



SHINOLA
DETROIT

Where American is made.

BICYCLE
OWNER'S MANUAL

THIS MANUAL MEETS EN STANDARDS 14764

IMPORTANT

This manual contains important safety, performance and service information. Read it before you take the first ride on your new bicycle, and keep it for reference.

Additional safety, performance and service information for specific components, or for accessories such as helmets or lights that you purchase, may also be available from their respective manufacturers. In case of a conflict between the instructions in this manual and information provided by a component or accessory manufacturer, always follow the manufacturer's instructions.

If you have any questions or do not understand something, take responsibility for your safety and consult with a qualified bicycle mechanic or SHINOLA Customer Service.

Note: *This manual is not intended as a comprehensive use, service, repair or maintenance manual. Please consult with a qualified bicycle mechanic for all service, repairs or maintenance.*

ASSEMBLY

If your SHINOLA bicycle was purchased through a professional bicycle dealer, it is fully assembled and ready to ride.

If your SHINOLA bicycle was purchased direct from SHINOLA, some assembly is required. Please refer to specific assembly instructions included with the bicycle, and view the assembly videos available at SHINOLA.com. Once the bicycle is assembled, proceed to Section 1 of this manual.

INTENDED USE



WARNING: *UNDERSTAND YOUR BICYCLE AND ITS INTENDED USE. CHOOSING THE WRONG BICYCLE FOR YOUR PURPOSE CAN BE HAZARDOUS. USING YOUR BICYCLE THE WRONG WAY IS DANGEROUS AND WILL VOID YOUR WARRANTY.*

SHINOLA bicycles are not intended for use by children age 12 and under.
SHINOLA bicycles are intended for riding on paved surfaces, smooth dirt or gravel roads, where the tires do not lose ground contact.
SHINOLA bicycles are not intended for off-road use, for touring with heavy loads, for carrying children or other heavy loads, or for pulling trailers.

MAXIMUM WEIGHT LIMIT

RIDER	LUGGAGE	TOTAL
LBS/KG	LBS/KG	LBS/KG
255/105	30/14	285/129

GENERAL WARNING

Like any sport, bicycling involves risk of injury and damage. By choosing to ride a bicycle, you assume the responsibility for that risk, so you need to know — and to practice — the rules of safe and responsible riding and of proper use and maintenance. Proper use and maintenance of your bicycle reduces risk of injury.

This manual contains many **WARNINGS** and **CAUTIONS** concerning the consequences of failure to maintain or inspect your bicycle and of failure to follow safe cycling practices.

The combination of the  safety alert symbol and the word **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

The combination of the  safety alert symbol and the word **CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, or is an alert against unsafe practices.

The word **CAUTION** used without the safety alert symbol indicates a situation which, if not avoided, could result in serious damage to the bicycle or the voiding of your warranty.

Many of the **WARNINGS** and **CAUTIONS** say “you may lose control and fall.” Because any fall can result in serious injury or even death, we do not always repeat the warning of possible injury or death.

Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representation about the safe use of the bicycle under all conditions. There are risks associated with the use of any bicycle which cannot be predicted or avoided, and which are the sole responsibility of the rider.

1. FIRST

Note: We strongly urge you to read this manual in its entirety before your first ride. At the very least, read and make sure that you understand each point in this section, and refer to the cited sections on any issue which you don't completely understand.

A. BICYCLE FIT

1. Is your bicycle the right size? To check, see Section 3.A. If your bicycle is too large or too small for you, you may lose control and fall. If your new bicycle is not the right size, ask about exchanging it before you ride it.
2. Is the saddle at the right height? To check, see Section 3.B. If you adjust your saddle height, follow the Minimum Insertion instructions in Section 3.B.
3. Are saddle and seat post securely clamped? A correctly tightened saddle will allow no saddle movement in any direction. See Section 3.B.
4. Can you comfortably operate the brakes? If not, you may be able to have their angle and reach adjusted. See Section 3.C.
5. Do you fully understand how to operate your new bicycle? If not, before your first ride, consult your SHINOLA dealer or call SHINOLA Customer Service about any functions or features which you do not understand.

B. SAFETY FIRST

1. Always wear an approved helmet when riding your bicycle, and follow the helmet manufacturer's instructions for fit, use and care.
2. Do you have all the other required and recommended safety equipment? See Section 2. It's your responsibility to familiarize yourself with the laws of the areas where you ride, and to comply with all applicable laws.
3. Do you know how to correctly secure your front and rear wheels? Check the instructional videos at SHINOLA.com to make sure. Riding with an improperly secured wheel can cause the wheel to wobble or disengage from the bicycle, and cause serious injury or death.
4. Do you have “toe overlap?” On smaller framed bicycles your toe or toeclip may be able to contact the front wheel when a pedal is all the way forward and the wheel is turned. Read Section 4.D. to check whether you have toe overlap.

C. MECHANICAL SAFETY CHECK

Note: Routinely check the condition of your bicycle before every ride.

Nuts, bolts, screws and other fasteners: Because manufacturers use a wide variety of fastener sizes and shapes made in a variety of materials, often differing by model and component, the correct tightening force or torque cannot be generalized. To make sure that the many fasteners on your bicycle are correctly tightened, refer to the Fastener Torque Specifications in the Maintenance section of this manual or to the torque specifications in the instructions provided by the manufacturer of the component in question.

Correctly tightening a fastener requires a calibrated torque wrench. A professional bicycle mechanic with a torque wrench should torque the fasteners on your bicycle. If you choose to work on your own bicycle, you must use a torque wrench and the correct tightening torque specifications from the bicycle or component manufacturer or from a qualified bicycle mechanic. If you need to make an adjustment at home or in the field, we urge you to exercise care, and to have the fasteners you worked on checked by a qualified bicycle mechanic as soon as possible.



WARNING: CORRECT TIGHTENING FORCE ON FASTENERS –NUTS, BOLTS, SCREWS– ON YOUR BICYCLE IS IMPORTANT. TOO LITTLE FORCE, AND THE FASTENER MAY NOT HOLD SECURELY. TOO MUCH FORCE, AND THE FASTENER CAN STRIP THREADS, STRETCH, DEFORM OR BREAK. EITHER WAY, INCORRECT TIGHTENING FORCE CAN RESULT IN COMPONENT FAILURE, WHICH CAN CAUSE YOU TO LOSE CONTROL AND FALL.

- Make sure nothing is loose. Lift the front wheel off the ground by two or three inches, then let it bounce on the ground. Anything sound, feel or look loose? Do a visual and tactile inspection of the whole bicycle. Any loose parts or accessories? If so, secure them. If you're not sure, ask someone with experience to check.
- Tires & Wheels:** Make sure tires are correctly inflated (see Section 4.E.1). Check by putting one hand on the saddle, one on the intersection of the handlebars and stem, then bouncing your weight on the bicycle while looking at tire deflection. Compare what you see with how it looks when you know the tires are correctly inflated; and adjust if necessary.
- Tires in good shape? Spin each wheel slowly and look for cuts in the tread and sidewall. Replace damaged tires before riding the bicycle.
- Wheels true? Spin each wheel and check for brake clearance and side-to-side wobble. If a wheel wobbles side to side even slightly, or, in the case of rim brakes, rubs against or hits the brake pads, take the bicycle to a qualified bicycle shop to have the wheel trued.



CAUTION: WHEELS MUST BE TRUE FOR RIM BRAKES TO WORK EFFECTIVELY. WHEEL TRUING IS A SKILL WHICH REQUIRES SPECIAL TOOLS AND EXPERIENCE. DO NOT ATTEMPT TO TRUE A WHEEL UNLESS YOU HAVE THE KNOWLEDGE, EXPERIENCE AND TOOLS NEEDED TO DO THE JOB CORRECTLY.

- Wheel rims clean and undamaged? Make sure the rims are clean and undamaged at the tire bead and, if you have rim brakes, along the braking surface. Check to make sure that any rim wear indicator marking is not visible at any point on the wheel rim.



WARNING: BICYCLE WHEEL RIMS ARE SUBJECT TO WEAR. ASK A QUALIFIED BICYCLE MECHANIC OR SHINOLA CUSTOMER SERVICE ABOUT WHEEL RIM WEAR. SOME WHEEL RIMS HAVE A RIM WEAR INDICATOR WHICH BECOMES VISIBLE AS THE RIM'S BRAKING SURFACE WEARS. A VISIBLE RIM WEAR INDICATOR ON THE SIDE OF THE WHEEL RIM IS AN INDICATION THAT THE WHEEL RIM HAS REACHED ITS MAXIMUM USABLE LIFE. RIDING A WHEEL THAT IS AT THE END OF ITS USABLE LIFE CAN RESULT IN WHEEL FAILURE, WHICH CAN CAUSE YOU TO LOSE CONTROL AND FALL.

- Brakes:** Check the brakes for proper operation (see Section 4.B). Squeeze the brake levers. Are the brake quick-releases closed? All control cables seated and securely engaged? If you have rim brakes, do the brake pads contact the wheel rim squarely and make full contact with the rim? Do the brakes begin to engage within an inch of brake lever movement? Can you apply full braking force at the levers without having them touch the handlebar? If not, your brakes need adjustment. Do not ride the bicycle until the brakes are properly adjusted by a qualified bicycle mechanic.
- Wheel retention system:** Make sure the front and rear wheels are correctly secured. See the instructional video at SHINOLA.com.
- Handlebar and saddle alignment:** Make sure the saddle and handlebar stem are parallel to the bicycle's center line and clamped tight enough so that you can't twist them out of alignment. See Sections 3.B.
- Handlebar ends:** Make sure the handlebar grips are secure and in good condition. If not, have them replaced. Make sure the handlebar ends are plugged. If not, have a bicycle shop plug them before you ride.



WARNING: LOOSE OR DAMAGED HANDLEBAR GRIPS OR EXTENSIONS CAN CAUSE YOU TO LOSE CONTROL AND FALL. UNPLUGGED HANDLEBARS OR EXTENSIONS CAN CUT YOU AND CAUSE SERIOUS INJURY IN AN OTHERWISE MINOR ACCIDENT.

D. FIRST RIDE

When you buckle on your helmet and go for your first familiarization ride on your new bicycle, be sure to pick a controlled environment, away from cars, other cyclists, obstacles or other hazards. Ride to become familiar with the controls, features and performance of your new bicycle.

Familiarize yourself with the braking action of the bicycle (see Section 4.B). Test the brakes at slow speed, putting your weight toward the rear and gently applying the brakes, rear brake first. Sudden or excessive application of the front brake could pitch you over the handlebars. Applying brakes too hard can lock up a wheel, which could cause you to lose control and fall. Skidding is an example of what can happen when a wheel locks up.

Practice shifting the gears (see Section 4.C). Remember to never move the shifter while pedaling backward, and don't pedal backwards immediately after having moved the shifter. This could jam the chain and cause serious damage to the bicycle.

Check out the handling and response of the bicycle, and check the comfort.

If you have any questions, or if you feel anything about the bicycle is not as it should be, consult your SHINOLA bicycle dealer or SHINOLA Customer Service before you ride again.

2. SAFETY

A. THE BASICS



WARNING: THE AREA IN WHICH YOU RIDE MAY REQUIRE SPECIFIC SAFETY DEVICES. IT IS YOUR RESPONSIBILITY TO FAMILIARIZE YOURSELF WITH THE LAWS OF THE AREA WHERE YOU RIDE AND TO COMPLY WITH ALL APPLICABLE LAWS, INCLUDING PROPERLY EQUIPPING YOURSELF AND YOUR BICYCLE AS THE LAW REQUIRES.

Note: Observe all local bicycle laws and regulations. Observe regulations about bicycle lighting, licensing of bicycles, riding on sidewalks, laws regulating bicycle path and trail use, helmet laws, child carrier laws, special bicycle traffic laws. It's your responsibility to know and obey the laws.



IMAGE 1

1. Always wear a cycling helmet which meets the latest certification standards and is appropriate for the type of riding you do. Always follow the helmet manufacturer's instructions for fit, use and care of your helmet. Most serious bicycle injuries involve head injuries which might have been avoided if the rider had worn an appropriate helmet. (See Image 1)



WARNING: FAILURE TO WEAR A HELMET WHEN RIDING MAY RESULT IN SERIOUS INJURY OR DEATH.

2. Always do the Mechanical Safety Check (Section 1.C) before you get on a bicycle.
3. Be thoroughly familiar with the controls of your bicycle: brakes (Section 4.B.); shifting (Section 4.C.); pedals (Section 4.D.)
4. Be careful to keep body parts and other objects away from the sharp teeth of chainrings, the moving chain, the turning pedals and cranks, and the spinning wheels of your bicycle.
5. Always wear
 - Shoes that will stay on your feet and will grip the pedals. Make sure that shoe laces cannot get into moving parts, and never ride barefoot or in sandals.
 - Bright, visible clothing that is not so loose that it can be tangled in the bicycle or snagged by objects at the side of the road or trail.
 - Protective eyewear, to protect against airborne dirt, dust and bugs — tinted when the sun is bright, clear when it's not.

B. RIDING SAFETY

1. Obey all Rules of the Road and all local traffic laws.
2. You are sharing the road or the path with others — motorists, pedestrians and other cyclists. Respect their rights.
3. Ride defensively. Always assume that others do not see you.
4. Look ahead, and be ready to avoid:
 - Vehicles slowing or turning, entering the road or your lane ahead of you, or coming up behind you.
 - Parked car doors opening.
 - Pedestrians stepping out.
 - Children or pets playing near the road.
 - Pot holes, sewer grating, railroad tracks, expansion joints, road or sidewalk construction, debris and other obstructions that could cause you to swerve into traffic, catch your wheel or cause you to have an accident.
 - The many other hazards and distractions which can occur on a bicycle ride.
5. Ride in designated bicycle lanes, on designated bicycle paths or as close to the edge of the road as possible, in the direction of traffic flow or as directed by local governing laws.
6. Stop at stop signs and traffic lights; slow down and look both ways at street intersections. Remember that a bicycle always loses in a collision with a motor vehicle, so be prepared to yield even if you have the right of way.
7. Use approved hand signals for turning and stopping.
8. Never ride with headphones. They mask traffic sounds and emergency vehicle sirens, distract you from concentrating on what's going on around you, and their wires can tangle in the moving parts of the bicycle, causing you to lose control.
9. Never carry a passenger.
10. Never carry anything which obstructs your vision or your complete control of the bicycle, or which could become entangled in the moving parts of the bicycle.
11. Never hitch a ride by holding on to another vehicle.
12. Don't do stunts, wheelies or jumps. If you intend to do stunts, wheelies, jumps or go racing with your bicycle despite our advice not to, read Section 2.F, *Downhill, Stunt or Competition Biking*, **now**. Think carefully about your skills before deciding to take the large risks that go with this kind of riding.
13. Don't weave through traffic or make any moves that may surprise people with whom you are sharing the road.
14. Observe and yield the right of way.
15. Never ride your bicycle while under the influence of alcohol or drugs.
16. If possible, avoid riding in bad weather, when visibility is obscured, at dawn, dusk or in the dark, or when extremely tired. Each of these conditions increases the risk of accident.

D. WET WEATHER RIDING



WARNING: WET WEATHER IMPAIRS TRACTION, BRAKING AND VISIBILITY, BOTH FOR THE BICYCLIST AND FOR OTHER VEHICLES SHARING THE ROAD. THE RISK OF AN ACCIDENT IS DRAMATICALLY INCREASED IN WET CONDITIONS.

Under wet conditions, the stopping power of your brakes (as well as the brakes of other vehicles sharing the road) is dramatically reduced and your tires don't grip nearly as well. This makes it harder to control speed and easier to lose control. To make sure that you can slow down and stop safely in wet conditions, ride more slowly and apply your brakes earlier and more gradually than you would under normal, dry conditions. See also Section 4.B.

E. NIGHT RIDING

Riding a bicycle at night is *much* more dangerous than riding during the day. A bicyclist is very difficult for motorists and pedestrians to see. Therefore, children should never ride at dawn, at dusk or at night. Adults who choose to accept the greatly increased risk of riding at dawn, at dusk or at night need to take extra care both riding and choosing specialized equipment which helps reduce that risk. Consult a professional bicycle shop about night riding safety equipment.



WARNING: REFLECTORS ARE NOT A SUBSTITUTE FOR REQUIRED LIGHTS. RIDING AT DAWN, AT DUSK, AT NIGHT OR AT OTHER TIMES OF POOR VISIBILITY WITHOUT AN ADEQUATE BICYCLE LIGHTING SYSTEM AND WITHOUT REFLECTORS IS DANGEROUS AND MAY RESULT IN SERIOUS INJURY OR DEATH.

Bicycle reflectors are designed to pick up and reflect car lights and street lights in a way that may help you to be seen and recognized as a moving bicyclist.



CAUTION: CHECK REFLECTORS AND THEIR MOUNTING BRACKETS REGULARLY TO MAKE SURE THAT THEY ARE CLEAN, STRAIGHT, UNBROKEN AND SECURELY MOUNTED. REPLACE DAMAGED REFLECTORS AND STRAIGHTEN OR TIGHTEN ANY THAT ARE BENT OR LOOSE.



WARNING: DO NOT REMOVE THE FRONT OR REAR REFLECTORS OR REFLECTOR BRACKETS FROM YOUR BICYCLE. THEY ARE AN INTEGRAL PART OF THE BICYCLE'S SAFETY SYSTEM.



WARNING: REMOVING THE REFLECTORS REDUCES YOUR VISIBILITY TO OTHERS USING THE ROADWAY. BEING STRUCK BY OTHER VEHICLES MAY RESULT IN SERIOUS INJURY OR DEATH. THE REFLECTOR BRACKETS MAY PROTECT YOU FROM A BRAKE STRADDLE CABLE CATCHING ON THE TIRE IN THE EVENT OF BRAKE CABLE FAILURE. IF A BRAKE STRADDLE CABLE CATCHES ON THE TIRE, IT CAN CAUSE THE WHEEL TO STOP SUDDENLY, CAUSING YOU TO LOSE CONTROL AND FALL.

If you choose to ride under conditions of poor visibility, check and be sure you comply with all local laws about night riding, and take the following strongly recommended additional precautions: Purchase and install battery or generator powered head and tail

lights which meet all regulatory requirements and provide adequate visibility.

- Wear light colored, reflective clothing and accessories, such as a reflective vest, reflective arm and leg bands, reflective stripes on your helmet, flashing lights attached to your body and/or your bicycle. Any reflective device or light source that moves will help you get the attention of approaching motorists, pedestrians and other traffic.
- Make sure your clothing or anything you may be carrying on the bicycle does not obstruct a reflector or light.
- Make sure that your bicycle is equipped with correctly positioned and securely mounted reflectors.

While riding at dawn, at dusk or at night:

- Ride slowly.
- Avoid dark areas and areas of heavy or fast-moving traffic.
- Avoid road hazards.
- If possible, ride on familiar routes.

If riding in traffic:

- Be predictable. Ride so that drivers can see you and predict your movements.
- Be alert. Ride defensively and expect the unexpected.
- If you plan to ride in traffic often, ask a professional bicycle shop about traffic safety classes or a good book on bicycle traffic safety.

F. EXTREME, STUNT OR COMPETITION RIDING

If you engage in extreme, aggressive riding *you will get hurt*, and you voluntarily assume a greatly increased risk of injury or death. SHINOLA bicycles are **not** designed for this type of riding.



WARNING: ALTHOUGH MANY CATALOGS, ADVERTISEMENTS AND ARTICLES ABOUT BICYCLING DEPICT RIDERS ENGAGED IN EXTREME RIDING, THIS ACTIVITY IS EXTREMELY DANGEROUS, INCREASES YOUR RISK OF INJURY OR DEATH, AND INCREASES THE SEVERITY OF ANY INJURY. REMEMBER THAT THE ACTION DEPICTED IS BEING PERFORMED BY PROFESSIONALS WITH MANY YEARS OF TRAINING AND EXPERIENCE. KNOW YOUR LIMITS AND ALWAYS WEAR A HELMET AND OTHER APPROPRIATE SAFETY GEAR. EVEN WITH STATE-OF-THE-ART PROTECTIVE SAFETY GEAR, YOU COULD BE SERIOUSLY INJURED OR KILLED WHEN JUMPING, STUNT RIDING, RIDING DOWNHILL AT SPEED OR IN COMPETITION. ULTIMATELY, AVOIDING INJURY IS YOUR RESPONSIBILITY.



WARNING: BICYCLES AND BICYCLE PARTS HAVE LIMITATIONS WITH REGARD TO STRENGTH AND INTEGRITY, AND THIS TYPE OF RIDING CAN EXCEED THOSE LIMITATIONS.

G. CHANGING COMPONENTS OR ADDING ACCESSORIES

There are many components and accessories available to enhance the comfort, performance and appearance of your bicycle. However, if you change components or add accessories which are not SHINOLA branded, you do so at your own risk.

SHINOLA may not have tested that component or accessory for compatibility, reliability or safety on your bicycle. Before installing any component or accessory, including a

different size tire, make sure that it is compatible with your bicycle by checking with a professional bicycle dealer or SHINOLA Customer Service. Be sure to read, understand and follow the instructions that accompany the products you purchase for your bicycle.



WARNING: FAILURE TO CONFIRM COMPATIBILITY, PROPERLY INSTALL, OPERATE AND MAINTAIN ANY COMPONENT OR ACCESSORY CAN RESULT IN SERIOUS INJURY OR DEATH.



WARNING: CHANGING THE COMPONENTS ON YOUR BICYCLE WITH OTHER THAN GENUINE REPLACEMENT PARTS MAY COMPROMISE THE SAFETY OF YOUR BICYCLE AND MAY VOID THE WARRANTY. CHECK WITH YOUR DEALER BEFORE CHANGING THE COMPONENTS ON YOUR BICYCLE.

3. FIT

Note: Correct fit is an essential element of bicycling safety, performance and comfort. Making the adjustments to your bicycle which result in correct fit for your body and riding conditions requires experience, skill and special tools. Always have a qualified bicycle mechanic make the adjustments on your bicycle; or, if you have the experience, skill and tools, have a qualified bicycle mechanic check your work before riding. (See Image 1)



WARNING: IF YOUR BICYCLE DOES NOT FIT PROPERLY, YOU MAY LOSE CONTROL AND FALL. IF YOUR NEW BICYCLE DOESN'T FIT, ASK ABOUT EXCHANGING IT BEFORE YOU RIDE

IT



IMAGE 1



IMAGE 2

A. STANDOVER HEIGHT

- 17. Diamond frame bicycles:** Standover height is the basic element of bicycle fit. It is the distance from the ground to the top of the bicycle's frame at that point where your crotch is when straddling the bicycle. To check for correct standover height, straddle the bicycle while wearing the kind of shoes in which you'll be riding, and bounce vigorously on your heels. If your crotch touches the frame, the bicycle is too big for you. Don't even ride the bicycle around the block. A SHINOLA bicycle should give you a minimum standover height clearance of one inch (2.5 cm). (See Image 2)
- 18. Step-through frame bicycles:** Standover height does not apply to bicycles with step-through frames. Instead, the limiting dimension is determined by saddle height range. You must be able to adjust your saddle position as described in Section 3.B without exceeding the limits set by the height of the top of the seat tube and the "Minimum Insertion" mark on the seat post.

B. SADDLE POSITION

Correct saddle adjustment is an important factor in getting the most performance and comfort from your bicycle. If the saddle position is not comfortable for you, see your dealer. The saddle can be adjusted in three directions.

1. Up and down adjustment. To check for correct saddle height:

- Sit on the saddle;
- Place one heel on a pedal;
- Rotate the crank until the pedal with your heel on it is in the down position and the crank arm is parallel to the seat tube.

If your leg is not completely straight, your saddle height needs to be adjusted. If your hips must rock for the heel to reach the pedal, the saddle is too high. If your leg is bent at the knee with your heel on the pedal, the saddle is too low.

See the instructional video at SHINOLA.com to set the saddle for your optimal riding position. It will show you how to:

- Loosen the seat post clamp
- Raise or lower the seat post in the seat tube
- Make sure the saddle is straight fore and aft
- Re-tighten the seat post clamp to the recommended torque (Section 5.C).

Once the saddle is at the correct height, make sure that the seat post does not project from the frame beyond its “Minimum Insertion” mark.



WARNING: IF YOUR SEAT POST IS NOT INSERTED IN THE SEAT TUBE AS DESCRIBED IN SECTION 3.B.1 ABOVE, THE SEAT POST MAY BREAK, WHICH COULD CAUSE YOU TO LOSE CONTROL AND FALL.

2. Front and back adjustment. The saddle can be adjusted forward or back to help you get the optimal position on the bicycle. If you make any front and back adjustment, make sure that the clamp mechanism is clamping on the straight part of the saddle rails and is not touching the curved part of the rails, and that you are using the recommended torque on the clamping fastener(s) (Section 5.C).

3. Saddle angle adjustment. Most people prefer a horizontal saddle; but some riders like the saddle nose angled up or down just a little. If you make a saddle angle adjustment, it is critical that you loosen the clamp bolt sufficiently to allow any serrations on the mechanism to disengage before changing the saddle's angle, and then that the serrations fully re-engage before you tighten the clamp bolt to the recommended torque (Section 5.C).



WARNING: WHEN MAKING SADDLE ANGLE ADJUSTMENTS, ALWAYS CHECK TO MAKE SURE THAT THE SERRATIONS ON THE MATING SURFACES OF THE CLAMP ARE NOT WORN. WORN SERRATIONS ON THE CLAMP CAN ALLOW THE SADDLE TO MOVE, CAUSING YOU TO LOSE CONTROL AND FALL. ALWAYS TIGHTEN FASTENERS TO THE CORRECT TORQUE. BOLTS THAT ARE TOO TIGHT CAN STRETCH AND DEFORM. BOLTS THAT ARE TOO LOOSE CAN MOVE AND FATIGUE. EITHER MISTAKE CAN LEAD TO A SUDDEN FAILURE OF THE BOLT, CAUSING YOU TO LOSE CONTROL AND FALL.

Small changes in saddle position can have a substantial effect on performance and comfort. To find your best saddle position, make only one adjustment at a time.



WARNING: AFTER ANY SADDLE ADJUSTMENT, BE SURE THAT THE SADDLE ADJUSTING MECHANISM IS PROPERLY SEATED AND TIGHTENED BEFORE RIDING. A LOOSE SADDLE CLAMP OR SEAT POST CLAMP CAN CAUSE DAMAGE TO THE SEAT POST, OR CAN CAUSE YOU TO LOSE CONTROL AND FALL. A CORRECTLY TIGHTENED SADDLE ADJUSTING MECHANISM WILL ALLOW NO SADDLE MOVEMENT IN ANY DIRECTION. PERIODICALLY CHECK TO MAKE SURE THAT THE SADDLE ADJUSTING MECHANISM IS PROPERLY TIGHTENED.

If, in spite of carefully adjusting the saddle height, tilt and fore-and-aft position, your saddle is still uncomfortable, you may need a different saddle design. Saddles, like people, come in many different shapes, sizes and resilience. A professional bicycle shop can help you select a saddle which, when correctly adjusted for your body and riding style, will be comfortable.



WARNING: SOME PEOPLE HAVE CLAIMED THAT EXTENDED RIDING WITH A SADDLE WHICH IS INCORRECTLY ADJUSTED OR WHICH DOES NOT SUPPORT YOUR PELVIC AREA CORRECTLY CAN CAUSE SHORT-TERM OR LONG-TERM INJURY TO NERVES AND BLOOD VESSELS, OR EVEN IMPOTENCE. IF YOUR SADDLE CAUSES YOU PAIN, NUMBNESS OR OTHER DISCOMFORT, LISTEN TO YOUR BODY AND STOP RIDING UNTIL YOU SEE YOUR DEALER ABOUT SADDLE ADJUSTMENT OR A DIFFERENT SADDLE.

C. CONTROL POSITION ADJUSTMENTS

The angle of the handlebar, brake and shift control levers and the position of the controls on the handlebars can be changed by a qualified bicycle mechanic.

4. TECH

It's important to your safety, performance and enjoyment to understand how things work on your bicycle. If you have even the slightest doubt as to whether you understand something in this section of the manual, talk to your dealer or consult with SHINOLA Customer Service.

A. WHEELS

Bicycle wheels are designed to be removable for easier transportation and for repair of a tire puncture. To make that process easier, the wheels are fixed to slotted ends in the frame and fork of the bicycle, called "dropouts." Be sure that you view and understand the wheel removal and installation video at SHINOLA.com before attempting to remove or install a wheel on your SHINOLA bicycle.

Note: *It is very important that you understand the wheel securing method on your bicycle, that you know how to secure the wheels correctly, and that you know how to apply the correct clamping force that safely secures the wheel. If you have any doubt at all that you understand and are able to execute the procedures described in the instructional video, consult a qualified bicycle mechanic.*



WARNING: RIDING WITH AN IMPROPERLY SECURED WHEEL CAN ALLOW THE WHEEL TO WOBBLE OR FALL OFF THE BICYCLE, WHICH CAN CAUSE SERIOUS INJURY OR DEATH. THEREFORE, IT IS ESSENTIAL THAT YOU: MAKE SURE YOU KNOW HOW TO INSTALL AND REMOVE YOUR WHEELS SAFELY. UNDERSTAND AND APPLY THE CORRECT TECHNIQUE FOR CLAMPING YOUR WHEEL IN PLACE. EACH TIME, BEFORE YOU RIDE THE BICYCLE, CHECK THAT THE WHEEL IS SECURELY CLAMPED.

Note: *The clamping action of a correctly secured wheel must emboss the surfaces of the dropouts.*

B. BRAKES

Your SHINOLA bicycle will have one of two types of brakes: rim brakes, which operate by squeezing the wheel rim between two brake pads; or disc brakes, which operate by squeezing a hub-mounted disc between two brake pads.



WARNING: RIDING WITH IMPROPERLY ADJUSTED BRAKES, WORN BRAKE PADS, OR WHEELS ON WHICH THE RIM WEAR MARK IS VISIBLE IS DANGEROUS AND CAN RESULT IN SERIOUS INJURY OR DEATH. APPLYING BRAKES TOO HARD OR TOO SUDDENLY CAN LOCK UP A WHEEL, WHICH COULD CAUSE YOU TO LOSE CONTROL AND FALL. SUDDEN OR EXCESSIVE APPLICATION OF THE FRONT BRAKE MAY PITCH YOU OVER THE HANDLEBARS, WHICH MAY RESULT IN SERIOUS INJURY

OR DEATH. BICYCLE BRAKES ARE EXTREMELY POWERFUL. TAKE GREAT CARE IN BECOMING FAMILIAR WITH THE BRAKES AND EXERCISE PARTICULAR CARE WHEN USING THEM. DISC BRAKES CAN GET EXTREMELY HOT WITH EXTENDED USE. BE CAREFUL NOT TO TOUCH A DISC BRAKE UNTIL IT HAS HAD PLENTY OF TIME TO COOL. PROPER MAINTENANCE AND SERVICING OF BRAKES REQUIRES SKILL, EXPERIENCE AND SPECIAL TOOLS. ENTRUST THE MAINTENANCE OF YOUR BICYCLE'S BRAKES ONLY TO A QUALIFIED BICYCLE MECHANIC. IF REPLACING WORN OR DAMAGED PARTS, USE ONLY MANUFACTURER-APPROVED GENUINE REPLACEMENT PARTS.

4. Brake Controls and Features: It's very important to your safety that you learn and remember which brake lever controls which brake on your bicycle. Traditionally, the right brake lever controls the rear brake and the left brake lever controls the front brake; but, to make sure your bicycle's brakes are set up this way, squeeze one brake lever and look to see which brake, front or rear, engages. Now do the same with the other brake lever.

Make sure that your hands can reach and squeeze the brake levers comfortably. If your hands are too small to operate the levers comfortably, consult a qualified bicycle mechanic or SHINOLA Customer Service before riding the bicycle.

If your SHINOLA bicycle has rim brakes, they will have a quick-release mechanism to allow the brake pads to clear the tire when a wheel is removed or reinstalled. When the brake quick release is in the open position, the brakes are inoperative. Ask a qualified bicycle mechanic or SHINOLA Customer Support to make sure that you understand the way the brake quick release works on your bicycle, and check each time to make sure both brakes work correctly before you get on the bicycle.

5. How Brakes Work: The braking action of a bicycle is a function of the friction between the braking surfaces. To make sure that you have maximum friction available, keep your wheel rims and brake pads or the disk rotor and caliper clean and free of dirt, lubricants, waxes or polishes.

Brakes are designed to control your speed, not just to stop the bicycle. Maximum braking force for each wheel occurs at the point just before the wheel "locks up" (stops rotating) and starts to skid. Once the tire skids, you actually lose most of your stopping force and all directional control. You need to practice slowing and stopping smoothly without locking up a wheel. The technique is called progressive brake modulation. Instead of jerking the brake lever to the position where you think you'll generate appropriate braking force, squeeze the lever, progressively increasing the braking force. If you feel the wheel begin to lock up, release pressure just a little to keep the wheel rotating just short of lockup. It's important to develop a feel for the amount of brake lever pressure required for each wheel at different speeds and on different surfaces. To better understand this, experiment a little by walking your bicycle and applying different amounts of pressure to each brake lever, until the wheel locks.

When you apply one or both brakes, the bicycle begins to slow, but your body wants to continue at the speed at which it was going. This causes a transfer of weight to the front wheel (or, under heavy braking, around the front wheel hub, which could send you flying over the handlebars).

A wheel with more weight on it will accept greater brake pressure before lockup; a wheel with less weight will lock up with less brake pressure. So, as you apply brakes and your weight is transferred forward, you need to shift your body toward the rear of the

bicycle, to transfer weight back on to the rear wheel; and at the same time, you need to both decrease rear braking and increase front braking force. This is even more important on descents, because descents shift weight forward.

Two keys to effective speed control and safe stopping are controlling wheel lockup and weight transfer. Practice braking and weight transfer techniques where there is no traffic or other hazards and distractions. Everything changes when you ride on loose surfaces or in wet weather. It will take longer to stop on loose surfaces or in wet weather. Tire adhesion is reduced, so the wheels have less cornering and braking traction and can lock up with less brake force. Moisture or dirt on the brake pads reduces their ability to grip. The way to maintain control on loose or wet surfaces is to go more slowly.

C. SHIFTING GEARS

Your SHINOLA bicycle is either a single speed or a multiple speed with internal gear hub.

Shifting gears with an internal gear hub drivetrain is simply a matter of moving the shift control, located next to the right brake lever, to the indicated position for the desired gear ratio. After you have moved the shifter to the gear position of your choice, ease the pressure on the pedals for an instant to allow the hub to complete the shift.

1. **Which gear should I be in?** The numerically lowest gear (1) is for the steepest hills. The numerically largest gear is for the greatest speed.

Shifting from an easier, “slower” gear (like 1) to a harder, “faster” gear (like 2 or 3) is called an upshift. Shifting from a harder, “faster” gear to an easier, “slower” gear is called a downshift. It is not necessary to shift gears in sequence. Instead, find the “starting gear” for the conditions — a gear which is hard enough for quick acceleration but easy enough to let you start from a stop without wobbling — and experiment with upshifting and downshifting to get a feel for the different gears. At first, practice shifting where there are no obstacles, hazards or other traffic, until you’ve built up your confidence. Learn to anticipate the need to shift, and shift to a lower gear before the hill gets too steep. If you have difficulties with shifting, the problem could be mechanical adjustment. See your dealer for help.

2. **What if it won’t shift gears?** If moving the shift control one click repeatedly fails to result in a smooth shift to the next gear, chances are that the mechanism is out of adjustment. Take the bicycle to a qualified bicycle mechanic to have it adjusted.

D. PEDALS

1. Toe Overlap is when your toe can touch the front wheel when you turn the handlebars to steer while a pedal is in the forwardmost position. This is not common, but can occur on small-framed bicycles, and/or can be a problem for riders who wear large shoe sizes. Toe overlap is avoided by keeping the inside pedal up and the outside pedal down when making sharp turns. On any bicycle, this technique will also prevent the inside pedal from striking the ground in a turn.



WARNING: TOE OVERLAP COULD CAUSE YOU TO LOSE CONTROL AND FALL. WHETHER YOU HAVE OVERLAP OR NOT, KEEP THE INSIDE PEDAL UP AND THE OUTSIDE PEDAL DOWN WHEN MAKING SHARP TURNS.

2. Toeclips and straps are a means to keep feet correctly positioned and engaged with the pedals. The toeclip positions the ball of the foot over the pedal spindle, which gives maximum pedaling power. The toe strap, when tightened, keeps the foot engaged throughout the rotation cycle of the pedal. While toeclips and straps give some benefit with any kind of shoe, they work most effectively with cycling shoes designed for use with toeclips. The bicycle shop which sells you the toeclips can explain how toeclips and straps work. Shoes with deep treaded soles or welts which might make it more difficult for you to insert or remove your foot should not be used with toeclips and straps.



WARNING: GETTING INTO AND OUT OF PEDALS WITH TOECLIPS AND STRAPS REQUIRES SKILL WHICH CAN ONLY BE ACQUIRED WITH PRACTICE. UNTIL IT BECOMES A REFLEX ACTION, THE TECHNIQUE REQUIRES CONCENTRATION WHICH CAN DISTRACT YOUR ATTENTION AND CAUSE YOU TO LOSE CONTROL AND FALL. PRACTICE THE USE OF TOECLIPS AND STRAPS WHERE THERE ARE NO OBSTACLES, HAZARDS OR TRAFFIC. KEEP THE STRAPS LOOSE, AND DON'T TIGHTEN THEM UNTIL YOUR TECHNIQUE AND CONFIDENCE IN GETTING IN AND OUT OF THE PEDALS WARRANTS IT. NEVER RIDE IN TRAFFIC WITH YOUR TOE STRAPS TIGHT.

E. TIRES AND TUBES

1. **Tires:** Bicycle tires are available in many designs and specifications, ranging from

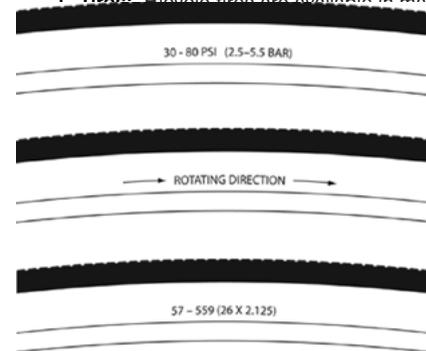


IMAGE 1

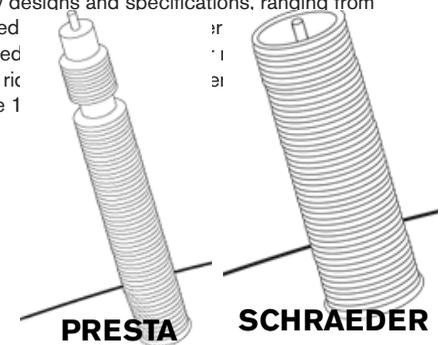


IMAGE 2

The size, pressure rating, and, on some high-performance tires, the specific recommended use, are marked on the sidewall of the tire. The part of this information which is most important to you is Tire Pressure.



WARNING: NEVER INFLATE A TIRE BEYOND THE MAXIMUM PRESSURE MARKED ON THE TIRE'S SIDEWALL. EXCEEDING THE RECOMMENDED MAXIMUM PRESSURE MAY BLOW THE TIRE OFF THE RIM, WHICH COULD CAUSE DAMAGE TO THE BICYCLE AND INJURY TO THE RIDER AND BYSTANDERS.

The best and safest way to inflate a bicycle tire to the correct pressure is with a bicycle pump which has a built-in pressure gauge.



WARNING: THERE IS A SAFETY RISK IN USING GAS STATION AIR HOSES OR OTHER AIR COMPRESSORS. THEY ARE NOT MADE FOR BICYCLE TIRES. THEY MOVE A LARGE VOLUME OF AIR VERY RAPIDLY, AND WILL RAISE THE PRESSURE IN YOUR TIRE VERY RAPIDLY, WHICH COULD CAUSE THE TUBE TO EXPLODE.

Tire pressure is given either as maximum pressure or as a pressure range. How a tire performs under different terrain or weather conditions depends largely on tire pressure. Inflating the tire to near its maximum recommended pressure gives the lowest rolling resistance, but also produces the harshest ride. High pressures work best on smooth, dry pavement. (See Image 2)

Very low pressures, at the bottom of the recommended pressure range, give the best performance on smooth, slick terrain such as hard-packed clay, and on deep, loose surfaces such as deep, dry sand. Tire pressure that is too low for your weight and the riding conditions can cause a puncture of the tube by allowing the tire to deform sufficiently to pinch the inner tube between the rim and the riding surface.



CAUTION: PENCIL TYPE AUTOMOTIVE TIRE GAUGES CAN BE INACCURATE AND SHOULD NOT BE RELIED UPON FOR CONSISTENT, ACCURATE PRESSURE READINGS. INSTEAD, USE A HIGH QUALITY DIAL GAUGE.

Your SHINOLA bicycle will be delivered with the tires inflated to the recommended pressure. Before you ride it, check inflation as described in Section 1.C so you'll know how correctly inflated tires should look and feel when you don't have access to a gauge. Some tires may need to be brought up to pressure every week or two, so it is important to check your tire pressures before every ride.

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

2. Tire Valves: There are primarily two kinds of bicycle tube valves: The Schraeder valve and the Presta valve. The bicycle pump you use must have the fitting appropriate to the valve stems on your bicycle.

The Schraeder valve is like the valve on a car tire. To inflate a Schraeder valve tube, remove the valve cap and clamp the pump fitting onto the end of the valve stem. To let air out of a Schraeder valve, depress the pin in the end of the valve stem with the end of a key or other appropriate object.

The Presta valve has a narrower diameter and is only found on bicycle tires. To inflate a Presta valve tube using a Presta headed bicycle pump, remove the valve cap; unscrew



WARNING: WE HIGHLY RECOMMEND THAT YOU CARRY A SPARE INNER TUBE WHEN YOU RIDE YOUR BICYCLE. PATCHING A TUBE IS AN EMERGENCY REPAIR. IF YOU DO NOT APPLY THE PATCH CORRECTLY OR APPLY SEVERAL PATCHES, THE TUBE CAN FAIL, RESULTING IN POSSIBLE TUBE FAILURE, WHICH COULD CAUSE YOU TO LOSE CONTROL AND FALL. REPLACE A PATCHED TUBE AS SOON AS POSSIBLE.

5. SERVICE



WARNING: TECHNOLOGICAL ADVANCES HAVE MADE BICYCLES AND BICYCLE COMPONENTS MORE COMPLEX, AND THE PACE OF INNOVATION IS INCREASING. IT IS IMPOSSIBLE FOR THIS MANUAL TO PROVIDE ALL THE INFORMATION REQUIRED TO PROPERLY REPAIR AND/OR MAINTAIN YOUR BICYCLE. IN ORDER TO HELP MINIMIZE THE CHANCES OF AN ACCIDENT AND POSSIBLE INJURY, IT IS CRITICAL THAT YOU HAVE ANY REPAIR OR MAINTENANCE WHICH IS NOT SPECIFICALLY DESCRIBED IN THIS MANUAL PERFORMED BY A QUALIFIED BICYCLE MECHANIC. EQUALLY IMPORTANT IS THAT YOUR INDIVIDUAL MAINTENANCE REQUIREMENTS WILL BE DETERMINED BY EVERYTHING FROM YOUR RIDING STYLE TO GEOGRAPHIC LOCATION. CONSULT A QUALIFIED BICYCLE MECHANIC FOR HELP IN DETERMINING YOUR MAINTENANCE REQUIREMENTS.



WARNING: MANY BICYCLE SERVICE AND REPAIR TASKS REQUIRE SPECIAL KNOWLEDGE AND TOOLS. DO NOT BEGIN ANY ADJUSTMENTS OR SERVICE ON YOUR BICYCLE UNTIL YOU HAVE LEARNED FROM A QUALIFIED BICYCLE MECHANIC HOW TO PROPERLY COMPLETE THEM. IMPROPER ADJUSTMENT OR SERVICE MAY RESULT IN DAMAGE TO THE BICYCLE OR IN AN ACCIDENT WHICH CAN CAUSE SERIOUS INJURY OR DEATH.

If you want to do your own routine bicycle maintenance, we recommend that you ask a qualified bicycle mechanic to check the quality of your work the first time you work on something and before you ride the bicycle, just to make sure that you did everything correctly. Since that will require the time of the mechanic, there may be a modest charge for this service.

We also recommend that you ask a professional bicycle shop or SHINOLA Customer Service for guidance on what spare parts, such as inner tubes, light bulbs, etc. would be appropriate for you to have once you have learned how to replace such parts when they require replacement.

A. SERVICE INTERVALS

Some service and maintenance can and should be performed by the owner, and require no special tools or knowledge beyond what is presented in this manual.

The following are examples of the type of service you should perform yourself. All other service, maintenance and repair should be performed in a properly equipped facility by a qualified bicycle mechanic using the correct tools and procedures specified by the manufacturer.

- 1. Break-in Period:** Your bicycle will last longer and work better if you break it in before riding it hard. Control cables and wheel spokes may stretch or “seat” when a new bicycle is first used and may require readjustment by a qualified bicycle mechanic. Your Mechanical Safety Check (Section 1.C) will help you identify some things that need readjustment. But even if everything seems fine to you, it's best to take your bicycle to a qualified bicycle mechanic for a checkup. One way to judge when it's time for the first checkup is to bring the bicycle in after about 10 to 15 hours of on-road use. But if you think something is

wrong with the bicycle, take it to a qualified bicycle mechanic before riding it again.

- 2. Before every ride:** Perform a Mechanical Safety Check (Section 1.C)
- 3. After every long or hard ride:** If the bicycle has been exposed to water or grit; or at least every 100 miles: Clean the bicycle and lightly lubricate the chain's rollers with a good quality bicycle chain lubricant. Wipe off excess lubricant with a lint-free cloth. Lubrication is a function of climate. Talk to a qualified bicycle mechanic about the best lubricants and the recommended lubrication frequency for your area.
- 4. After every long or hard ride or after every 10 to 20 hours of riding**
 - Squeeze the front brake and rock the bicycle forward and back. Everything feel solid? If you feel a clunk with each forward or backward movement of the bicycle, you probably have a loose headset. Have a qualified bicycle mechanic check it.
 - Lift the front wheel off the ground and swing it from side to side. Feel smooth? If you feel any binding or roughness in the steering, you may have a tight headset. Have a qualified bicycle mechanic check it.
 - Grab one pedal and rock it toward and away from the centerline of the bicycle; then do the same with the other pedal. Anything feel loose? If so, have a qualified bicycle mechanic check it.
 - Take a look at the brake pads. Starting to look worn or not hitting the wheel rim or brake disk squarely? Time to have a qualified bicycle mechanic adjust or replace them.
 - Carefully check the control cables and cable housings. Any rust? Kinks? Fraying? If so, have a qualified bicycle mechanic replace them.
 - Squeeze each adjoining pair of spokes on either side of each wheel between your thumb and index finger. Do they all feel about the same? If any feel loose, have a qualified bicycle mechanic check the wheel for tension and trueness.
 - Check the tires for excess wear, cuts or bruises. Have a qualified bicycle mechanic replace them if necessary.
 - Check the wheel rims for excess wear, dings, dents and scratches. Consult a qualified bicycle mechanic if you see any rim damage.
 - Check to make sure that all parts and accessories are still secure, and tighten any which are not.
 - Check the frame, particularly in the area around all tube joints; the handlebars; the stem; and the seatpost for any deep scratches, cracks or discoloration. These are signs of stress-caused fatigue and indicate that a part is at the end of its useful life and needs to be replaced.



WARNING: LIKE ANY MECHANICAL DEVICE, A BICYCLE AND ITS COMPONENTS ARE SUBJECT TO WEAR AND STRESS. DIFFERENT MATERIALS AND MECHANISMS WEAR OR FATIGUE FROM STRESS AT DIFFERENT RATES AND HAVE DIFFERENT LIFE CYCLES. IF A COMPONENT'S LIFE CYCLE IS EXCEEDED, THE COMPONENT CAN SUDDENLY AND CATASTROPHICALLY FAIL, CAUSING SERIOUS INJURY OR DEATH TO THE RIDER. SCRATCHES, CRACKS, FRAYING AND DISCOLORATION ARE SIGNS OF STRESS-CAUSED FATIGUE AND INDICATE THAT A PART IS AT THE END OF ITS USEFUL LIFE AND NEEDS TO BE REPLACED. WHILE THE MATERIALS AND WORKMANSHIP OF YOUR BICYCLE OR OF INDIVIDUAL COMPONENTS MAY BE COVERED BY A WARRANTY FOR A SPECIFIED PERIOD OF TIME BY THE MANUFACTURER, THIS IS NO GUARANTEE THAT THE PRODUCT WILL LAST THE TERM OF THE WARRANTY. PRODUCT LIFE IS OFTEN RELATED TO THE KIND OF RIDING YOU DO AND TO THE TREATMENT TO WHICH YOU SUBMIT THE BICYCLE. THE BICYCLE'S WARRANTY IS NOT MEANT TO SUGGEST THAT THE BICYCLE CANNOT BE BROKEN OR WILL LAST FOREVER. IT ONLY MEANS THAT THE BICYCLE IS

COVERED SUBJECT TO THE TERMS OF THE WARRANTY.

- 5. As required:** If either brake lever fails the Mechanical Safety Check (Section 1.C), don't ride the bicycle. Have a qualified bicycle mechanic check the brakes. If the gears won't shift smoothly and quietly from gear to gear, the shifting is out of adjustment. See a qualified bicycle mechanic.
- 6. Every 50 or so on-road hours of riding:** Take your bicycle to a qualified bicycle mechanic for a complete checkup.

B. IF YOUR BICYCLE SUSTAINS AN IMPACT:

First, check yourself for injuries, and take care of them as best you can. Seek medical help if necessary.

Next, check your bicycle for damage.

After any crash, take your bicycle to a qualified bicycle mechanic for a thorough check. Carbon composite components, including frames, wheels, handlebars, stems, cranksets, brakes, etc. which have sustained an impact must not be ridden until they have been disassembled and thoroughly inspected by a qualified mechanic.



WARNING: A CRASH OR OTHER IMPACT CAN PUT EXTRAORDINARY STRESS ON BICYCLE COMPONENTS, CAUSING THEM TO FATIGUE PREMATURELY. COMPONENTS SUFFERING FROM STRESS FATIGUE CAN FAIL SUDDENLY AND CATASTROPHICALLY, CAUSING LOSS OF CONTROL, SERIOUS INJURY OR DEATH.

C. FASTENER TORQUE SPECIFICATIONS

Correct tightening torque of threaded fasteners is very important to your safety. Always tighten fasteners to the correct torque. In case of a conflict between the instructions in this manual and information provided by a component manufacturer, consult with a qualified bicycle mechanic or the manufacturer's customer service representative for clarification. Bolts that are too tight can stretch and deform. Bolts that are too loose can move and fatigue. Either mistake can lead to a sudden failure of the bolt.

Note: Always use a correctly calibrated torque wrench to tighten critical fasteners on your bicycle. Carefully follow the torque wrench manufacturer's instructions on the correct way to set and use the torque wrench for accurate results.

RECOMMENDED FASTENER TORQUE

- 2.5 MM** = 1.3 TO 1.6 NM
- 4 MM** = 13 TO 14 NM
- 5 MM** = 15 TO 18 NM
- 6 MM** = 18 TO 20 NM
- 15 MM** = 30 TO 40 NM

SHINOLA BICYCLES LIMITED WARRANTY

SHINOLA/Detroit, LLC, a Texas limited liability company ("SHINOLA"), warrants to the original owner of new SHINOLA bicycle products that all frames and forks purchased from authorized SHINOLA dealers or from SHINOLA directly will be free from defects in materials and workmanship for five (5) years from date of purchase. Notwithstanding the foregoing, paint and finish are warranted against defects for one (1) year from date of purchase. SHINOLA-branded parts other than frames and forks are warranted for one (1) year against defects in materials and workmanship. All other components are covered under (and to the extent of) the applicable manufacturer's warranty, if any.

Subject to the terms and conditions of this Limited Warranty, SHINOLA will repair or replace with the same or a comparable part, any frame, fork, or original component that is determined by SHINOLA to be defective during the applicable warranty period.

SHINOLA reserves the right to determine, in its sole discretion, whether or not to warranty any particular product. Exclusions include, without limitation, damage arising from ordinary wear and tear, accidents, shipping, product modification, or improper use, assembly, or maintenance. SHINOLA does not guarantee that the same model of product will be available for replacement. Warranty claims must be made within thirty (30) days following discovery of the defect. Dealer labor charges and all shipping expenses associated with warranty work are the sole responsibility of the claimant and are not covered by this Limited Warranty. To be eligible for warranty service, the original owner must register each product with SHINOLA pursuant to the registration material provided at the time of purchase. Additional exclusions and limitations may apply.

THIS LIMITED WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY ON SHINOLA BICYCLE PRODUCTS AND IS GIVEN IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. ALL SUCH OTHER EXPRESS AND IMPLIED REPRESENTATIONS AND WARRANTIES ARE HEREBY DISCLAIMED.

EXCEPT AS SET FORTH IN THIS LIMITED WARRANTY, NEITHER SHINOLA NOR ANY OF ITS OWNERS, OFFICERS, DIRECTORS, AGENTS OR REPRESENTATIVES SHALL BE LIABLE UNDER ANY CIRCUMSTANCES FOR PROPERTY DAMAGE, PERSONAL INJURY, LOSS OF USE, LOST PROFIT, OR OTHER CONSEQUENTIAL, INCIDENTAL, SPECIAL, OR PUNITIVE DAMAGES, HOWEVER CAUSED, WHETHER FOR BREACH OF WARRANTY, CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, OR OTHERWISE, EVEN IF SHINOLA OR ANY SUCH OTHER PARTY HAS BEEN INFORMED OF SUCH POTENTIAL LOSS OR DAMAGE AND EVEN IF ANY LIMITED REMEDY SPECIFIED HEREIN IS DEEMED TO HAVE FAILED ITS ESSENTIAL PURPOSE. WITHOUT LIMITING THE FOREGOING, LIABILITY IS LIMITED TO REPLACEMENT OR REPAIR IN ACCORDANCE WITH THE TERMS SET FORTH IN THIS LIMITED WARRANTY.

The limitations and exclusions in this Limited Warranty shall apply to the maximum extent allowed in the applicable jurisdiction. Some jurisdictions do not allow exclusions or limitations on warranties or damages to the full extent set forth in this Limited Warranty. Accordingly, some of the foregoing limitations and exclusions may not apply to all SHINOLA customers.

This Limited Warranty sets forth SHINOLA's entire agreement regarding the subject matter hereof. This Limited Warranty shall control in the event of any conflict with any other document, agreement, or understanding, express or implied. This Limited Warranty may not be amended or otherwise modified except in a written instrument signed by an authorized officer of SHINOLA.

This Limited Warranty applies to the original owner only and is not transferable.

If you require warranty service, please go to SHINOLA.com and follow the links and instructions for more information.

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