



Using Your Bike Friday®:

- Family Tandem Traveler™
- Tandem Traveler XL™ • Ti Lite XL Traveler™
- Tandem Two'sDay™ • Project Q™



Brent Curry and Gary Plum cycle from Calgary to the source of the Bow River on a Two'sDay and canoe: [www.bikeforest.com](http://www.bikeforest.com). Photo by David Garden.

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4/29/04

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## 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](mailto: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 web site at [www.bikefriday.com](http://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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## 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 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.

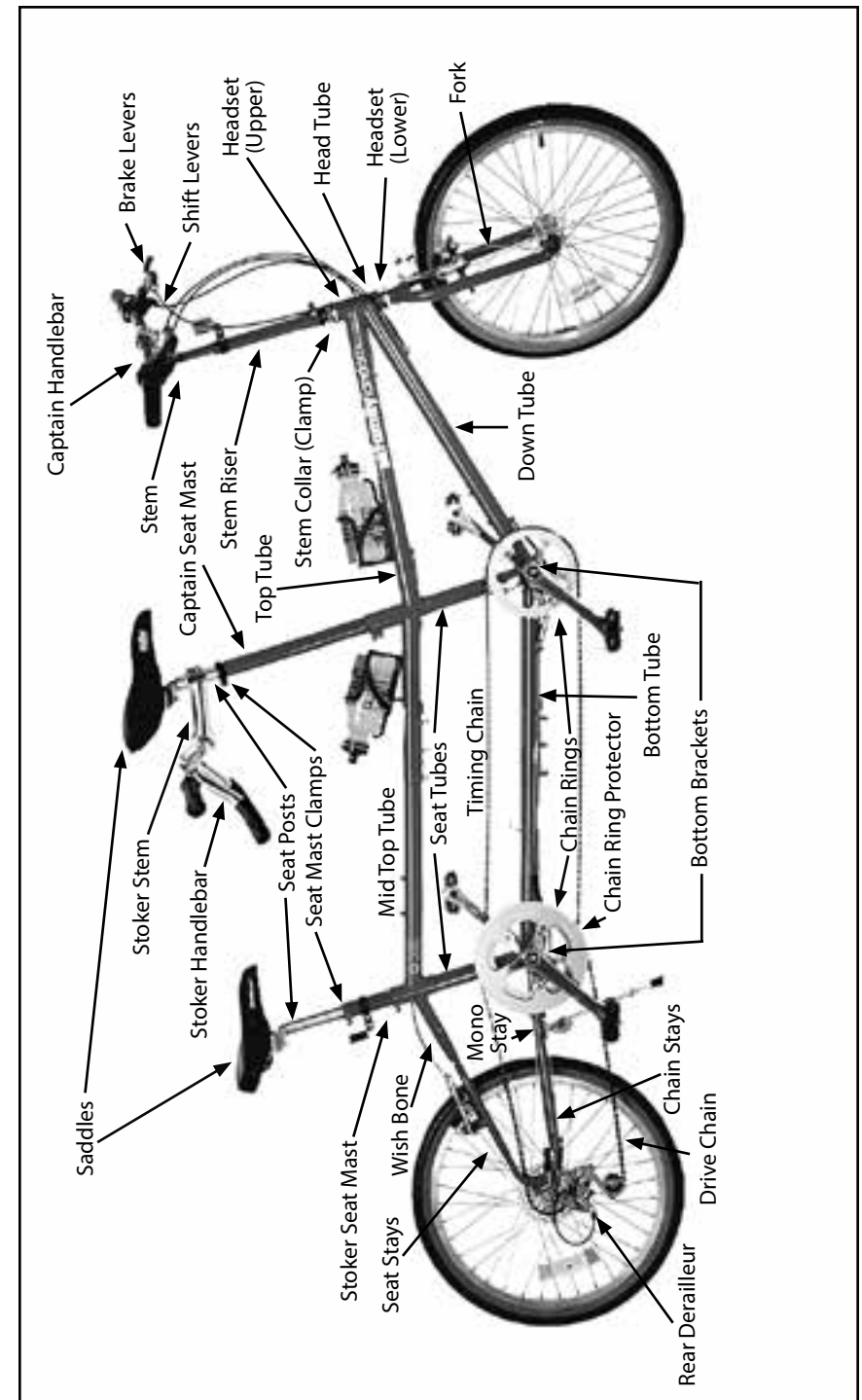


All bikes ordered with a TravelCase™ suitcase also come with a tool pouch. In the tool pouch you will find some cotton gloves to keep your hands clean, a folding tool set, a combination headset and pedal/axle nut wrench (15mm), and a 4mm ball-end driver. The ball-end driver is perfect for mounting bottle 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.



## Anatomy of a Bike Friday Tandem



# Using a Quick Release



## 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 bicycle 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!

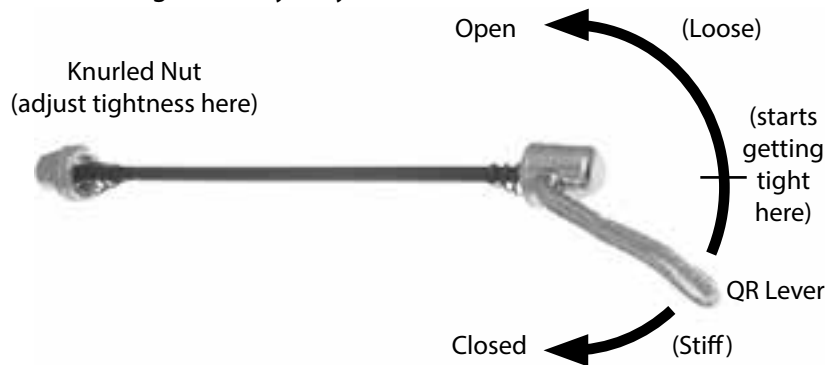
## Quick Release Operation

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.



# 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,



Fig. 1 Quick release operation.

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).



Fig. 2 Setting quick release tightness.

## 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.



Fig. 3 Closed QR pointing rearward.

## 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 bike 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 Fridays 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.

## 1. Unpack Travel Cases

Start by removing the loose items such as the small colored felt bags and water bottles. You should also see a green blanket. This packing blanket is a portable work space to spread out on as you assemble your tandem.



Fig.1 The fully equipped tandem.

Remove the crush protector.

The crush protector is a PVC dowel with a couple of flat caps on the ends in the center of the case.

Next remove the various frame pieces from the case and place them on the packing blanket. It may look like a lot of tubes and cables, but don't worry, it will soon be a bicycle. All of the frame parts have been carefully packed and labeled. We suggest leaving the packing materials on until you are ready to use the part. This will help you keep the frame parts identified.

## 2. 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,



Fig. 2 The goodie bag.

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.

### ▲Tip

Your tandem frame has many clamps with two adjoining binder bolts. Tighten these bolts in a 1-2-1 order. After tightening the first bolt, tighten the second; then tighten the first bolt again. These binder bolts work together for maximum clamping power and security.

## Assembly: Mid Top Tube



### 3. Tool Pouch

The tool pouch that comes with the TravelCase 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



Fig. 3 The tool pouch.

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.

### 4. Mid Top Tube Orientation

Select the mid top tube from the grey felt sleeve. One end has a notch cut out of it whereas the other end has a square cut. The end with the notch faces forward and is designed to engage the captain's seat tube inside the forward socket. The notch is



Fig. 4 Mid top tube notch.

vertically oriented and keeps the top tube from twisting.

### 5. Insert Mid Top Tube

With the notch facing forward (the stoker's water bottles should be on top and facing backwards) insert the mid top tube into the upper forward socket, twisting it slightly back and forth until it is all of the way in. You should feel the notch engage



Fig. 5 Mid top tube inserted into socket.

the seat tube. Check that the water bottle cages are on squarely on top and securely tighten the forward upper socket clamp bolts.

## Assembly: Bottom Tube



### 6. Bottom Tube Orientation

Select the bottom tube from the felt sleeve. One end of the bottom tube has a notch cut out of it and the other end has a square cut. The end with the notch faces rearward and goes into the rear lower socket.



Fig. 6 Bottom tube rearward end.

### 7. Insert Bottom Tube

Push the bottom tube into the rear lower socket as far as it will go, twisting it slightly back and forth until it is all of the way in. The small peg on the bottom tube is a pump peg which should be squarely on top and pointing forward. Securely tighten the socket clamp bolts.

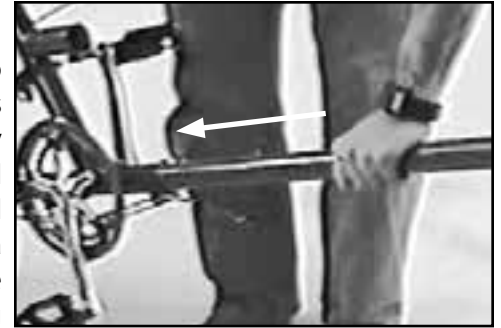


Fig. 7 Bottom tube installation.

### 8. Connect Frame

Slide the over-clamp forward on the top tube until the square cut is exposed. To connect the frame halves, insert the bottom tube front end (with the square cut) into the forward lower socket and push the frame halves together. Leave the forward lower socket loose for now.



Fig. 8 Connect frame halves.



## Assembly: Connect Frame



### 9. Press Frame Together

With the frame halves properly joined, the rear of the top tube and forward end of the matching tube on the stoker's seat tube should be no more than ¼ inch apart.



Fig. 9 Frame halves properly joined.

### 10. Slide Over-clamp Back

With the frame halves engaged, slide the top tube over-clamp back until it equally covers the frame joint. Step behind the bike and sight down the frame: the two seat tubes should be parallel. At this point you can make minor adjustments to the alignment by twisting the frame halves. Tighten the over-clamp securely.

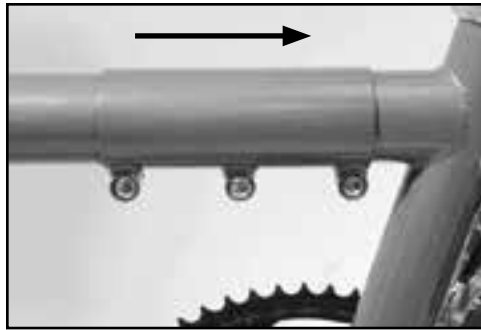


Fig. 10 Over-clamp in position.

### 11. Set Cable Stop Ring

Open the half-clamp cable stop ring and slip it over the bottom tube just behind the forward lower bottom tube socket. Reconnect the bolts and then slide the cable stop ring back until it securely contacts the stop on the frame. Turn the clamp so that the cables are on the left side of the bottom tube and tighten the ring clamp bolts. The springs help keep the cable housing in the cable stops when the bike is packed.



Fig. 11 Cable guide ring and springs.

## Assembly: Drum Brake



### 12. Install Rear Wheel

Install the rear wheel. Be certain the rear brake is open. If you are not certain how to operate a V-brake, see the "V-Brake Operation" section near the end of this manual. For details on working with a drum brake, refer to the next few steps.



Fig. 12 Install rear wheel.

### 13. Drum Brake

If you have opted for a drum brake, the wheel mounts into the frame nearly the same as a standard wheel. You will need to guide the drive chain over the cassette cogs, and pull the derailleur cage back to allow the wheel to seat into the drop outs. If you have a DualDrive hub, your wheel will not have a quick release as shown in the illustration.



Fig. 13 Drum brake view.

### 14. Engage Brake Arm Pin

As you pull the hub axle up into the frame drop outs, hook the pin at the end of the brake arm into the corresponding drop out on the left chain stay (in this case a clamp-on mount). Securely close the quick release, or tighten the axle nuts if you have a DualDrive hub. On the DualDrive hub make certain the washer tabs are facing down and in. Refer to the section on the DualDrive hub near the end of this manual for more information.



Fig. 14 Drum brake arm mounted.

## Assembly: Timing Chain



### 15. Mount Brake Housing

If the cable housing is not in the cable stop, insert it now. Pull the small spring over the brake cable back from the housing ferrule, and slip the brake cable into the cable stop (there is a slot in the cable stop for this). Release the spring.



Fig. 15 Drum brake cable housing stop.

### 16. Connect Cable Splitter

Next connect the two ends of the brake cable splitter. Screw the two halves together securely. Leave the rim brake open for now.



Fig. 16 Drum brake cable splitter.

### 17. Install Timing Chain

Remove the timing chain from the felt pouch. The timing chain has two separate silver connector links. These silver links are to help you "time" the captain's and stoker's crank arms.



Fig. 17 Timing chain silver link.

## Assembly: Drive Chain



### 18. Match Timing Marks

Drape the chain over the rear timing chain ring (you may need to slip the drive chain off the drive chain ring, depending on your model). Line up a silver link with the small stamped mark on the chain ring. (Some chain rings have a small hole drilled instead.) Repeat with the front timing chain ring.

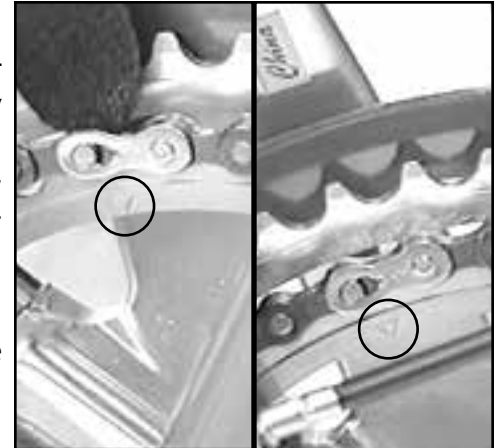


Fig. 18 Front (left) and rear (right).

### 19. Mount Timing Chain

With the timing marks aligned, turn the crank arms until the timing chain is seated on both chain rings.



Fig. 19 Timing chain on.

### 20. Attach Drive Chain

With the timing chain installed, pull the drive chain over the drive chain ring.



Fig. 20 Mounting timing chain.



## Assembly: Captain Stem



### 21. Adjust Timing Chain

Adjust the tightness of the timing chain with the forward lower clamp loose. If the chain is too tight, squeeze the chain to add some slack. If the chain is too loose, press down on the top tube to add some tension.



Fig. 21 Squeeze chain to add slack.

When the chain tension is set, tighten the forward lower clamp securely. The timing chain should move about  $\frac{1}{4}$  to  $\frac{1}{2}$  of an inch when pressed mid-span. All mid frame clamp bolts should now be tight.

### 22. Install Captain Stem

Your stems are both packed in red felt bags. Select the captain stem. Before mounting the stem, become familiar with the stem safety tips in the following steps.



Fig. 22 Captain stem.

### 23. 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).

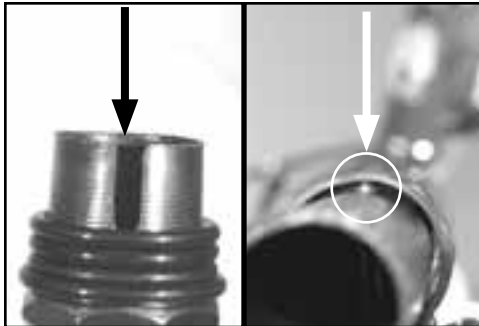


Fig. 23 Stem pin & fork slot.

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

## Assembly: Captain Stem



### 24. 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.



Fig. 24 Insert stem.

### 25. 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. Also, some stem models will have a bolt instead of a quick release to save weight.



Fig. 25 Stem clamp collar.

### 26. 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 section on "Accessories."



Fig. 26 Adjustable stem.

## Assembly: Handlebar



### 27. Captain Handlebars

To facilitate packing, all Bike Friday travel bicycles 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 left handlebar into stem clamp, then right bar.



Fig. 27 Handlebar sleeve.

### 28. 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



Fig. 28 Set handlebars.

Fig. 28a Custom stem.



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.

### 29. Tighten Handlebars

Using the appropriate Allen wrench (5 or 6mm), tighten the handlebar clamp bolts securely. If your bar clamp has two bolts, tighten both alternately.



Fig. 29 Tighten handlebar clamp.

## Assembly: Connect Cables



### 30. Connect Cables

Connect the cable splitters along the bottom tube. The top cable in the front cable guide goes with the top cable in the rear cable guide. If the cables are disturbed, trace each cable from the handlebar control backwards, and each cable from the appropriate component forward to make a match.



Fig. 30 Cable splitter.

### 31. Rear Brake Cable

If the rear brake cable along the top tube is not set into the cable guides, do so now. Simply pull the spring back and slip the cable into the cable stops.



Fig. 31 Front (top) & rear (bottom).

### 32. Brake Cable Splitter

With the rear brake open, screw the cable splitter along the mid top tube together. Then close the rim brake. If you are not familiar with closing a V-brake, see the "V-Brake Operation" section near the end of this manual. (You can connect the splitter with the brake closed, but it is slightly harder to pull the cables together under spring tension.)



Fig. 32 Rear brake cable splitter.

## Assembly: Front Wheel



### 33. 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 wheel's quick release. Open the quick release, unthread the knurled nut, and put the fork spreader in the tool pouch for future use.



Fig. 33 Remove fork spreader.

### 34. Open Front Brake

To install your front wheel, you will need to open the front brake to allow the tire 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. If you have a V-brake and are not familiar with its operation, see the "V-Brake Operation" section.



Fig. 34 Opening side-pull brake.

### 35. Install Front Wheel

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.



Fig. 35 Quick release spring and nut.

Install front wheel in fork, and tighten quick release securely. Be certain to close the front brake again.

## Assembly: Seat Masts



### 36. Seat Mast Installation

All tandem models have a seat mast that telescopes out of the lower seat tube. If you bought a TravelCase suitcase, the seat mast will be in a blue felt bag. Place the captain and stoker seat masts in their respective seat tubes. Orient the seat mast clamp slot so that it is facing backwards. There is a minimum insertion mark on each seat mast to avoid over-extension.



Fig. 36 Rear seat mast & seat tube.

### 37. Stoker Seat Post

Remove the packing materials from your stoker seat post and then insert the seat post into frame. 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. If you did not purchase a saddle with your 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.



Fig. 37 Install seat post.

### 38. Tighten Seat Post

Whenever you install the seat post, make certain the seat post shim (the split aluminum sleeve inside the seat mast) has its slot aligned with the slot in the seat mast. (Some frames for larger riders may not have a seat post shim). Also make certain the seat mast collar has its slot aligned with the slot in the seat mast. Tighten the seat post. (Be careful not to overtighten, as the bolt can break).

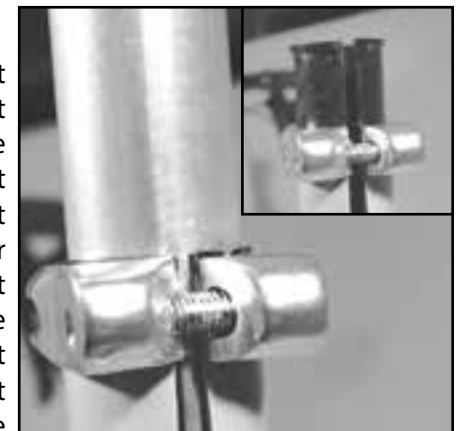


Fig. 38 Seat post shim.

## Assembly: Pedals

### 39. Captain Seat Post & Stoker Handlebar

Before installing the captain seat post, slide the stoker stem onto the seat post with the stem pointing up. Mount the seat post into the captain seat mast and set the saddle height. Then align the stoker stem with the frame. Mount the stoker handlebars with the reinforcing sleeve on the left side.



Fig. 39 Stoker bar and stem.

### 40. 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. 40 Check pedals for threading.

### 41. 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.



Fig. 41 Tighten pedals (tighten in opposite direction for left pedal).

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

### 42. Double-Check Your Bike!

At this point your 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, 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.

### 1. Remove Accessories

Before disassembling and packing your Bike Friday tandem, remove the larger accessories such as racks. Your computer and water bottle cages can remain on the frame.

### 2. Remove Pedals

Loosen your pedals with the supplied headset/pedal wrench (TravelCase suitcase 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.)



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

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

### 3. Remove Stoker Seat Post

Loosen the seat mast clamping collar and remove the stoker seat post. (The saddle can remain attached to the seat post). The seat post shim should remain in the seat mast. 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.



Fig. 3 Remove saddle and seat post.

saddle in a blue vinyl sleeve labeled "Saddle;" the slot in the sleeve goes over the nose of the saddle. Set the saddle aside.

### 4. Remove Captain Seat Post, Stoker Stem & Bars

Depending on your configuration, you may be able to leave the stoker bars intact and mounted in the stoker stem (unlike in the illustration). While separating the stoker bars is a minor step when packing your tandem,



Fig. 4 Seat post & stoker stem.

try leaving them connected for now. Remove the captain seat post and then remove the stoker stem. Set both parts aside for now.

### 5. Remove Seat Masts

Remove both seat masts from the tandem frame, cover with their respective grey felt sleeves and set aside.



Fig. 5 Remove seat masts.

### 6. Open brakes

Open both front and rear brakes. If you have side-pull brakes, simply flip up the small lever on the side of the brake. If you have V-brakes, refer to the section on V-brake operation if needed.



Fig. 6 Open both brakes.



## Packing: Front Wheel

### 7. 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.



Fig. 7 Remove front wheel.

### 8. 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.



Fig. 8 Fork spreader.

### 9. Open Cable Splitters

Disconnect all of the center section cable splitters, including the rear brake cable splitter. If you have a Project Q tandem, you can leave the front section cable splitters connected.



Fig. 9 Disconnect all cable splitters.

## Packing: Remove Stem

### 10. Remove Capt. Bars

Loosen the handlebar clamp bolts on the stem, and pull the bars apart. Depending on the model of stem, there may be either one bolt 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.



Fig. 10 Remove captain's handlebars.

### 11. Remove Captain's 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.

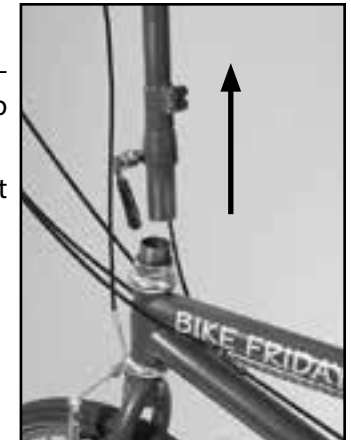


Fig. 11 Remove stem.

### 12. 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.

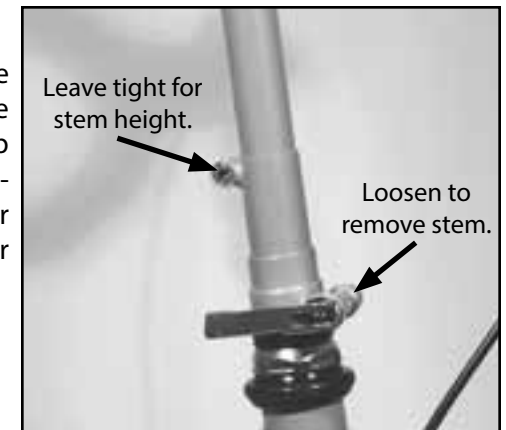


Fig. 12 Adjustable stem removal.



## Packing: Loosen Mid Frame



### 13. Unhang Drive Chain

Pivot the rear derailleur forward to get some chain slack and then unhang the drive chain from the chain rings. If your tandem is set up with the timing chain on the left side there is no need to unhang the drive chain.



Fig. 13 Unhang drive chain.

### 14. Loosen Frame Clamps

Loosen all frame clamps that hold the center section together, including the over-clamp for the rear end of the mid top tube. If you have a Project Q, the rear mono stay does not need to be loosened.



Fig. 14 Loosen frame clamps.

### 15. Remove Timing Chain

Derail the timing chain by lightly pressing on the side of the chain as you back pedal the crank arm. If the chain is too taut to derail, try loosening one of the bottom tube clamps. Then remove the timing chain and place it into the light blue felt bag.



Fig. 15 Remove timing chain.

## Packing: Rear Wheel



### 16. Separate Frame

With all of the frame center section clamp bolts loose, slide the top tube over-clamp forward and then twist and pull the frame apart.

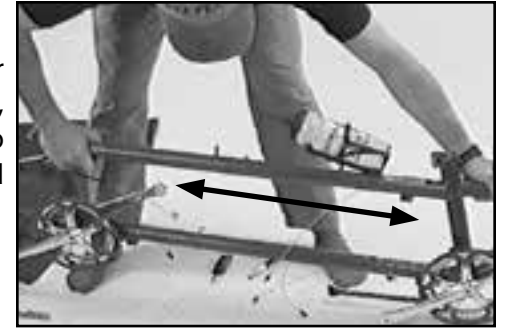
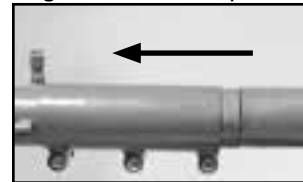


Fig. 16 Pull frame apart.

Fig. 16a Over-clamp.



### 17. Remove Center Tubes

Remove both the top tube and the bottom tube from the frame. Place the center tubes in their respective grey felt sleeves.

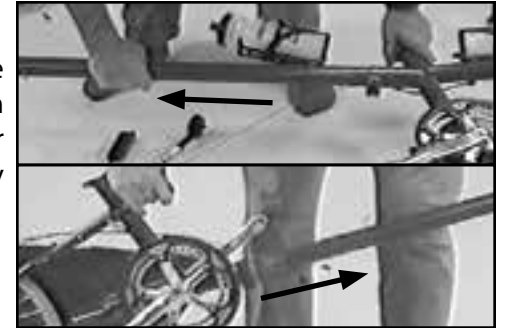


Fig. 17 Extract center tubes.

### 18. Rear Wheel

With the rear brake open, remove the rear wheel and set aside. For details on removing a rear wheel with a DualDrive hub, see the section on DualDrive operation near the end of this manual. For details on a wheel with a drum brake, see the next few steps.



Fig. 18 Remove rear wheel.

## Packing: Drum Brake

### 19. Unscrew Cable Splitter

Unscrew the drum brake cable splitter.



Fig. 19 Drum brake cable splitter.

### 20. Release Brake Housing

Pull the small spring over the brake cable back from the housing ferrule, and slip the brake cable out of the cable stop (there is a slot in the cable stop for this).



Fig. 20 Drum brake cable housing stop.

### 21. Remove Wheel

Now remove the rear wheel by pushing down and forward so that the pin on the brake arm clears its clamp-on drop out.



Fig. 21 Drum brake hub out of frame.

## Packing: Materials

### 22. Packing Materials

At this point you should add any remaining 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:

- Seat mast covers (grey felt sleeves).
- Frame tube covers (blue vinyl sleeves).
- Crank arm covers (blue vinyl sleeve).
- Crank arm bag (dark blue felt bag).
- Chain stay covers (striped vinyl tube).
- Steerer tube cover (short striped vinyl tube).
- Handlebar end covers (long and short striped vinyl tube).

Your own bike may have other pieces. These will be labeled according to where they go. Generally, there is extra room in the cases to accommodate accessories such as shoes, clothing, and even helmets. As you travel with your tandem 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. Here are some examples of packing materials.



Fig. 22a Down tube cover.



Fig. 22b Seat post sleeve.



Fig. 22c Stoker stem red bag.



Fig. 22d Crank arm sleeve.

## Packing: Front End

### 23. Pack Front End

In one of your empty cases, lay the front end of your tandem into the case. The frame should sit towards the rear of the case, with the right side up. Two'sDay frames can be left unfolded. The fork should be turned around to keep the frame more compact. Let the captain handlebars hang out of the case for now.



Fig. 23 Front end in TravelCase.

### 24. Add Stoker Bars

Many stoker bars can be packed in the case without being separated, although you may need to loosen the bar clamp in order to rotate the stem slightly. If you encounter difficulties in packing the bike with the intact stoker bars, separating them is a simple step. In either case, the stoker stem should be covered in a red felt bag. Refer to illustration for packing orientation.



Fig. 24 Stoker bars and stem in case.

### 25. Pack Captain Bars

Now pack the captain handlebars. The illustration shows drop bars, placed mirror image to the drop stoker bars with the drops overlapping. Other types of handlebars will be packed similarly, sort of parallel to the fork and nested together. Be careful not to kink the cables.



Fig. 25 Captain bar placement.

## Packing: Front End

### 26. Insert Seat Post

Place either the captain or stoker seat post (and saddle) under the bundle of handlebars, with the nose of the saddle pointing toward the frame, and the seat post pointing towards the front bottom bracket.

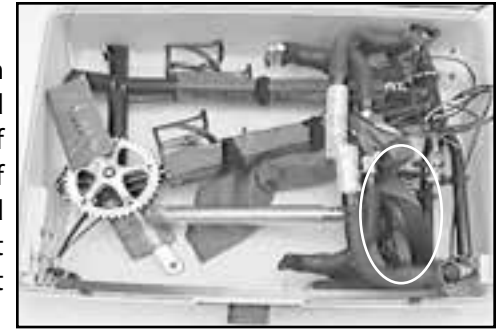


Fig. 26 Saddle & seat post placement.

### 27. Add Front Wheel

Lay the front wheel on top of the bike toward the left rear corner of the case.



Fig. 27 Front wheel placement.

### 28. Insert Center Tubes

Place both the mid top tube and the bottom tube (in their respective sleeves) on top of the front wheel and through the handlebars toward the rear of the case.



Fig. 28 Bottom & top tube placement.

## Packing: Front End

### 29. Add Pedal Bags

Start to fill in some open areas with the smaller felt bags. The pedal bags, timing chain bag, and tool kit can fit along the rear of the case. Try to keep these small heavy items packed snugly. Otherwise they can bounce around the case.

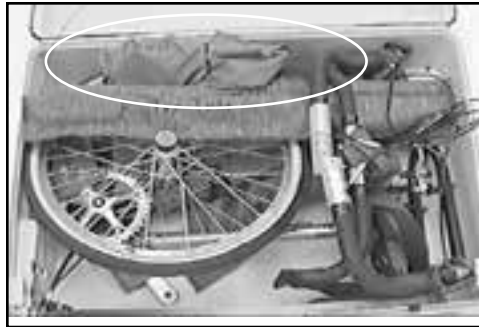


Fig. 29 Miscellaneous bags.

### 30. Insert Seat Masts

Pack the captain stem (in the red felt bag) and the two seat masts (in their felt sleeves) along the front of the case under the front wheel.



Fig. 30 Stem and seat masts.

### 31. Insert Crush Protector

Slip one of the crush protector disks into the bottom center of the case. Thread the crush protector dowel through the front wheel and into the socket of the lower flange. The top flange should be nearly the highest part of your bike. This piece is a critical bit of packing material: it spans the case so that luggage dropped on top of your case is supported by the dowel and not your bike.



Fig. 31 Crush protector placement.

## Packing: Rear End

### 32. Packing Blanket

Add the packing blanket to the top of the case. Leave this case open until the other case has been packed with the rear end; there may be miscellaneous loose items such as shoes and helmets to distribute between the cases.



Fig. 32 Packing blanket in case.

### 33. Pack Rear End

Lay the rear end in the right rear corner of the other case with the right side facing up, and right crank arm pointing up.

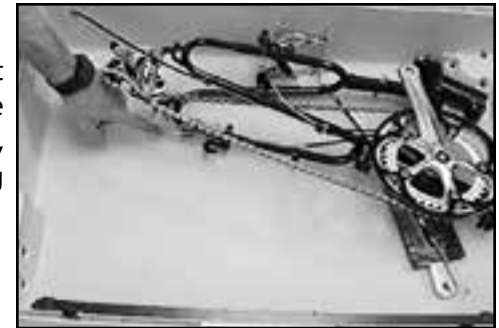


Fig. 33 Rear end placement.

### 34. Insert Rear Wheel

Place the rear wheel in the front left corner of the case with the cassette side facing up. The rim and tire will rest between the chain stays.



Fig. 34 Rear wheel placement.

## Packing: Rear End

### 35. Other Seat Post

Add the remaining seat post and saddle to the case. The large end of the saddle should be in the front right corner, with the saddle nose pointing at the rear bottom bracket. The seat post will lay across the rear wheel.



Fig. 35 Saddle & seat post placement.

### 36. Add Crush Protector

Slip one of the crush protector flanges into the bottom of the case, and then thread the dowel through the rear wheel.



Fig. 36 Crush protector placement.

### 37. Trailer Placement

Lay the trailer tongue in the long blue felt bag toward the rear of the case, on top of the bike. The S-shaped end of the tongue will point towards the center right side of the case. Lay the trailer axle bag on top of the frame next to the tongue bag.



Fig. 37 TravelTrailer bags.

## Packing: Close TravelCase

### 38. Trailer Wheel

Lay one of the trailer wheels in the left front corner on top of the rear bicycle wheel.

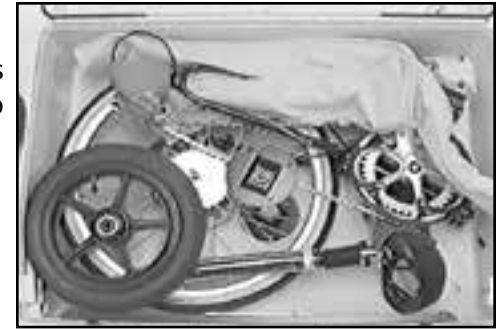


Fig. 38 Trailer wheel placement.

### 39. Second Trailer Wheel

Lay the second trailer wheel toward the rear of the case on top of the rear end. The short end of the stacker will hook over the right side of the bike, and the long end will lay across the top of the bike.

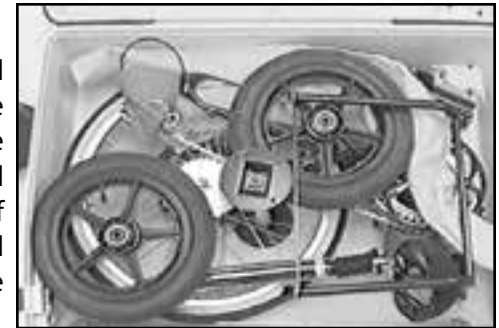


Fig. 39 Stacker placement.

### 40. Miscellaneous Items

At this point the bike is nearly packed. Any remaining loose items such as the water bottles, clothing, shoes, helmet etc. should be set into any openings. Fenders can be nested together. There should also be ample space for the front and rear



Fig. 40 Close TravelCase.

racks in one of the two cases. Close the case lid, tucking any loose cables and felt bags into the case. You should be able to feel that the crush protector is the highest point of the case.

## Q Transformation



If you purchased a Project Q tandem, this section will guide you through the transformation of your bike from a tandem into a single.

### 1. Center Cable Splitters

First, unscrew all of the center cable splitters along the mid top and bottom tubes.



Fig. 1 Disconnect center cable splitters.

### 2. Front Cable Splitters

Disconnect all of the front cable splitters along the captain down tube.



Fig. 2 Disconnect front cable splitters.

### 3. Center Brake Cable

Remove the center section of brake cable and housing along the top tube by pulling the springs back over the brake cable, and slipping the cable out of the cable stop. Keep this loose piece of cable and housing in a safe place for future use.



Fig. 3 Center brake cable & housing.

## Q Transformation



### 4. Center Derailleur Cables

After disconnecting the front cable splitters, slip the forward ends of the housing along the down tube out of their respective cable stops. The cables should remain connected to the cable stop ring on the bottom tube (the springs on the cables help keep them attached), but the cables should be free of the front end of the frame.



Fig. 4 Lower cables on bottom tube.

### 5. Remove Stoker Stem

Pull out the captain seat post and remove the stoker stem and handlebars. Put the stoker bars aside. Reinstall the seat post and set to the proper height.



Fig. 5 Remove stoker stem.

### 6. Detach Rear Brake Cable

Detach the rear brake cable housing from the cable stop on the top tube by the stoker seat mast. This cable should now be directly connected to only the rear brake.



Fig. 6 Detach rear brake housing.



## Q Transformation

### 7. Detach Lower Cables

Detach the lower cluster of cables from the cable stops on the lower socket of the stoker seat tube, like you did in the previous step. The cables should now be only connected to the rear end.



Fig. 7 Detach lower control cables.

### 8. Loosen Mono Stay

Loosen the mono stay clamp bolts on the rear end.



Fig. 8 Mono stay clamp bolts.

### 9. Loosen Clamp Bolts

Next loosen all frame clamp bolts on the center section, including the top tube over-clamp.



Fig. 9 Loosen all center clamp bolts.

## Q Transformation

### 10. Unhang Drive Chain

Gently pull the rear derailleur forward and slip the drive chain off the chain ring. This will be easier to do when the chain is in the small cog on the cassette.



Fig. 10 Drive chain.

### 11. Remove Timing Chain

Derail the timing chain by pressing on the side of the chain as you turn the crank arms. When the chain falls off, remove the chain and put it aside for future use.



Fig. 11 Derail timing chain.

### 12. Separate Frame

Slip the top tube over-clamp forward, then twist and pull the frame halves apart. Remove the top and bottom tubes and set them aside.

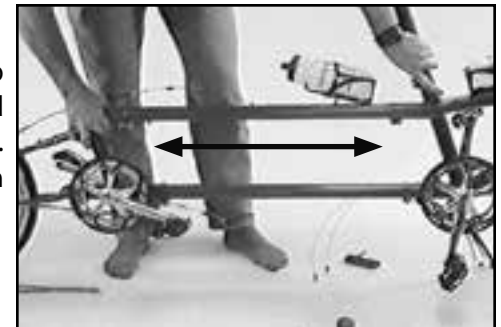


Fig. 12 Separate frame.

## Q Transformation

### 13. Loosen Wish Bone

The wish bone connects the upper part of the rear end to the stoker seat tube. Loosen these two bolts completely and remove the half-shell clamp.



Fig. 13 Wish bone half-shell clamp.

### 14. Separate Rear End

With the wish bone clamp open and the mono stay clamp loose, separate the rear end from the stoker seat tube by twisting and pulling.



Fig. 14 Separate rear end.

### 15. Attach Rear End

Slip the mono stay on the rear end into the socket on the front end at the bottom bracket. Push the frame together until the wish bone clamp is engaged to the seat tube.



Fig. 15 Attach rear end to frame.

## Q Transformation

### 16. Tighten Rear End

Re-attach the wish bone half-shell and the bolts, then tighten this clamp securely.

Then tighten the mono stay clamp bolts securely.

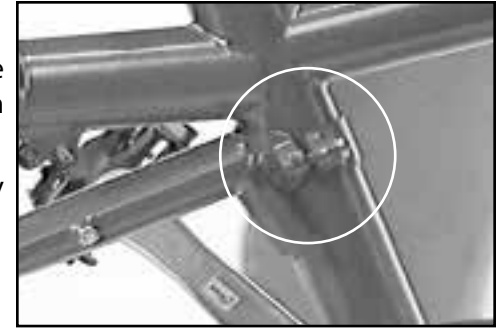


Fig. 16 Close up of wish bone clamp.

### 17. Insert Top Tube Plug

With your Project Q tandem you should have found a painted capped tube with a cross bar welded to it. This piece is a plug to cover the top tube socket for the tandem.



Fig. 17 Top tube socket plug.

### 18. Re-Hang Drive Chain

Gently pull the rear derailleur forward and drape the drive chain over the large front chain ring.



Fig. 18 Drive chain installation.

## Q Transformation

### 19. Connect Cables

Slip the rear end control cables into the proper cable guides on the down tube. Be certain to match the vertical order of the corresponding cable from the handle bar. For instance, if the top cable from the handlebar is for the rear derailleur, then the rear derailleur cable should be in the top position in the rear cable stop. Then connect the down tube cable splitters.



Fig. 19 Connect control cables.

### 20. Connect Rear Brake

Attach the rear brake cable housing to the top tube rear cable stop by pushing the spring aside. Connect the cable splitter, then close the rear brake.

Your tandem is now a single! Before you ride, double check all connections, cable splitters and clamps.



Fig. 20 Connect rear brake.

### 21. Making your single a tandem again.

Transforming your Project Q single back into a tandem again is just the reverse of these steps. If you encounter difficulties in reassembling your tandem, refer to the first section on tandem assembly.

## Two'sDay Quick Fold

### 1. Getting Ready

Shift the drive chain into the small cog in back and the small chain ring in front (the latter only if you have a standard drive train). This is best accomplished when you are still riding just before coming to a stop. If your bike has a kickstand, raise it at this point.

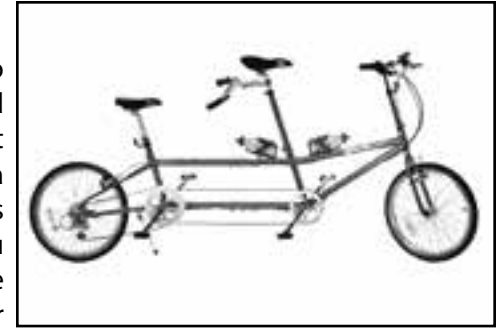


Fig. 1 Getting ready for the quick fold.

### 2. Rear Brake Cable

Next, undo the rear brake cable splitter along the top tube. It may easier if you open the rear brake. Then slip the rear-most section of brake cable housing out of the rear cable guide.



Fig. 2 Disconnect brake cable splitter.

### 3. Fold Rear End

With the rear brake cable disconnected from the frame, open the rear end quick release and fold the rear end under the frame as far as it will go.



Fig. 3 Fold under rear end.

## Two'sDay Quick Fold

### 4. Release Captain's Stem

Open the stem quick release (or loosen the lower-most bolt) and remove the stem from the fork.



Fig. 4 Remove Stem.

### 5. Fold Front End

Now open the front end quick release and fold the front end under so that it rests next to the folded rear end. Lay the captain stem and handlebar over the bike. To further compact the tandem, you can loosen the seat mast clamps and push



Fig. 5 The folded Two'sDay.

the seat masts down into the seat tubes. If you have a TravelBag, place the bike in it now and zip it shut.

### 6. Unfolding Your Tandem Two'sDay

Unfolding your tandem into riding condition is just the reverse of these steps. Unfold the front end first, then the rear end. Before you ride your bike again, double-check to make certain that all of the quick releases are secure, that the rear brake cable is connected and the rear brake is closed, and that the alignment pin in the stem is properly engaged to the fork.

## Accessories: TravelTrailer

### 1. Trailer Parts

If you purchased a TravelTrailer kit with your tandem, you should have two trailer wheels and two blue felt bags with the tongue and axle. The bottom of your TravelCase suitcase should have three holes drilled in it if you ordered the trailer with your bike. If you ordered the trailer separately, you will need to find the three dimple marks in the bottom of your case and drill them through with a 1/4" drill.



Fig. 1 Travel Trailer parts.

### 2. Connect Axles

In the smaller blue 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).



Fig. 2 Assemble trailer axle.

### 3. Stacker Frame

If you are traveling with two cases, you will need to install the stacker unit. The two sleeves in the stacker slip over the axles with the T-bar in the middle opening. The axles and trailer tongue then mount to the first case as shown in the next few steps. It does not matter which case is on the bottom.



Fig. 3 Stacker frame set up.

## Accessories: TravelTrailer



### 4. Attach Trailer Axle

With the case 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 case.



Fig. 4 Attach trailer axle.

### 5. Add Thumb Nuts

Place one of the flat washers over each threaded stud, and then loosely thread on the thumb nuts—do not tighten them yet.



Fig. 5 Attach washers & thumb nuts.

### 6. 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 case.



Fig. 6 Trailer tongue over T-bar.

## Accessories: TravelTrailer



### 7. Add Last Thumb Nut

Place one flat washer over the threaded stud inside the case 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.



Fig. 7 Tongue thumb nut.

### 8. 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. 8 Axle washers.

### 9. 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. 9 Mount trailer wheel.

## Accessories: TravelTrailer



### 10. 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.

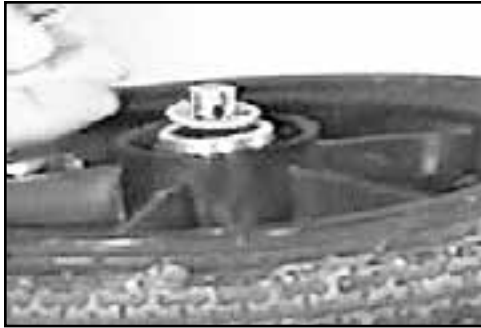


Fig. 10 First O-ring, then flat washer.

### 11. 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. 11 Insert clevis pin.

### 12. Mount Other TravelCase

Lean the stacker unit back and remove the two thumb nuts and washers. Place the other case on the stacker so that the two threaded studs go into the axle holes in the case. On the inside of the case replace the washers and thumb nuts and tighten securely. The photo also shows how you would access the lower case when touring. The upper case simply pivots back.



Fig. 12 Lower TravelCase access.

## Accessories: TravelTrailer



### 13. Stacker Strap

The supplied nylon strap holds the upper case in place. Slip the small loop over the trailer tongue and run the strap through the case pull handle.



Fig. 13 Stacker setup.

### 14. 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.

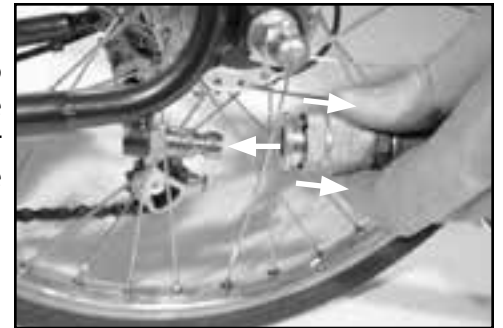


Fig. 14 Using your trailer hitch.

### 15. 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. 15 Trailer hitch connected.



## 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 case. 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.)

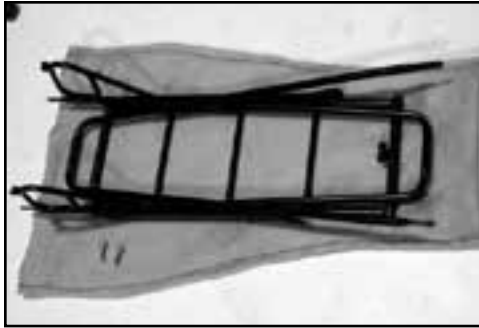


Fig. 1 GD Folding Rear Rack.

### 2. Unfold Rack

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

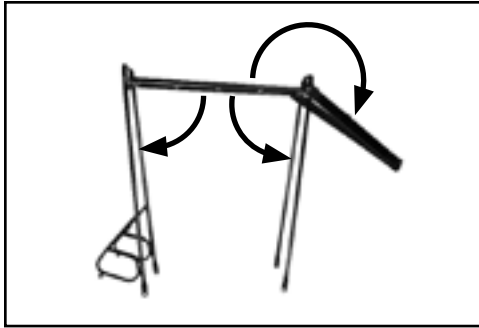


Fig. 2 Unfold GD rack.

### 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.

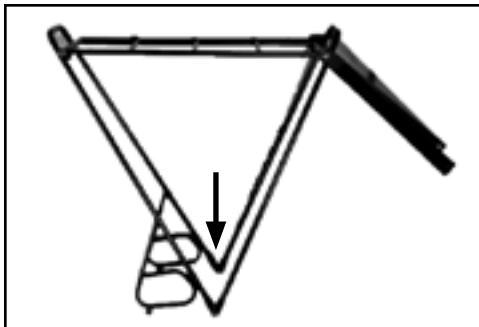


Fig. 3 Place bolts through leg holes.

## Accessories: Rear Rack



### 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 wish bone. (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: 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.

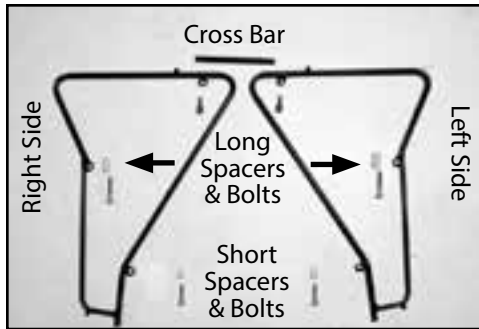


Fig. 1 Front rack parts.

### 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.



Fig. 2 Mount 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.

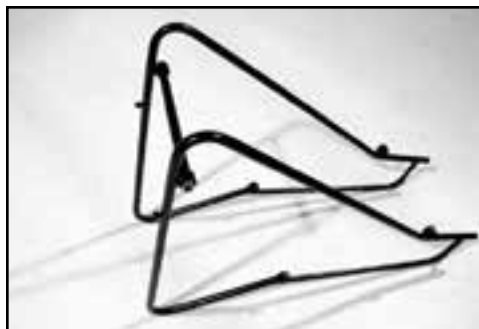


Fig. 3 Attach other side of rack.

## 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.

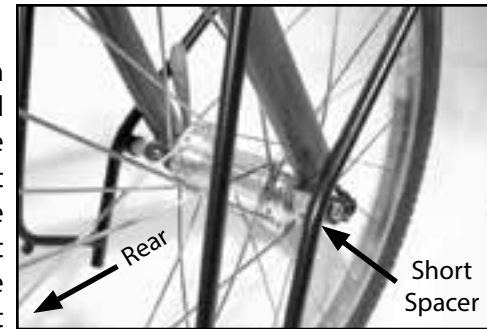


Fig. 4 Right side view of rack.

### 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.



Fig. 5 Upper mount.

### 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.



Fig. 6 Completed front rack.

## 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.

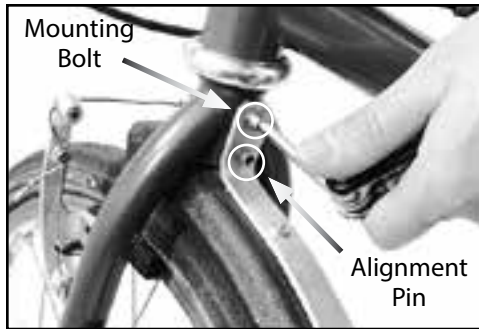


Fig. 1 Front fender.

### 2. Rear Fender

Your rear fender has one hole in the aluminum tab, and the fender extends farther forward of the tab than the front fender. The fender is attached to the rear end by the bolt in the wish bone.



Fig. 2 Rear fender.

## 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.

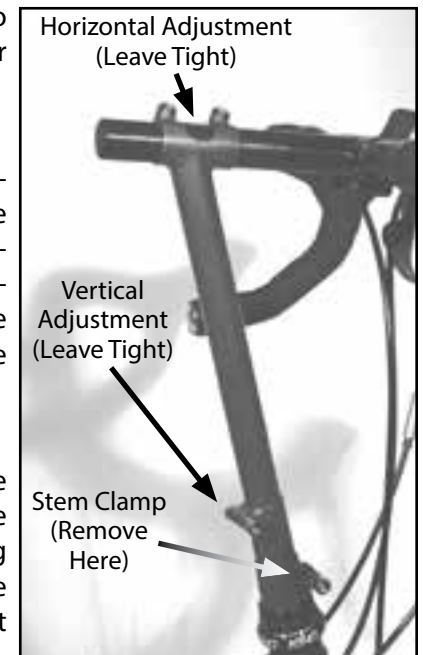


Fig. 1 Removing fit stem.

## V-Brake Operation

### 1. Operating V-Brakes

To open your V-brake, start by pressing the brake arms together.

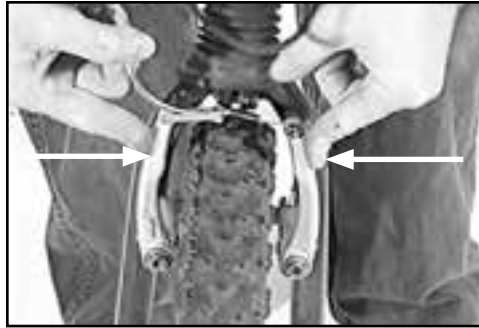


Fig.1 Press V-brake arms together.

### 2. 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.

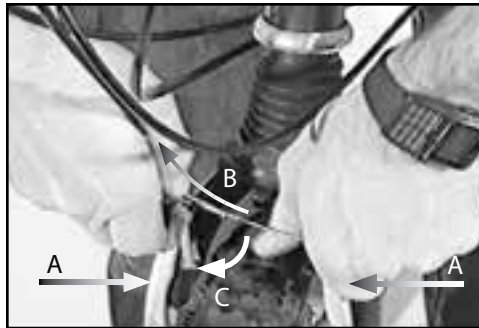


Fig. 2 Pull out noodle from holder.

### 3. Open V-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.



Fig. 3 Open brake arms.

## V-Brake Operation

### 4. 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.

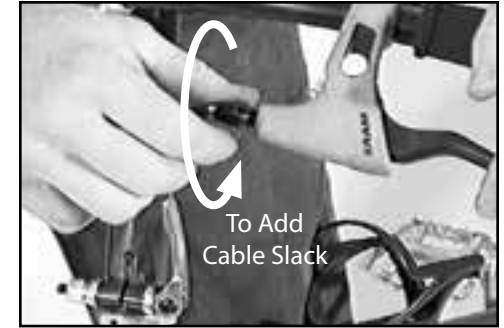


Fig. 4 V-brake barrel adjuster.

### 5. Reconnect V-Brake

Before closing the brake check to make certain that the housing is properly seated into the ferrules at both 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

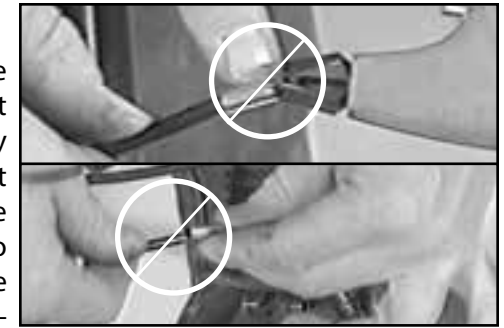


Fig. 5 Check housing for seating.

### 6. 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. Test squeeze the brake lever, if the brake is too loose remove some cable slack at the barrel adjuster.

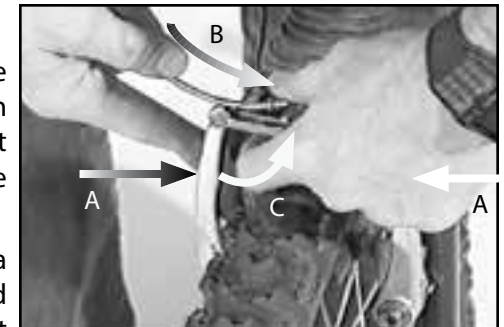


Fig. 6 Close V-brake.

## 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 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.

## 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.

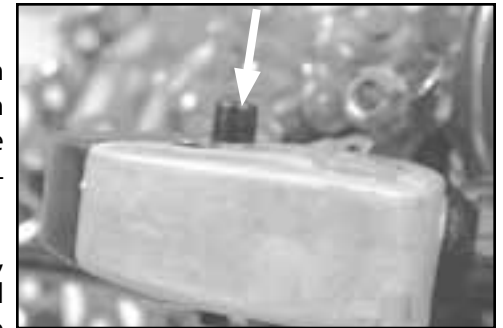


Fig. 2 Click box button up (connected).

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.



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.

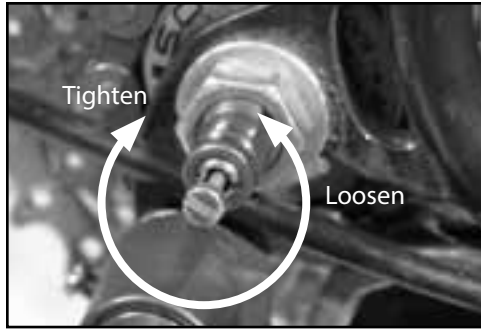


Fig. 4 Shifting Rod.

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.

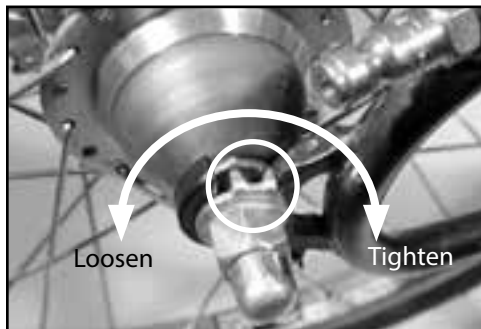


Fig. 5 Axle washer, bottom view.

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



### 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.

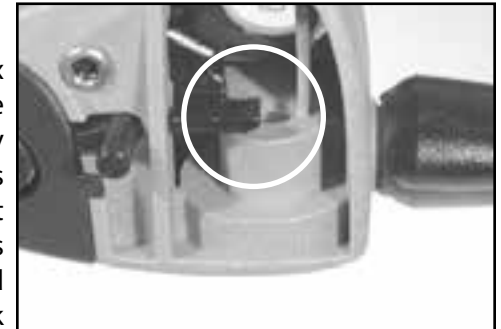


Fig. 6 Shifting fork down, button down.

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.



Fig. 6a Shifting fork up, button stuck.

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 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. 7 Place over axle end.



Fig. 7a Button up (connected again).



## 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.

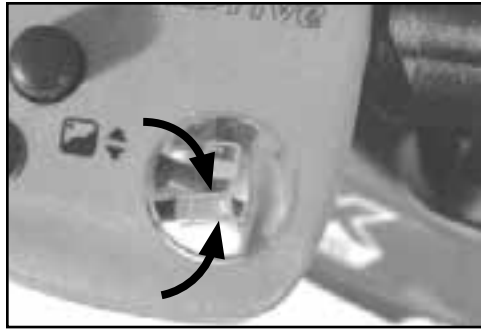


Fig. 8 Adjusting window.

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.

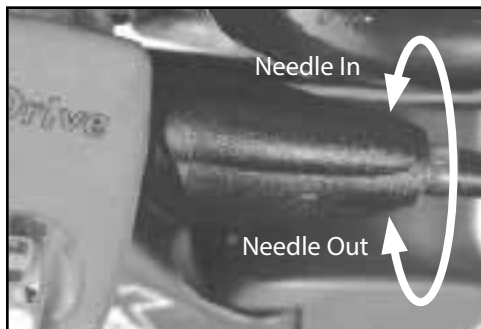


Fig. 8a Barrel adjuster.

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.

## 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.



## 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](http://www.bikefriday.com/ServiceCenterInfo.cfm). For those who plan ahead, we can generally offer the quickest repair turn-around during the winter months.

## 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, the checked luggage limit is 70 pounds. Luggage which exceeds these limitations may be charged an excess baggage fee.

BIKE FRIDAY®, the BIKE FRIDAY® logo, GREEN GEAR® CYCLING, POCKET ROCKET™, POCKET ROCKET PRO™, POCKET PILOT™, AIR FRIDAY™, TRIDAY™, POCKET CRUSOE™, POCKET TOURIST™, NEW WORLD TOURIST™, AIR GLIDE™, POCKET LLAMA™, POCKET GNU™, AIR LLAMA™, FAMILY TANDEM TRAVELER™, TANDEM TRAVELER™, TI LITE XL TRAVELER™, TANDEM TWO'SDAY™, TWIN AIR™, Q TANDEM™, SAT R DAY™, DOUBLE DAY™, TRAVEL SYSTEM™, TRAVELTRAILER™, TRAVELCASE™, as well as

# Warranty Information



## Bike Friday® Guarantee

We at Green Gear Cycling, Inc. (Bike Friday) want you, the customer, to be happy with your new bicycle. For direct orders shipped from the factory if your bike does not meet your expectations, you may return the bicycle to us for a full refund, less all shipping charges and a 15% restocking fee (as of 06-01-18). For bikes ordered through a dealer we allow the dealer to use their own return policy. This applies to the purchase of new Custom and Stock bicycles. In all cases, the return shipping charges are your responsibility. To take advantage of this guarantee, you must notify our service department (800.777.0258 / [service@bikefriday.com](mailto:service@bikefriday.com)) within 30 calendar days of your receipt of your bike of your intent to return the bike, and we must receive it in our possession within 35 calendar days of you taking delivery of the bike. We also accept returns on parts within 30 days as long as the part is unused and undamaged. Processing your refund usually takes 2-6 weeks from the time that we receive back your returned item(s).

We want your bicycle to work for you, and in order for your bicycle to work well, it should fit. We'll need some help from you to ensure that your new Bike Friday fits you well, specifically by providing us with the measurements of your best fitting bike (if you own a bike that fits well) and a description of how you feel on this bike. Additionally, you will be asked for some personal measurements with a required accuracy within 1/4" (5mm) and 3 pounds (1.35kg) – yes of your current weight and not your ideal weight – as well as a description of your riding style and the places you most likely envision riding your new Friday. Our Consultants can guide you through the process of obtaining and interpreting this information. This guarantee does not apply to Stock Bikes, which are not custom built to your specifications, but come in standard small, medium and large sizing.

Armed with this data, we can guarantee the fit of your new Friday if (1) we are matching exactly the dimensions from your current, best fitting bicycle, or (2) we build a Friday from your body measurements that includes our optional "fit stem" program. If you choose to have us build a bike for you that is sized in any other way, the bike will be sized per that method and built in a manner that allows for later fine-tuning of the sizing should you choose, at your expense, to pursue a more exacting fit.

## BIKE FRIDAY 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