Owner's Manual for Multi Speed Bicycles

This Owner's Manual contains assembly, operation, and maintenance instructions.

- Check operation of brakes every time before bicycle is ridden.
- The rider must wear a helmet.
- Do not ride at night.
- Check on local bicycle laws before bicycle is ridden.
- Read the entire Owner's Manual before bicycle is assembled, ridden, or maintenance work is performed.

1C4880-A01

HBC Limited Warranty

Part or model specifications are subject to change without notice.

This Limited Warranty is the only warranty for your HBC bicycle. There are no other express warranties. The only uses for this product are described in this manual. Warranty registration is not required. This Limited Warranty extends only to the original consumer and is not transferable to anyone else

What does this Limited Warranty cover?

This Limited Warranty covers all parts of the bicycle.

What must you do to keep the Limited Warranty in effect?

- This Limited Warranty is effective only if:
 - the bicycle is completely and correctly assembled;
 - the bicycle is used under normal conditions for its intended purpose (see the following section for excluded activities);
 - the bicycle receives all necessary maintenance and adjustments.

What is not covered by this Limited Warranty?

The bicycle is designed for general transportation and recreational use only. This Limited Warranty does not cover normal wear and tear, normal maintenance items, or any damage, failure, or loss that is caused by 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;
- used in a manner contrary to the instructions in this Owner's Manual.

HBC will not be liable for incidental or consequential loss or damage, due directly or indirectly from use of this product. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

For how long does this Limited Warranty last?

The frame is warranted for life except aluminum frames which are warranted for ten (10) years. The fork is warranted for life except for shock forks which are covered by a one (1) year warranty. All other components are warranted for six (6) months from the date of purchase.

What will HBC do?

HBC will replace, without charge to you, any frame, fork, or component found to be defective by HBC. The original owner must pay all labor and transportation charges connected with the repair or warranty work.

How do you get service?

Phone the HBC Customer Service Department (E.S.T.) at 1-800-872-2453.

What rights do you have?

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

Owner's Bicycle Identification Record

NOTE: This information is only available on the bicycle itself. It is not available from HBC.

Each HBC bicycle has a Model / Serial Number stamped into the frame or printed on a label. The Model / Serial Number [1] can be found on the bottom of the crank housing, on the top of the crank housing, or on the rear of the bicycle as shown. Write this number below to keep it for future reference. If the bicycle is stolen, give this number and a description of the bicycle to the police. This will help them find the bicycle.

You will also need this number if you order parts or request service information from our Customer Service Department. Contact us (E.S.T.) at 1-800-872-2453.



Meanings of the Safety Instructions

This symbol is important. See the word "CAUTION" or "WARNING" which follows it.

The word "**CAUTION**" is before mechanical instructions. If you do not obey these instructions, mechanical damage or failure of a part of the bicycle can occur.

The word **"WARNING"** is before personal safety instructions. If you do not obey these instructions, injury to the rider or to others can occur.

The Owner's Responsibility

WARNING: This bicycle is made to be ridden by one rider at a time for general transportation and recreational use. It is not made to withstand the abuse of stunting and jumping.

If the bicycle was purchased unassembled, it is the owner's responsibility to follow all assembly and adjustment instructions exactly as written in this manual and any *"Special Instructions"* supplied and to make sure all fasteners and components are securely tightened.

If the bicycle was purchased assembled, it is the owner's responsibility, before riding the bicycle for the first time, to make sure the bicycle is assembled and adjusted exactly as written in this manual and any *"Special Instructions"* supplied and to make sure all fasteners and components are securely tightened.

Fitting the Rider to the Bicycle



To determine the correct size of bicycle for the rider:

- Straddle the assembled bicycle with feet shoulder width apart and flat on the ground
- There must be at least one inch of clearance [1] between the highest part of the top tube [2] and the crotch of the rider
- The minimum leg-length for the rider is the highest part of the top tube plus one inch [3].

Rules of the Road

WARNING: Failure of the rider to obey the following "Rules of the Road" can result in injury to the rider or to others.

- Obey all traffic regulations, signs, and signals.
- Always wear a bicycle helmet that meets Snell and CPSC safety standards, as well as local safety standards.
- Do not ride at night.
 - If you choose to ride at night:

- Purchase, install, and use a headlight and taillight. Headlights are required by all states for nighttime riding and taillights are required in some states. Battery-powered lights or flashing safety lights are also recommended.
- Make sure the reflectors of your bicycle are correctly positioned. Do not remove the reflector or replace the reflectors with lighted devices that look similar to reflectors.
- Make yourself more visible to motorists. Wear light-colored or reflective clothing, such as a reflective vest and reflective bands for your arms and legs. Use reflective tape on your helmet. Do not let anything cover the reflectors.
- Use extra caution in wet weather.
 - Ride slowly on damp surfaces because the tires will slide more easily. Apply the caliper or cantilever brakes sooner than normal as greater stopping distance is necessary, especially if the wheel rims are wet.
- Ride on the correct side of the road, in a single file, and in a straight line.
- Be aware of drain grates, soft road edges, gravel or sand, pot holes or ruts, wet leaves, or uneven paving.
 - Avoid these hazards to prevent loss of control or damage to your wheels. Cross railroad tracks at a right angle to prevent the loss of control.
- Avoid unsafe actions while riding.
 - Do not carry any passengers.
 - Do not carry any items or attach anything to your bicycle that could hinder your vision, hearing, or control.
 - Do not ride with both hands off the handlebar.

If you have an ATB (All Terrain Bike) style bicycle, obey these additional "Rules of Off-Road Riding".

- Always wear the correct safety equipment.
- Use extreme caution when not riding on pavement.
 - Do not ride in off-road conditions that are beyond your capabilities. Ride trails in relatively flat areas that have few obstacles.
 - For steeper downhill areas, lower the saddle and move it toward the rear (if possible) to shift your center of gravity down and back.
- Be sensitive to the environment, conscientious of the property on which you ride, and considerate of others you may meet on the trail.

Introduction

This Owner's Manual is made for several different bicycles. Some of the illustrations may not look exactly like the parts of the bicycle, but the instructions are correct. If the bicycle has any parts that are not described in this manual, look for separate "*Special Instructions*" that are supplied with the bicycle. Make sure the rear wheel is centered in the bicycle frame.

Do not dispose of the carton and packaging until you complete the assembly of the bicycle. This can prevent accidentally discarding parts of the bicycle.

NOTE: All of the directions (right, left, front, rear, etc.) in this manual are as seen by the rider while seated on the bicycle.

Attach and use only HBC brand accessories and replacement parts on the bicycle.





Small Adjustable Wrench (Jaws must open at least 9/16 inch.)



Flat-blade Screwdriver



Slip-Joint Pliers



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Large Adjustable Wrench (Jaws must open at least 1 1/4 inch.)

Phillips Screwdriver

Metric Allen Wrenches (Needed on some models.)

Front Wheel

If the bicycle does not have a front fender, go to Step 2.

- 1. Attach front fender [1] to the fork [2] with screws [9].
- 2. Assemble the front wheel to the fork:
 - If the axle nuts are already attached to the front wheel axle, begin by removing them with an open end wrench or adjustable wrench
 - Set the wheel into the front fork. If the tire will not go down between the brake shoes
 [4], remove one brake shoe

WARNING: Return the brake shoe to the correct position as written in the "Caliper Brake System adjustments" section.

NOTE: If the bicycle does not use nuts [7] to attach the front wheel, go to Step 3.

- Put each fender brace [5] over the end of the axle [3]
- Install wheel retainers [6] making sure the tabs are in the fork

NOTE: Some models have a front fork with a built in wheel retention feature and the wheel retainers are not required.

- Attach the front wheel with serrated nuts



WARNING: Do not use nuts without serrations to attach the front wheel.

- Put the wheel in the center of the fork and tighten both nuts to the recommended torque of 21 ft.-lbs.





- 3. Assemble the quick release mechanism to the front wheel:
 - Remove the adjusting nut [4] and one spring from the quick release mechanism
 - Put the quick release mechanism through the front wheel hub
 - Put the spring and adjusting nut back on the quick release mechanism
 - Do not tighten the adjusting nut at this time.
- 4. Assemble the front wheel to the fork:

NOTE: The words "open" and "close" are on opposite sides of the quick release lever.

- Move the quick release lever [1] to the "open" position [2] so the word "open" is pointing away from the wheel
- Put the wheel between the fork legs [3]. Make sure the axle is against the bottom of the slot in each fork leg.





WARNING: Failure to obey these steps can allow the front wheel to loosen while riding. This can cause injury to the rider or to others.



CAUTION: Operate the quick release lever by hand only. Do not use a hammer or any other tool to tighten the quick release lever.

5. Adjust and tighten the quick release mechanism:

WARNING: Do not tighten the quick release mechanism by turning the lever in a circular motion. This causes the clamping force to be too light.

You must use strong force to move the quick release lever to the "close" position. If you can easily move the lever to the "close" position, the clamping force is too light.

If the clamping force of the quick release mechanism is too light, the front wheel can loosen while riding. This can cause injury to the rider or to others.

- If the fork of your bicycle has a wheel retainer attached, move the wheel retainer so it is under the adjusting nut or quick release lever
- Open and close the quick release lever with one hand while you turn the adjusting nut with the other hand
- Tighten or loosen the adjusting nut by hand, so that you first feel resistance to the quick release lever when it is parallel with the axle
- 2 OPEN CLOSE
- Put the wheel in the center of the fork and with strong force, push the cam lever to the "close" position [5]
 - When in the "close" position, make sure the quick release lever lays along the fork
 - Make sure the both the adjusting nut and the opposite end of the quick release mechanism make marks in the fork
 - If they do not mark the fork, do Step 5 again, but tighten the adjusting nut tighter than before
- The tightening torque of the quick release lever should be between 43 and 65 in.-lbs.

Operation

To remove the wheel:

- Move the quick release lever to the "open" position.
- It is not necessary to turn the adjusting nut to remove the wheel.

Before riding the bicycle:

- Especially after parking in a public place, always check that the quick release mechanism is properly installed and tightened.
- If you are not certain that the quick release mechanism is correctly installed and tightened, do Steps 4 and 5 of these instructions.
- Make sure the quick release lever is pushed fully to the "close" position.

Front Reflector Bracket and Clear Reflector Assembly

This section covers the assembly of the front reflector to the front reflector bracket. Determine which style you have before beginning assembly.

Snap In Style

Screw In Style





Reflector Assembly

1. Assemble the clear reflector to the front reflector bracket:

WARNING: Install the clear reflector exactly as shown or it will not operate correctly.

Snap In Style

- Push the reflector [1] onto the reflector bracket [2]
- Make sure the stud [3] on the reflector goes into the hole [4] of the bracket with a "snap" sound.

Screw In Style

- Put the reflector onto the reflector bracket
- Make sure the studs on the back of the reflector go into the holes of the reflector bracket
- Put the screw [?] through the bracket and into the reflector
- Tighten screw.

Front Reflector Bracket Installation

This section covers several different placements of the front reflector bracket. Make sure the front reflector is vertical (perpendicular to the ground).

The front reflector bracket will mount on the fork or handlebar. Some models may already have the brackets and reflectors installed. If the reflector is not installed, refer to the "Front Reflector Bracket and Clear Reflector Assembly" section.

Determine which type of reflector bracket you have and its mounting location and then follow the instructions for that style.



Top of Fork

- 1. Attach the hardware to the fork:
 - Remove and discard plastic cap [5] (if installed) on fork [6]
 - Tighten bearing cone [7] by hand to make sure the bearings are tight
 - Install reflector bracket and locknut [8]
 - Tighten locknut.

Bottom of Fork

- 1. Attach the hardware to the fork:
 - Remove and discard plastic cap [5] on fork [6]
 - Tighten bearing cone [2] by hand to make sure the bearings are tight
 - Install sheath stop [3] and locknut [4]. You may not have a sheath stop. If you do not, install a keyed washer and locknut.

NOTE: The sheath stop barrel [11] is on the cable wire of the front cantilever brake. Install it during the assembly of the brake.

- Tighten locknut.
- 2. Assemble the front reflector bracket and clear reflector to the fork:
- Attach the reflector bracket to the front of the fork with a bolt [9] and self locking nut [10]
- If necessary, adjust the angle of the front reflector bracket so the clear reflector is vertical (perpendicular to the ground).

Handlebar Mount - Style 1 and Style 2

- 1. Assemble to the handlebar:
 - Put the clamp [1] as near the handlebar stem as possible

NOTE: If you have Style 1, make sure the bracket points towards the ground.

- Hold the reflector in this position and tighten the screw(s) [3].

Operation and Maintenance

WARNING: For your own safety, do not ride the bicycle if the reflectors are incorrectly installed, damaged, or missing. Make sure the front and rear reflectors are vertical. Do not allow the visibility of the reflectors to be blocked by clothing or other articles. Dirty reflectors do not work well. Clean the reflectors, as necessary, with soap and a damp cloth.



Rear Reflector Bracket and Red Reflector Assembly

This section covers the assembly of the rear reflector to the rear reflector bracket. Determine which style you have before beginning assembly.





Screw In Style

Reflector Assembly

1. Assemble the red reflector to the rear reflector bracket:

WARNING: Install the red reflector exactly as shown or it will not operate correctly.

Snap In Style

- Push the reflector [1] onto the reflector bracket [2]
- Make sure the stud [3] on the reflector goes into the hole [4] of the bracket with a "snap" sound.

Screw In Style

- Put the reflector onto the reflector bracket
- Make sure the studs on the back of the reflector go into the holes of the reflector bracket
- Put the screw [?] through the bracket and into the reflector
- Tighten screw.

Rear Reflector Bracket Installation

This section covers several different placements of the rear reflector bracket. Make sure the rear reflector is vertical (perpendicular to the ground).

The rear reflector bracket will mount on the seat post, post clamp, or rear brace. Some models may already have the brackets and reflectors installed. If the reflector is not installed, refer to the "Rear Reflector Bracket and Red Reflector Assembly" section.

Determine which type of reflector bracket you have and its mounting location and then follow the instructions for that style.



Seat Post

1. Assemble the reflector bracket to the seat post:

NOTE: If the reflector bracket is too large for the seat post, put the rubber spacer inside the clamp.

- Make sure the red reflector [4] is vertical, points toward the rear of the bicycle, and has three inches of clearance between the top of the seat and the top of the red reflector.
- Hold the red reflector in this position and tighten the screw(s).

Post Clamp

- 1. Put the rear reflector bracket on the post clamp:
 - Make sure the rear reflector bracket points up
 - Put the bolt through the reflector bracket and the post clamp [8]
 - Install nut (or nut and washer)
 - Do not tighten at this time.

Rear Brace

- 1. Install bracket on rear brace:
- Put bracket on brace so the bracket points up
- Install bolt and nut (also washer, if provided)
- Tighten securely.



Operation and Maintenance

WARNING: For your own safety, do not ride the bicycle if the reflectors are incorrectly installed, damaged, or missing. Make sure the front and rear reflectors are vertical. Do not allow the visibility of the reflectors to be blocked by clothing or other articles. Dirty reflectors do not work well. Clean the reflectors, as necessary, with soap and a damp cloth.

Spoke Reflectors

Your bicycle may have one of the following styles of spoke reflectors. Many bicycles will come with the wheel reflectors already attached. If your bicycle does not have the wheel reflectors attached, determine which style you have and follow the instructions.

Style 1 - Bolt and nut

1. Assemble a reflector between the spokes of each wheel:

NOTE: If the bicycle has a wheel disc, put the reflector in the notch of the wheel disc. The notch is shaped so the spoke reflector fits into it.

- Make sure the center of each reflector [1] is less than three inches from the inside edge of the wheel rim [2]
- Make sure the curve of the reflector [3] matches the curve of the wheel rim [4]
- Install bolt and nut, then tighten.



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Style 2 - Push pin

- Put fastener [6] over a spoke [7] and into each reflector
- Push pin straight into reflector until a "snap" sound is heard.



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Style 3 - One-quarter turn

- Put fastener [6] over a spoke [7] and into each reflector
- Turn fastener clockwise one-quarter of a turn.



Operation and Maintenance

WARNING: For your own safety, do not ride the bicycle if the reflectors are incorrectly installed, damaged, or missing. Make sure the front and rear reflectors are vertical. Do not allow the visibility of the reflectors to be blocked by clothing or other articles. Dirty reflectors do not work well. Clean the reflectors, as necessary, with soap and a damp cloth.

Handlebar and Stem

The bicycle may have different styles of handlebar stems. One style mounts inside the fork while the other mounts around the outside of the fork. Follow the instructions for the style that you have.

Assembly

1. Assemble the stem to the fork:

Inside mount style

- If necessary, assemble the stem bolt [4], washer [10], and wedge nut [11] to the stem [1]
- Point the stem [1] toward the front of the bicycle

WARNING: To prevent steering system damage and possible loss of control, the "MIN-IN" (minimum insertion) mark [3] on the stem must be inside the locknut.

- Tighten the stem bolt [4] just enough that the stem will not fall into the locknut.

Outside mount style

- If necessary, loosen the top bolt (1) of the stem (2) and the stem bolt(s) [3] only just far enough so the stem can turn on the fork
- Point the stem toward the front of the bicycle
- Tighten the top bolt of the stem
- Tighten the stem bolt(s) equally.
- 2. Assemble the handlebar to the stem:
 - Put the handlebar [5] into the stem, but do not tighten the handlebar clamp [6] at this time.







Inside mount

3. Determine the type of parts to be assembled to the handlebar:

Following are the various combination of parts that you may have to assemble. Determine which parts are most like what you have and assemble as shown. You may not have some of the parts but assemble the parts you have in the order as shown. You may have to move the handlebar to each side to install some parts.



- Make sure the brake lever to the rear brake is mounted on the right side of the handlebar
- Make sure the shifter to the rear derailleur is mounted on the right side of the handlebar
- Install grips using a mixture of five drops of liquid soap in a cup of water



WARNING: Use only soap and water to install the grips. The grips may slip while wet. Allow the grips to completely dry before riding the bicycle.

- Wet the handlebar and the inside of each grip [1] with the soap mixture
- Using a twisting motion, push each grip fully on the handlebar
- If you have bar ends, make sure they are fully on the handlebar
- If the grips are open on both ends, push a plastic plug [11] into each end of the handlebar (you may need a rubber mallet for this).

NOTE- If your bicycle came with two sets of handlebar end plugs, discard the larger plugs that are packaged with the handlebar ends. The other set will fit correctly

4. Tighten the stem bolt and the handlebar clamp:



WARNING: Do not overtighten the stem bolt. Overtightening the stem bolt can damage the steering system and cause loss of control.

- Make sure the stem is aligned with the front wheel and tighten the stem bolt
- Put the handlebar in a comfortable position for the rider



WARNING: If the handlebar clamp in not tight enough, the handlebar can slip in the stem. This can cause damage to the handlebar or stem, and can cause loss of control.

- Tighten the bolt(s) of the handlebar clamp
 - If the handlebar clamp has more than one bolt, tighten the bolts equally.
- 5. Test the tightness of the stem:
 - Straddle the front wheel between your legs
 - Try to turn the front wheel by turning the handlebar
 - If the handlebar and stem turn without turning the front wheel, realign the stem with the wheel
 - Tighten the stem bolt(s) tighter than before (about 1/2 revolution only at a time)
 - Do this test again, until the handlebar and stem do not turn without turning the front wheel.
- 6. Test the tightness of the handlebar clamp:
 - Hold the bicycle stationary and try to move the ends of the handlebar forward or backward
 - If the handlebar moves, loosen the bolt(s) of the handlebar clamp
 - Put the handlebar in the correct position
 - Tighten the bolt(s) of the handlebar clamp tighter than before
 - If the handlebar clamp has more than one bolt, tighten the bolts equally
 - Do this test again, until the handlebar does not move in the handlebar clamp.
- 7. Put the handlebar parts in the correct position:
 - Put the brake lever and shift control in a position that is comfortable to the rider
 - Make sure the brake levers do not touch the grip or the shift control during use
 - If you have a grip shift control, the clamp screw for the control is in a recess on the side on the end nearest the stem
 - Make sure the brake levers do not touch the grip or the shift control during use

- Tighten the clamp screw of each brake lever
- Move each bar end around the handlebar to a position that is comfortable to the rider
- Tighten the clamp bolt of bar end securely.
- 8. Test the tightness of the handlebar ends:
 - Hold the bicycle stationary and try to move the ends of the handlebar ends forward and backward
 - If either handlebar end moves on the handlebar, reposition it and tighten the clamp bolt tighter than before
 - If the handlebar moves in the stem, loosen the stem clamp, reposition the handlebar, and tighten the handlebar clamp tighter than before
 - Do this test again, until the handlebar ends and the handlebar do not move.
- 9. Put each brake lever in the correct position:
 - Put each brake lever in a position that is comfortable to the rider
 - Tighten the clamp screw of each brake lever.

Operation



Seat

Assembly



- 1. Install post clamp on seat tube:
- Put the clamp on the seat tube. Push the clamp [1] down so you can see 1/16 inch [2] of the seat tube [3] above the clamp.

NOTE: Some post clamps are welded in position and can not be moved.

- If the post clamp has a raised edge, make sure the raised edge is against the top of the seat tube.
- 2. Assemble the seat to the seat post or seat pillar:

The bicycle may have a seat post or seat pillar. Determine which style you have and follow the instructions.

Seat Post Style

- Put the seat post [10] fully through the seat clamp [11]
- Tighten the seat clamp so the seat [12] stays on the seat post
- If the seat clamp has a nut on each side, tighten both nuts equally

Seat Pillar Style

- If the seat has a clamp attached, remove and discard the clamp
- Put the seat rails [] between the seat clamp and tighten the clamp.







- 3. Point the seat forward and put the seat post or seat pillar into the seat tube.
 - Make sure you can not see the "MIN-IN" minimum insertion mark [13] of the seat post above the seat tube
 - Install a bolt, washer (if supplied), and nut or a quick release lever
 - Put the seat at a comfortable height for the rider



WARNING: The red reflector must be vertical, point straight toward the rear of the bicycle, and have three inches of clearance between the top of the seat and the top of the red reflector.

- Tighten the bolt and nut or quick release lever
- To tighten the quick release lever:
 - Move the quick release lever [1] to the "open" position [2] so the word "open" is pointing away from the post clamp

NOTE: The words "open" and "close" are on opposite sides of the quick release lever.

CAUTION: Operate the quick release lever by hand only. Do not use a hammer or any other tool to tighten the quick release lever.

You must use strong force to move the quick release lever to the "close" position. If you can easily move the lever to the "close" position, the clamping force is too light.

If the clamping force of the quick release lever is too light, the seat post or seat pillar can loosen while riding. This can cause injury to the rider or to others.

- Open and close the quick release lever with one hand while you turn the adjusting nut with the other hand
- Tighten or loosen the adjusting nut by hand, so that you first feel resistance to the quick release lever when it perpendicular to the bicycle frame
- Push the quick release lever to the "close" position []
- When in the "close" position, make sure the quick release lever lays along the seat tube
- The tightening torque of the quick release lever should be between 43 and 65 in.-lbs.

4. Test the tightness of each the clamp and the post clamp:

WARNING: Every time you loosen the quick release mechanism, make sure the red reflector is correctly positioned if the reflector is mounted on the seat post or seat pillar.

- Try to turn the seat side-to-side and to move the front of the seat up and down
- If the seat moves in the seat clamp
 - Loosen the seat clamp
 - Put the seat in the correct position and tighten the seat clamp tighter than before
 - Do this test again, until the seat does not move in the seat clamp
- If the seat post moves in the seat tube:
- Loosen the bolt and nut
 - If you have a quick release lever, move it to the "open" position
- Put the seat in the correct position and tighten the bolt and nut or quick release tighter than before
 - If you have a quick release lever, move the lever to the "close" position
- Do this test again, until the seat post does not move in the seat tube.

Operation and Maintenance

WARNING: For your own safety, do not ride the bicycle if the reflectors are incorrectly installed, damaged, or missing. Make sure the front and rear reflectors are vertical. Do not allow the visibility of the reflectors to be blocked by clothing or other articles. Dirty reflectors do not work well. Clean the reflectors, as necessary, with soap and a damp cloth.

Pedals

CAUTION: There is a right pedal marked "R" and a left pedal marked "L".

The pedal marked "R" has right-hand threads. Tighten it in a clockwise direction.

The pedal marked "L" has left-hand threads. Tighten it in a counterclockwise direction.

- 1. Turn the right pedal marked "R" [1] into the right side of the crank and the left pedal marked "L" [2] into the left side of the crank.
- 2. Tighten the pedals:
 - Make sure the threads of each pedal are fully into the crank
 - The recommended torque (tightness) for each pedal is 23 ft.-lbs.



Brake Systems

Adjustments

- **WARNING:** You must adjust the front and rear brakes as written before you ride the bicycle.
- 1. Put the brake shoes in the correct position:
 - Loosen the nut [7] of each brake shoe
- Adjust each brake shoe so it is flat against the rim and aligned with the curve of the rim
 - Make sure each brake shoe does not rub the tire
 - If the surface of the brake shoe has arrows, make sure the arrows point toward the rear of the bicycle
- Hold each brake shoe in position and tighten the nut.
- 2. Test the tightness of each brake shoe:
 - Try to move each brake shoe out of position
- If a brake shoe moves, do Step 1 again, but tighten the nut tighter than before
- Do this test again, until each brake shoe does not move.
- 3. Stretch the cable:
- Hold both brake shoes against the rim
- Loosen the cable clamp
- Pull the cable tight and tighten the cable clamp

WARNING: Do not overtighten the cable clamp. Overtightening the cable clamp may cut the cable and cause injury to the rider or to others.

- Squeeze each brake lever firmly 20 times
- Hold both brake shoes against the rim and loosen the cable clamp
- Pull the cable tight and tighten the cable clamp.





The following sections describe final brake system adjustments required before riding. Determine which style you have and follow the instructions.



- 1. Check tightness of caliper brake mounting nut or cantilever mounting bolt:
 - Make sure each caliper brake mounting nut or cantilever mounting bolt is tightened securely.
- 2. Center brake shoes on rim:
 - If you have a cantilever brake, turn the adjustment screw on the cantilever arm to move the arm in or out so each brake shoe is the same distance from the rim
 - If you have a caliper brake, hit downward lightly on the return spring of the brake shoe that is farther away from the rim
 - Make sure both ends of the return spring stay hooked around the inside edge or between the studs on the back of the caliper arms
 - Squeeze the brake lever two times
 - Do this step again, until both brake shoes are the same distance from the rim.
- 3. Put the brake shoes the correct distance from the rim:
 - Position each brake shoe 1/16 inch away from the rim
 - Turn the brake lever adjusting barrel or caliper brake adjusting barrel in or out to make the adjustment
 - If the brake shoes cannot be positioned the correct distance from the rim
 - Hold both brake shoes against the rim and loosen the cable clamp

- Pull or loosen the cable wire slightly
- Tighten the cable clamp

WARNING: Do not overtighten the cable clamp. Overtightening the cable clamp may cut the cable and cause injury to the rider or to others.

- Do Step 3 until the brake shoes are the correct distance from the rim
- Turn the locknut(s) against the brake lever and the caliper brake.

WARNING: Do not move the brake shoes away from a wheel rim that is not true (straight). This can cause the caliper brake to be less effective and unsafe. To allow safe adjustment of the caliper brake, have a bicycle service shop true the wheel.

- 4. Check sheath position:
 - Make sure both ends of the sheath are fully recessed in the brake lever, sheath stops (if equipped), and brakes
 - If not, install sheath in correct position and do Step 3 again
 - Do this test again, until the sheath is in the correct position.
- 5. Test the tightness of the cable clamp:
 - Squeeze each brake lever with firm pressure
 - Make sure the cable does not move in the cable clamp
 - If the cable moves in the cable clamp, do Steps 3 and 4 again but tighten the cable clamp tighter than before
 - Do this test again, until the cable does not move in the cable clamp.
- 6. Adjust the brake lever reach so the distance from the grip is comfortable to the rider:
 - Turn the adjustment screw [] (if equipped) to change the distance of the brake lever [] from the grip
 - Make sure the back of each grip is no more than 3 1/2 inches from the from the front of each brake lever.

- 7. Test the travel of each brake lever:
 - Squeeze each brake lever with strong pressure
 - If the brake lever touches the grip, do Steps 1 through 7 again.

WARNING: After you do Steps 1 through 7 again, if either brake lever touches the grip or does not work well, have a bicycle service shop repair or adjust the caliper or cantilever brakes.

Reducing Caliper Brake Noise (Caliper Brake Only)

It is common for caliper brakes to make noise or "squeak" when in use. This noise does not normally indicate a brake problem. The noise may be reduced by following the instructions below:

- Make sure the caliper brakes are adjusted correctly
- Using a small adjustable wrench, bend each caliper arm so the front edge of each brake shoe is the first part to touch the rim



WARNING: Bend each caliper only a small amount. If you bend the caliper arm too far, the caliper brake can be damaged and performance of the caliper brake reduced.

Operation

Operate the brakes as follows:

- Squeeze the brake lever on the handlebar
- The brake lever pulls on a cable that is attached to the brake
- The brake squeezes the rim between two brake shoes.

Operate the brakes by slowly and continuously squeezing both brake levers until you feel the braking action. Make a habit of always using both brakes to stop the bicycle. You will stop in the shortest distance by using both brakes.

WARNING: If you do not obey the following instructions, injury to the rider or to others can occur:

- Before you ride the bicycle for the first time, check and adjust the brakes as written in the "Adjustments" section. Then test the brakes and practice using them at low speed in a large and level area that is free of obstructions.
- When correctly used, the brake system is very effective. But, if you apply the front brake too strongly, you can be thrown off the bicycle. Make a habit of always using both brakes to stop the bicycle.
- Always try to brake while going in a straight line. If you must brake while turning; when the pavement is wet; or if the pavement is covered with sand, gravel, or leaves, start to brake sooner than normal and apply the brakes intermittently to reduce the chance of skidding.
- If the rims are wet, start to brake sooner than normal because a longer distance to stop the bicycle will be necessary.
- Be careful when riding downhill or at a high speed because as your speed increases, a longer distance to stop the bicycle will be necessary. Slow for curves because too much speed can force you to make a turn that is too wide.
- Keep wax, oil, grease, etc. off the rims and the brake shoes. These lubricants will reduce brake performance and a longer distance to stop the bicycle will be necessary.
- Check and adjust the brakes the first time they do not stop the bicycle quickly and smoothly, do not stop the bicycle as well as they have in the past, or if either brake lever can touch the grip.

Accessories

Water Bottles

Determine which water bottle looks most like the one you have and follow the instructions.

WARNING: Do not use a water bottle while riding. Always stop the bicycle before you use the water bottle.

NOTE: Thoroughly wash any water bottle before you use it.

Install cage and water bottle:

- Using the supplied hardware, assemble cage to bicycle frame and tighten securely
- Make sure the open end of the cage is toward the front of the bicycle
- Make sure the cage does not touch the crank or pedals
- Push water bottle into cage.



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Bags

Determine which bag looks most like the one you have and follow the instructions.

WARNING: Attach bag as written in these instructions.

- Make sure that the accessory does not interfere with the correct movement or operation of the steering or brake lever(s).
- Make sure the bag does not cover any reflectors.
- Do not attach the bag to any other part of the bicycle.
- Do not carry any items that could hang down and catch in the front wheel.
- Do not carry any items in the bag which weigh more than two pounds.
- If the bag has straps, make sure the straps can not get into the front wheel.
- Stop the bicycle before you open or close the bag.

Handlebar Bag

Attach the bag to the handlebar:

- Put bag against the front of the handlebar
- Wrap fasteners around the handlebar and push together
- Make sure the bag does not cover any reflectors
 - If the bag covers any reflectors, turn the bag toward the rider
 - Wrap fasteners around the handlebar and push together.

Frame Bag

Assemble the bag to the bicycle frame:

- Put the bag under the top tube and in front of the seat tube of the bicycle frame
- Wrap each fastener around the frame tube and push together.

Saddle Bag

Attach the bag to the bottom of the seat and to the seat post or seat pillar:

- Put the bag against the bottom of the seat [9]
- Wrap the fasteners around the seat post (or seat pillar) and around the frame under the seat

NOTE: Some seat bags have one fastener on top that goes around the wire between the springs as shown. Other seat bags have two fasteners on top which go around the frame under the seat.



WARNING: Some models have rear reflectors mounted to the seatpost. Make sure the position of the rear bag does not interfere with the visibility of the rear reflector when viewed from behind.

- Push fasteners together.





Kickstand

If your model does not already have the kickstand attached, determine which kickstand looks most like the one you have and follow the instructions.

CAUTION: Do not sit on the bicycle with the kickstand down. Damage to the kickstand and frame can occur.

Crank Mount

Assemble the kickstand to the bicycle frame:

- Put the kickstand [1] under the bicycle frame
- Assemble the hardware to the kickstand and the bicycle frame
- Align the kickstand with the bicycle frame
- Tighten hardware securely
 - The kickstand may be adjustable. Loosen screw [2] and move kickstand in or out so bicycle is stable when standing
 - Tighten screw.

Rear Mount

- Attach the kickstand to the left side of the bicycle frame tubes near the rear axle
- Tighten hardware securely.





Shift System

Operation

There are two shift levers on the bicycle. The right-hand shift lever operates the rear derailleur and the left-hand shift lever operates the front derailleur.

Operate the shift system as follows:

- The rider turns the rear shift control around the handlebar (for twistshift models) or moves the shift lever (thumbshift models) to an index position
 - When the rear shift control moves into each position with a "click" sound, the shift is complete
- The rider turns the front shift control around the handlebar (for twistshift models) or moves the shift lever to an index position (thumbshift models)
- Each shift control pulls a cable wire that is attached to the derailleur
- The derailleur moves and guides the chain from one sprocket to another
- If there is some chain noise after the shift, turn the rear shift control a small amount to "trim" the rear derailleur.

CAUTION: Do not force the shift levers. Shift only when pedaling forward and without strong force. Do not backpedal. Backpedaling can cause the chain to come off the sprockets. Backpedaling and shifting while not pedaling can damage the sprockets and stretch the cable wire.

There is no "correct gear" in which to ride the bicycle. The "correct gear" is the one that is comfortable to you. To select a gear or sprocket combination while riding:

- While pedaling, shift the chain onto different front and rear sprocket combinations
- You will feel a difference in the rhythm and ease of pedaling
- Shift the chain to the gear that allows you to pec you
- When riding uphill or against the wind, you may wish to keep the chain on the smallest front sprocket [1] and shift the chain on the rear sprocket cluster [2]
- These are the lower gear combinations



- They allow you to pedal easier and at a faster rhythm, but with less distance traveled per pedal revolution
- For the best performance in this case, do not use the smallest rear sprocket [3]
- When riding downhill or with the wind, you may wish to keep the chain on the largest front sprocket [4] and shift the chain on the rear sprocket cluster
- These are the higher gear combinations
- They allow you to pedal harder and at a slower rhythm, but with more distance traveled per pedal revolution
- For the best performance in this case, do not use the largest rear sprocket [5]
- On bicycles with three front sprockets, you may wish to keep the chain on the middle front sprocket [6] and shift the chain on the rear sprocket cluster
- These gear combinations are middle range which overlap some of the higher and some of the lower gear combinations.

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General Adjustments

These instructions describe most adjustments that the shift system may need. If you can not adjust the shift system using these instructions, have a bicycle service shop do the adjustments that are needed.

The front derailleur has two adjusting screws. The "low" adjusting screw, sometimes marked "L", limits how far the front derailleur and chain can move toward the frame. The "high" adjusting screw, sometimes marked "H", limits how far the front derailleur and chain can move away from the frame.

1. Put the "low" adjusting screw in the correct position as follows:

- Shift the chain onto the third largest rear sprocket and the smallest front sprocket
- Loosen nut of the cable clamp [16]





- Turn the "low" adjusting screw so the left inside edge of the chain cage [17] and the chain [18] just do not touch
- Remove the slack from the cable wire and tighten the nut of the cable clamp.
- 2. Put the "high" adjusting screw in the correct position as follows:
 - Shift the chain onto the largest front sprocket and the smallest rear sprocket
 - Turn the "high" adjusting screw so the right inside edge of the chain cage and the chain just do not touch.

NOTE- If the shift lever does not move easily:

- If the shift cable seems to stick, lubricate it
- Do not lubricate the shift control
- If the shift cable is sharply bent, rusted or has broken strands, replace it.

Do the "Rear Derailleur Adjustments" if:

- The chain will not shift onto all the rear sprockets
- The chain comes off the rear sprockets
- The chain makes noise while on the smallest or largest rear sprocket
- The rear derailleur [5] rubs the spoke protector

Rear Derailleur Adjustments

The rear derailleur has two adjusting screws. The "low" adjusting screw, sometimes marked "L", limits how far the rear derailleur and chain can move toward the wheel. The "high" adjusting screw, sometimes marked "H", limits how far the rear derailleur and chain can move away from the wheel.

1. Put the "high" adjusting screw in the correct position as follows:



- Shift the chain onto the smallest rear sprocket

- Loosen nut of the cable clamp [12]
- Turn the "high" adjusting screw so the jockey roller [7] is in line with the outside edge of the smallest rear sprocket [8]
- Remove the slack from the cable wire and tighten the nut of the cable clamp.
- 2. Put the "low" adjusting screw in the correct position as follows:
 - Shift the chain onto the largest rear sprocket
 - Loosen nut of the cable clamp
 - Turn the "low" adjusting screw so the jockey roller is exactly below the largest rear sprocket [9]
 - Tighten the nut of the cable clamp.
- 3. Adjust the index shift system:
 - Shift the chain onto the smallest rear sprocket
 - Without turning the crank, turn the shift control one "click"
 - Slowly turn the crank forward
 - The chain should move from the smallest rear sprocket to the next larger rear sprocket
 - Turn the adjusting barrel as needed so the chain moves exactly on to the second rear sprocket and does not rub, jump, or delay.

Chain

WARNING: This bicycle has special high strength chain. Do not use a pliers type chain tools to remove the chain. Separate the chain only at an original pin [10]. Never separate the chain at the master link [11] or at a connecting link [12]. Identify an original pin by either two lines or a square on each end, a master pin by plain ends, and a connecting pin by an indentation on one end. If you remove an original pin from the chain, discard it. Use only a new connecting pin to assemble the chain. If you have any questions, contact HUFFY Bicycles at 1 - 800 - 872 - 2453. If you do not obey these instructions, chain failure can result and cause injury to the rider or to others.



Repair and Service

WARNING:

- Inspect the bicycle frequently. Failure to inspect the bicycle and to make repairs or adjustments, as necessary, can result in injury to the rider or to others. Make sure all parts are correctly assembled and adjusted as written in this manual and any "Special Instructions".
- Immediately replace any damaged, missing, or badly worn parts.
- Make sure all fasteners are correctly tightened as written in this manual and any "Special Instructions". Parts that are not tight enough can be lost or operate poorly. Overtightened parts can be damaged. Make sure any replacement fasteners are the correct size and type.
- If your frame is aluminum, inspect the bicycle frame carefully and frequently. Aluminum frames can develop very small cracks due to stress, severe shocks, etc. If you see any small cracks, stop riding the bicycle. Have the frame inspected by a qualified professional at a bicycle service shop before riding the bicycle again.
- -If your bicycle has a suspension fork, inspect the top of the fork around the welded joints carefully and frequently for very small cracks. If you see any small cracks, stop riding the bicycle. Have the frame inspected by a qualified professional at a bicycle service shop before riding the bicycle again.

NOTE: Have a bicycle service shop make any repairs or adjustments for which you do not have the correct tools or if the instructions in this manual or any "Special Instructions" are not sufficient for you.

Suspension Frame (on some models)

Adjustments

The bicycle may have an adjustable shock-absorbing suspension. You can change the suspension, as you prefer, for a softer or a firmer ride.

To change the suspension:

- For a softer ride, turn the adjusting nut [1] clockwise so the suspension spring [2] is compressed less
- For a firmer ride, turn the adjusting nut counter clockwise so the suspension spring is compressed more.



Three-Piece Cranks (on some models)

Maintenance

Both three-piece crank arms [1] were tightened to the spindle [2] at the factory. After riding the bicycle the first few times, make sure the crank arms have not loosened. If either crank arm has loosened during this "break-in" period, have it tightened by a bicycle service shop, because special tools are necessary.

Frequently check the tightness of the crank arms. If loose, have them tightened by a bicycle service shop.



CAUTION: If you ride the bicycle for a moderate length of time with a loose crank arm, the spindle will damage the crank arm.

Tires

Maintenance

Frequently check the tire inflation pressure because all tires lose air slowly over time. For extended storage, keep the weight of the bicycle off the tires.

WARNING: Do not ride or sit on the bicycle if either inner tube is under inflated. This can damage the tire and inner tube. Do not use unregulated air hoses to inflate the inner tubes. An unregulated hose can suddenly over inflate bicycle tires and cause them to burst.

Use a hand or a foot pump to inflate the inner tubes. Service station meter-regulated air hoses are also acceptable. The correct inflation pressure is shown on the tire sidewall. If two inflation pressures are on the tire sidewall, use the higher pressure for on-road riding and the lower pressure for off-road riding. The lower pressure will provide better tire traction and a more comfortable ride.

Before adding air to any tire, make sure the edge of the tire (the bead) is the same distance from the rim, all around the rim, on both sides of the tire. If the tire does not appear to be seated correctly, release air from the inner tube until you can push the bead of the tire into the rim where necessary. Add air slowly and stop frequently to check the tire seating and the pressure, until you reach the correct inflation pressure.

Replace worn or defective tires and inner tubes.

Lubrication

Maintenance

WARNING: Do not over lubricate. If oil gets on the wheel rims or the brake shoes, it will reduce brake performance and a longer distance to stop the bicycle will be necessary. Injury to the rider or to others can occur.

The chain can throw excess oil onto the wheel rim. Wipe excess oil off the chain.

Keep all oil off the surfaces of the pedals where your feet rest.

Using soap and hot water, wash all oil off the wheel rims, the brake shoes, the pedals, and the tires. Rinse with clean water and dry completely before you ride the bicycle.

Using a light machine oil (20W) and the following guidelines, lubricate the bicycle:

What	When	How
Shift Levers	never	Do not lubricate the shift levers.
Derailleurs	every six months	Put one drop of oil on each pivot point of the derailleurs.
Brake Levers	every six months	Put one drop of oil on the pivot point of each brake lever
Caliper Brakes	every six months	Put one drop of oil on the pivot point of each caliper brake.
Cantilever Brakes	every six months	Put one drop of oil on the pivot point of each cantilever brake.
Brake and the Shift Cables	every six months	Put four drops of oil into both ends of each cable. Allow oil to soak back along the cable wire.
Pedals	every six months	Put four drops of oil where the axles go into the pedals.
Chain	every six months	Put one drop of oil on each roller of the chain. Wipe all excess oil off the chain.
Rear Sprocket Cluster (Freewheel)	every six months	Lay the bicycle on its left side. Slowly turn the rear wheel clockwise. Put four drops of oil in the crack between the rear sprockets (which are stationary) and the freewheel body (which is turning clockwise).
Suspension Fork	every six months	Lift up the rubber fork boot and dab a small amount of grease on the fork leg just above the plastic bushing.

Inspection of the Bearings

Maintenance

Frequently check the bearings of the bicycle. Have a bicycle service shop lubricate the bearings once a year or any time they do not pass the following tests:

Head Tube Bearings

The fork should turn freely and smoothly at all times. With the front wheel off the ground, you should not be able to move the fork up, down, or side-to-side in the head tube.

Crank Bearings

The crank should turn freely and smoothly at all times and the front sprockets should not be loose on the crank. You should not be able to move the pedal end of the crank from side-to-side.

Wheel Bearings

Lift each end of the bicycle off the ground and slowly spin the raised wheel by hand. The bearings are correctly adjusted if:

- The wheel spins freely and easily
- The weight of the spoke reflector, when you put it toward the front or rear of the bicycle, causes the wheel to spin back and forth several times
- There is no side-to-side movement at the wheel rim when you push it to the side with light force.

Suspension Fork

The fork should slide freely up and down through its travel. If it is sticking, lift up the rubber boot over the fork legs and dab a small amount of grease on the each leg just above the plastic bushing.

There should not be excessive looseness in the fork leg bushings. Stand beside the bike and gently apply the front brake. Rock the bike back and forth to check for excessive looseness in the fork bushings. Take the bike immediately to a dealer for inspection if excessive looseness is apparent.

Replacement Part Order List

To order warranty replacement parts, call us at (E.S.T.) 1-800-872-2453. To order the correct part, refer to the model number stamped on the inside cover of this manual and substitute it for the "xxxxx" below in our Part Number system. For example, if your model number from the inside front cover is #28206 and you need a new seat, order Part Number 28206-SD. Note-Your model may not look exactly like the representative picture shown.

Key Number	Part Number	Description
1	xxxxx-FR	Frame
2	xxxxx-FK	Fork
3	xxxxx-BRGHD	Head Bearing Set
4	xxxxx-BRGCR	Crank Bearing Set
5	xxxxx-WHF	Front Wheel
6	xxxxx-WHR	Rear Wheel
7	xxxxx-TR	Front or Rear Tire
8	xxxxx-TU	Front or Rear Inner Tube
9	xxxxx-ST	Stem
10	xxxxx-HB	Handlebar
11	xxxxx-GR	Grips
12	xxxxx-HDRB	Rear Brake Lever
13	xxxxx-CALR	Rear Caliper Brake
14	xxxxx-BC	Rear Brake Cable and Sheath
15	xxxxx-HDFB	Front Brake Lever
16	xxxxx-CALF	Front Caliper Brake
17	xxxxx-BC	Front Brake Cable and Sheath
18	xxxxx-SHR	Rear Shift Control and Cable
19	xxxxx-DRR	Rear Derailleur
20	xxxxx-SCR	Rear Shift Control Sheath
21	xxxxx-SHL	Front Shift Control and Cable
22	xxxxx-DRF	Front Derailleur
23	xxxxx-SCF	Front Shift Control Sheath
24	xxxxx-SP	Seat Post
25	xxxxx-SD	Seat
26	xxxxx-RK	Reflector Kit
27	xxxxx-CH	Chain
28	xxxxx-SR	Spoke Protector
29	xxxxx-FW	Rear Sprocket Cluster
30	xxxxx-CR	Crank
31	xxxxx-PD	Pedals
32	xxxxx-SMCLHDW	Seat Post Clamp Hardware
33	xxxxx-AC	Quick Release Axle
34	xxxxx-TB	Bag
35	xxxxx-BO	Water Bottle Kit
36	xxxxx-HBENDS	Bar Ends
37	xxxxx-KS	Kickstand
38	xxxxx-HP	Handlebar Plug

Huffy will make every attempt to find exact replacement parts for newly purchasedbicycles. We cannot however, guarantee exact replacement parts or every part for older models.



We recommend the following internet sites for helpful information on bicycle assembly, repair and adjustment:

www.bicyclerepairshop.com/

members.aol.com/biketune/