



# Road Bike Maintenance Guide

by the Service Department  
Liberty Bikes, April 2005

---

Western North Carolina is among the top road riding locations in the world. However, it is a temperate rain forest, and the climate is particularly hard on our equipment.

Water, especially water with suspended road grime particles, is a road bike's worst enemy. But sealing components from water comes with a price - increased friction. In order to make them roll faster with reduced friction, road bikes lack the more elaborate sealing found on mountain bikes. Therefore, special care is required when cleaning your bike.

## Keeping Your Bike Clean

We do not recommend washing your bike after every ride because that tends to contaminate bearings and other internal parts with water and grime. Instead, after a wet ride or when the bike gets dirty, use the following procedure. It is especially important to clean your bike if your sweat has dripped on it, like when riding on a trainer indoors, or outdoors on a hot and humid day. Your sweat is highly corrosive to bike frames and components.

1. Use a rag dipped in diluted citrus degreaser to wipe down the chain, derailleurs, and front chainrings, and to floss the rear cogs. You may also use Park Tool's chain cleaning device to make this step easier.
2. Wipe down the rest of the bike with clean rags and isopropyl alcohol.
3. Lube your chain by dripping your preferred type of lube on the chain while backpedaling (the chain should be on the big ring and small rear cog). Wipe off all the excess from the chain, derailleur pulleys, big ring, and small rear cog with a clean rag. Let the lube dry before riding.

4. Check your tire pressure and now you are ready for a ride.

If you've neglected bike cleaning for a while, or after a particularly dirty ride, your bike will need to be washed. This is also true if you ride your bike near the beach or if you tend to sweat profusely on your bike.

5. Prepare a bucket of dish soap and warm water. Various-shaped bike washing brushes are available at Liberty. These brushes make bike washing much easier.

6. Ideally, suspend the bike off the ground (an old bike repair stand is perfect for bike washing) and remove the wheels. Hose down the bike and wheels with a gentle, shower-like spray.

7. Scrub the bike from top to bottom with the soapy water and appropriately-shaped brushes.

8. Hose off the soap and dirt with a gentle spray.

9. Shake the bike and bounce the wheels to remove excess water. Dry the bike with clean rags.

10. Once it is dry, lube the chain as described above.

To further protect your bike frame's finish, we recommend that you wax the frame after washing with bike polish or car wax. Do not get the polish or wax on rims, brake pads, or drivetrain components. Also, use clear protective tape on the frame at spots that receive abrasion, such as cable contact points and the underside of the down tube.

## **Additional Maintenance**

Even though you keep your bike clean as recommended, normal use will require some additional care. Eventually, components will wear out as well.

1. As more gears have been added to the rear ends of bikes, chains have gotten narrower. Now they wear out faster than in the past. Worn chains wear out rear cogs and front chainrings, but chains are less expensive than the gears, so you should frequently replace your chain. Nine- and ten-speed chains should be replaced every 1200 miles in order to maintain crisp shifting and to avoid premature gear wear.

2. Eventually, rear cogs and front chainrings will wear out as well. This will be indicated when a new chain is extremely noisy on the old gears, or it skips over some teeth while applying pressure to the cranks. Note that we do not advocate old school “drivetrain cleaning”, where the chain, cassette, and rings are cleaned in a solvent tank. Modern chains are internally lubed upon assembly with a special thick grease that one of our mechanics calls “earwax”. It is desirable to remove it from the outside of the chain with a mild citrus degreaser or thin chain lube, but a solvent tank dissolves the thick grease from the internal parts of the chain. Only use diluted citrus degreaser on the drivetrain, or soapy water during a bike wash.

3. Shift cable/housing systems need a lot of attention in our climate. You should learn how to lube the cables and do this about four times per year. If you ride a lot, the cables and housing should be replaced once per year. An alternative cable system by Nokon (available at Liberty) reduces cable maintenance and also provides other benefits.

4. Brake pads should be visually checked for wear monthly. Brake cable/housing systems require less maintenance than shifter systems, but again, the Nokon cables are a nice upgrade.

5. Operation of all bearing systems should be checked monthly. Any binding or free play should be addressed as soon as it is noticed.

6. Bottom brackets should be removed from the frame at least twice per year (and after riding in heavy rain) to remove accumulated water and to re-grease

the components. This procedure is especially important for bikes using carbon seatposts, which are not greased, because the lack of a grease seal increases the chance of water running down the seat tube and into the bottom bracket.

7. Trueness of rims and tension of spokes should also be checked monthly, and after hitting an obstacle like a pothole.

8. Torques of all fixing bolts should be checked at least twice per year. It is very important to remember that carbon and ultra-lightweight aluminum parts often have low torque limits on their bolts.

## **New Bicycles**

We offer free unlimited service department visits for the first six months of ownership. This means that we want you to bring your bike by the shop if you have any problems with the performance of your new bike. We will do our best to fix the problem while you wait. We want you to be happy with your bike riding experience!

New bikes, like any mechanical device, have a break-in period. Therefore, Liberty Bikes suggests that you bring your new bike in for checkovers twice, whether you have any problems or not. The first one should be done after 10 hours of riding. The second one should be done at the end of your 6-month free-service period.