

SAMSON CYCLES

INSTRUCTION MANUAL

BICYCLE ASSEMBLY & MAINTENANCE

**IT IS IMPORTANT TO READ THIS MANUAL THOROUGHLY
BEFORE ASSEMBLING, RIDING, OR PERFORMING
MAINTENANCE ON THIS BICYCLE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.**

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RULES OF THE ROAD

1. **IN THE INTEREST OF SAFER CYCLING, MAKE SURE YOU READ AND UNDERSTAND YOUR OWNER'S MANUAL.**
2. **NOTICE:** Some state and local traffic laws may require that your bicycle be equipped with a warning device, such as a horn or bell and a light, if the bicycle is to be ridden after dark.
3. Always wear shoes when riding a bicycle and avoid loose fitting clothes.
4. **CAUTION: WET WEATHER WARNING:** Check your brakes frequently. The ability to stop your bicycle is critical. Roads are slippery in wet weather so avoid sharp turns and allow more distance for stopping. Caliper brakes may become less efficient when wet. Leaves, loose gravel and other debris on the road can also effect stopping distance.
5. The kickstand is designed to support the bicycle only. Not the rider.
6. Replace bent or broken spokes, and bent or damaged wheel rims.
7. Obey all traffic regulations. Most traffic regulations apply to bike riders as well as automobile operators.
8. Follow the traffic flow in a straight line close to the curb. Watch for cars moving in and out of traffic.
9. Always ride alone. Never carry other riders. This is dangerous and it makes the bicycle harder to control.
10. When riding in pairs or in larger groups, from a single line along the right side of road. Set up a sensible distance between riders. Don't tailgate.
11. Always be alert. Animals or people may dart in front of you. Be on the alert. People have the right of way. Be alert to people opening car doors when passing parked cars. Your bicycle was not designed for stunting and experimentation. Enjoy riding it in a safe manner.
12. Be careful at all intersections. Slow down 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(30.48 cm). before turning unless your hand is needed to control the bike.
14. **CAUTION: NIGHT TIME OPERATION:** We do NOT recommend riding your bike at night. If you have an emergency that makes it necessary to ride at night, have proper lights and reflectors. Do NOT ride at night without a headlight, taillight, a white front reflector, a red rear reflector and yellow wheel reflectors.
15. Do not carry packages or objects which obstruct vision.
16. Never hitch rides. Never hold onto moving vehicles while riding. Never Stunt.
17. **ON AND OFF ROAD OPERATION:** Avoid the following hazards: drain grates, pot holes, ruts, soft road edges, gravel, and leaves especially when they are wet.

OWNER'S INFORMATION

Throughout this manual you will find **WARNINGS, CAUTIONS and NOTES or NOTICES.**

WARNINGS: Pay special attention to these since failure to do so could result in injury to the rider or others.

CAUTIONS: If not followed these could result in mechanical failure or damage.

NOTES OR NOTICES: These specify something that is of special interest.

Owner's information continued next page.

OWNER'S INFORMATION continued

It is the responsibility of the person who initially assembles the bicycle to do so correctly and make any necessary adjustments for proper operations. The owner or principal rider is then responsible for normal maintenance of the bicycle to keep it in good condition.

1. Make certain that all assembly instructions and necessary adjustments have been followed.
2. Perform the safety check list and mark each item listed.
3. Know how to operate all standard and accessory equipment on the bicycle.
4. Make certain that anyone who uses the bicycle has been fully instructed in its operation.
5. If your bicycle was obtained assembled, we recommend that you review the complete assembly instructions and perform checks specified in this manual before riding the bicycle.

OWNER'S RECORD

Keep this information as a permanent record

In the event of theft or loss, your law enforcement agency will require this information for identification purposes.

The same information will be required when ordering parts and service.

Serial number: _____

Wheel Size (On tire sidewall): _____

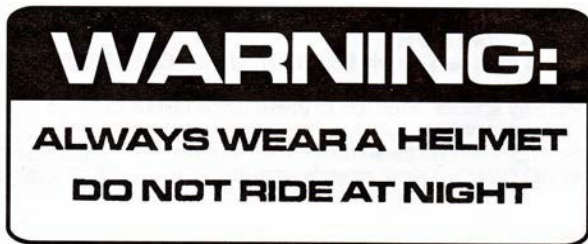
Model Number: _____

Color of bike: _____

Name of bike (On top tube or chain guard): _____

Date purchased: _____

Where Purchased: _____



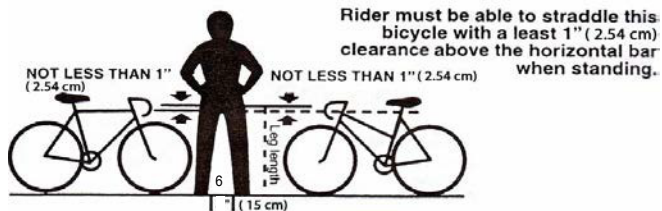
SAFETY WARNINGS

Before you ride, please read all the following items making sure you understand them. Failure to do so could cause damage to the bicycle or possible injury to yourself or others. Your bicycle meets or exceeds industry standards. It is NOT designed for off-road use, Jumping, stunts and other types of abusive riding.

BRAKE PRECAUTIONS

1. Do not ride the bicycle until you have checked for proper brake adjustments See “Hand brake lever Assembly” and “Caliper Brake Adjustment” Sections.
2. When riding your bicycle of the first time. Test the brakes at a slow speed on a large level surface without obstructions. Also, never attempt to stop suddenly using the front brake only, as this could throw the rider off the front of the bicycle.
3. Check and adjust the brakes, if necessary, at the first sign of failure. This will enable the rider to make a quick and smooth stop. On caliper brakes, if a brake lever touches the grip when it is squeezed, adjust the brakes.
4. Going downhill fast is dangerous since you can't stop nearly as fast as you can on level around. A curve at the bottom of a hill could force you into oncoming traffic or off the road if you are going at an excessive speed.
5. Use the front brake slowly and carefully, especially while turning or when the road is wet or covered with gravel, sand or leaves. Start braking sooner under these conditions and with less force to reduce the chances of skidding. Wet brake shoes mean that it will require more distance to stop. Start braking sooner than normal in wet conditions.
6. Nighttime riding:
 - a. You can't see the controls on your bicycle at night so you must know where they are by touch.
 - b. Slow down. Debris and holes are much harder to see at night.
 - c. If possible, ride on streets that are familiar to you. Terrain that you have never seen during the day is dangerous at night.
 - d. Use well lighted streets whenever possible. Avoid unlighted bike paths.
 - e. Comply with all legal requirements in your state. You should at least have a “white light”. (not just a white reflector) On the front and a rear red reflector. All states require that lamp be used that emits a white light.
 - f. Children generally should not be allowed to ride a bicycle at night or during periods of low visibility such as dawn, dusk or bad weather. Adults should avoid night riding if possible.
 - g. It is a good idea day or night to wear a helmet and have a rear view mirror.
7. If the stem is not inserted into the head tube to at least the minimum insertion line, it is possible to over-tighten the handlebar stem bolt and damage the fork stem body. This could cause an unsafe condition and risk injury to the rider.
8. For safe operations, you must secure the pedal spindle tightly against the crank arm with a wrench that fits the shoulder of the pedal spindle. This is important: it avoids stripping threads. Always replace damage pedals.
9. When adjusting the seat height, you must have the minimum insertion mark on the seat post inserted inside the frame.

SAFE SIZING OF A BICYCLE



The correct frame size is the largest frame that the rider can automatically straddle keeping both feet on the ground and allowing 25 mm (1 inch) clearance between the rider's crotch and the top of the frame tube (see illustration) Noted Ladies can use men's bicycle to determine their correct frame size.

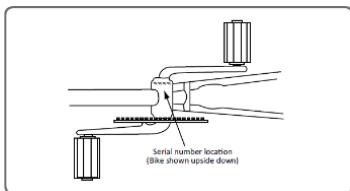
Rider must be able to straddle bicycle with at least 1 inch (2.54cm) clearance above the horizontal bar when standing.

UNPACKING

Important: Remove the bicycle and all parts from the carton. Lay out all unassembled parts and **READ THE ASSEMBLY INSTRUCTIONS** In this manual before assembling our bicycle. The instructions are a step by step procedure. Follow the steps that pertain to your model.

RECORD SERIAL NUMBER

Note: This information is only available on the bicycle itself. Be sure to keep your own record of this number. Each bicycle has a serial number under the bottom bracket where the two pedal cranks meet (See illustration) Record this number on page 2 of your owner's manual to keep it for future reference.



TOOLS REQUIRED FOR ASSEMBLY

7mm Phillips screw driver, Torque Wrench Set, 5mm & 6mm Allen wrench, open end set of metric flat wrenches for 6" (15 cm) and 10" (25.4cm), Adjustable wrench (Or Open End Set Of Metric Flat Wrenches). Air Pump and a plier with cable cutting ability.



These tools should be available to perform the basic steps of assembling the bicycles. They can also be used to make maintenance adjustments outlined in this manual. Special tools are required to disassemble chain, remove the rear hub parts and true wheels. Special tools are not required for assembly and normal maintenance.

NOTE: Use a hand or foot pump to inflate tires. Never inflate tire with an air compressor at a gas station. **WARNING: 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.**

Many bicycles are sold unassembled in cartons. For these bikes it is the responsibility of the owner to make sure the assembly instructions in this book are followed exactly. For bicycles that are purchased in an assembled condition, it is the responsibility of the owner to carefully check and test the bike. The bicycle product does not provide above tools.

PUTTING YOUR BIKE TOGETHER

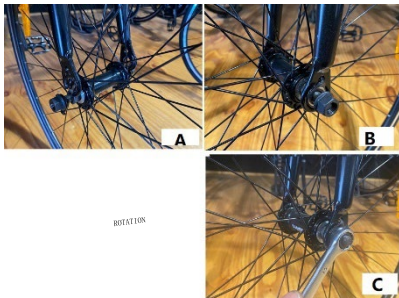
REMOVE BIKE FROM CARTON

Be sure all parts are removed from carton. Check before you discard the carton. Remove all protective packing material.

STEP# 1 – ASSEMBLE THE FRONT WHEEL TO FORK

A: NUTTED FRONT WHEEL

1. Place the front wheel in the front fork drop out slots and ensure the wheel fits correctly. (See illustration A)
2. If your bicycle has tabbed lock washers, ensure that the locking tabs are correctly mounted into the holes in the forks. (See illustration B)
3. Fully tighten both nuts and ensure the wheel sits straight in the forks. (See illustration C)



NOTICE: In order to make it easier to insert the front wheel to the fork, the tyres are NOT FULLY INFLATED.

B: QUICK RELEASE FRONT WHEEL

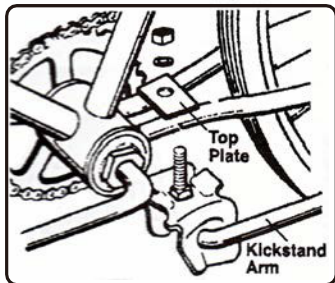
1. Unlock the lock nut from the quick release skewer. Remove the outer spring and slide the skewer through the axle so the quick release handle is on the left hand side of the bike.
2. Re install the spring and lock nut back on to the skewer and place the wheel into the fork slots assuring the wheel is centered.
3. Always adjust the quick release clamp with the lever in the open position, and by turning the nut (not the lever).
4. Using your palm, close the lever so the wheel is secure. When closing the lever you want to feel resistance at 45 degrees from there. Squeeze hand until fully closed.
5. Fully closed, the wheel should be free from Any wobble. If this is not the case, release the lever, tighten the nut and repeat the process. Ensure the wheel sits straight in the forks.



STEP# 2 KICKSTAND

NOTE: YOUR KICKSTAND HAS BEEN PREASSEMBLED AT THE FACTORY. FOLLOW GUIDE FOR REPLACEMENT OR MAINTANENCE.

1. Place the bicycle in an upright position.
2. From the left side of the bicycle side of the bicycle (opposite side from chainguard), place the kickstand in position beneath the two rear fork legs.
3. Place the flange down, onto the mounting bolt.
4. 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.
5. Leave leg of kickstand down so it will support the bicycle during the rest of the assembly.

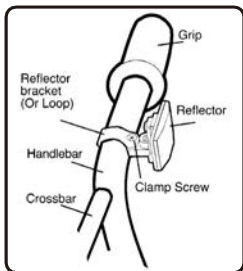


CAUTION: THE KICKSTAND IS DESIGNED TO SUPPORT THE BICYCLE ONLY, NOT THE BICYCLE AND RIDER.

STEP# 3 FRONT (WHITE) REFLECTOR

NOTE: YOUR WHEEL REFLECTORS HAVE BEEN PREASSEMBLED AT THE FACTORY. FIND THE FRONT AND REAR REFLECTOR IN PEDAL BOX.

1. Remove the clamp screw from the reflector bracket.
2. Push open the bracket "loop" and slide it onto the handlebar (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" (12.7 cm) from the end of the handlebar.
4. Tighten clamp screw securely.

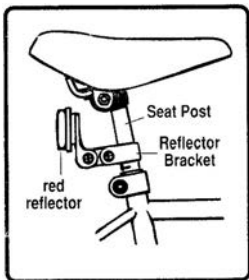


CAUTION: Be sure the reflector is in the same longitudinal plane as the bicycle (horizontal to the ground). If the reflector is aimed up or down, oncoming headlights may not reflect properly in the reflector. If the reflector is not horizontal to the ground, loosen the clamp screw and readjust the angle. Tighten clamp screw securely.

STEP# 4 REAR (RED) REFLECTOR

NOTE: It is important to check and adjust the position of the reflectors as you assemble your bike. The reflectors must always be vertical (perpendicular to the ground) and pointed toward the front and rear of the bike. Please make sure that the adjustment is correct as a final step in the assembly of your bike.

1. Put the seat post mounted rear reflector in the correct position by loosening the screws of the rear reflector bracket.
2. Make sure the rear reflector is vertical to the ground and points straight back.
3. Make sure there are at least 3 inches (7.62 cm) of clearance between the top of the seat and the top of the red rear reflector.

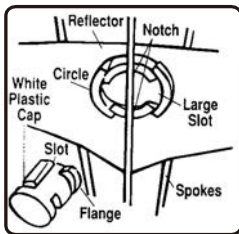


STEP# 5 WHEEL REFLECTORS

NOTE: FAILURE TO MOUNT AND DISPLAY THE REFLECTORS SUPPLIED COULD CONSTITUTE A VIOLATION OF THE LAW WITH YOUR CITY OR STATE FOR YOUR SAFETY. PLEASE MOUNT ALL REFLECTORS AS INDICATED. FOR ADDITIONAL NIGHT RIDING SAFETY AND TO COMPLY WITH THE LAWS OF MANY CITIES AND STATES, YOUR BIKE SHOULD BE EQUIPPED WITH HEAD AND TAILLIGHTS. FOLLOW INSTRUCTIONS ACCORDINGLY.

1. Position the reflector between the left and right layers of spokes opposite the valve stem.
2. Then slide notch in circle of reflector onto spoke slide the reflector as close to the wheel rim as possible without bending spokes.
3. Push slot in white cap over spoke so the flanges fit into large slots in circles. Twist white cap towards the right with a flat head screw driver as far as possible. Reflector should be secure.

NOTE: When assembled, the distance from the center of the reflector to the inside of the wheel rim must be less than 3" (7.62 cm).



STEP# 6 ASSEMBLE HANDLEBAR

NOTE: Your handlebar has been pre-assembled to the stem at factory. Please use the following information if you need to adjust the angle.

WARNING: For safe operation, the clamp bolts must be securely tightened.

1. Loose clamp bolts with an Allen wrench.
2. Adjust handlebar to desired angle.
3. Securely tighten clamp bolts. (Recommended torque is 8-10 Newton Metres)
4. Check handlebar for tightness. If you can move it forward or backward, the clamp bolts are not tight enough.
5. Check steering by straddling the front wheel and trying to turn the handlebar. If you can turn the handlebar without turning the front wheel, the stem is too loose. Line up handlebar with front wheel. Retighten the stem pillar bolt as instructed in step 4.

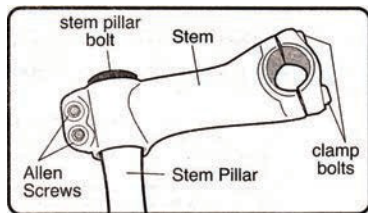
WARNING: HANDLEBAR GRIPS OR TUBE END PLUGS SHOULD BE REPLACED IF DAMAGED, AS BARE TUBE ENDS HAVE BEEN KNOWN TO CAUSE INJURY. IT IS PARTICULARLY IMPORTANT THAT BICYCLES USED BY CHILDREN BE CHECKED REGULARLY TO ENSURE THAT ADEQUATE PROTECTION FOR THE ENDS OF THE HANDLEBARS ARE IN PLACE.

STEP# 7 STEM ASSEMBLY

1. Insert the stem pillar into the fork tube to the minimum insertion line, indicated on the stem pillar.
2. Tighten the 6 mm stem pillar bolt to a torque requirement of 16-18 NM.

WARNING: The handlebar stem pillar must be inserted into the head tube until the minimum insertion line indicated on the stem is covered.

3. Face the handlebar stem forward directly in line with the front wheel.
4. Tighten the two 5 mm Allen screws on the handlebar stem to 8-10 NM.



WARNING: THE ASSEMBLER IS CAUTIONED AGAINST THE DANGER OF DAMAGING THE HANDLEBAR STEM PILLAR ASSEMBLY AND POSSIBLE INJURY TO RIDER IN OVERTIGHTENING THE STEM PILLAR BOLT.

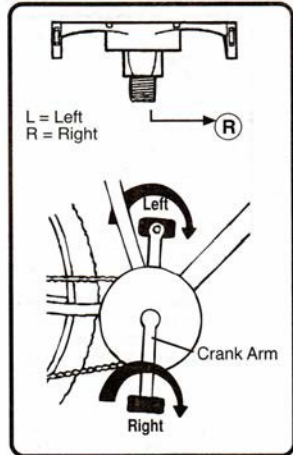
STEP # 8 INSTALL PEDALS

WARNING: For safe operation, the pedal spindle must be securely tightened against the crank arm. Always replace damaged pedals, and always wear shoes or sneakers when riding a bicycle.

NOTE : Start each pedal spindle by hand to avoid stripping the threads.

1. Look for the letters "R" or "L" stamped on the pedal spindle.
2. Thread the pedal marked "R" into the crank arm on the "chain side" of the bike. Turn the pedal spindle in a clockwise direction. Securely tighten the pedal spindle.
3. Thread the pedal marked "L" into the crank on the left side of the bike. Turn the pedal spindle in a **COUNTERCLOCKWISE** direction. Securely tighten the pedal spindle.

NOTE: Both pedals should be tightened towards the front of the bicycle.

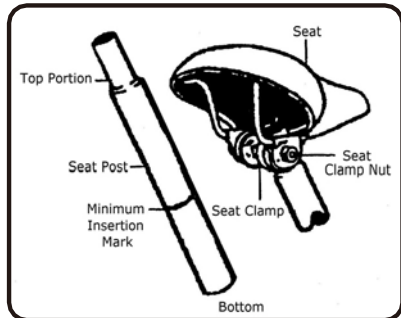


TORQUE REQUIREMENTS 35-40 NM.

STEP # 9 INSTALL SEAT POST AND SEAT

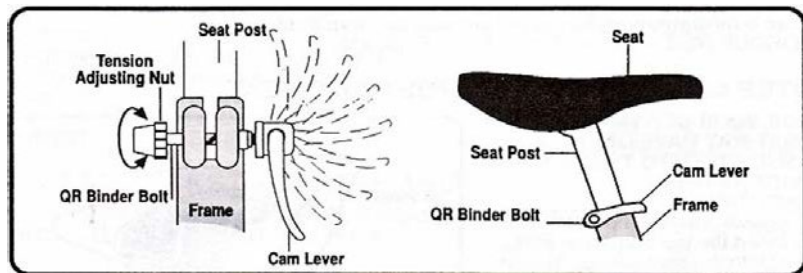
NOTE: your saddle has been pre-assembled to the seat post at our factory. Please use this information for adjustment and future reference.

1. Loosen seat clamp nuts.
2. Insert the top portion of seat post into the seat clamp. Be sure seat post is completely inserted into the seat clamp and butted tightly against the end stop.
3. Retighten seat clamp nuts on both sides (Hand tight). These nuts will be tightened later with an adjustable wrench.
4. Insert seat post into bicycle frame. Be sure that seat post is inserted into frame till the Minimum Insert Mark not be seen..



CAUTION: MINIMUM INSERTION LINE SHOULD BE COMPLETELY INSERTED INTO FRAME AND NOT VISIBLE.

STEP # 9 SEAT POST AND SEAT continued



5. Tighten the quick release seat post binder bolt securely at desired height. Turning the tension adjusting nut clockwise while keeping the cam lever from rotating increases clamping force, turn it counterclockwise while keeping the cam lever from rotating reduces clamping force. Less than half a turn of the tension adjusting nut can make the difference between safe clamping force and unsafe clamping force.
6. Adjust angle of seat so that top of seat is parallel the ground or comfortable to the rider.
7. Retighten seat clamp nuts securely with an adjustable wrench.

NOTE : Test the seat to pedal distance by having the rider sit on the seat. When the rider's leg is slightly bent, the ball of the foot should rest on the pedal when it is in its lowest position. If it does not, adjust the seat height as necessary. Check for tightness by attempting to twist the seat. If the seat is loose, be sure to tighten the clamp nut and binder blot nut securely.

STEP # 10 - ADJUSTMENT OF BRAKE SYSTEM

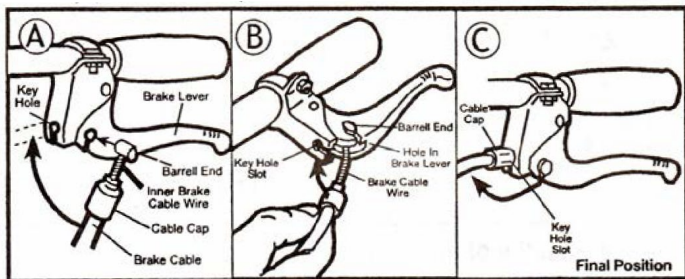
WARNING: The handbrakes on this bicycle were NOT adjusted at the factory. Before you ride this bicycle you must assemble and adjust the hand brakes.

The brake levers are pre-assembled. The right side of the handle bar is for the front brake and the left side of the handlebar is for the rear brake.

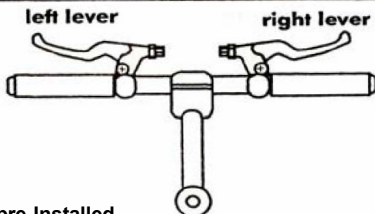
1. Insert the barrel of the brake cable into the hole in the brake lever. (See illustration A) Squeeze the rear brake arms with your hand until the brake rubbers are up against the wheel rim. This will enable the inner brake cable wire to be loose, and have enough space for you to easily slip the barrel end of the brake cable wire into the hold in the brake lever.
2. Next, pull the brake cable wire through the key hold slot the front of the brake lever (See illustration B) and then remove your hand. The brake cable cap will automatically spring back into the slotted key hole on the front of the brake lever assembly. (see illustration C)

STEP # 10 - ADJUSTMENT OF BRAKE SYSTEM continued

3. Next, proceed to adjust the hand brake.
 - (a) Loosen the cable fixing bolt.
 - (b) Again squeeze the rear brake rubbers against the wheel rim.
 - (c) Pull the brake cable wire through the fixing bolt hole until there is no slack in the brake wire.
 - (d) Tighten the cable fixing bolt.
 - (e) Squeeze the brake lever hard and then release several times. Rotate the rear wheel, be sure the rear wheel is straight and does not wobble. The brake rubbers should not touch the wheel rim, and there should be about 1/16 inch (1.6mm) clearance between the wheel rim and each brake rubber.



NOTE:
The
right lever controls the
front brake and the
left lever controls the rear
brake.

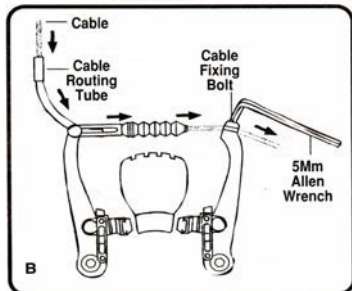
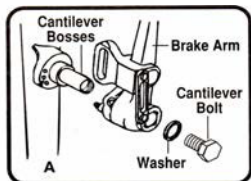


V-BRAKE INSTALLATION

NOTE: your V-brakes have been pre-installed at the factory, use this information for adjustment and future reference.

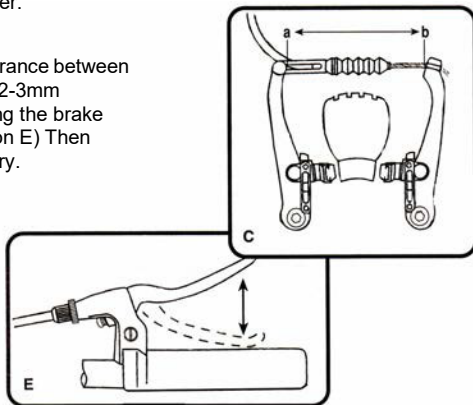
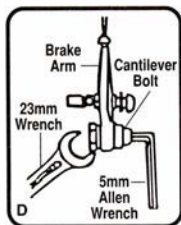
Install the v-brakes onto the cantilever bosses:

1. Slide each V-Brake assembly onto the appropriate cantilever boss and secure by tightening the cantilever blot with a 5 mm hex key. You may hand tighten at this point as you will need to readjust the tension later. (See illustration A)
2. Install the inner brake cable by pushing it through the cable routing tube (or "noodle") note that we offer two noodle angles (90 degrees and 135 degrees) depending on your bike setup. Now tighten the cable fixing bolt to a torque that does not exceed 6-8 NM (See illustration B)



V-BRAKE INSTALLATION *continued*

- To ensure maximum leverage the two brake arms must be nearly parallel to each other. To make this adjustment, hold the brake shoes so that they are touching the rim and measure the distance between points a and b. (See illustration C)
- Adjust the spring tension in each brake arm so that both sides are equally tensioned. Do this by holding the cantilever bolt with a 5mm Allen Wrench and turning the spring tension nut with a 23mm spanner. (See illustration D)
- After ensuring that the total clearance between both brake pads and the rim is 2-3mm stretches the cable by squeezing the brake lever 5-10 times. (See illustration E) Then readjust the brakes as necessary.



STEP # 11 ABOUT YOUR DERAILLEUR

OPERATION OF DERAILLURS: Changing gears gives you more efficient pedaling effort. Too much pressure means change to lower gear. If pedaling is too easy, change to a higher gear.

CAUTION: don't force the shifter. Shifters should move easily and the chain should move easily from one sprocket to another. Please observe the following when shifting.

Reduce pedaling pressure while shifting.

Shift only when pedals & wheels are in motion.

Never pedal backwards while shifting gears.

Never force shifters.

HOW IT WORKS

When the right shift lever is shifted, the pulley guide or derail the chain allowing it to move to a different sprocket in the rear sprocket cluster. The derailleur cage is spring loaded. It keeps the chain tight, but gives as the chain moves from one sprocket to another.

NOTE: This bike only uses the Rear Derailleur and Shift Lever.

REAR DERAILLEUR ADJUSTMENT

For your convenience. The derailleur has been pre-adjusted at the factory, but, due to jarring in shipment, it may need minor adjustments.

NOTE: Always move just one shift lever at a time to avoid damaging the derailleur. Please observe the following precautions.

Reduce pedaling pressure while shifting. Shift only when pedals and wheels are in motion.

Never back-pedal while shifting gears. Never force shift levers.

1. Rear wheel must be supported off the ground using a Bicycle stand, or place bicycle upside down resting it on the seat and handlebar. Cushion handlebars to prevent damage to stem shifters and caliper brake lever.

2. Place shift lever for rear derailleur all the way to the rear. The chain should now be on the smallest sprocket high gear.

3. Check for slack in cable at point A and tightness of the nut on the cable anchor bolt.

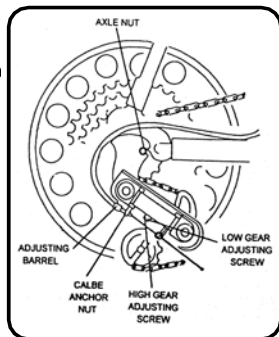
NOTE: The wire in the cable has a tendency to stretch after the bicycle has been ridden for a while.

If there is too much slack, the chain will not transfer to all speeds. If the cable wire is not taut, continue with STEP 4.

1. Loosen the nut on the cable anchor bolt.
2. Pull end of cable wire with pliers and hold while tightening cable anchor nut.
3. While rotating wheel with pedals, move shift lever backward and forward slowly. As the shift lever is moved toward the front, the derailleur moves toward the large rear sprocket low gear. As the shift lever is moved to rear, the derailleur moves toward the small rear sprocket high gear.
4. With the rear derailleur lever to rear in high gear, turn the "H" high gear adjusting screw until the rear derailleur pulley guide is in line under the freewheel small gear.

NOTE: When the "H" high gear adjusting screw is turned in a clockwise direction, the pulley guide moves toward the larger sprocket lower gear position.

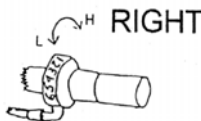
5. Set rear derailleur lever to largest sprocket low gear position.
6. Check that the chain does not slip off the large sprocket.
7. If so, turn the "L" low gear adjusting screw in a clockwise direction until the chain does not slip off the larger sprocket when shifted.
8. If the chain is unable to reach the largest sprocket low gear. Or movement is difficult, then turn the "L" low gear adjusting screw in a counter-clockwise direction.



GRIP SHIFTERS

THE RIGHT SHIFTER

Operates the REAR derailleur and moves from HIGH gear to LOWER gears by twisting the grip TOWARDS the rider.



CONGRATULATION, YOU HAVE FINISHED THE ASSEMBLY OF THIS BICYCLE.

PUMP THE TYRES TO RECOMMENDED PRESSURE AND ENJOY YOUR RIDING!

SAFETY CHECKLIST

- Perform each check list below after all assembly instructions and any necessary adjustments have been completed. **Warning:** Failure to perform these checks could result in serious injury to yourself and others.
1. **STEERING:** Make certain that the stem is inserted into the head tube to at least the minimum insertion line. Check the clamp nut and stem bolt to make sure they are tightened securely. (See handlebar and stem assembly sections for recommended torque)
 2. **BRAKES:** Check and adjust, if necessary (see brake assembly and adjustment section) **WARNING:** Before riding activate front and rear brakes 20-25 times then make final brake adjustments, this procedure take care of initial cable stretch.
 3. **SEAT:** Check for tightness of seat clamp and seat post clamp and that the minimum insertion line is inside the frame. See that the seat is at the proper height for the intended rider.
 4. **PEDALS:** Check pedal spindles making sure they fit tightly against the crank arms.
 5. **TIRES:** Check and inflate, if necessary, using a hand pump. **NEVER INFLATE TIRES WITH AN AIRE COMPRESSOR AT A GAS STATION.** The correct pressure is marked on the side of the tire. **DO NOT OVERINFLATE.**
 6. **GENERAL INSPECTION:** See that all reflectors have been properly installed. Replace any missing or damaged reflectors. Check all fasteners and tighten if necessary.
 7. **TO THE RIDER OF THIS BIKE:** Make certain that you know how to operate the bike. We recommend that you read all safety and warning information in the manual before riding.

WHAT IS TORQUE?

IMPORTANT: Torque is a measurement of how tight a fastener needs to be. A person using a 12 inch (30.5cm) wrench and applying one pound of force at the end of the handle, puts one foot-pound (ft.-lb.) of torque on a fastener. Torque can be measured with a torque wrench. Torque wrenches are available at most stores that have hand tools.

The ranges of torque in this chart cover many different parts from different manufacturers. To determine the torque value for a part, use the following as a guide.

- a) Torque nuts to the lowest value specified in the range.
- b) If the part continues to move, increase the amount of torque by half the difference from the present torque and the top of the torque range (an increase of 1 or 2 foot pounds between each test is the best procedure).
- c) If parts start deforming, stop tightening.

DO NOT under tighten fasteners. Part may slip or fall to function.

DO NOT tighten the fasteners too tight. You may damage the thread, which may cause an accident.

TORQUE REQUIREMENTS PART TO BE TIGHTENED

SUGGESTED TORQUE

Front Axle Nut	(25-30 NM / 18-22 ft. lb)
Handlebar Clamping Bolt	(8-10 NM / 6 - 8 ft. lb)
Stem Pillar Bolt	(16-18 NM / 12-13 ft. lb)
Brake Lever Fixing Nut	(7 - 9 NM / 5 - 7 ft. lb)
Crank nut	(30-35 NM / 22-26 ft. lb)
Pedals	(35-40 NM / 26-30 ft. lb)
Seat Post Clamp	(16-18 NM / 12-13 ft. lb)

MAINTENANCE

RECOMMENDED GENERAL MAINTENANCE SCHEDULE

To maintain the original brilliant plated and chrome finish, keep the bicycle and dry. Wipe off dirt moisture and oil clean, soft cloth, periodically polish with clear coat of wax.

Single speed and internally geared bicycles require regular inspection of the bicycle chain. These chains are subject to stretching and need to be periodically tensioned. A chain that has stretched may come off either the front or rear cog mechanism on the bicycle resulting in sudden loss of control of the bike. We strongly recommend regular inspection of the chain tension and adjustment if required.

WARNING: Do not use a wax of any kind on the rims of your bicycle. In order for the caliperbrakes to operate properly, the rims should be kept clean and free of dirt and lubricants.

Due to wear of new parts, we recommend that you inspect the bicycle frequently for adjustment of brakes, bearings, wheels, etc. Adjust or tighten nuts and screws. The frequency of inspection would depend on how much and how hard you ride. Normally, we recommend a service check at least annually. Any component that does not function properly should be checked and corrected immediately. If you do not feel qualified to make the adjustment, we recommend that you take your bike to a qualified bicycle repairman.

Your bicycle will require maintenance. Although simple in most cases, there are times when the repairs and adjustment take special knowledge and proper tools. We recommend that when service is required. You should have a qualified bicycle repairman do it for you.

FRONT WHEEL REMOVAL

TOOLS REQUIRED – 6" (15CM) ADJUSTABLE WRENCH

1. Place bicycle upside down, resting it on the seat and handlebar. If necessary, remove one caliper brake shoe to allow clearance for wheel removal.
2. Remove axle nuts and depending on your model. Washer retainers or axle nuts, washers and wheel retainers.
3. Remove wheel from fork.

NOTE: To assemble front wheel to fork, see front wheel assembly section.

TIRE REMOVAL

Most tires can be removed and replaced by hand. Be careful, pinching the tire tube can easily put a hole in it even if you are using tire tools.

1. Remove valve stem cap.
2. Release air from the tire by depressing valve stem.
3. Tire should be loose in the rim.
4. Place wheel on floor.
5. Grasp tire with thumbs and fingers of both hands.
6. Lift tire and slide over one side of rim.
7. While holding the wheel with one hand, peel tire off of wheel rim with other hand.

TIRE INSTALLATION

1. Position tube inside of tire casing.
2. Insert tire valve stem into hole in rim.
3. With tube inside tire casing, roll tire casing onto rim. Be careful not to pinch tube, and be sure that the tube is not twisted in the tire.
4. Hold valve stem while inflating tire to pressure specified on side of tire.

TIRE INFLATION TOOLS REQUIRED – HAND PUMP & TIRE GAUGE

5. Tires make a big difference in the performance of your bike. When properly inflated and maintained, your tires will give you many miles of wear and service. The following are tips for proper maintenance and care of tires and wheels. And use Presta Valve adaptor to pump Presta Valve tube.



WARNING: 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.

MAINTENANCE continued

1. Tire pressure is indicated on the sidewall of the tire.
2. Check your tire pressure before each ride by squeezing the tire between your thumb and fingers. It should feel very firm, but not hard, when you sit on your bicycle, the tire sidewalls should not compress very much under your body weight. Check your tire pressure at least once a week with a pressure gauge.
3. Use a hand or foot pump to inflate your tires. **NEVER** inflate your tires with an air compressor at a gas station. Air compressors release a high volume of air under great pressure. This much air can explode a bicycle tire and tube in a matter of seconds, and any may cause serious personal injury. **DO NOT LET CHILDREN INFLATE TIRE.**
4. A bicycle tire will wear out faster when underinflated. An overinflated tire can become unseated from the rim and blow out. Be cautious of both these inflation areas.

RECOMMENDED TIRE PRESSURE

BMX	241-344 k.p.a. (35-50 p.s.i.)
MTB	276-448 k.p.a. (40-65 p.s.i.)
Road Touring	483-620 k.p.a. (70-90 p.s.i.)
Road Racing	755-862 k.p.a. (110-125 p.s.i.)
Hybrid/Crossbike	414-690 k.p.a. (60-100 p.s.i.)

BEAD NOT SEATED OR OFF RIM

Deflate tire, seat bead with hands and partially inflate tire for inspection. If the bead is properly seated, inflate to recommended pressure.

SEATING TIRE

After repairing or changing the tires, it is important that the tire is seated properly on the rim.

1. Run your fingers around the bead of the tire to insure it is inside the outer rim ridge.
2. Partially inflate the tire with a hand pump.
3. Inspect the tire to see that:
 - a) Valve stem is perpendicular to the rim.
 - b) Tire bead is properly seat inside the rim.
 - c) Spin tire to see if it is aligned straight on the rim.

TIRE NOT ALIGNED

Partially deflate tire, align using hands. Inflate tire to recommended pressure.

TRUEING WHEEL

Because this is difficult procedure, we suggest spoke adjustment be made by a qualified bicycle repairman.

TIRE AND TUBE DAMAGE

To prevent tire cuts, ruptures, rim bruise and star breaks. Avoid rough streets and alleys having glass and other debris. Don't jump curbing. Crooked wheels cause chafing of tires as well as uneven tread wear. To prevent distorted tire casings, hand your bicycle up or turn it upside down when storing for long periods.

BEARING ADJUSTMENT & LUBRICATION

There are several areas on the bicycle containing bearings that must be adjusted and /or lubricated. Proper maintenance in these areas will insure longer bearing life, and easier and safer riding. Adjustment of the bearings requires special knowledge and tools. We strongly suggest these adjustments be made by a qualified bicycle repairman.

BRAKE RUBBER REPLACEMENT

The brake rubbers will be damaged or worn-out after long use. Loosen the anchor bolt nut and the rubber bolt nuts. Replace the damaged rubbers. Re-tighten the bolt nuts and then re-tighten the anchor bolt nut.

WARNING: Be sure the anchor bolt and the rubber bolts are fully tightened. Do not ride your bicycle if the rubber has been damaged or has worn-out.

FRONT FORK

WARNING: IF YOU REPLACE THE FRONT FORK, MAKE SURE THE REPLACEMENT FORK HAS THE SAME RAKE AND SAME TUBE INNER DIAMETER AS THE ONE ORIGINALLY FITTE TO THE BICYCLE

LUBRICATION AND CLEANING

WARNING: Do not use a vegetable base oil to lubricate bike parts. This type of oil may dry and leave a harmful gum residue.

WEEKLY: Wipe bike with a damp cloth. Wipe dry. Polish metal surfaces. On caliper brake models, do not polish rims. Make sure no oil gets on caliper brake shoes. With a spray lubricant, lubricate chain and rear sprocket. On caliper brake models, lubricate hand brake lever cable pivot points. Wipe seat with a damp cloth and wipe dry.

ANNUALLY: The following components require lubrication, removal, disassembly, installation, special tools and knowledge. It is suggested that this service be preformed by a qualified bicycle repairman. Caliper brake cables should be removed from housing and greased. Clean and lubricate wheel bearings, head bearings and crank bearings. Check spokes and wheels and have trued if out of line.

Before you ride this bicycle, read the Rules For Safe Cycling and check that all parts are installed as per this instruction manual. It is also recommended for added safety and protection that you wear a bicycle helmet.

If you understand how the bicycle operates, you will get the best performance. When you read this instruction book, compare the illustrations to the bicycle. Learn the location of all the parts and how they work. Keep this book for future reference.

Before you ride the bicycle, check the brake and other parts of the bike. Make sure all the parts are 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.

WARNING ON AND OFF ROAD CONDITIONS: The condition of the riding surface is very important. If the surface is wet, or has sand, small rocks or other loose debris on the surface, 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 to help keep the bicycle from sliding.

RULES FOR SAFE CYCLING

- a) Observe all state and local traffic regulations, signs, and signals. Check with your local police on bicycle licensing and inspection, and where it is legal to ride your bicycle.
- b) Stay on the **RIGHT SIDE** and always ride with the flow of traffic. Never ride two abreast-single file only. Watch out for opening car doors or cars.
- c) Do **NOT** ride at night. Vision is quite limited at dawn and dusk.
- d) 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.
- e) Avoid road hazards which may hinder your ability to control your bicycle. Potholes, ruts, uneven pavement, railroad crossing, manhole covers, storm grating, soft road edges, gravel, curbs, speed bumps, leaves, puddles, and debris can all have effect on your riding and result in loss of control.
- f) Never carry passengers on your bicycle. Never carry packages in your hands or attach anything to your bicycle which could hinder your vision or control.
- g) Don't play in the streets. Use caution at intersections.
- h) Don't wear anything that restricts your hearing.
- i) Always ride with both hands on the handlebars.
- j) Don't wear extremely loose clothing which could hang down and get caught in the wheels of your bicycle. Wear a cuff band or trouser clip to keep your pants from getting caught in the chainwheel.
- k) Always wear proper safety equipment. A helmet, long sleeved shirt, long pants, shoes, and elbow and knee pads are suggested. Gloves and eye protection also make good sense.
- l) Cover your stem, handlebar, and top tube with safety pads for additional protection.
- m) Do not ride bicycle if chain cover is not attached.

**ALWAYS WEAR A HELMET -
IT COULD SAVE YOUR LIFE!**



BICYCLE COMPONENTS DIAGRAM



WARRANTY

All Samson Cycles bicycles (excluding electric bikes) come with a limited lifetime frame and fork warranty. This warranty is strictly limited to defects related to manufacturing and does not cover defects through accidents, incorrect use/assembly, lack of maintenance and/or modifications of any kind. Suspension forks on all Samson Cycles bicycles come with a limited two-year warranty.

All Samson Cycles electric bicycles come with a limited 5-year frame and fork warranty. This warranty is strictly limited to defects related to manufacturing and does not cover defects through accidents, incorrect use/assembly, lack of maintenance and/or modifications of any kind.

All Samson Cycles bicycles come with a limited 12-month warranty on all parts. This warranty is strictly limited to defects related to manufacturing and does not cover defects through accidents, incorrect use/assembly, lack of maintenance and/or modifications of any kind. Electric bicycle batteries have a limited warranty of 12 months.

All warranty claims are assessed on an individual basis and are at the sole discretion of Samson Cycles. Warranty claims are only applicable to the original purchaser of a bicycle and exclude bicycles that have been used for commercial purposes. All shipped bicycles MUST be assembled by a bicycle shop and proof of this will be requested prior to any warranty claims being considered.