

Using Your Bike Friday[®]: SRAM DualDriveTM



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Congratulations!

You have just purchased the finest cycling accessories available today. Green Gear travel products have been carefully designed, constructed and refined for your personal travel needs. All of our goods are manufactured in our Eugene, Oregon factory by real cyclists who care about our products and our customers.

Please take your time reviewing this manual. You will find Green Gear Travel Systems to be simple and reliable for adventures the world over.

If You Need Help...

If you need technical assistance with any Green Gear Cycling product or are unclear on the proper operation of your Bike Friday, please call us and a Service Technician will help you get back on the road. Our toll-free number in the US and Canada is **800-777-0258**, international is **+1-541-687-0487**. Normal business hours are 8 a.m. to 5 p.m. Monday through Friday, and 9 a.m. to 4 p.m. Saturdays, Pacific Standard Time. You can also email service questions to **service@bikefriday.com**.

Because we understand the needs of world travelers, we offer 24-hour technical support in emergencies. If necessary, please call our regular number and our answering service can forward you a Service Technician on call.

Extra Accessories

We also sell an extensive (and growing!) line of bicycle and travel accessories. Whether you are riding the local back roads or venturing into foreign lands we have the gear you need. Call us for info on spare tires & tubes, replacement parts, fenders, racks, bags, or other items to complete your Travel System.

More Information

To check out our products, find other useful information, discover Bike Friday events and Yak with other Bike Friday owners on the bulletin board, go to our main web site at **www.bikefriday.com**. Or just call us at **800-777-0258**.

Blue skies and happy trails from the gang at Bike Friday.

DualDrive Hub



Using Your Optional Dual Drive Hub

For many bike travelers, the DualDrive hub offers the perfect combination of wide gear ratios, simplicity, and durability.

As with a standard drive train, there is no single best shifting order on a DualDrive equipped bicycle. Experiment and find what works well for you. A cyclist with a standard drive train must be conscious to avoid cross-chaining, which occurs when you shift into a small gear in front and a small one in back, or a vice versa. Cross-chaining can cause excessive wear on your components. Since cross-chaining is not an issue with the DualDrive hub, any gear combination is acceptable.

Other benefits include being able to shift the hub when standing still at a stop light or the bottom of a hill. Simply shift the internal hub to a lower gear (without even pedaling) and off you go.

The DualDrive single-sided shifter has an icon depicting uphill, flat, and downhill terrain to identify low, middle, and high gears. If your Bike Friday is equipped with different shift levers, the left hand lever controls the internal hub. Pulling the cable in shifts the hub to a higher gear for descending hills. For those who are curious about the gear ratios, adjust your gear inches for low gear by 73%, mid-range 100% (1:1), and high gear 136%.

Maintenance

Your DualDrive hub requires little maintenance. The shielded bearings are very durable, and the internal mechanism is highly reliable. Periodically applying a little oil to the shifting rod is all that is required. If you ride casually, then once a year is sufficient. If you ride a lot more or in poor weather, then every six months will suffice.

To lubricate the rod, remove the click box and the shifting rod (see the following directions). Lay the bike on its left side, or remove the wheel and then lay the wheel on its left side. Dip or coat the shifting rod in a good quality synthetic oil such as Phil Wood Tenacious Oil. Do not over lubricate!

Let the bike or wheel lay on its side overnight. Then re-attach the shifting rod (do not over tighten) and the click box.

DualDrive Hub

BIKE FRIDAY

1. The Click Box

The DualDrive shift cable connects to a grey and/or black box attached to your rear hub axle above the rear derailleur. To install and remove the rear wheel you will need to detach and reconnect this click box to the axle in a few simple steps.



Fig. 1 The click box.

Start by shifting the DualDrive hub into the lowest gear (uphill icon, or repeatedly press the small lever on STI shifters).

2. Attachment Button

The small black button on the click box is used to attach the box to the axle. In the up position the box is connected.

To remove the click box. press this button down until it is flush with the top of the box.

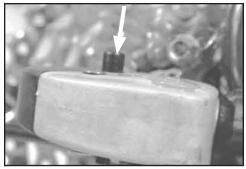


Fig. 2 Click box button up (connected).

3. Remove Click Box

With the black button down, the click box should just slide off of the axle end. The click box will remain connected to the shift cable.

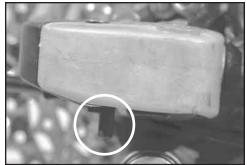


Fig. 3 Click box button down (detach).

DualDrive Hub



4. Shifting Rod

Underneath the click box is a small screw head called the shifting rod. The click box pulls or pushes this rod in and out to shift gears. Normally you do not need to remove this rod to remove the wheel.

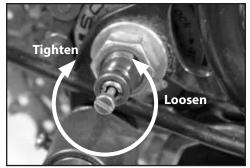


Fig. 4 Shifting Rod.

However, be careful not to

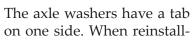
bend the rod head. If you need to remove the rear wheel to pack your bike, either remove the rod and keep it in a safe location or put the protector sleeve (required for only a few bike models) over the axle and pin head.

If you wish to add some oil to the hub, remove the shifting rod and dip or coat the rod with good quality oil. See the paragraph on hub maintenance for more information.

When screwing the shifting rod back into the hub, be careful not to over-tighten. Just lightly tighten the shifting rod with a flat screwdriver, until snug.

5. Removing Rear Wheel

With the click box removed, loosen the two axle nuts with a 15mm wrench, a crescent wrench, or your pedal/headset wrench in the tool pouch. The wheel should slide out.



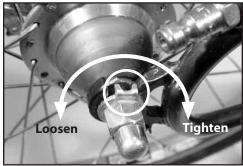


Fig. 5 Axle washer, bottom view.

ing the rear wheel, place the washers on the outside of the drop outs (the part of the frame which holds the wheels), with the tab pointed down and facing toward the wheel. With the axle properly seated in the drop outs, tighten the axle nuts securely.

Do not forget to reconnect the brake after installing the wheel!

DualDrive Hub

6. Reattaching Click Box

To reattach your click box to the axle, first ensure the black button is all the way down, flush with the top as in Figure 3. If you cannot get the button down, it is because the shift cable pulled the small black shifting fork out of its proper position.

This can happen when the click box hangs by the shift cable. First, make certain the shift cable housing is properly seated at the shift lever, any cable stops, and in the click box barrel adjuster.

Next, to get the button down, push the fork tip



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(circled in Figure 6 and 6a) Fig. 6 Shifting fork down, button down.

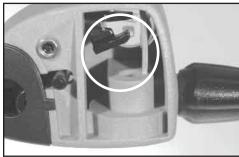


Fig. 6a Shifting fork up, button stuck.

down toward the hole in the box with your finger while applying pressure to the black button. You may need to keep your finger on this button to keep it from popping up from cable movement.

7. Mount Click Box

With the button down, place the click box over the axle as far as it will go, and then press the black button up. Your click box is now properly connected. With very gentle tugging, you should only feel slight spring-like Fig. 7 Place over axle end. resistance.





Fig. 7a Button up (connected again).

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8. Adjusting DualDrive

The DualDrive hub adjustment is very simple. First shift the DualDrive into the middle gear (flat terrain, or middle STI position). On top of the click box is a small clear window showing a couple of ladder-like bars over a brightly colored indicator needle.

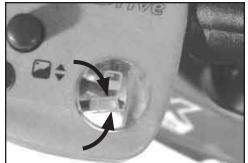


Fig. 8 Adjusting window.

Turn the tapered barrel adjuster, where the housing enters the click box (Fig. 8a), until the needle is centered between the bars

in the clear window. It's that simple. When you move the shift lever you can see the needle move to the different positions.

All new bikes will need adjustment some initial as parts wear in, housing compresses and the cables stretch. If your bike does not shift properly, take it to your

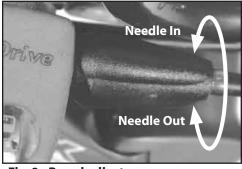


Fig. 8a Barrel adjuster.

local bike shop for adjustment. Before long, however, your bike should be functioning trouble free.

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Warranty Information



Bike Friday Guarantee

We at Green Gear Cycling Inc. (Bike Friday) want you, the customer, to be happy with your new bicycle. If for any reason you are dissatisfied you may return the bicycle to us within 30 days for a full refund, less return shipping charges. This applies to purchases of new bicycles. We also accept returns on parts within 30 days as long as the part is unused and undamaged. In all cases, the return shipping charges are your responsibility. To take advantage of this guarantee, you must notify us within 30 calendar days of receiving the bike of your intent to return the bike and the bike must be received by us within 35 calendar days of you taking delivery of the bike.

Limited Warranty:

As part of the consideration for buyer's purchase, buyer understands and agrees to the following: Green Gear Cycling warrants your bicycle frame set, including fork purchased from Green Gear Cycling or an authorized Green Gear dealer against defects in workmanship and materials for as long as the original owner has possession of the bicycle. This does not cover paint or powder coat finishes. Green Gear Cycling honors the original manufacturer's warranty on parts and components against defects in manufacturing. Tubes and tires are sold as-is.

This warranty is expressly limited to the repair or replacement of the defective frame, fork, or defective part at the discretion of Green Gear Cycling. This is the sole remedy of the warranty. This warranty applies only to the original owner and is not transferable.

Claims must be made through Green Gear Cycling or an authorized dealer. Proof of purchase is required. This warranty covers bicycles and components purchased outside of the United States only if purchased through an authorized Green Gear Cycling dealer.

This warranty does not cover normal wear and tear, improper assembly or maintenance, folding or unfolding, or installation of parts or accessories not originally intended or compatible with the bicycle as sold. Under no circumstance(s) shall Green Gear Cycling be responsible for incidental or consequential damages.

This warranty gives you specific rights, and those rights may vary from place to place. This warranty does not affect the statutory rights of the consumer. The 30-day money back guarantee and our warranty apply to bicycles and parts purchased directly from Green Gear Cycling, Inc. Customers who have purchased bicycles and parts from dealers must abide by the dealer's policies. Except as provided herein, this product is provided "as is" without any additional WARRANTY of any kind, including the WARRANTY OF MERCHANTABILITY and the WARRANTY of FITNESS FOR A PARTICULAR PURPOSE, whether EXPRESSED or IMPLIED.