Using Your Bike Friday®:

- Air Friday™
- Air Llama™
- Air Glide™
- Air Triday™


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4/28/04
Congratulations!
You have just purchased the finest travel bicycle available today. Your bike has been carefully designed and constructed for your personal travel needs. All of our bikes 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 and, if possible, watch the video before you assemble your new Bike Friday travel bicycle. You will find your new bicycle simple and reliable anywhere you go!

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 travel bicycle, 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 to 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 and 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 website at www.bikefriday.com. Or just call us at 800-777-0258.

Blue skies and happy trails from the gang at Green Gear Cycling.

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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 10 years. 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.
Travel Tips

Airport Security
Traveling with your Bike Friday travel bike on the airlines today will, for the most part, be as convenient as it was just a few years ago in the good old days. However, because of the need for extensive inspections required by the TSA, there are a few points to be aware of.

• Do not lock your TravelCase when traveling by air. All luggage must be inspected by TSA agents when checking in your luggage. TSA agents can, and have, broken open locked TravelCases. Even after the initial inspection do not lock your case, we have had reports of subsequent inspections where the TravelCase lock was broken open.

• You may ask to be present during the inspection, however you may not touch your bike or TravelCase once you have handed it over to the TSA. By asking to be present, you may be able to give some repacking tips to a very busy agent.

• When traveling by air, you might consider not over packing your TravelCase. With some practice it is quite possible to get a tremendous amount of gear into your TravelCase; however this only obscures the inspectors view and they will deconstruct your carefully packed case.

• Consider using extra straps, bungee cords, or toe straps to bundle the packed bike. This way an inspector can remove the bike as once piece, look it over, and replace it into the case quickly and accurately.

• Observe airline luggage weight limitations. For domestic flights (including domestic legs of international flights), the checked luggage limit is 50 pounds. For international flights, checked luggage limit is 70 pounds. Luggage which exceeds these limitations may be charged an excess baggage fee.
A Word on Safety

Bicycles are a lot of fun, but they can also hurt if you don’t ride carefully. So please always ride safe!

- Always wear a helmet.
- Follow the rules of the road, and be courteous. (We all need to represent the best of cycling to the world.)
- Use front and rear lights after dark.
- Dress appropriately for the weather and the season.
- Always carry a spare tube, patch kit, pump and a tool kit.
- Keep your bicycle in good shape.
- Check your tire pressure before every ride.
- Make sure all quick releases are secure!
- Have your bicycle routinely serviced for trouble-free travels.

Your Tools

All Bike Friday travel bicycles are delivered with a combination 5/6mm S-wrench that is attached to your water bottle cage. This wrench should get your new bike on the road (along with your own pedal wrench). Leave it in your bottle cage so that you always have it handy.

All bikes ordered with a TravelCase™ suitcase also come with a tool pouch. In the tool pouch you will find some cotton gloves to keep your hands clean, a folding tool set, a combination headset and pedal/axle nut wrench (15mm), and a 4mm ball-end driver. The ball-end driver is perfect for mounting bottle cages, racks, and other accessories. If we needed to remove your right crank arm in order to pack your bike, we also included a long handled 6mm or 8mm Allen wrench.

We also sell more extensive tool kits for home repair work. We encourage you to learn how to work on your own bike. If you are not familiar with bicycle maintenance, consider taking a local class. It will improve your confidence and self-sufficiency as you venture across the globe.

New Bike Maintenance

Like all bikes, your Bike Friday travel bike will go through a break-in period. After the first few weeks of riding you may find that your drive train doesn’t shift as crisply as it did when new, or perhaps the brakes are slightly loose. This happens as new cables stretch, housing compresses and parts wear in.

After the initial break-in period, but before a significant tour, it is important to have your Bike Friday bicycle professionally serviced at your local favorite bike shop. A new bike tune up takes very little time and the small cost for the work is minor considering the improved performance and reliability it provides. Then at least once a year and before any major tour, take your bike back to your local shop for another tune-up to be sure that it runs smoothly.

After a few years of use and a few thousand miles of riding, you may notice that the decals on your bike are starting to look worn and the paint has some scratches. Perhaps your bike doesn’t ride as smoothly as it used to, and the local bike shop can’t get it to function as well as you would like. We offer factory service programs including tune-ups, overhauls, and other repair work by our expert mechanics. A month or two before your next big ride, you may wish to send the bike back for a complete overhaul.

Visit our web site for repair packages, costs, and details at www.bikefriday.com/ServiceCenterInfo.cfm. For those who plan ahead, we can generally offer the quickest repair turn-around during the winter months.
Trouble Shooting

V-Brake Centering And Spring Adjustment
V-brake arms are held off of the rim by a spring in each arm. To center the brake (allowing both arms to retract an equal amount), you need to adjust the respective spring tensions. At the base of each V-brake arm near the pivot is a small screw pointing to the side. Turning this screw will change the centering of the brake.

On the side which needs to retract farther, tighten this screw in half-turn increments. You may also consider loosening the side which retracts too far.

Thread Sizes
The stainless steel bolts that attach your rack to your bicycle use one of the most common thread sizes available today. If you lose one of these small bolts, you will most likely find replacement hardware locally.

The thread size for the rack, water bottle cage, derailleur and brake cable clamp bolts is a metric 5mm x 0.8mm. A US standard thread of 10-32 can also be used. The thread size for many of the frame parts and the front rack cross bar is a slightly larger 6mm x 1.0mm. Every bike shop and virtually any hardware store world-wide will stock these bolts in a variety of lengths.

If you are unable to find replacements while on tour, give us a call or send us an email and we can ship to you what you need to get back on the road.

What is it?
This little mysterious tool is supplied with Shimano crank arms. To remove the new generation of Shimano crank arms with the over-size bottom bracket spindles you need to use this temporary plug with your crank arm removal tool.
Using Those Nifty Quick Releases

On a cold and snowy day in the 1927 Gran Premio della Vittoria, a tired and numb Tullio Campagnolo struggled with the frozen wing nuts on his rear wheel while trying to change gears. In a moment of frustration and inspiration Campagnolo envisioned the modern quick release, and the bicycle world was transformed.

The quick release is one of those simple but great inventions that really makes life better. However, if used incorrectly you can potentially endanger yourself. Although a reliable and safe product, some people have been injured because they didn’t know how to properly use this elegant device. Your Bike Friday travel bike has several of them. If you are not familiar with their operation, PLEASE study these directions carefully. If you are still unclear on their operation, call us or contact your favorite local bike shop before you ride!

Quick Release Operation

A quick release is a simple cam with a lever that swings through an arc that is square to the axle. As the lever moves the cam clamps the wheel to the frame, or secures the frame joint. It is not a wing nut to be rotated about the axle.

The tension on the quick release is controlled by how tight the knurled nut on the other end is set. Only wheel quick releases have the small cone-shaped springs. Note that the small ends of the springs face toward the center of the hub.

Quick Release Maintenance

We recommend adding a few drops of light oil to the lever where it enters the cap several times per year. This will keep your quick release working smoothly for years to come.

DualDrive Hub

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.

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 some initial adjustment as parts wear in, housing compresses and the cables stretch. If your bike does not shift properly, take it to your local bike shop for adjustment. Before long, however, your bike should be functioning trouble free.
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 (circled in Figures 6 and 6a) 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 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 resistance.

Using a Quick Release
1. Adjust Knurled Nut
With the wheel installed and the axle properly seated in the frame (or the frame joint closed), position the QR lever so that it is in line with the axle. Then turn the knurled nut on the other side clockwise until it is snug. When the QR is properly adjusted, you should be able to freely swing the QR lever for the first half of its arc, at which point the lever should offer resistance.

2. Continue Closing QR
Using the palm of your hand press the QR lever through the rest of its arc until the lever is closed and parallel to the wheel. You should feel very firm resistance when the QR is properly adjusted (the lever may even leave a light imprint in the palm of your hand).

3. Double-Check!
Ideally, the QR lever should be facing rearward, or upward. Levers which are facing forward can catch on any number of things and be accidentally opened.

Convention usually has the front wheel quick release lever on the left side of the bike, although this is not critical.
Getting Started

Where to Begin
Opening your case for the first time may present an intimidating sight, particularly if you ordered many extra travel accessories with your Bike Friday travel bicycle. Don’t worry, we work hard to keep our products simple, and with a little practice you will find that using your new bicycle will become second nature to you.

We recommend finding a quiet area with access to the video, these instructions, and some room to spread out. This manual will address the fundamentals: packing and assembly tips and techniques that are common to all of our travel bikes. However, because this bike has been custom made for you, you may discover that your bike was packed at the factory slightly different than the one in this manual. Wherever possible, we mark any packing materials unique to your bike.

Furthermore, you do not have to repack your bike in exactly the same fashion. You may find a better way of stowing your accessories, and we encourage you to experiment. If you discover a particularly good way doing things, let us know. Some of our best ideas have come from members of the Bike Friday family.

If you encounter difficulties assembling your bike, and the manual and video do not help, please call us. Our goal is to get you on the road so that you can enjoy your custom made Bike Friday bicycle.

Illustrated Accessories
In order to illustrate the assembly and use of all of our travel accessories, the bike on the following pages has nearly everything you might want for a fully loaded tour. Your own bike may have only a few or none of these accessories. If you ever choose to purchase some of these accessories, this manual should help you pack the extra items.

Bike Friday travel bicycles do not normally come with saddle or pedals, unless you specifically ordered them from us. However, this manual shows them both to illustrate packing details.

Whether your own bike has drop handlebars or H-bars, V-brakes or side-pull brakes, the assembly and packing steps are generally the same. Because of component differences, wrench sizes and the number of bolts per clamp may vary from the illustrations.

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.

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 screw-driver, 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.

The axle washers have a tab on one side. When reinstalling 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

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.

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.

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.

Assembly: Unpacking

1. Open The TravelCase
Start by removing some of the obviously loose items from the case including water bottles, accessible colored felt bags, trailer wheels, the plastic pouch with extra materials, and so on. Put these accessories out of the way for now.

2. Crush Protector
The crush protector is a PVC dowel with a couple of flat caps on the ends. This piece is a critical bit of packing material: it spans the case so that luggage dropped on top of your bike is supported by the dowel and not your bike. The caps are lightly pressed on—just pull the top cap off. Don't worry if the dowel comes out and the bottom cap is still in the case.

3. The Goodie Bag
There might be a better name for this pouch, but we've always called it the Goodie Bag. This bag holds a variety of miscellaneous loose items for your new bike. This may include the technical literature that came with your components, spare spokes, some labels and decals, and always a surprise! The component literature is not required reading, but we supply it for those who are technically inclined.
Assembly: Unfold Frame

4. Remove Tool Pouch
The tool pouch that comes with the case is a light blue colored felt bag with a cord around it. Inside you should find a folding tool set with all of the Allen wrenches and screwdrivers you will need to assemble your bike, a pair of cotton gloves to keep your hands clean, and a 4mm ball-end driver. **Note:** You will also find a combination 5/6mm S-wrench attached to your water bottle cage for quick road-side adjustments.

5. Remove Wheels & Bars
Remove both wheels and put them nearby. The handlebars will be in the left side of the case. Pull them out, and let them drape by the attached cables over the left side of the case. If you have a DualDrive™ rear wheel you will see a short PVC tube over the right-side axle end. This protects a small rod in the end of the axle. Keep the PVC tube in your tool pouch.

6. Unfold Your Bike
Lift out your bicycle and partially unfold it. On the back of the main frame there is a small thumb screw (a small bolt with a couple of nylon tabs on it for your fingers). Remove this bolt, fold the frame together and then reinstall the bolt and tighten it securely with your fingers.

DualDrive Hub

Using Your Optional DualDrive 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 travel bicycle 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™ 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.
Accessories: Fit Stem

Fit Stem (Optional)
If your bike was designed to receive a Custom Ultra-light Stem, then most likely the bike you just received has a Fit Stem installed. The Fit Stem process is designed to ensure the highest level of accuracy and satisfaction in producing a truly custom fit for your new bike.

The Fit Stem is a temporary, but fully usable stem which can be adjusted to any height and projection. Ride with the Fit Stem as you would normally ride and tour. Either take a wrench with you, or use your 5/6mm S-wrench in the bottle cage, and stop to adjust your fit as necessary. We encourage you to put 125 miles or more on the stem, until you are satisfied with the overall fit of your bike.

When you have finished the fitting process, remove the stem and send it back to us in the supplied FedEx box along with the information card. The only essential details are your name, address and bike color. Once you have the stem boxed up and the card filled out, call FedEx at 800-463-3339 to arrange a pick up. It normally takes about two weeks to complete your new Custom Ultra-light Stem. If you need a quicker turnaround for a trip or event, let us know on the card or call us to arrange for expedited service. We have completed stems in as short as two working days. (There is a fee for this service.)

Fit Stem Adjustment
Set the stem projection by loosening the two bolts at the top of the stem and moving the bars horizontally. Set the stem height by loosening the single bolt at the top of the lower stem sleeve and moving the bars vertically.

Returning Fit Stem
When you are ready to send the stem back to us (or to pack the bike), leave the two adjusting clamps tight. Only remove the handlebars and loosen the lowest stem collar.

Assembly: Fork

7. Remove Fork Bag
Slide the grey felt bag off the fork. If you have an Air Llama bicycle, refer to the next few steps on how to install the fork. The Air Glide fork will install in a similar fashion.

8. Air Llama Suspension Fork
If you ordered an Air Llama bicycle, the fork legs were packed in a grey felt bag and removed from the suspension steerer tube (the part that goes through the headset bearings). The fork legs slide up the grooved steerer until the steerer is flush with the bottom of the fork leg clamping collar. Keep the fork legs roughly aligned with the wide part of the rubber dust sleeve.

9. Tighten Fork Legs
With the fork legs properly on the steerer, tighten both clamp bolts securely. Note that on the Air Glide bike you will need to align the holes in the fork clamping collar with the holes in the steerer tube before tightening the fork.
Assembly: Fork

10. Attach Dust Cover
Once the fork clamp bolts are tight, pull the rubber dust cover down and snap over the oval ring on the fork legs (Air Llama bikes only). After the first ride, check the tightness of these bolts.

Fig. 10 Attach dust cover.

11. Remove Fork Spreader
The PVC tube between your fork legs is intended to help prevent frame damage when traveling. It is held in place by the front wheel quick release. Open the quick release, un-thread the knurled nut, and put the fork spreader in the tool pouch for future use.

Fig. 11 Remove fork spreader.

12. Install Wheel QR
Now install the quick release from the fork spreader on the front wheel. Make certain that there is only one spring per side and that the small end of the spring is pointing to the center of the hub on each side. Loosely thread on the knurled nut for now. Put the wheel aside again.

Fig. 12 Quick release spring and nut.

Accessories: Fenders

1. Front Fender
Your front fender has an alignment pin (a small bolt) through the aluminum tab beneath the mounting hole. The fender is attached to the fork by the upper hole, while the alignment pin keeps the fender from rotating.

Fig. 1 Front fender.

2. Rear Fender
Your rear fender has two aluminum arms that overlap and mount to the water bottle bosses on the front derailleur post. The upper mounting bolt goes through both arms.

Once mounted, you can gently bend the fenders as necessary to improve fit.

Fig. 2 Rear fender.
**Accessories: Front Rack**

4. Mount Lower Eyelets
Insert one of the short 5mm bolts through the recessed eyelet at the bottom of the rack. Place one of the short spacers over the bolt on the inside of the rack. Repeat with the other side. Place the assembly over the front wheel, and then loosely thread the bolts into the eyelets on the fork drop outs. The part of the rack hanging below the drop out is on the rear side of the drop out.

5. Mount Upper Eyelets
Using the remaining long 5mm bolts, slip the bolts through the upper eyelets, and then slide the long spacers over the bolts on the inside. Thread the bolts into the braze-ons on the fork legs.

6. Tighten All Bolts
Now tighten all six bolts carefully. Your front V-brake noodle might touch the right rack side. This is generally not an issue. If the interference is significant, it is acceptable to lightly bend the noodle a bit tighter to help clear the rack.

**Assembly: Stem**

13. Install Stem
Remove your stem from the red felt bag. Please refer to the following steps on stem safety and installation.

14. Stem Safety
If you look carefully at the base of your stem, you will see a pin hidden under the clamping collar. This pin must engage the slot in the back of the fork’s steerer tube (the threaded part sticking up).

**IF YOU DO NOT ENGAGE THE STEM PROPERLY YOU MAY COMPROMISE SAFETY!**

15. Mount Stem
Slide bottom of stem into the fork steerer tube, keeping the stem’s quick release assembly facing forward so that the hidden stem pin will engage the slot in the fork. Gently press the stem all the way down.
Assembly: Stem

16. Tighten Stem
Tighten the quick release securely. It is normally irrelevant whether the lever is on the left or right side of the stem; however, a few stem collars only accept the quick release from one direction. Your stem may have a bolt instead of a quick release to save weight.

17. Air Llama Stem
If you purchased an Air Llama travel bike, your stem will be slightly different because of the suspension fork. On this bike the stem is a sleeve that fits over (rather than into) the steerer tube. Furthermore, there is no alignment pin as on the other stems. With the stem all the way down over the steerer tube, align the handlebars perpendicular to the front wheel, and tighten the quick release.

18. Adjustable Stem (Optional)
If you have purchased one of our adjustable stems, set your desired handlebar height using the clamp directly above the stem collar. You may choose to precisely set the height once, or vary it according to your riding needs; in either case be certain this bolt is tight before riding your bike. For fit stem instructions, see the Accessories section.

Accessories: Front Rack

1. Front Rack
The front rack consists of two mirror image sides, a long cross bar, and assorted bolts and spacers. The cross bar uses two 6mm bolts. The lower mount uses two short 5mm bolts and spacers; the upper mount uses two long 5mm bolts and spacers. Look at the mounting eyelets on the rack. The recessed side of the eyelets face out and are for the bolt heads. The flush side faces in.

2. Mount Cross Bar
Select either side of the rack, the cross bar and one 6mm bolt. Insert the bolt through the recessed side of the eyelet near the ball-stop on top of the rack. Screw the bolt loosely into the cross bar.

3. Mount Other Rack Side
Insert the remaining 6mm bolt through the other rack side and loosely thread into the cross bar. The rack should now resemble Figure 3.
4. Mount Legs To Frame
Thread the bolts into the eyelets on the drop outs on each side of the bike. The rack legs should have their ends on the outside of the drop outs. Leave the bolts loose for now.

Fig. 4 Mount rack legs to drop outs.

5. Attach Stays To Frame
Remove the two bolts on the sides of the wishbone. (The wishbone is the part of the frame that engages the frame quick release.) Reattach the two bolts through one of the two holes in the rack stays. Experiment with which rack stay hole provides the most level rack position.

Fig. 5 Attach rack stays to wish bone.

6. Tighten Bolts
Tighten all four mounting bolts securely. If you would like to attach a rear reflector or a rear tail light, there is a threaded mount on the rear of the rack.

Fig. 6 Tighten all bolts securely.

Accessories: Rear Rack

Assembly: Handlebar

19. Insert Handlebars
To facilitate packing, all Bike Friday travel bikes have two-part handlebars with a reinforcing sleeve in the left handlebar. Make certain the attached cables are not tangled or wrapped around the frame or fork. Insert the left handlebar into stem clamp, then the right bar.

Fig. 19 Handlebar sleeve.

20. Set Handlebars
With the handlebars in the stem, press them firmly together to ensure they are fully seated. Custom stems for drop bars have a round window to allow you to center the bar split in the stem. All other handlebar types have a small button screw on the stem clamp to keep the bars centered. (Do not remove.) For the angle of the bars, experiment with what feels appropriate.

Fig. 20 Set handlebars.

Fig. 20a Custom stem.

21. Open Brakes
To install your wheels, you will need to open the brakes to allow the tires to pass by the brake shoes. If your bike is equipped with a side-pull brake, simply move the small lever to the up position. (A front brake is shown here. Rear brakes operate in the same fashion.)

Fig. 21 Opening side-pull brake.
Assembly: V-Brakes

22. Operating V-Brakes
If your bike is equipped with V-brakes, start by pressing the brake arms together.

23. Release V-Brake
While continuing to press the arms together (A), pull the elbow-shaped noodle out and up (B) and then push the noodle holder down (C). There is a slot in the end of the noodle holder for the brake cable to slip out.

24. Open Front Brake
At this point you should be able to open the brake arms. If you cannot release the noodle from the noodle holder, then the brake cable may need to be loosened a bit. See the next step for instructions to add some slack to the cable.

Accessories: Rear Rack

1. GD Folding Rear Rack
This handmade folding cromoly rear rack will securely carry your travel gear anywhere in the world. Plus, it folds quickly and compactly for easy packing in your TravelCase. The GD rack is packed in a yellow felt bag, and has two extra 5mm bolts for mounting it to your bike. (The other two required bolts are already in your frame.)

2. Unfold Rack
The two sets of main legs unfold down, while the two black aluminum stays unfold over the top.

3. Insert 5mm Bolts
Let the holes in the main legs overlap at the bottom and then insert a supplied 5mm bolt through each pair of legs.
Accessories: TravelTrailer

10. Insert Clevis Pin
Insert the clevis pin through the hole in the axle end to secure the wheel. The flat washer should be lightly pressing against the clevis pin from the inside, with the O-ring acting as a sort of spring to keep the wheel from rattling on the axle.

Fig. 10 Insert clevis pin.

11. Connect Trailer Hitch
To attach the trailer hitch to your frame, simply pull the knurled collar on the coupler back while you push the coupler over the nipple on the frame.

Fig. 11 Using your trailer hitch.

12. Ready To Go!
When you release the knurled collar, the coupler should be secure and ready to go. If the knurled collar becomes stiff and does not spring closed, add some light lubricant such as TriFlow or WD-40 to the coupler.

Fig. 12 Trailer hitch connected.

Assembly: Rear Wheel

25. Brake Barrel Adjuster
To add some more brake cable slack, you can turn the barrel adjuster on the brake lever. The barrel adjuster is the knurled bolt that the cable housing goes through as it enters the brake lever. Turn this adjuster clockwise to loosen the cable. Note: Some models may have a lock nut on the adjuster, which will need to be loosened first.

Fig. 25 V-brake barrel adjuster.

26. Install Rear Wheel
Stand the bike on its fork and handle bar, and then slide the rear wheel up into the rear drop outs (the part of the frame which holds the wheels). You will need to gently pull back the rear derailleur and drape the chain over the cassette. Be certain the axle is fully seated in the drop outs. If you have a quick release (stored in the tool pouch) equipped rear hub, tighten it now. If you have a SRAM DualDrive hub, refer to the next step.

Fig. 26 Rear wheel in drop outs.

27. Install DualDrive Wheel
The axle washers have a tab on one side. When installing the rear wheel, place the washers on the outside of the drop outs, with the tab pointed down and facing toward the wheel. With the axle properly seated in the drop outs, tighten the axle nuts securely with a 15mm wrench.

Fig. 27 Axle washer, bottom view.
Assembly: Front Wheel

28. Install Front Wheel
Now install the front wheel. Make certain the wheel is fully seated in the fork drop outs, and securely close the quick release as illustrated in the quick release safety section. If you have side-pull brakes, close the small lever on the brake calipers (front and rear) at this point.

Fig. 28 Install front wheel.

29. Reconnect V-Brakes
If you have V-brakes, before closing them check to make certain that the housing is properly seated into its ferrules at all ends. With the brake open, the housing can slip to the side and keep the brake from closing properly. Common places to check are the brake lever barrel adjuster (top), and where the housing enters the noodle (bottom).

Fig. 29 Check housing for seating.

30. Close V-Brake
Close the V-brake in the reverse order of opening it. Press both arms together (A), and insert the noodle (B) into the noodle holder (C).

The end of the noodle has a bullet-shaped tip that should be inside the holder, but just sticking through the cable keyhole.

Fig. 30 Close V-brake.

Accessories: TravelTrailer

7. Wheel Axles
From one axle end remove the clevis pin, the flat washer and the rubber O-ring. Note the order of these parts when installing the trailer wheel.

Fig. 7 Axle washers.

8. Install Trailer Wheel
Each trailer wheel has two bearings; one is flush with the outside of the wheel, and the other is recessed. Slide the trailer wheel over the axle end with the recessed side down and the flush side up (away from the trailer).

Fig. 8 Mount trailer wheel.

9. Add Axle End Washers
First install the rubber O-ring so that it sits next to the wheel bearing. Then install the flat washer over the O-ring.

Fig. 9 First add O-ring, then flat washer.
5. Attach Trailer Tongue
Take the long trailer tongue and remove the thumb nut and one washer from the threaded stud. Slip the hollow end of the tongue over the end of the T-bar so that the threaded stud in the tongue fits into the remaining hole in the TravelCase.

6. Add Last Thumb Nut
Place one flat washer over the threaded stud inside the TravelCase and add the last thumb nut. Now securely finger tighten all three thumb nuts inside the case. Each attachment point should be a sandwich consisting of trailer frame, flat washer, nylon TravelCase, flat washer and then thumb nut.

31. Double-Check Brake!
Regardless of which model of brake you have, make certain your brake is properly set up. Test squeeze the brake levers; you may have to adjust the barrel adjuster to remove any excess cable slack. A final check can be done after the rest of the bike is assembled.
Assembly: Click Box

33. Click Box Fork
If you cannot get the button down, it is because the shift cable pulled the small black shifting fork (circled in Figures 33 and 33a) 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 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.

34. Mount Click Box
With the button down, place the click box over the axle end 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 resistance.

Fig. 33 Shifting fork down, button down.
Fig. 33a Shifting fork up, button stuck.
Fig. 34 Place over axle end.
Fig. 34a Button up (connected again).

Accessories: Travel Trailer

1. Trailer Parts
If you purchased a Travel Trailer with your Bike Friday, you should have two trailer wheels and two yellow felt bags with the tongue and axle. The bottom of your TravelCase should have three holes drilled in it if you ordered the Travel Trailer with your bike. If you ordered the Travel Trailer separately, you will need to find the three dimple marks in the bottom of your case and drill them through with a ¼” drill.

2. Connect Axles
In the smaller yellow felt bag there should be two axles and a T-bar. Slip the open ends of the axles over the “T” of the T-bar. Each axle will have a threaded stud with a thumb nut and two flat washers. Remove the thumb nuts and one of the washers from each stud (leaving one washer over each stud post).

3. Attach Trailer Axle
With the TravelCase open and standing on its left side, attach the axle assembly by slipping the two threaded studs through the two holes in the right side of the case. The end of the T-bar should be pointing at the third hole in the Travel Case.

Fig. 1 Travel Trailer parts.
Fig. 2 Assemble trailer axle.
Fig. 3 Attach trailer axle.
Packing: Accessories

33. Miscellaneous Items
At this point the bike is nearly packed. Any remaining loose items such as the racks, pedal bag, tool pouch, water bottles, any clothing, shoes etc. should be set into any openings. Fenders can be nested together and wrapped around the front wheel.

34. Close TravelCase
Close the TravelCase lid, tucking any loose cables and felt bags into the case. Then starting with a side buckle, latch the lid closed. It is ok if the lid is tight. This will help keep the bike from bouncing around. If you cannot close the lid, check that the front wheel and trailer tires are properly positioned and are not too high. Finally, you should be able to feel that the crush protector is the highest point of the case.

Assembly: Crank Arm

35. Unpack Crank Arm
If you have a unique combination of a large frame and/or a large chain ring we may have removed the right crank arm to facilitate packing. Your right crank arm is packed in a dark blue felt bag. If you look closely you will see the crank arm mounting bolt in the crank arm held in place by a retainer ring. There is no need to remove this retainer ring. There should be a light coating of grease on the threads of the bolt.

36. Orient Crank Arm
Lay the chain over the bottom bracket shell (the part of the frame the crank arm bearing goes through). Then slide the crank arm onto the bottom bracket spindle (the crank bearing) as far as it will go. Your right crank arm should be exactly opposite of your left crank arm. Be careful to properly engage the spline between the crank arm and the spindle, otherwise damage may occur.

37. Tighten Crank Arm
Use either a 6mm or 8mm Allen wrench to tighten the crank arm in a clockwise direction. Tighten until you feel very firm resistance. With the short-handled folding tool you will need to apply more leverage than with a longer shop-style wrench. Double check that your right crank arm is indeed pointing 180° away from the left crank arm. If it is not, the splines may not be properly engaged.
Assembly: Beam & Seat Post

38. Install Beam
Remove the titanium beam from its grey felt sleeve. Rather than simply pushing the beam straight in, first snap the beam down into the beam socket at the angled cut.

39. Push Beam Into Frame
Next push the beam into the socket, lightly twisting and rocking the beam. Insert the beam to the end of the slot in the socket. Leave the socket clamp bolts loose for now.

40. Install Seat Post
Remove the packing materials from your seat post and then insert it into the clamp. If you did not purchase a saddle with your Bike Friday travel bike, now would be a good time to install your own saddle. Add a light dab of grease to the saddle rails and seat carriage clamp. Once you have your saddle height set, try adding a piece of electrical tape to the seat post or use a permanent marker to mark your saddle height for quick re-assembly.

Packing: Trailer Wheels

30. Pack Front Wheel
Lay the front wheel (without the quick release—which should be in the tool pouch) in the right front side of the case. The rim should just overlap the rear hub axle. You may need to adjust some items in the case so that the wheel can sit as low as possible.

31. Add Crush Protector
Thread the crush protector dowel through both bicycle wheels and insert into the lower crush protector flange you added earlier.

32. Trailer Wheels
Add one trailer wheel on top of the rear bicycle wheel and to the left of the crush protector. Lay the other trailer wheel on top of the front bicycle wheel and to the right side of the case.
Packing: Stem & Saddle

27. Insert Beam
Pack the beam in its grey felt sleeve along the front of the case, under the trailer tongue and under the rear wheel.

Fig. 27 Beam along front of case.

28. Pack Stem
Place the stem in the red felt bag along the left side of the case under the rear wheel, along with the bars and short trailer bag.

Fig. 28 Stem bag along left side.

29. Insert Saddle
Set the seat post along the front of the case, with the large end of the saddle in the front right corner and the nose of the saddle underneath the chain rings (if the crank arm is not removed).

Fig. 29 Saddle & seat post location.

Assembly: Pedals

41. Align Beam & Tighten
Sight down your seat post and frame to ensure that the seat post is vertical (there is a small amount of adjustability in the beam alignment). Then tighten the socket clamp bolts securely in a 1-2-1 order: after tightening the first bolt, tighten the second and then tighten the first bolt again.

Fig. 41 Tighten beam clamp bolts.

42. Install The Pedals
Bike pedals have two different thread directions. The right pedal has a right-hand thread, and the left pedal has a left-hand thread. Thread the right pedal in a clockwise direction; thread the left pedal in a counter-clockwise direction. Pedals are usually stamped with a R or L on the pedal axle near the threads. A little grease is always a good idea on pedal threads.

Fig. 42 Check pedals for threading.

43. Thread In Pedals
Using your fingers, start the pedal threads into the proper crank arm. Be careful not to cross-thread the pedals! Once the pedal threads are started, you may use a wrench to finish threading them in, and then tighten securely.

Tip: Remember to tighten your pedals by turning both toward the front of the bike.

Fig. 43 Tighten pedals (tighten in opposite direction for left pedal).
Assembly: Double Check

44. Double-Check Your Bike!
At this point your travel bike should be ready to ride. However, before you ride away, be sure to double-check your assembly. Are the handlebars tight? How about the stem and pedals? Are the quick releases all secure?

Although we always inflate the tires at the factory, check your tire pressure for proper inflation. Under-inflated tires not only wear faster and are more prone to flats, but they also add drag.

Be sure to have at least the 5/6mm S-wrench in the mono-tube bottle cage for quick road-side adjustments. If you have the folding tool, take it with you. You will probably want to stop and adjust saddle height and perhaps a few other items during your first ride or two.

▲Tip
Be sure to keep a light film of grease on any intersecting bike parts. This will help to prevent corrosion, facilitate disassembly, and eliminate annoying noises. Areas include seat posts, saddle rails, beam socket, handlebars, stems, seat masts and frame fork tips. Doing this a couple of times per year during routine maintenance should be enough. Wipe off any excess or visible grease.

Also be sure to lightly grease all bolt threads on your bicycle as you repair or upgrade components. Lubricating your bolts will allow you to adequately tighten the fasteners and keep them from seizing in the future.

Packing: Handlebars & Trailer

24. Place Handlebars
Nest the handlebars together and set them into the bottom left side of the case under the rear wheel. If you have drop bars hook the ends of the bars around the rear wheel with the brake levers facing to the left.

Fig. 24a Drop bar position (ignore trailer wheel).

25. Short Trailer Bag
If you have a TravelTrailer™, place the short yellow bag under the rear wheel along the left side of the case (it will be on/along the flat bars, also under the rear wheel).

Fig. 25 Short trailer bag position.

26. Long Trailer Bag
Place the long yellow trailer tongue bag along the front of the case with the S-bend pointing to the right rear corner.

Fig. 26 Long trailer bag position.
Packing: Fold Frame

21. Fold Frame
Continue to fold the frame. If you have the fork installed (Air Friday bikes) turn the fork legs sideways so that the front brake faces the rear end.

Fig. 21 Fold frame, turn fork sideways.

22. Place Frame in Case
Lay the bike in the case with the drive side facing up. The crank arms should be in the right side of the case, with the right crank pointing to 5 o’clock. The fork should be in the left side of the case, and the rear end should be touching the rear of the case. If your fork is detached, place the loose fork in the left side of the case. Open the frame in the case so that it is wedged into the case, with the beam socket touching the front of the case.

Fig. 22 Frame orientation.

23. Place Rear Wheel
Place the rear wheel into the left side of the case with the cassette side up (DualDrive hubs should have the axle end PVC sleeve in place). The wheel should rest between the chain stays, but touching the front and left sides of the case.

Note: Lay a crush protector flange into the bottom center of the case.

Fig. 23 Rear wheel placement.

Packing: Pedals & Beam

1. Remove Accessories
Before disassembling and packing your bicycle, remove all extra accessories including racks and bottle cages. Your cycle computer mount can remain on the bike.

Fig. 1 Remove accessories.

2. Remove Pedals
Loosen your pedals with the supplied headset/pedal wrench (TravelCase only). The right pedal un-threads in a counter-clockwise direction and the left pedal un-threads in a clockwise direction. (Remember that both pedals turn toward the rear of the bike.)

Place both pedals in the light blue felt bag and set aside.

Fig. 2 Remove pedals (loosen in opposite direction for left pedal).

3. Remove Beam
Loosen the beam socket clamp bolts and back them out several turns to ensure the socket is sufficiently loose. Then pull back on the seat post and beam, twisting as necessary until the beam is out of the frame.

Fig. 3 Remove beam.
Packing: Front Wheel

4. Remove Seat Post
Loosen the seat post clamp and remove the seat post. (The saddle can remain attached to the seat post).

Cover the seat post in the clear vinyl sleeve labeled “Seat Post.” Cover the saddle in a blue vinyl sleeve labeled “Saddle;” the slot in the sleeve goes over the nose of the saddle. Set the saddle aside.

Slip the beam into the long grey felt sleeve and put it aside.

5. Open Both Brakes
If you have side-pull brakes, simply flip up the small lever on the side of the brake caliper.

If you have V-brakes, press the arms together (A), and then pull the elbow-shaped noodle out and up (B) while pushing the noodle holder down (C). There is a slot in the end of the noodle holder for the brake cable to slip out.

6. Remove Front Wheel
After removing the front wheel, close the brake again.

Remove the quick release from the axle by undoing the knurled nut. Be careful not to lose the small cone-shaped springs.

Put the quick release through the fork spreader (the short PVC dowel), and thread on the knurled nut again. Both small cone-shaped springs should be on the quick release shaft.

Packing: Materials

19. Packing Materials
At this point you should add the packing protection pieces to the frame. The various covers and sleeves will be labeled. Because each bike is custom made and outfitted, there is some variation in the selection of packing materials. Common pieces include:

- Crankarm cover (blue vinyl sleeve, if crank is not removed).
- Steerer tube cover (short striped vinyl tube).
- Handlebar end covers (long and short striped vinyl tube).
- Fork and chain stay covers (grey felt sleeves).

Your own bike may have other pieces. These will be labeled according to where they go. Generally, there is extra room in the case to accommodate some accessories such as shoes, clothing, and perhaps a helmet. As you travel with your bike and gain experience in your own customized packing process, you may discover that some of the original pieces are unnecessary. You may also feel that you may need some extra protection with new accessories. Feel free to experiment, and let us know if you have a great idea.

20. Remove Thumb Screw
Loosen and remove the thumb screw holding the frame together. Partially fold the frame and then reinstall the thumb screw to keep from misplacing it.
16. Remove Right Crank
If you received your bike with the right crank arm removed, you will need to remove it to pack the bike. This is common to combinations of large frame sizes and/or large chain ringss.

17. Loosen Crank Arm
Use your folding tool to loosen the crank arm bolt counter-clockwise. The bolt will be quite tight. At first the bolt will rapidly become loose, but then get tight again as you continue to turn the bolt. The bolt is backing out and pushing against the retainer ring. Continue to unscrew the bolt until the crank arm slides off. Put the crank arm in the dark blue felt bag.

18. Cover Chain Stay
Cover the right chain stay with the medium grey felt sleeve. Tuck any loose cables, click box (DualDrive only) and excess chain into the sleeve. Secure the sleeve with a rubber band.

7. Install Fork Spreader
Slip the fork spreader between the drop outs on the fork, and lightly tighten the quick release.

The fork spreader will help prevent damage to your frame when traveling.

8. Remove Air Llama and Glide Forks
If you own an Air Llama bicycle you will need to remove the fork legs. Lift the dust sleeve to expose the two fork clamp bolts. Loosen both bolts, and the fork legs should slide off of the steerer tube. Put the fork into the grey felt bag. The fork will remain connected to the handlebar by the brake cable.

If you own an Air Glide bike, removing the fork is recommended to facilitate packing—particularly if you have many accessories.

9. Remove Handlebars
Loosen the handlebar clamp bolts on the stem, and pull the bars apart. Depending on the model of stem, there may be either one or two clamp bolts. Let the bars hang to the side for now.

On bicycles equipped with flat or H-bars, there will be a small button-head screw in the center of the clamp. Do not loosen or remove this screw. It holds the black sleeve in the stem.
Packing: Stem

10. Remove Stem
Open the stem quick release at the bottom of the stem (or loosen the clamp bolt), and remove the stem.
Put the stem into the red felt bag and set aside.

Fig. 10 Remove stem from frame.

11. Adjustable Stem
If you have an adjustable stem or a fit stem, leave the middle bolt tight to keep your stem height set properly. Only loosen the lower clamp or quick release for packing purposes.

Fig. 11 Adjustable stem removal.

12. Remove Rear Wheel
With the rear brake open remove your rear wheel. Remove the quick release and store it in the tool pouch, and then put the rear wheel aside.
If you have a DualDrive hub you will need to release the click box first, shown in steps 13-15.

Fig. 12 Remove rear wheel.

Packing: Rear Wheel

13. Attachment Button
Start by shifting the DualDrive hub into the lowest gear (uphill icon, or repeatedly press the small lever on STI shifters).
To remove the click box, press the black button down until it is flush with the top of the box.

Fig. 13 Click box button up (connected).

14. 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. 14 Click box button down (detach).

15. Removing Rear Wheel
With the click box removed, loosen the two axle nuts with a 15mm wrench. The wheel should slide out.
Use the short PVC sleeve to cover right side axle end. This will protect the shifting rod from damage.

Fig. 15 Axle washer, bottom view.