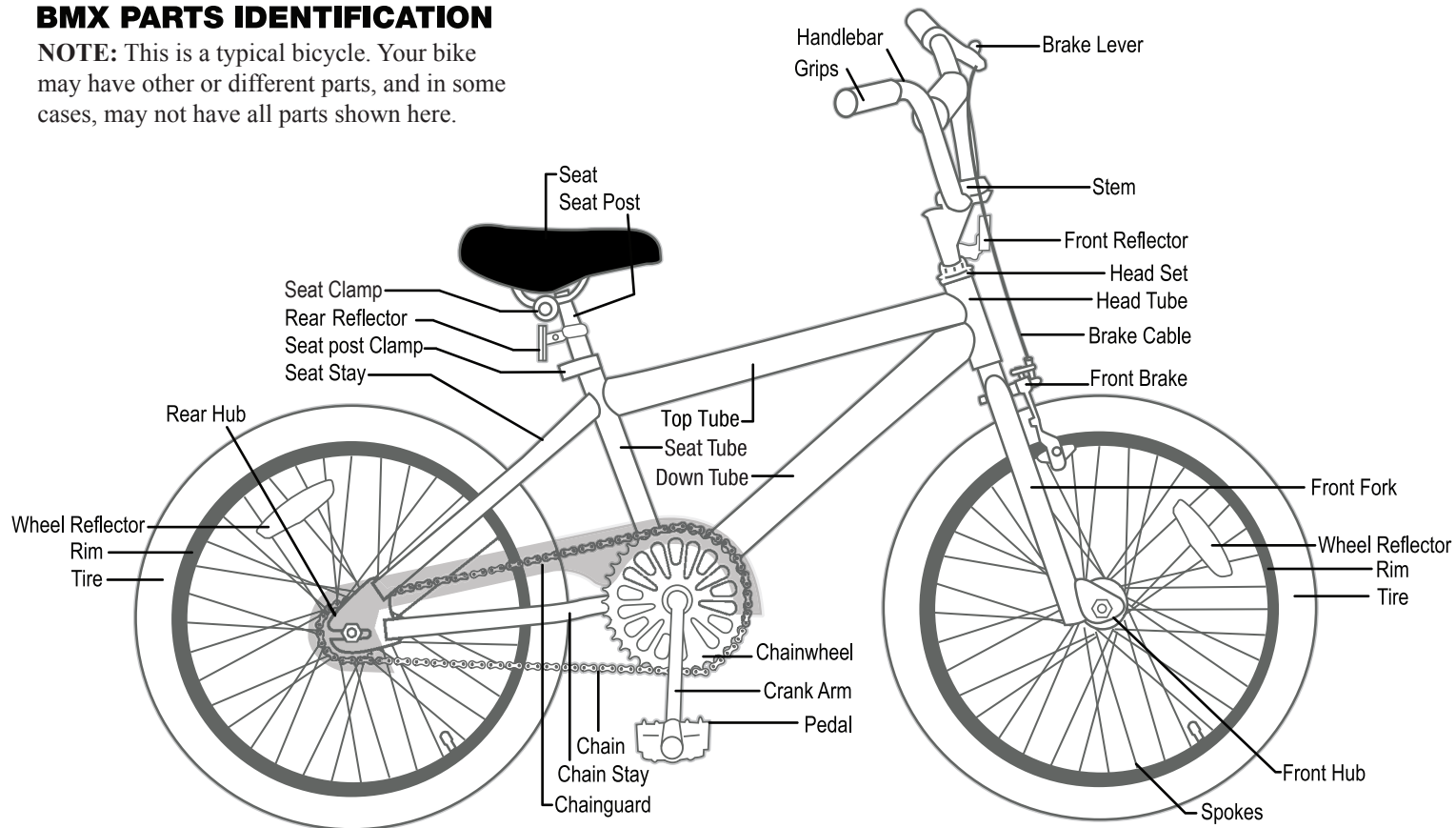
Throughout this manual you will see the words **WARNING** and **CAUTION**.

Please pay special attention to this information, as it could affect your safety as you assemble and ride your bike.

**ALWAYS WEAR A PROPERLY FITTED
HELMET WHEN YOU RIDE YOUR
BICYCLE. DO NOT RIDE AT NIGHT.
AVOID RIDING IN WET CONDITIONS.**

BMX PARTS IDENTIFICATION

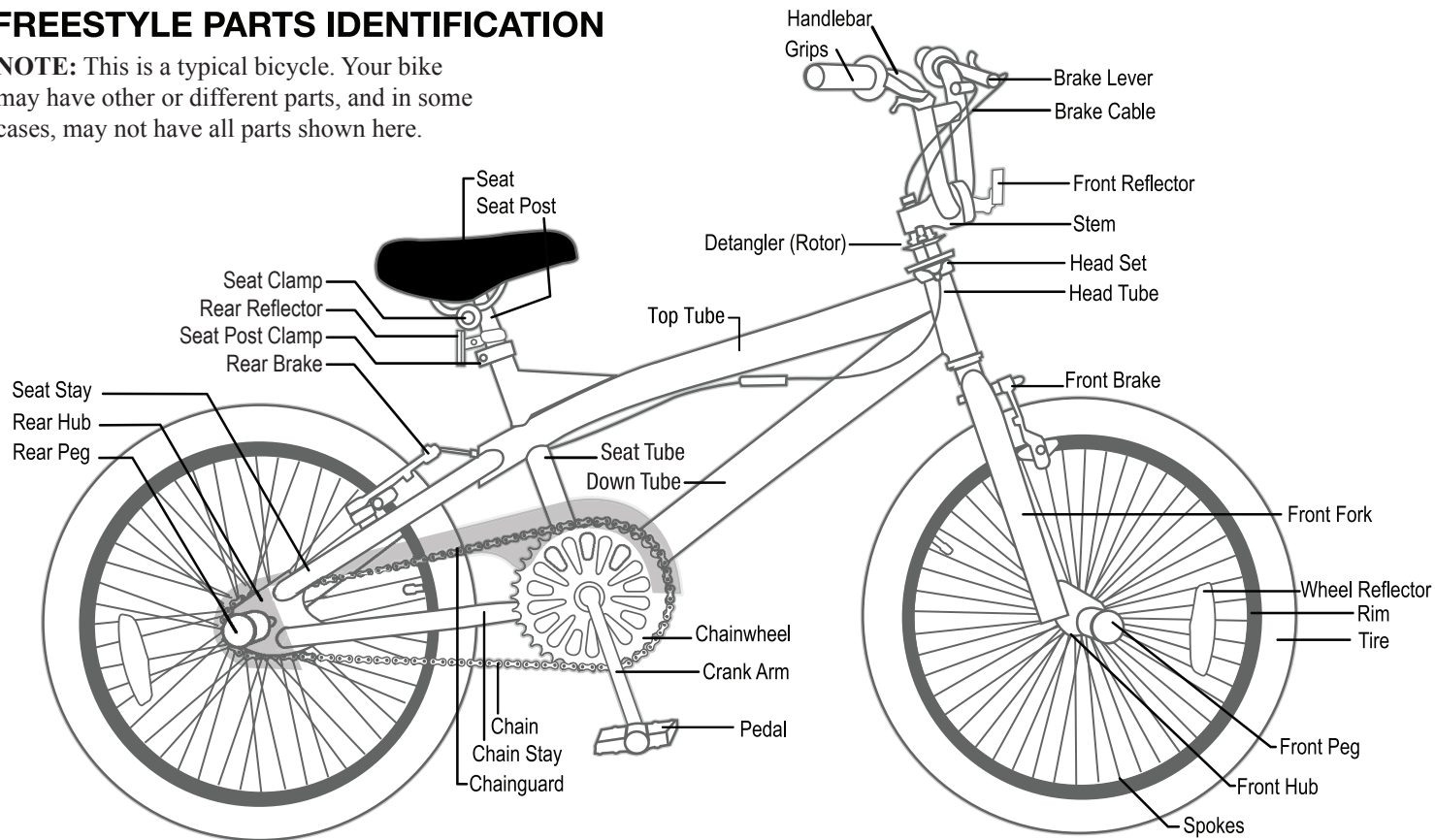
NOTE: This is a typical bicycle. Your bike may have other or different parts, and in some cases, may not have all parts shown here.



IMPORTANT: Use this Diagram when reading this manual to help you understand directions and instructions.

FREESTYLE PARTS IDENTIFICATION

NOTE: This is a typical bicycle. Your bike may have other or different parts, and in some cases, may not have all parts shown here.



IMPORTANT: Use this Diagram when reading this manual to help you understand directions and instructions.

WARNING – READ AND FOLLOW THESE RULES OF THE ROAD

In the interest of safe cycling, make sure you read and understand the owner's manual.

In this manual you will find **DANGER**, **WARNING**, **CAUTION**, **IMPORTANT**, and **NOTE** or **NOTICE**. **These are important signal words telling you to pay special attention to that text as rider safety is involved.** **DANGER** and **WARNING**: Pay special attention to these since failure to do so could result in serious injury or death to the rider or others.

CAUTION: If not followed these instructions could result in injury or mechanical failure or damage to the bicycle.

NOTE or **NOTICE** or **IMPORTANT**: These specify something that is of special interest.

IMPORTANT Before you ride this bicycle, read this **RULES OF THE ROAD** section and check that all parts are installed and working as per this manual. If you understand how the bicycle operates, you will get the best performance. When you read this instruction book, compare the illustrations to the parts identification page and the bicycle. Learn the location of all the parts and how they work.

Keep this book for future reference.

CAUTION Before you ride the bicycle, check the brake and other parts of the bike. Make sure all parts are tightened, assembled correctly and working properly. Take your first ride in a large, open, level area. If you have a problem, check the assembly instructions and follow the maintenance procedures in this book. **If you do not feel comfortable with your skills in assembling or adjusting the bike, please take it to a professional bike repairman.**

1. **WARNING - ON AND OFF ROAD CONDITIONS**: The condition of the riding surface is very important. If the surface is wet, or has sand, leaves, small rocks or other loose debris on the surface where you plan to ride, carefully decrease the speed of the bicycle and ride with extra caution. It will also take a longer time and more distance to stop. Apply the brake earlier than normal and with less force, rear brake first followed by the front brake if equipped, to help keep the bicycle from sliding or falling.

2. **NOTICE**: Most states require a full set of reflectors. Some state and local laws may require that your bike be equipped with a warning device, such as a horn or bell and most states require a light. Do NOT ride at night. Vision is quite limited at dawn, dusk and at night. If you must ride at night, take extra precautions, use front and rear lights, wear flashers on your arms, wear light-colored clothing, and plan your route to ride in well lighted areas.

3. Always wear shoes when riding a bicycle and avoid loose fitting clothes. Wear a cuff band or trouser clip to keep pants from getting caught in the chain wheel. Long sleeves, long pants, gloves, eye protection, a good helmet, elbow and knee pads are recommended.

Helmet use is required by law in many states and is always a good idea.

RULES OF THE ROAD *continued*

4. **CAUTION: WET WEATHER WARNING:** Check your brakes frequently. The ability to stop is critical. Roads are slippery in wet weather so avoid sharp turns and allow more distance for stopping. Brakes may become less efficient when wet. Leaves, loose gravel and other debris on the road can also affect stopping distance. If at all possible, do not ride in wet weather. Vision and control are impaired, creating a greater risk of accidents and injury.
5. **CAUTION:** A bicycle rider's best defense against accidents is to be alert to road conditions and traffic in the area. Do not wear anything that restricts your vision or your hearing. Ride at a safe speed. Watch for cars.
6. When riding, **ALWAYS WEAR A CPSC APPROVED BIKE HELMET**
7. Obey all traffic regulations. Most traffic regulations apply to bike riders as well as automobile operators. Observe all state and local traffic regulations, signs and signals. Check with your local police station on bicycle licensing and inspection, and where it is legal to ride your bike. Use marked bike paths whenever possible.
8. Keep to the **RIGHT SIDE**. Follow the traffic flow in a straight line close to the curb. Watch out for opening car doors and cars moving in and out of traffic. Use caution at intersections and keep both hands on the handlebars. Obey traffic signals.
9. Never carry passengers. This is dangerous and it makes the bicycle harder to control. Never carry packages that can hinder your vision or control of the bike or exceeds the max weight limit.
10. When riding in pairs or in larger groups, form a single line along the right side of the road. Set up a sensible distance between riders. Don't follow too closely.
11. Always be alert. Animals or people may dart in front of you. Give pedestrians the right-of-way. Don't ride too close to pedestrians, and don't park your bicycle where it can get in the way of foot/vehicle traffic.
12. Be careful at **all** intersections. Slow down or come to a full stop as indicated by traffic signals and look both ways before crossing.
13. Use hand signals. Always let other drivers and pedestrians know what you are going to do. Signal 100 ft. before turning unless both hands needed to control the bike.

RULES OF THE ROAD *continued*

14. **WARNING: NIGHT TIME OPERATION:** We do NOT recommend riding your bike at night. If you have an emergency that requires you to ride at night you must have proper lights and reflectors. NEVER ride at night without a helmet, taillight, a white front reflector, a red rear reflector, pedal reflectors and white wheel reflectors. You must be able to clearly see the surface where you are riding and be seen by others.
15. Cover your stem, handlebar, and top tube with safety pads for additional protection.
16. Never hitch rides. Never hold onto moving vehicles while riding. Never stunt ride or jump on your bike. Avoid head on impacts with curbs and other fixed objects.
17. **ON AND OFF ROAD OPERATION:** Avoid the following road hazards: drain grates, pot holes, ruts, soft road edges, gravel, leaves (especially when they are wet), uneven pavement, railroad crossings, manhole covers, curbs, speed bumps, puddles, and debris as all have an effect on your riding and may result in loss of control. Adjust your speed and the way you use your brakes if you must ride in such areas.
18. Do not ride your bicycle if the chain cover is not attached, or if any of the bicycle's mechanical systems are not functioning properly.
19. If any components becomes loose while riding, **(STOP!!)** immediately and tighten, or bring to a mechanic for repair.
20. If your bicycle is equipped with a quick release feature on the front and rear hubs, seat post, stem or accessory such as a trailer, or child carrier, it should be checked for proper assembly and tightness **BEFORE** each ride.

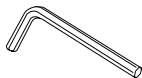
BEFORE RIDING:

Your new bicycle was assembled and tuned in the factory and then partially disassembled for shipping. The following instructions will enable you to prepare your bicycle for years of enjoyable cycling. For more details on inspection, lubrication, maintenance and adjustment of any area please refer to the relevant sections in this manual. **If you have questions about your ability to properly assemble this bicycle, please consult a professional bicycle mechanic before riding.**

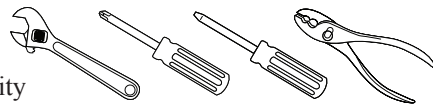


TO AVOID INJURY, THIS PRODUCT MUST BE PROPERLY ASSEMBLED BEFORE USE. WE STRONGLY RECOMMEND THAT YOU REVIEW THE COMPLETE ASSEMBLY GUIDE AND PERFORM CHECKS SPECIFIED IN THE OWNER'S MANUAL BEFORE RIDING.

- 5/6mm hex wrench
- Torque wrench
- Air pump & tire gauge to inflate tires
- Bicycle lubricant or grease



- 6" adjustable wrench
- Phillips & standard screwdrivers
- A pair of pliers with cable cutting ability

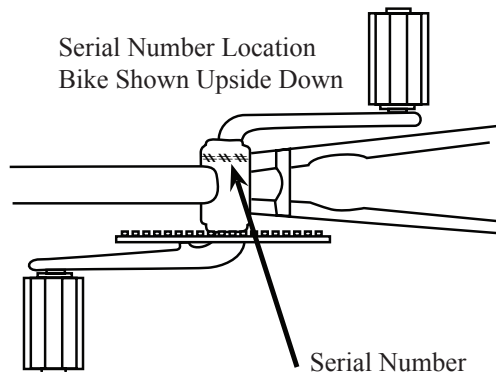


RECORD SERIAL NUMBER

Each bicycle has a serial number stamped into the bottom of the frame (See Illustration). Record this number HERE to keep for future reference. This number can be helpful to reclaim your bike if ever lost or stolen. **THIS INFORMATION IS ONLY AVAILABLE ON THE BIKE ITSELF.** There is no record of your serial number at the store purchased or with our company. It is your responsibility to record this information.

Serial Number: _____

Serial Number Location
Bike Shown Upside Down





BEFORE EVERY RIDE:

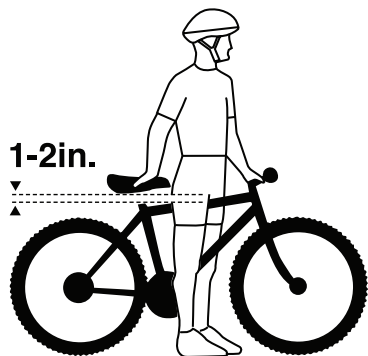
Just a minute spent before each ride can significantly improve your safety and the enjoyment of your ride. So, each time before you ride make a habit of performing the following safety checks.

- Stand in front of the bicycle facing rearward and hold the front wheel securely between your legs. Try to twist the handlebar and verify that they do not move. Then pull the handlebars up, trying to lift the bike. There should be no movement.
- Try to push the front wheel from side to side and confirm that it feels tight and will not wobble. Lift the front wheel up by the handlebars and strike it downward with the heel of your hand and confirm that it is tight. Spin the front wheel and confirm that it does not wobble or contact the fork or brake pads.
- Try to lift, push down on and twist the seat to confirm that it is tight.
- Look at the connection of the pedals to the crank arm. You should see no pedal screw threads and the pedal should feel firm and be parallel to the ground.
- Apply your brake(s) and make sure that they feel firm to the touch, and then spin the wheel(s). Apply the brakes. They should stop the wheel(s).
- Check to be sure that fenders and accessories are firmly attached and will not contact any moving parts. Make sure all reflectors are in position and not broken.

Now, put on your bicycle safety helmet and enjoy your ride. Your safety is well worth ***just a minute***. Also, be sure to read and follow the warnings and instructions in the Assembly, Maintenance and other sections of this manual.

CORRECT FRAME SIZE

When selecting a new bicycle, the correct choice of frame size is a very important safety consideration. The ideal clearance will vary between types of bicycles and rider preference. This makes straddling the frame when off the saddle easier and safer in situations such as sudden traffic stops. Women can use a man's bicycle to determine the correct size women's model. Also remember that a bicycle that is too large or too small for a rider makes control of the unit more difficult.



THERE SHOULD BE A CLEARANCE OF NO LESS THAN 1-2 INCHES BETWEEN THE GROIN AREA OF THE INTENDED RIDER AND THE TOP TUBE OF THE BICYCLE, WHILE THE RIDER STRADDLES THE BICYCLE WITH BOTH FEET FLAT ON THE GROUND.



THE SEATPOST “MINIMUM INSERTION” / “MAXIMUM HEIGHT” MARK SHOULD NOT BE VISIBLE WHEN THE SEAT POST IS INSERTED INTO THE SEAT MAST OF THE BIKE. DO NOT RAISE THE SEAT POST BEYOND THIS MARK. THE SEAT POST OR FRAME MAY BREAK CAUSING YOU TO LOSE CONTROL AND FALL. ALWAYS CHECK TO MAKE SURE SEAT POST ADJUSTING MECHANISM IS TIGHTENED SECURELY BEFORE RIDING.

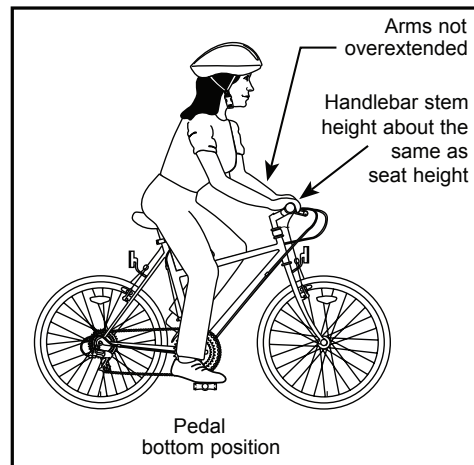
RIDING POSITION

SADDLE HEIGHT

In order to obtain the most comfortable riding position and offer the best possible pedaling efficiency, the seat height should be set correctly in relation to the rider's leg length. The correct saddle height should not allow leg strain from over-extension, and the hips should not rock from side to side when pedaling. While sitting on the bicycle with one pedal at its lowest point, place the ball of your foot on the pedal. The correct saddle height will allow the knee to be slightly bent in this position. Make sure also the rider's knees will not strike the handlebars when pedaling as this is an indication the bicycle is too small for the rider.

REACH

To obtain maximum comfort, the rider should not over extend his or her reach when riding. There should be a slight bend in the rider's elbows. Refer to the section regarding seat and seat posts to learn how to adjust the seat post height.



ASSEMBLING YOUR BIKE

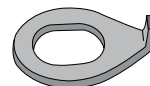
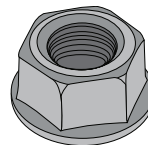
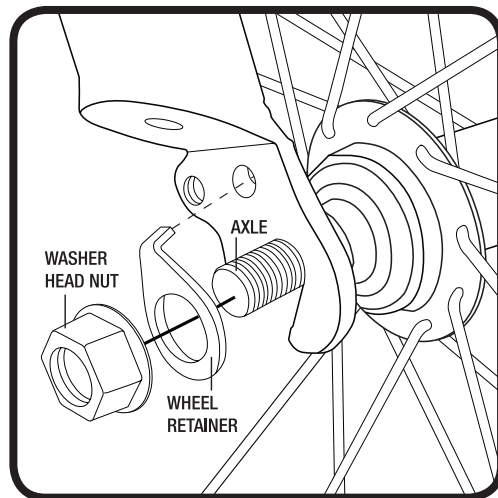
PREPARATION

It is important that you read this owner's manual before you start to assemble your bicycle. **WE RECOMMEND THAT YOU CONSULT A PROFESSIONAL BICYCLE MECHANIC IF YOU HAVE DOUBTS OR CONCERNS AS TO YOUR ABILITY TO PROPERLY ASSEMBLE, REPAIR, OR MAINTAIN YOUR BICYCLE.** Remove all parts from the shipping carton. Check to make sure no parts are loose on the bottom of the carton. Carefully remove the front wheel which is attached to the side of the bicycle for shipping. Carefully remove all other packing material from the bicycle. This includes zip ties, axle caps and material protecting the frame.

FRONT WHEEL

1. Remove the nuts, washers and wheel retainers from the front wheel.
2. Slide the wheel onto the open ends of the fork. Slip an axle retainer onto each end of the axle, and hook the retainers into the holes in the fork end. Loosely install the washer onto each end of the axle (serrated end toward the retainer), then install the hex nut. (Note: there may be a washer head nut in place of the washer and hex nut).
3. Center the wheel in the fork and tighten the axle nuts securely, alternating from one side to the other.
4. Spin the wheel to make sure that it is centered in the fork and does not wobble. If the wheel is not centered, loosen the nuts and try again.

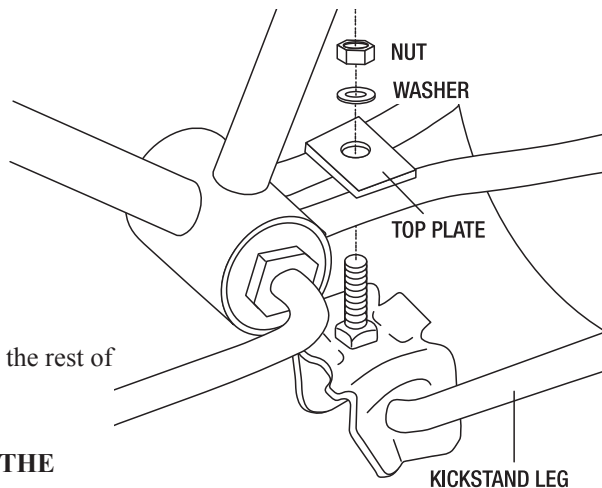
Torque requirement: 16-20 ft.. lbs.



KICKSTAND

If your bike is equipped with a kickstand, please follow the instructions below.

1. Place the bicycle in an upright position.
2. Remove the top plate from the kickstand.
3. From the left side of the bicycle (opposite side from chainring), place the kickstand in position beneath the two rear fork legs.
4. Place the top plate, flange down, onto the mounting bolt.
5. Replace the washer and nut onto the mounting bolt. Hold the kickstand arm in an up position aligned with the frame stay, then securely tighten the mounting bolt.
6. Leave the leg of the kickstand down so it will support the bicycle during the rest of the assembly process.



 **WARNING! THE KICKSTAND IS DESIGNED TO SUPPORT THE BICYCLE ONLY, NOT THE BICYCLE AND RIDER.**

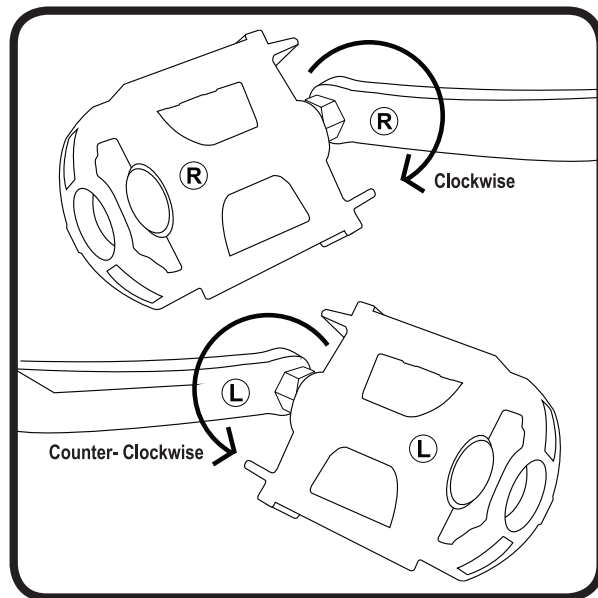
 **WARNING! USE YOUR KICKSTAND TO SUPPORT THE BIKE WHEN NOT RIDING. ALLOWING YOUR BIKE TO LAY ON IT'S SIDE CAN DAMAGE THE BRAKE LEVERS AND CAUSE AN UNSAFE RIDING CONDITION AND COULD RESULT IN INJURY TO THE RIDER.**

PEDAL INSTALLATION

1. Apply a small amount of grease to the threads of each pedal. Look for the letter “L” or “R” on the side or end of each pedal spindle (picture). Turning the spindle clockwise by hand (Picture), thread the pedal marked “R” into the crank arm on the right (drive) side of the bicycle. Make sure that you are not “cross-threading”, which can strip the threads in the crank arm. If the threads do not turn easily, don’t force them. Back the spindle out and start over. Once the pedal is threaded into the crank arm, tighten the spindle securely to the crank arm with a 15mm open end or an adjustable wrench.
2. Turning the spindle counterclockwise by hand, thread the pedal marked “L” into the crank arm on the left side of the bike. Make sure that you are not “cross-threading”, which can strip the threads in the crank arm. If the threads do not turn easily, don’t force them. Back the spindle out and start over. Once the pedal is threaded into the crank arm, tighten the spindle securely to the crank arm with a 15mm open end or an adjustable wrench.



WARNING! IMPROPERLY INSTALLED AND TIGHTENED PEDALS CAN WORK LOOSE, DAMAGING THE BICYCLE AND CAUSING POSSIBLE SERIOUS INJURY OR DEATH TO THE RIDER



Torque Requirement 15-18 ft. lbs.

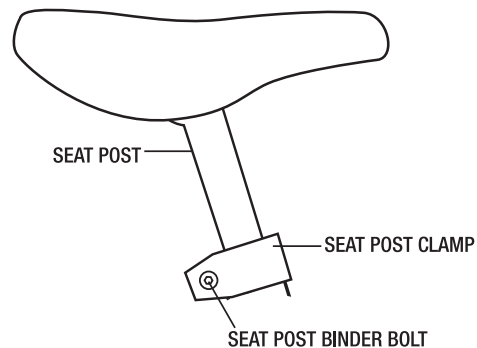
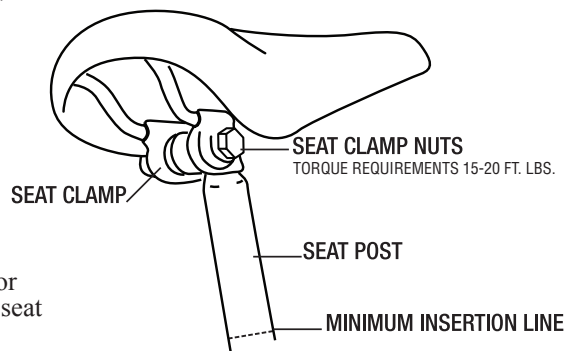
SEAT & SEAT POST ASSEMBLY

1. Loosen the seat clamp nuts.
2. Insert the top portion of the seat post into the seat clamp. Be sure the seat post is completely inserted into the seat clamp and butted tightly against the underside of the seat.
3. Tighten seat clamp nuts securely.
4. Insert the seat post (with seat attached) into the bike frame. Be sure that the seat post is inserted past the minimum insertion line.
5. Tighten the seat post binder bolt securely at the desired height.
6. Adjust the angle of the seat so that the top of the seat is parallel to the ground or comfortable to the rider.
7. Retighten the seat clamp nuts securely (torque requirement 15-20 ft. lbs). Check for tightness by attempting to twist the seat along with rocking it up and down. If the seat is loose, be sure to tighten the clamp nuts and binder bolt securely.

⚠ THE SEATPOST “MINIMUM INSERTION” / “MAXIMUM HEIGHT” MARK SHOULD NOT BE VISIBLE WHEN THE SEAT POST IS INSERTED INTO THE SEAT MAST OF THE BIKE. DO NOT RAISE THE SEAT POST BEYOND THIS MARK. THE SEAT POST OR FRAME MAY BREAK CAUSING YOU TO LOSE CONTROL AND FALL.

ALWAYS CHECK TO MAKE SURE SEAT POST ADJUSTING MECHANISM IS TIGHTENED SECURELY BEFORE RIDING. RIDING WITH AN IMPROPERLY TIGHTENED SEAT POST CAN ALLOW THE SEAT TO TURN OR MOVE AND CAUSE THE RIDER TO LOSE CONTROL

SADDLE HEIGHT: In order to obtain the most comfortable riding position and offer the best possible pedaling efficiency, the seat height should be set correctly in relation to the rider's leg length. The correct saddle height should not allow leg strain from over-extension, and the hips should not rock from side to side when pedaling. While sitting on the bicycle with one pedal at it's lowest point, place the ball of your foot on the pedal. The correct saddle height will allow the knee to be slightly bent in this position. To obtain maximum comfort, the rider should not over extend his or her reach when riding. There should be a slight bend in the rider's elbows.

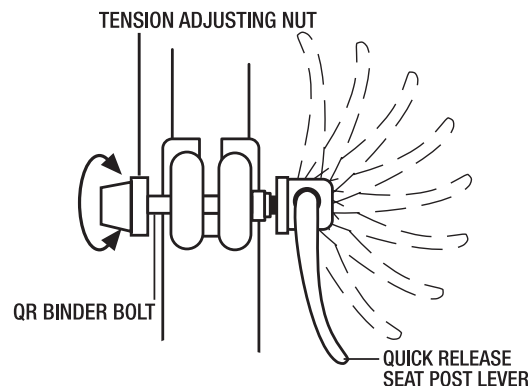
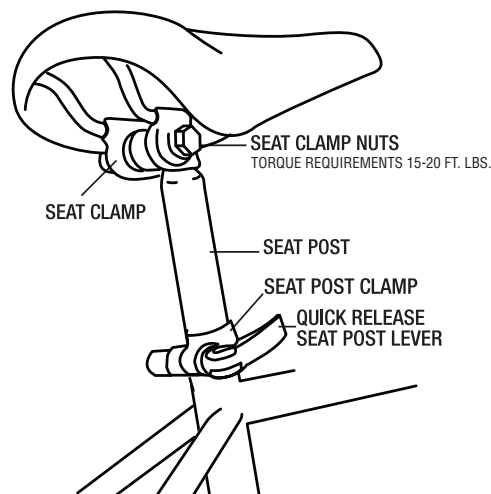


SEAT & QUICK RELEASE SEAT POST ASSEMBLY

1. Loosen the seat clamp nuts.
2. Insert the top portion of the seat post into the seat clamp. Be sure the seat post is completely inserted into the seat clamp and butted tightly against the underside of the seat.
3. Tighten seat clamp nuts securely.
4. Insert the seat post (with seat attached) into the bike frame. Be sure that the seat post is inserted past the Minimum Insertion Line.
5. Tighten the tension adjusting nut by hand and move the quick release lever to the closed position. NOTE: Less than half a turn of the tension adjusting nut can make the difference between safe clamping force and unsafe clamping force. You should feel considerable resistance while moving the lever. If not, re-open and retighten the lever, then move it to the closed position so it is in line with the top tube of the frame (as shown in the top illustration).
6. Adjust the angle of the seat so that the top of the seat is parallel to the ground or comfortable to the rider.
7. Retighten the seat clamp nuts securely (torque requirement 15-20 ft. lbs). Check for tightness by attempting to twist the seat along with rocking it up and down. If the seat is loose, be sure to tighten the clamp nuts and binder bolt securely.

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ALWAYS CHECK TO MAKE SURE SEAT POST ADJUSTING MECHANISM IS TIGHTENED SECURELY BEFORE RIDING. RIDING WITH AN IMPROPERLY TIGHTENED SEAT POST CAN ALLOW THE SEAT TO TURN OR MOVE AND CAUSE THE RIDER TO LOSE CONTROL AND FALL.



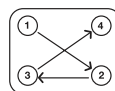
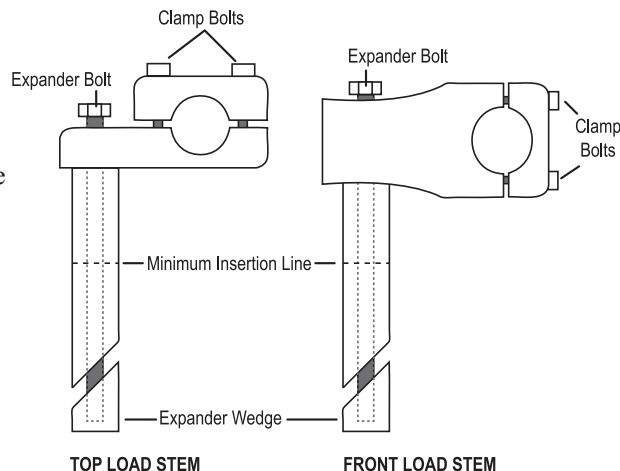
HANDLEBAR STEM

NOTE: the handlebar stem has been pre-assembled to the handlebar at the factory.

1. Remove the packing material covering the expander wedge and rotate the handlebar into an upright position. Slightly loosen the clamp bolts to allow the handlebar to rotate easily. After you have achieved a comfortable handlebar position, proceed to tighten the clamp bolts to the required torque.
2. Insert the handlebar stem into the fork tube (head of the bike) with the clamp portion of the stem towards the front of the bike. The stem must be inserted far enough to hide the minimum insertion line marked on the stem. If necessary, loosen the expander bolt to allow the stem to fit the fork tube.
3. Place a drop of oil under the head of the expander bolt. Tighten the expander bolt just enough to hold the stem in place.
4. Raise or lower the handlebar stem until you have reached the desired height for your child and then position the handlebar so it is perpendicular (90 degrees) to the front wheel. Next, tighten the expander bolt to the required torque. Be sure to have inserted the stem into the fork tube at least 2 1/2" (65mm), making certain the minimum insertion line is not visible.

⚠ WARNING! ASSEMBLER IS CAUTIONED AGAINST THE DANGER OF DAMAGING THE HANDLEBAR STEM ASSEMBLY AND POSSIBLE INJURY TO THE RIDER RESULTING FROM OVER TIGHTENING THE EXPANDER BOLT AND EXPANDER WEDGE.

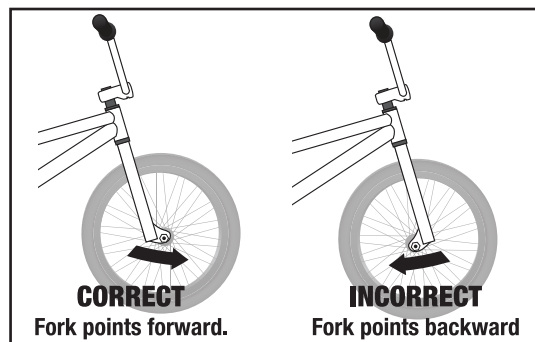
EXPANDER BOLT TORQUE REQUIREMENT 10-15 ft-lbs (13-20 N-m)
CLAMP BOLT TORQUE REQUIREMENT 8-11 ft-lbs (11-15 N-m)



Cross Tighten Clamp Bolts For Even Clamping



Clamp Bolt



CORRECT
Fork points forward.

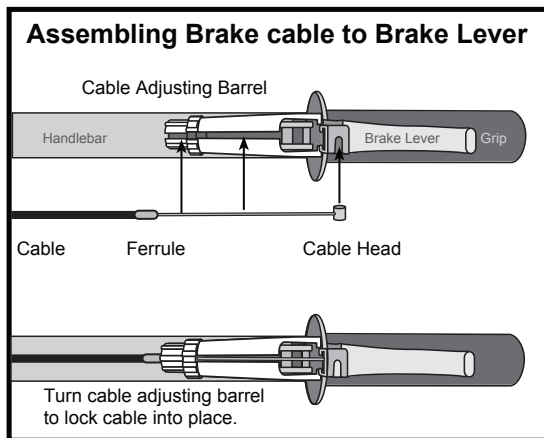
INCORRECT
Fork points backward

HAND BRAKES

Determine which type of brake your bike is equipped with and refer to the appropriate assembly instructions. If your bike comes equipped with a foot brake **ONLY**, no brake adjustment is required. For more information on brake adjustment and maintenance, refer to the maintenance section of this manual.

NOTE: A greater force is required to activate the rear brake due to longer cable length. It is important to become familiar with the use of hand brakes. When properly adjusted, hand brakes are an efficient braking system. Keep the rim and brake shoes clean and free from wax, lubricants and dirt at all times. Keep brakes properly adjusted and in good working condition at all times.

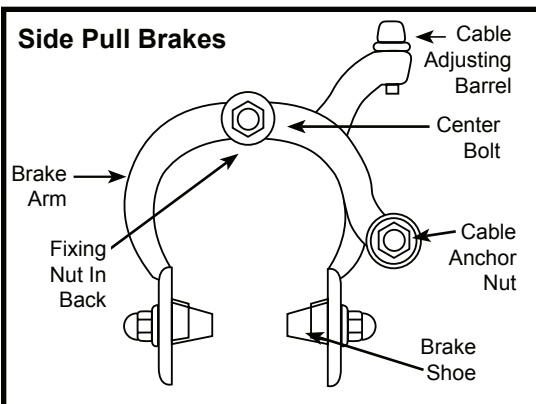
Open the brake lever and place the cable head end of the short brake cable into the lever, then close the lever. Secure the ferrule against the lever using the cable adjusting barrel.



SIDE PULL CALIPER BRAKE

Loosen the cable anchor nut and thread the brake cable through it. Tighten the nut by hand until it holds the cable in place. Squeeze the brake arms together against the rim of the wheel. Loosen the nuts on the brake shoes and turn until they match the angle of the rim. Tighten the nuts securely. Pull down on the end of the brake cable with pliers, hold taut and securely tighten the cable anchor nut. Spin the wheel, the brake shoes should not contact the rim at any point and should be an equal distance from the rim on both sides. Make sure all nuts and bolts are securely tightened. Test the brake levers 20-25 times to take care of any initial cable stretch. Be sure to tightly secure the brake fixing nut behind the fork.

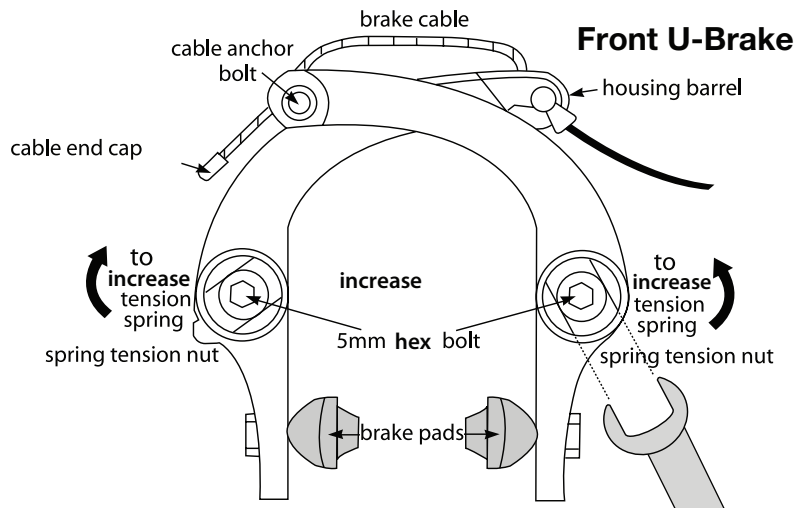
⚠ WARNING! WHEN ASSEMBLING OR ADJUSTING THE BRAKES, MAKE SURE THE CABLE ANCHOR IS TIGHT. FAILURE TO SECURELY TIGHTEN THE NUT COULD RESULT IN BRAKE FAILURE AND PERSONAL INJURY.



U-BRAKES

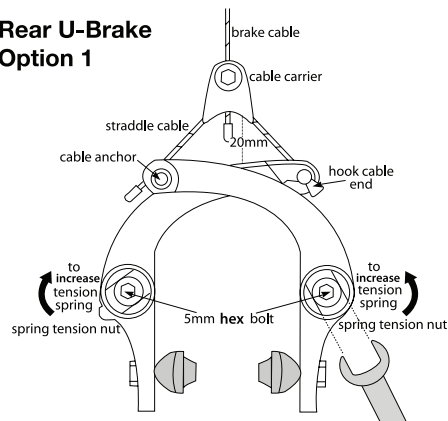
Begin by adjusting the pads of the U-brakes using a 10mm wrench. Make sure the pad is hitting the rim and not the tire. Ideally the front of the pad should hit the rim approximately 1mm before the rear pad.

Front U-Brake: Slide the brake cable and housing through the Housing Barrel and through the cable anchor bolt. Set the cable clearance of 1mm between the brake pads and the rim. Tighten the cable anchor bolt. All instructions shown are if you are looking at the bike from the front. For brake adjustments, use a 13mm box end wrench and a 5mm hex wrench. Loosen the 5mm hex bolt. For the drive side (left) of the bike turn the spring tension nut with a 13mm box end wrench counter-clockwise to increase tension on the spring. For the non-drive side (right), turn spring tension nut with a box end wrench clockwise to increase tension on the spring. When the desired tension is achieved hold the tension nut with the 13mm wrench and tighten the 5mm hex bolt. The tension on each side should be equal so that the brake arms move the same distance when the brake is activated.



Rear U-Brake Option 1: Next, tighten the Cable Carrier to the brake cable approximately 20mm from the brake arms when they are closed against the rim. Attach the Straddle cable to the carrier. Hook cable end into the brake slot, pull excess straddle cable through the cable anchor and tighten the cable anchor. Continue with “For Both Options” below.

Rear U-Brake Option 1

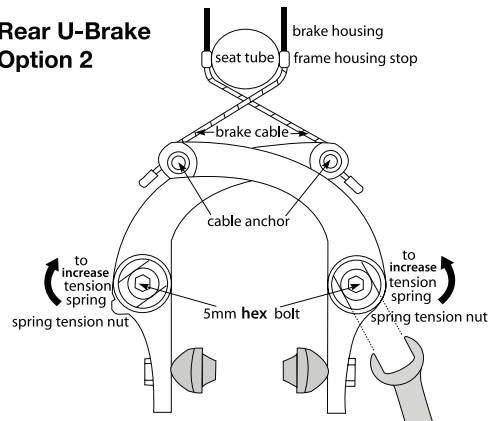


⚠ WARNING! ⚠

These brakes offer considerable braking power with little leverage force and require practice at low speeds before normal use.

Option 2: Place brake housing into the frame housing stops. Pull brake cable tightly and thread across through the opposite cable anchor bolt. Tighten cable. Repeat for other side. Continue with “For Both Options” below.

Rear U-Brake Option 2



For Both Options: For brake adjustments, use a 13mm open end wrench and a 5mm hex wrench and loosen the 5mm hex bolt. For the drive side (right) of the bike turn the spring tension nut with a 13mm open end wrench counter clockwise to increase tension on the spring. For the non-drive side (left), turn the spring tension nut with a box end wrench clockwise to increase tension on the spring. When the desired tension is achieved, hold the tension nut with the 13mm wrench and tighten the 5mm hex bolt. The tension on each side should be equal so that the brake arms move the same distance when the brake is activated. PLEASE NOTE: that some BMX frames have the U-Brake flipped and mounted below the seat stays. The direction to tension the springs will still be oriented to how the picture is oriented. Rear U-Brake Option 2. All instructions shown are if you are looking at the bike from the rear.

⚠ WARNING! DO NOT RIDE THE BIKE UNTIL THE BRAKES ARE WORKING PROPERLY. TO TEST, APPLY THE BRAKES WHILE TRYING TO PUSH THE BIKE FORWARD TO MAKE SURE THEY WILL STOP THE BIKE

CABLE DETANGLER

Refer to the illustration on page 24.

Some freestyle bicycles come equipped with a detangler system that will allow the handlebar to spin 360-degrees without binding the cables.

CAUTION: It is very important that this system is adjusted correctly. Installation should only be done by a qualified bicycle mechanic with the correct tools.

Upper Cable

1. First connect the barrel end of the upper cable to the rear brake lever. Make sure the long cable casing is on top of the short cable casing; otherwise, the upper cable will have a twist in it.
2. Route the upper cable through the handlebars (below the crossbar) with the short cable casing on the same side as the rear brake lever.
3. Connect the upper cable to the upper plate by passing the football ends of the upper cable through the threaded holes in the upper plate and connecting them to the bearing.
4. Screw the adjusting barrels into the upper plate. Don't tighten the locknuts at this time.

Lower Cable

1. Slide the cable casing through the cable guide on the frame.
2. Connect the lower cable to the lower plate by passing the football ends of the lower cable through the threaded holes in the lower plate and connecting them to the bearing.
3. Screw the adjusting barrels into the lower plate. Don't tighten the locknuts at this time.
4. Connect the lower cable to the rear brake. Don't adjust the rear brake at this time.

NOTE: Check to make sure all 11 cable casing ends on the upper and lower cables are seated correctly, and that the spring tension of the rear brake is pulling the bearing down.

Adjustment

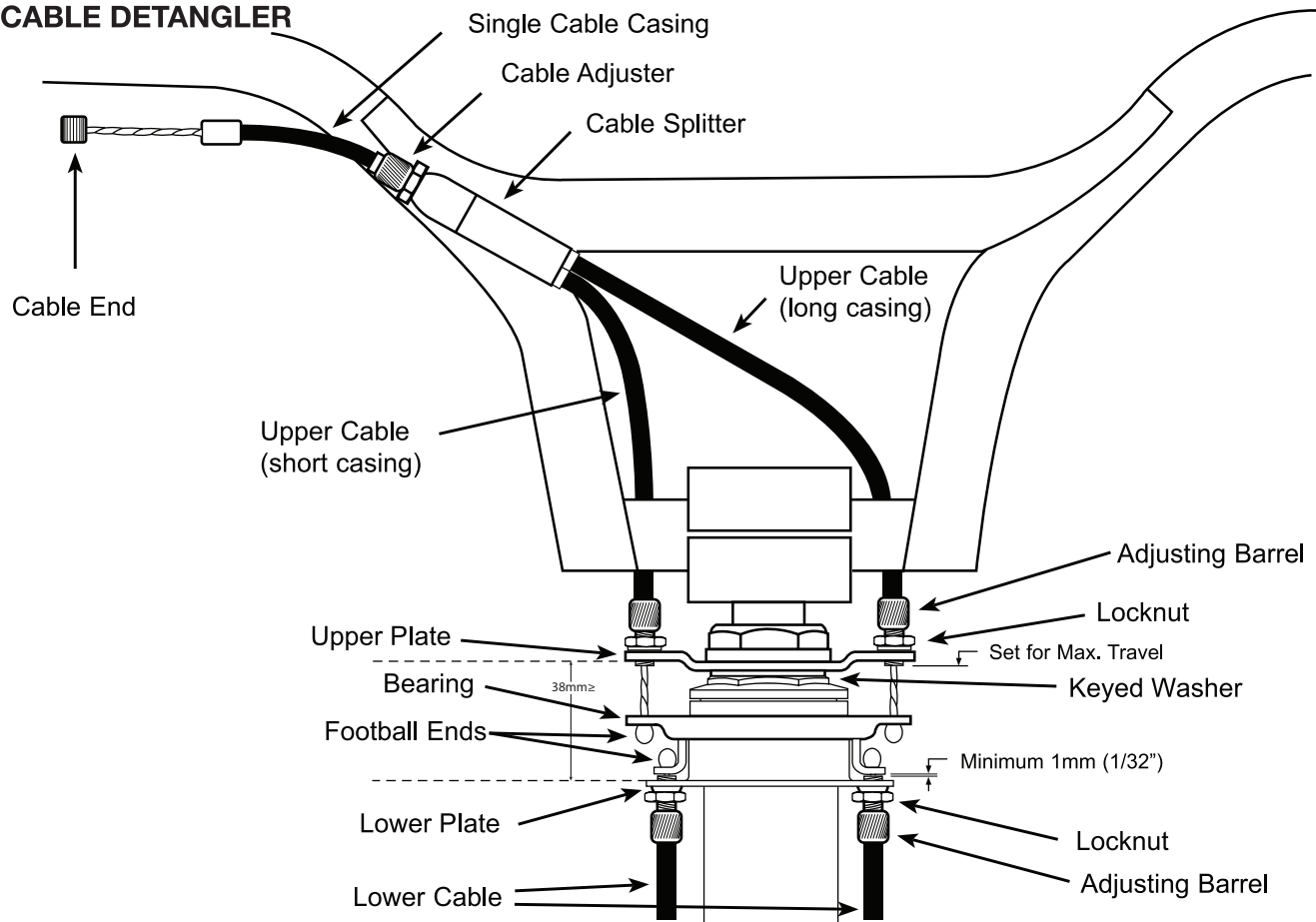
1. Screw the cable adjusters on the rear brake lever and the upper cable splitter all the way in.
2. Screw the adjusting barrels in the upper plate in (or out) to set the bearing for maximum travel. The bearing should be as far down as it can go without resting on the lower plate or the adjusting barrels screwed into the lower plate.
3. Use the adjusting barrels that are screwed into the upper plate to make the bearing parallel to the upper plate. Use a 10mm wrench to tighten the locknuts on the adjusting barrels of the upper cables.

4. Screw the lower cable adjusting barrel into (or out of) the lower plate until they are as close to the bearing as they can get without touching it.
5. Screw the cable adjuster on the upper cable splitter out until all slack is removed from the upper cable. Then screw the cable adjuster out one more turn to raise the bearing an additional 1mm away from the lower cable adjusting barrels.
CAUTION: Don't screw the cable adjuster on the upper cable splitter out more than 8mm. Use the cable adjuster on the rear brake lever if more adjustment is needed.
6. Check for bearing flop by placing the handlebars in the normal riding position, then quickly rotate the handlebars back and forth. Perform the following steps to eliminate bearing flop. NOTE: The bearing should never be allowed to rest on the lower plate or lower cable adjusting barrels.
 - a.) Screw the lower cable adjusting barrels out of (or into) the lower plate until all bearing flop is eliminated.
 - b.) Tighten the locknut of the adjusting barrels on the lower cables.
 - c.) Rotate the handlebars 180 degrees and recheck for bearing flop. If there is any bearing flop, use the loose adjusting barrels on the upper and lower cable to remove it.
 - d.) Repeat steps (6a) and (6c) until the handlebars can be rotated 360 degrees without any bearing flop.
7. Finish adjusting the rear brakes.

⚠ WARNING! DO NOT LOCK UP BRAKES. SUDDEN OR EXCESSIVE APPLICATION OF THE FRONT BRAKE MAY PITCH THE RIDER OVER THE HANDLEBARS, CAUSING SERIOUS INJURY OR DEATH. WHEN BRAKING, ALWAYS APPLY THE REAR BRAKE FIRST, THEN THE FRONT.

⚠ WARNING! DO NOT RIDE THE BICYCLE UNTIL THE BRAKES ARE FUNCTIONING PROPERLY. TO TEST, APPLY THE BRAKES WHILE TRYING TO PUSH THE BIKE FORWARD TO MAKE SURE THEY WILL STOP THE BICYCLE. NEVER RIDE A BICYCLE THAT IS NOT FUNCTIONING PROPERLY. PRESS EACH BRAKE LEVER TO MAKE SURE THAT THERE IS NO BINDING AND THAT THE BRAKE PADS PRESS HARD ENOUGH ON THE RIMS TO STOP THE BIKE. THE BRAKE PADS SHOULD BE ADJUSTED SO THEY ARE 1mm TO 2mm AWAY FROM THE RIM WHEN THE BRAKES ARE NOT APPLIED. BRAKE PADS SHOULD BE CENTERED ON THE RIM AND "TOED-IN" SO THE REAR PORTION OF EACH BRAKE PAD IS ABOUT 0.5 - 1.0mm FARTHER FROM THE RIM THAN THE FRONT PORTION OF THE BRAKE PAD.

CABLE DETANGLER

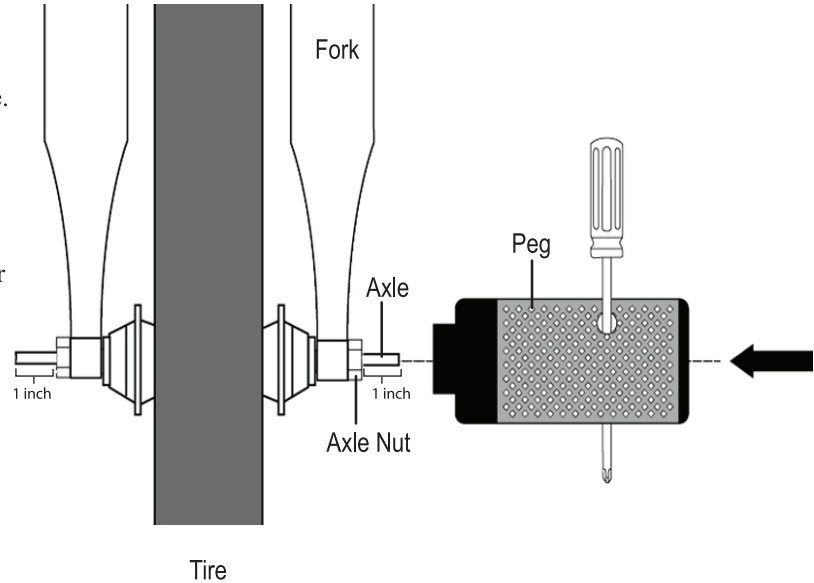


AXLE PEG ASSEMBLY

If your bike has front or rear pegs, please follow the instructions below.

1. Confirm that the axle nut is tightened securely on the axle.
2. Attach the peg to the axle by turning clockwise. A screw driver can be placed through the mounting holes to help in turning peg onto the axle.
3. Tighten against the frame or fork for a snug fit. Repeat for all pegs included.

NOTE: Some bikes come with 2 pegs, some with 4 pegs.
NOT ALL AXLES ARE ABLE TO ACCEPT PEGS.
THE AXLE SHOULD PROTRUDE AT LEAST AN INCH FROM THE AXLE NUT TO ACCEPT PEGS.
Please consult a professional bike mechanic if you have questions regarding your bike.



Tires and Tubes

After assembling your bike, it will be necessary to inflate the tires. Check the sidewall of the tire for the correct tire pressure (PSI) and inflate tires accordingly with a **MANUAL BICYCLE PUMP**. **Improper inflation is the biggest cause of tire failure. Due to the slightly porous nature of bicycle inner tubes, it is normal for your bike tires to lose pressure over time. For this reason it is critically important to maintain the proper tire inflation on your bike.**

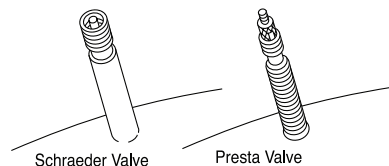
1. Your bicycle has been equipped with tires which the bike's manufacturer felt were the best balance of performance and value for the use for which the bike was intended. The tire size and pressure rating are marked on the sidewall of the tire. **CAUTION:** Pencil type automotive tire gauges and gas station air hose pressure settings can be inaccurate and should not be relied upon for consistent, accurate pressure readings. Instead, use a high quality dial gauge.

⚠ WARNING: NEVER INFLATE A TIRE BEYOND THE MAXIMUM PRESSURE MARKED ON THE TIRE'S SIDEWALL. EXCEEDING THE RECOMMENDED MAXIMUM PRESSURE MAY BLOW THE TIRE OFF THE RIM, WHICH COULD CAUSE DAMAGE TO THE BIKE AND INJURY TO THE RIDER AND OTHERS. THE BEST WAY TO INFLATE A BICYCLE TIRE TO THE CORRECT PRESSURE IS WITH A BICYCLE PUMP. GAS STATION AIR HOSES MOVE A LARGE VOLUME OF AIR VERY RAPIDLY, AND WILL RAISE THE PRESSURE IN YOUR TIRE VERY RAPIDLY. WE DO NOT RECOMMEND USING GAS STATION AIR HOSES OR ANY OTHER TYPE OF COMPRESSOR.

Tire pressure is given either as maximum pressure or as a pressure range. How a tire performs under different terrain or weather conditions depends largely on tire pressure. Inflating the tire to near its maximum recommended pressure gives the lowest rolling resistance; but also produces the harshest ride. High pressures work best on smooth, dry pavement. Very low pressures, at the bottom of the recommended pressure range, give the best performance on smooth, slick terrain such as hard-packed clay, and on deep, loose surfaces such as deep, dry sand. Tire pressure that is too low for your weight and the 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.

Some special high-performance tires have unidirectional treads: their tread pattern is designed to work better in one direction than in the other. The sidewall marking of a unidirectional tire will have an arrow showing the correct rotation direction. If your bike has unidirectional tires, be sure that they are mounted to rotate in the correct direction.

2. The tire valve allows air to enter the tire's inner tube under pressure, but doesn't let it back out unless you want it to. There are primarily two kinds of bicycle tube valves: The Schraeder Valve and the Presta Valve. The bicycle pump you use must have the fitting appropriate to the valve stems on your bicycle. The Schraeder is like the valve on a car tire, this is the type of valve stem you should have on your bike. To inflate a Schraeder valve tube, remove the valve cap and push the air hose or pump fitting onto the end of the valve stem. To let air out of a Schraeder valve, depress the pin in the end of the valve stem with the end of a key or other appropriate object.



REFLECTORS

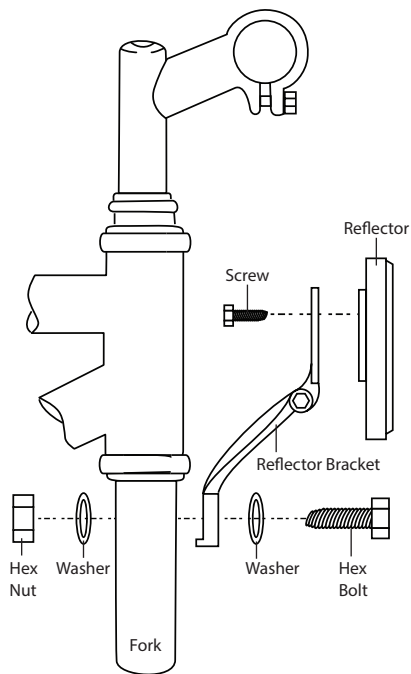
Your bike is supplied with one front (white), one rear (red), two wheel (white) reflectors and four pedal (orange) reflectors. These are an important safety and legal requirement, and should remain securely fitted and in good condition at all times. Periodically, inspect all reflectors, brackets and mounting hardware for signs of wear or damage. Replace immediately if damage is found. Some bicycles will require you to install your reflectors onto your bicycle. Please refer to the following section for instructions on all types of bicycle reflectors.

⚠ WARNING! REFLECTORS ARE IMPORTANT SAFETY DEVICES WHICH ARE DESIGNED AS AN INTEGRAL PART OF YOUR BICYCLE. FEDERAL REGULATIONS REQUIRE EVERY BICYCLE TO BE EQUIPPED WITH FRONT, REAR, WHEEL, AND PEDAL REFLECTORS. THESE REFLECTORS ARE DESIGNED TO PICK UP AND REFLECT STREET LIGHTS AND CAR LIGHTS IN A WAY THAT HELPS YOU TO BE SEEN AND RECOGNIZED AS A MOVING BICYCLIST. CHECK REFLECTORS AND THEIR MOUNTING BRACKETS REGULARLY TO MAKE SURE THEY ARE CLEAN, STRAIGHT, UNBROKEN AND SECURELY MOUNTED. HAVE YOUR DEALER REPLACE DAMAGED REFLECTORS AND STRAIGHTEN OR TIGHTEN ANY THAT ARE BENT OR LOOSE.

FORK MOUNT REFLECTORS

First insert one washer onto the hex bolt and insert hex bolt through the reflector bracket and then through the fork. Next, insert a second washer onto the bolt and thread a hex nut onto the bolt behind the fork. Tighten bolts until snug, making sure the reflector is in an upright position.

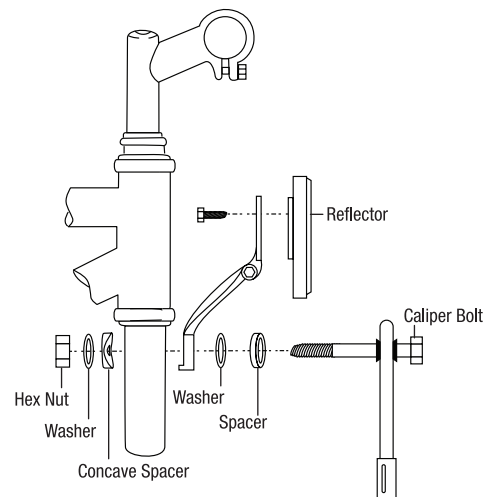
CAUTION: Be sure the reflector is vertical to the ground. If the reflector is aimed up or down, oncoming headlights may not reflect properly in the reflector.



FRONT REFLECTOR MOUNT WITH CALIPER BRAKE ASSEMBLY

First remove the hex nut from the back of the fork and pull the brake from the fork. Insert a spacer, washer and reflector bracket on to the caliper bolt. Insert the caliper bolt back into the fork and secure firmly with a concave spacer, washer and hex nut. Finally, adjust the reflector such that it is in an upright position. Tighten bolts until snug.

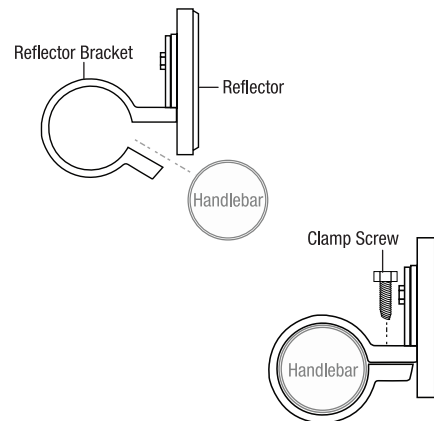
CAUTION: Be sure the reflector is vertical to the ground. If the reflector is aimed up or down, oncoming headlights may not reflect properly in the reflector.



FRONT REFLECTOR MOUNT ON HANDLEBAR

1. Remove the clamp screw from the reflector bracket.
2. Push open the bracket loop and slide in over the handlebar tube. If there is a sizing insert included with the bracket, please be sure it is inside the clamp loop before mounting.
3. Position the reflector bracket on the handlebar between the grip and crossbar, about 5" from the end of the handlebar.
4. Tighten the clamp screw securely.

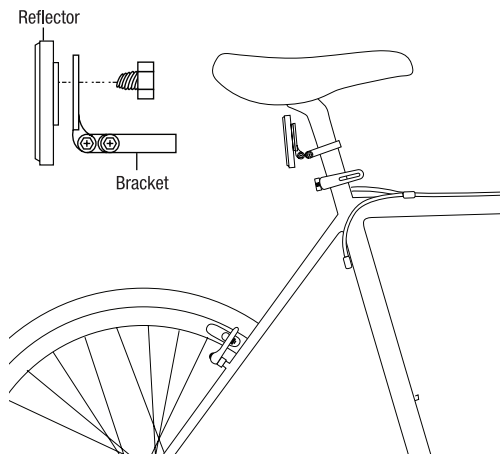
CAUTION: Be sure the reflector is vertical to the ground. If the reflector is aimed up or down, oncoming headlights may not reflect properly in the reflector.



REAR REFLECTOR MOUNT ON SEAT POST

First attach the reflector to the bracket with the reflector screw, see the top diagram. Next, remove the clamp screw and open the clamping reflector bracket. Place clamping reflector bracket around the seat post. If the clamp is too loose, insert the shim inside the clamp. Tighten the clamp screw to hold the reflector assembly in place. Finally adjust the reflector assembly in place and ensure that it is upright and facing away from the bike.

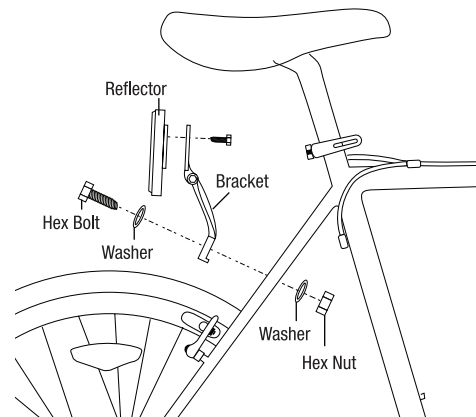
CAUTION: Be sure the reflector is vertical to the ground. If the reflector is aimed up or down, oncoming headlights may not reflect properly in the reflector.



REAR REFLECTOR MOUNT ON SEAT STAY BRACKET

First insert one washer onto the hex bolt and insert hex bolt through the reflector bracket and then through the seat stay bridge bracket. Next, insert a second washer onto the bolt and thread a hex nut onto the bolt behind the seat stay bridge bracket. Tighten bolts until snug. Finally adjust the reflector assembly in place and ensure that it is upright and facing away from the bike.

CAUTION: Be sure the reflector is vertical to the ground. If the reflector is aimed up or down, oncoming headlights may not reflect properly in the reflector.



MAINTENANCE & REPAIR

Correct routine maintenance of your new bike will ensure a longer life for your bike and a safer ride for you.

Every time you ride your bike, its condition changes. The more you ride, the more frequently maintenance will be required. We recommend you spend a little time on regular maintenance tasks. The following schedules will assist you in knowing what tasks need to be performed and how often. **If you have any doubts about your abilities to accomplish these tasks, we recommend you take your bike to a professional bicycle mechanic periodically to have them done.**

Schedule 1 - Lubrication

Frequency	Component	Lubricant	How to Lubricate
Weekly	chain derailleur wheels derailleurs brake calipers brake levers	chain lube or light oil chain lube or light oil oil oil oil	brush on or squirt brush on or squirt oil can 3 drops from oil can 2 drops from oil can
Monthly	shift levers	lithium based grease	disassemble
Every Six Months	freewheel brake cables	oil lithium based grease	2 drops from oil can disassemble
Yearly	Bottom bracket pedals derailleur cables wheel bearings headset seat pillar	lithium based grease lithium based grease lithium based grease lithium based grease lithium based grease lithium based grease	Bicycle Mechanic disassemble disassemble Bicycle Mechanic Bicycle Mechanic disassemble

Note: The frequency of maintenance should increase with use in wet or dusty conditions. Do not over lubricate - remove excess lubricant to prevent dirt build up. Never use a degreaser to lubricate your chain (WD-40™)

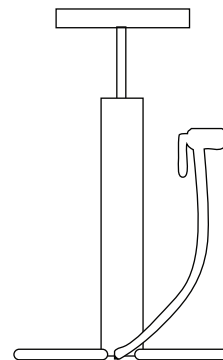
Schedule 2 - Service Checklist

NOTE: Many instructions for adjustments can be found in the assembly portion of this manual.

Frequency	Task
Before every ride	Check wheel and pedal tightness Check tire pressure Check brake operation Check wheels for loose spokes Make sure all fasteners are tightened securely
After every ride	Quick wipe down with damp cloth
Weekly	Lubrication as per schedule 1
Monthly	Lubrication as per schedule 1 Check derailleur adjustment Check brake adjustment Check brake and gear cable adjustment Check tire wear and pressure Check wheels are true and spokes tight Check hub, head set and crank bearings for looseness Check pedals are tight Check handlebars are tight Check seat and seat post are tight and comfortably adjusted Check frame and fork for trueness Check all nuts and bolts are tight
Every six months	Lubrication as per schedule 1 Check all points as per monthly service Check and replace brake pads, if required Check chain for excess play or wear
Yearly	Lubrication as per schedule 1

Tools Required for Maintenance

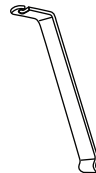
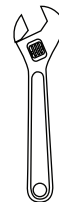
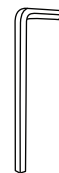
1. Open ended wrench or ring wrenches: 8mm, 9mm, 10mm, 12mm, 13mm, 14mm, 15mm
2. Open end or pedal wrench 15mm
3. Allen key wrenches: 4mm, 5mm, 6mm, 8mm
4. Adjustable wrench
5. Standard flat head screwdriver
6. Standard Phillips head screwdriver
7. Standard slip joint pliers
8. Tire pump
9. Tube repair kit
10. Tire levers



Travel Tools

We suggest you take the following items with you when going on a long bike ride:

1. Spare tube
2. Patch kit
3. Pump
4. Tire levers
5. Multi-tool
6. Cell phone or change for a pay phone



WHEELS AND TIRES

Wheel Inspection

It is most important that wheels are kept in top condition. Properly maintaining your bicycle's wheels will help braking performance and stability when riding. Be aware of the following potential problems:

- **Dirty or greasy rims:**

Caution: These can render your brakes ineffective. Do not clean them with oily or greasy materials. When cleaning, use a clean rag or wash with soapy water, rinse and air dry. Don't ride while they're wet. When lubricating your bicycle, don't get oil on the rim braking surfaces.

- **Wheels not straight:**

Lift each wheel off the ground and spin them to see if they are crooked or out of true. If wheels are not straight, they will need to be adjusted. This is quite difficult and is best left to a professional bicycle mechanic.

- **Broken or loose spokes:**

Check that all spokes are tight and that none are missing or damaged.

Caution: Such damage can result in severe instability and possibly an accident if not corrected. Again, spoke repairs are best handled by a mechanic.

- **Loose hub bearings:**

Lift each wheel off the ground and try to move the wheel from side to side. Caution: If there is movement between the axle and the hub, do not ride the bicycle. Adjustment is required.

- **Axle nuts:** Check that these are tight before each ride.

- **Quick release:** Check that these are set to the closed position and are properly tensioned before each ride.

Caution: Maintain the closed position and the correct adjustment. Failure to do so may result in serious injury.

Tire Inspection

Tires must be maintained properly to ensure road holding and stability. Check the following areas:

Inflation: Ensure tires are inflated to the pressure indicated on the sidewall of the tire. Improper inflation is the biggest cause of tire failure. Due to the slightly porous nature of bicycle inner tubes, it is normal for your tires to lose pressure over time. For this reason, it is critically important to maintain the proper tire inflation on your bike. **Caution: Use a hand or foot pump to inflate tires. NEVER inflate tires with an air compressor at a gas station. This can cause the tubes to over inflate and blowout.**

Bead Seating: When inflating or refitting the tire, make sure that the bead is properly seated in the rim.

Tread: Check that the tread shows no signs of excessive wear or flat spots, and that there are no cuts or other damage.

Caution: Excessively worn or damaged tires should be replaced.

Valves: Make sure valve caps are fitted and that valves are free from dirt. A slow leak caused by the entry of the dirt can lead to a flat tire, and possibly a dangerous situation.

Recommended Tire pressures:

The recommended pressure molded on the sidewall of your bicycle tires should match the following chart. Use this as a general guide.

BMX	35-50 p.s.i.
MTB	40-65 p.s.i.
Road Touring	70-90 p.s.i.
Road Racing	110-125 p.s.i.
Hybrid/Crossbike	60-100 p.s.i.

HOW TO FIX A FLAT TIRE

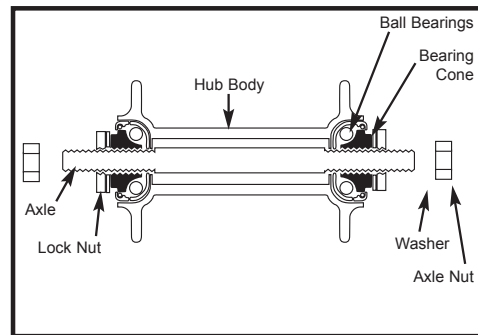
If you need to repair a tire, follow these steps:

1. Remove the wheel from the bicycle.
2. Deflate the tire completely via the valve. Loosen the tire bead by pushing it inward all the way around.
3. Press one side of the tire bead up over the edge of the rim. Note: Use tire levers, not a screwdriver, otherwise you may damage the rim.
4. Remove the tube, leaving the tire on the rim.
5. Locate the leaks and patch using a tube repair kit or replace the tube. Note: Ensure that the replacement tube size matches the size stated on the tire sidewall and that the valve is the correct type for your bicycle.
6. Match the position of the leak in the tube with the tire to locate the possible cause and mark the location on the tire.
7. Remove the tire completely and inspect for a nail, glass, etc. and remove if located. Also inspect the inside of the rim to ensure there are no protruding spokes, rust or other potential causes. Replace the rim tape which covers the spoke ends.
8. Remount one side of the tire onto the rim.
9. **Using a hand pump**, inflate the tube just enough to give it some shape.
10. Place the valve stem through the hole in the rim and work the tube into the tire. Note: Do not let it twist.
11. Using your hands only, remount the other side of the tire by pushing the edge toward the center of the rim. Start on either side of the valve and work around the rim.
12. Before the tire is completely mounted, push the valve up into the rim to make sure the tire can sit squarely in position.
13. Fit the rest of the tire, rolling the last, most difficult part on using your thumbs. Note: Avoid using tire levers as these can easily puncture the tube or damage the tire.
14. Check that the tube is not caught between the rim and the tire bead at any point.
15. **Using a hand pump**, inflate the tube until the tire begins to take shape. Check that the tire bead is evenly seated all the way around the rim. When properly seated, fully inflate the tire to the pressure marked on the sidewall.
16. Replace the wheel into the frame checking that all gears, brakes and quick release levers are properly adjusted.

HUB BEARING ADJUSTMENT

When checked, the hub bearings of either wheel will require adjustment if there is any more than slight side play.

1. Check to make sure neither locknut is loose.
2. To adjust, remove wheel from bicycle and loosen the locknut on one side of the hub while holding the bearing cone on the same side with bicycle cone wrench or flat, thin open end wrench.
3. Rotate the adjusting cone as needed to eliminate free play.
4. Re-tighten the locknut while holding the adjusting cone in position.
5. Re-check that the wheel can turn freely without excessive side play.



HEADSET INSPECTION

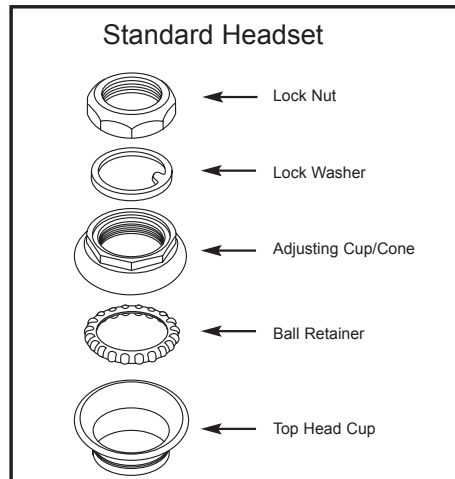
The headset bearing adjustment should be checked every month. This is important as it is the headset which locks the fork into the frame, and if loose, can cause damage or result in an accident. While standing over the frame top tube with both feet on the ground, apply the front brake firmly and rock the bicycle back and forth; if you detect any looseness in the headset, it will need adjustment. Check that the headset is not over tight by slowly rotating the fork to the right and left. If the fork tends to stick or bind at any point, the bearings are too tight.

Note: If your bike is equipped with a threadless headset, please see a qualified specialist for repairs and adjustments.

ADJUSTMENT

Loosen the headset top locknut or remove it completely along with the reflector bracket, if fitted. Turn the adjusting cup clockwise until finger tight. Replace the lock washer or reflector bracket and tighten the lock nut using a suitable wrench.

Note: Do not over tighten or bearing damage will occur.



⚠ WARNING! ALWAYS MAKE SURE THAT THE HEADSET IS PROPERLY ADJUSTED AND THAT THE HEADSET LOCKNUT IS FULLY TIGHTENED BEFORE RIDING.

⚠ WARNING! OVER TIGHTENING THE STEM BOLT OR HEADSET ASSEMBLY MAY CAUSE DAMAGE TO THE BICYCLE AND/OR INJURY TO THE RIDER.

LUBRICATION

The brake lever and brake caliper pivot points should be oiled with 2-3 drops of light oil at least every three months to ensure smooth operation and to reduce wear. Cables should be greased along their entire length, after removing them from their casings, at least every six months. Always grease new cables before fitting.

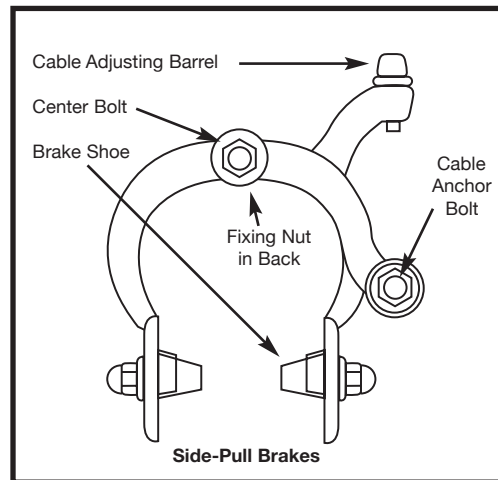
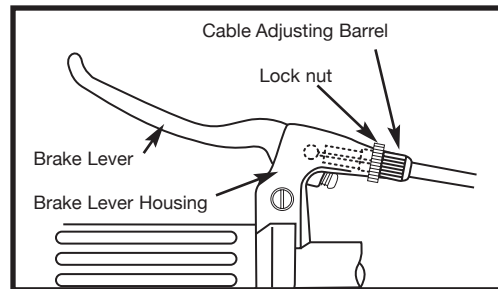
ADJUSTMENT - SIDE-PULL CALIPERS

Minor brake adjustment can be made via the cable adjusting barrel, usually located at the upper cable arm.

Caution: The brake cable adjusting barrels are for minor adjustments only. For major adjustments see the appropriate section in the manual for the type of brakes on your bicycle.

To adjust, squeeze the brake pads against the rim, loosen the locknut and turn the adjuster. Brake pad clearance should be a maximum 2mm from the rim. When correct, retighten the lock nut. If the pads cannot be set close enough to the rim in this manner, you may have to adjust the cable length. Screw the barrel adjuster 3/4 of the way in, squeeze the pads against the rim, undo the cable anchor bolt and pull the cable through with pliers. Retighten the cable anchor bolt and apply full force to the brake lever to test, then fine tune using the barrel adjuster. If one pad is closer to the rim than the other, loosen the fixing nut at the back of the brake, apply the brake to hold it centered, and retighten the fixing nut.

⚠ WARNING! ENSURE THE BRAKE FIXING NUT IS SECURED TIGHTLY. FAILURE TO DO THIS MAY CAUSE THE BRAKE ASSEMBLY TO DISLodge FROM THE FORK/FRAmE.



PEDALS

Pedals are available in a variety of shapes, sizes and materials, and each are designed with a particular purpose in mind. Some pedals can be fitted with toe clips and straps. These help to keep the feet correctly positioned and allow the rider to exert pulling force, as well as downward pressure, on the pedals. Use of toe clips with straps requires practice to acquire the necessary skill to operate them safely.

Inspection: Pedals should be inspected every month, taking note of the following areas:

- Check that the pedals are tightened securely against the crank arm. If pedals are allowed to become loose, they will not only be dangerous but will also cause irreparable damage to the cranks.
- Check that pedal bearings are properly adjusted. Move the pedals up and down, and right to left, and also rotate them by hand. If you detect any looseness or roughness in the pedal bearings then adjustment, lubrication or replacement is required.
- Ensure that the front and rear pedal reflectors are clean and securely fitted.

 **WARNING! NEVER RIDE WITH LOOSE PEDALS. ALWAYS WEAR SHOES.**

Lubrication and Adjustment: Many pedals cannot be disassembled to allow access to the internal bearings and axle. However, it is usually possible to inject a little oil onto the inside bearings, and this should be done every six months. If the pedal is the type that can be fully disassembled, then the bearings should be removed, cleaned and greased every six to twelve months. Because of the wide variety of pedal types and their internal complexity, disassembly procedures are beyond the scope of this manual and further assistance should be sought from a professional bicycle mechanic.

Attachment

Note: The right and left pedals of a bicycle each have a different thread and are not interchangeable. Never force a pedal into the incorrect crank arm. Check for the right (R) and left (L) letters on each pedal and crank arm. Match the appropriate pedal to each crank (right to right and left to left) for assembly. Insert the correct pedal into the crank arm and begin to turn the thread with your fingers only. When the axle is screwed all the way in, securely tighten using a 15mm narrow open-ended wrench so that the shoulder of the pedal spindle is securely tightened against the crank arm. If removing a pedal, remember that the right pedal axle must be turned counter clockwise, i.e. the reverse of when fitting. If replacing the original pedals with a new set, make sure the size and the axle thread is compatible with the cranks on your bicycle. Bicycles use one of two types of cranks and these use different axle threads. Your bike may be equipped with cranks that are a one piece design with no separate axle. These operate with pedals that have a 1/2" (12.7mm) thread. Bikes equipped with three piece crank sets with a separate axle, left crank and right crank, use a slightly larger 9/16" (14mm) thread.

Note: Never try and force a pedal with the wrong thread size into a bicycle crank.

CHAIN

Inspection: The chain must be kept clean, rust free and frequently lubricated in order to extend its life as long as possible. It will require replacement if it stretches, breaks, or causes inefficient gear shifting. Make sure that there are no stiff links, they must all move freely.

Lubrication

The chain should be lubricated with light oil at least every month, or after use in wet, muddy, or dusty conditions. Take care to wipe off excess oil, and not to get oil on the tires or rim braking surfaces.

Adjustment and Replacement

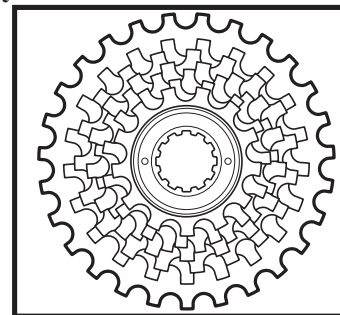
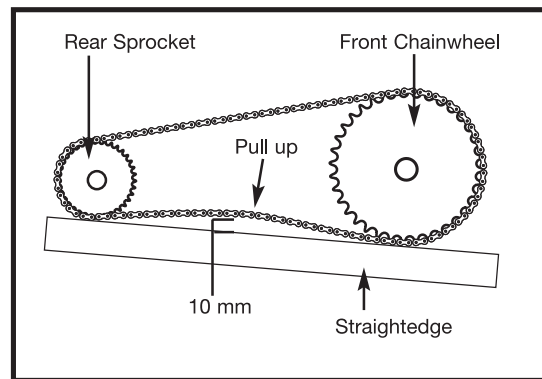
On derailleur geared bicycles the rear derailleur automatically tensions the chain. To adjust the chain on single speed freewheel, fixed gear, coaster hub braked or 3-speed hub geared bicycles:

1. Loosen the rear axle nuts (and coaster brake arm clip if fitted) and move the wheel forward to loosen, or backward to tighten, in the frame.
2. When correctly adjusted, the chain should have approximately 10mm of vertical movement when checked in the center between the chainwheel and rear sprocket. Center the wheel in the frame and re-tighten the axle nuts after any adjustment.

Chains require a special tool to fit and remove chain links, or to change the length. **We recommend that you go to a local bicycle mechanic to replace or change the length of your chain.**

FREEWHEEL

Inspection: Like the chain, the freewheel must be kept clean and well lubricated. If the chain has become worn and needs replacing, then it is likely that the freewheel will also have become worn and should also be replaced. Take the chain off the freewheel and rotate it with your hand. If you hear a grinding noise or the freewheel stops suddenly after spinning it, it may need adjustment or replacement. Such action is beyond the scope of this manual and you should consult a local bike mechanic.



Problem	Possible Cause	Remedy
Gear shifts not working properly	<ul style="list-style-type: none"> - Deraillleur cables sticking/stretched/damaged - Front or rear deraillleur not adjusted properly - Indexed shifting not adjusted properly 	<ul style="list-style-type: none"> - Lubricate/tighten/replace cables - Adjust deraillleurs - Adjust indexing
Slipping chain	<ul style="list-style-type: none"> - Excessively worn/chipped chainring or freewheel sprocket teeth - Chain worn/stretched-Stiff link in chain - Non compatible chain/chainring/freewheel 	<ul style="list-style-type: none"> - Replace chainring, sprockets and chain - Replace chain - Lubricate or replace link - Seek advice at a bicycle shop
Chain jumping off freewheel sprocket or chainring	<ul style="list-style-type: none"> - Chainring out of true - Chainring loose - Chainring teeth bent or broken -Rear or front deraillleur side-to-side travel out of adjustment 	<ul style="list-style-type: none"> - Re-true if possible, or replace - Tighten mounting bolts - Repair or replace chainring/set - Adjust deraillleur travel
Constant clicking noises when pedaling	<ul style="list-style-type: none"> - Stiff chain link - Loose pedal axle/bearings - Loose bottom bracket axle/bearings - Bent bottom bracket or pedal axle - Loose crankset 	<ul style="list-style-type: none"> - Lubricate chain / Adjust chain link - Adjust bearings/axle nut - Adjust bottom bracket - Replace bottom bracket axle or pedals - Tighten crank bolts
Grinding noise when pedaling	<ul style="list-style-type: none"> - Pedal bearings too tight - Bottom bracket bearings too tight - Chain fouling deraillleurs - Deraillleur jockey wheels dirty/binding 	<ul style="list-style-type: none"> - Adjust bearings - Adjust bearings - Adjust chain line - Clean and lubricate jockey wheels

Problem	Possible Cause	Remedy
Freewheel does not rotate	- Freewheel internal pawl pins are jammed	- Lubricate. If problem persists, replace freewheel
Brakes not working effectively	<ul style="list-style-type: none"> - Brake blocks worn down - Brake blocks/rim greasy, wet or dirty - Brake cables are binding/stretched/damaged - Brake levers are binding - Brakes out of adjustment 	<ul style="list-style-type: none"> - Replace brake blocks - Clean blocks and rim - Clean/adjust/replace cables - Adjust brake levers - Center brakes
When applying the brakes they squeal/squeak	<ul style="list-style-type: none"> - Brake blocks worn down - Brake block toe-in incorrect - Brake blocks/rim dirty or wet - Brake arms loose 	<ul style="list-style-type: none"> - Replace blocks - Correct block toe-in - Clean blocks and rim - Tighten mounting bolts
Knocking or shuddering when applying brakes	<ul style="list-style-type: none"> - Bulge in the rim or rim out of true - Brake mounting bolts loose - Brakes out of adjustment - Fork loose in head tube 	<ul style="list-style-type: none"> - True wheel or take to a bike shop for repair - Tighten bolts - Center brakes and/or adjust brakeblock toe-in - Tighten headset
Wobbling wheel	<ul style="list-style-type: none"> - Axle broken - Wheel out of true - Hub comes loose - Headset binding - Hub bearings collapsed - QR mechanism loose 	<ul style="list-style-type: none"> - Replace axle - True wheel - Adjust hub bearings - Adjust headset - Replace bearings - Adjust QR mechanism

Problem	Possible Cause	Remedy
Steering not accurate	<ul style="list-style-type: none">- Wheels not aligned in frame- Headset loose or binding- Front forks or frame bent- Stem wedge bolt not tight	<ul style="list-style-type: none">- Align wheels correctly- Adjust/tighten headset- Take bike to a bike shop for possible frame realignment
Frequent punctures	<ul style="list-style-type: none">- Inner tube old or faulty- Tire tread/casing worn- Tire unsuited to rim- Tire not checked after previous puncture- Tire pressure too low- Spoke protruding into rim	<ul style="list-style-type: none">- Replace Inner tube- Replace tire- Replace with correct tire- Remove sharp object embedded in tire- Correct tire pressure- File down spoke

LIMITED WARRANTY

This Limited Warranty extends only to the original retail purchaser, who must produce proof of purchase in order to validate any claim. This warranty is not transferable to anyone else.

What does this Limited Warranty cover? This warranty covers all parts of the bicycle to be free of defects in workmanship and materials.

What must you do to keep the Limited Warranty in effect? This warranty is effective only if:

- The bicycle is completely and correctly assembled.
- The bicycle is used under normal conditions for its intended purpose, by a person that properly fits and is capable of controlling the bicycle.
- The bicycle receives all necessary maintenance and adjustments.

What is not covered by this Limited Warranty? This warranty does not include labour and transportation charges. The bicycle is designed for general transportation and recreational use only. This warranty does not cover normal wear and tear, paint, rust, normal maintenance items, personal injury, or any damage, failure, or loss that is caused by accident, improper assembly, maintenance, adjustment, storage, or use of the bicycle.

This Limited Warranty will be void if the bicycle is ever:

- Used in any competitive sport.
- Used for stunt riding, jumping, aerobatics or similar activity.
- Installed with a motor or modified in any other way.
- Ridden by more than one person at a time.
- Rented or used for commercial purposes.
- Used in a manner contrary to the instructions in this Owner's Manual. Kent International will not be liable for incidental or consequential loss or damage, due directly or indirectly from use of this product.

For how long does this Limited Warranty last? The frame is warranted for the usable life of the bicycle. Kent International will replace the frame at no charge, should it fail in any weld point when the cycle has been used in a normal manner, and determined by our inspection. Kent will also replace the bicycle fork if it should fail at any weld point. You must receive prior authorization from Kent Customer Service, before returning any product or parts. All other components are warranted against defects for six months from the date of purchase when properly assembled and used in a normal manner.

What will Kent do? We will replace, without charge to you, any frame, fork, or component found to be defective by Kent. **CONSUMER MUST PAY ALL LABOR AND TRANSPORTATION CHARGES CONNECTED WITH THE REPAIR OR WARRANTY WORK.**

How do you get service? Phone the Customer Service Department (8am - 4pm E.S.T.) at 1-800-451-KENT. All warranty claims should be made to Kent International Inc., 155 Rt. 46 West, Fairfield, NJ 07004 USA.

What rights do you have? This limited warranty gives you specific legal rights. You may also have other rights which vary from State to State.