

Revised October 2014

Co-Motion Co-Pilot

Bicycles for travel

Packing and travel instructions



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Congratulations!

A **Co-Motion Co-Pilot** is a great choice cyclists who travel. Packing your Co-Pilot for the first time will take some patience. Following these instructions carefully will help you feel comfortable enough with packing and assembly that you'll soon find yourself looking for more places to take your bike.

Your bicycle is designed to fit into a 26"x26"x10" case. These dimensions are important because they fall within the maximum "free" luggage size regulations stipulated by most airlines. Using our Co-Pilot Travel Case, you will have plenty of room for your bike and a few of your other essentials such as your helmet, tools, and a few articles of bike clothing.

For your luggage, we recommend the superb Co-Pilot Travel Case, however there are other options, such as a hard shell case or one that can be used as a backpack. Check with your dealer for more information on alternative cases.



Getting Started

Avoid rushing, and situate yourself in an area with room enough for you, your bicycle and the case. You'll need the included spanner that fits the Bicycle Torque Couplings (BTC's), 4, 5, 6mm (and sometimes 8mm) Allen wrenches, a pedal wrench, some rags and a good pair of scissors. If you're not familiar with bicycle terms, a knowledgeable bike mechanic or bicycle maintenance manual will be helpful.



Make sure you have your Co-Pilot Single Frame Padding Kit ready to cut to fit your bike.

Step-by-Step

Using your BTC spanner, loosen each coupling just enough so that it will turn easily by hand.



Remove pedals

Most pedals can be removed with an a 15mm open-end wrench or 8mm Allen. Keep the right tool in your kit! Note: the left pedal is reverse threaded. Turn *clockwise* to remove. Upon reassembly, avoid over-tightening to ease removal next time you travel.

Cable separators



Grasp each end of your cable separators and turn counterclockwise (they should be just fingertight) to release the cables for the rear brake and both derailleurs. We will let the cables hang for now. After the frame is fully padded, we will coil up each cable to prevent tangles inside the case.

Handlebar

Using a 4mm Allen wrench, remove the stem faceplate and the handlebar.

Replace faceplate and its 4 bolts after you remove the handlebar, tightening the bolts slightly so nothing is lost.



Wheels



Before removing your wheels, open the brake caliper quick releases so that your tire doesn't hang up on the brake shoes. You may have to deflate the tires somewhat if you have larger tires.

Open the wheel quick releases (QR's) and remove the wheels. Remove the QR skewers and place them with the other parts.

If you have **disc brakes**, your wheels will drop right out with no interference from the brake caliper.

Crank removal (tall frames only)

Some taller frames require crank removal. Crank removal varies by manufacturer. We'll show two of the more common current methods here.

Cranks with a self-extracting system require a 6 or 8mm Allen wrench. While turning the self-extracting device



counterclockwise, you will encounter resistance, but **keep going**. Slide the spindle out of the bearing assembly after the free arm is removed.



The second most-common system facilitates crank removal with two simple binder bolts, as shown. Loosen the bolts with an Allen wrench and the crankarm will come off. Slide the spindle out of the bearing assembly after the free arm is removed.

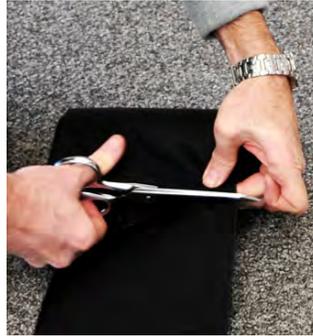
Keep an eye on small washers and spacers, which will have to be re-installed just as they were. Place your crank and its small parts into a bag.

Padding your Co-Pilot

If your Co-Pilot Frame Padding has not yet been cut, this is the time to do it. Sharp scissors are recommended, as the fabric is tough.



Notches may be cut in the padding where components are mounted. Hold the padding against your frame to find where notches must be cut.



Work padding into place

Here you can see U-shaped notches cut for the rear brake bridge and linear-pull brake mounts, as well as around the front derailleur.

Make sure you're covering all of the painted surfaces on your Co-Pilot, and it will keep looking great over many trips.



Helpful Tip:



Mark the frame padding with a paint pen, (available at hobby or craft stores). Label each piece using terms that you will remember each time you pack your tandem, for example "LCS" = "left chainstay".

Disconnect!

Fully loosen each coupler and separate the frame into its two sections. With the frame now separated, make sure that all padding is securely fastened.



Derailleur protection

Pull the rear derailleur cage forward and strap it to the chainstay with two narrow strips cut from your frame tube cover material.

Now we're packing!

Place the front section of the frame into the case as shown. For now, leave the handlebar outside of the case.



If you have discs, we recommend removing the disc rotors to ensure that they stay true. A padded mailing envelope is a great place to stow them in the case. The bolts can be threaded back in to prevent loss while traveling.



Next, place the rear wheel in the case atop the front frame section. You may find that your wheel fits better with the cogs facing down rather than up, as shown here.

Nest the handlebar down through the front frame section and the rear wheel, taking care not to stress the cables. Tuck away the loose ends of the cables.





Work the rear frame section into place, passing the left crank arm between the spokes and under the rim, resting on the bottom of the case and pointed toward the corner of the case. The rear drop-out section should be on the opposite side of the case from the head tube.



Now place the front wheel atop the rear wheel and rear section. Here you can see some heavy brown paper has been used to cover the cogs and keep the axles from banging together.

Gather up your pedals, quick releases and all the parts that have been set aside. Bag them carefully, wrap the package with a towel and place them into the case so that they will be positioned at the bottom of the case when it is upright.



You're almost done!

The saddle and post will fit into one of the remaining open spaces. You'll find that there's room between the seatstays. It's best to pad the seatpost with a piece of the frame padding or a towel to prevent damage.



Do a final check to make sure that all painted surfaces are protected. Stuff rags or wadded paper into corners and over any parts that appear unprotected. Make sure there are **no loose parts** that might rattle around inside the case!



Now you're ready to zip up your case, buckle the safety straps, and you're ready to go. Does it seem tight? Check everything again, and if you have larger tires, deflate them slightly. Along with all the tools you used to pack your bike, bring a pump to reinflate them for your trip.

Bon Voyage, travelers!

Have a wonderful time, and don't forget to send us a photo!

Assembly

Assembly is essentially the reverse of the packing process. It is important that the following items are tightened and adjusted properly:

Tighten the S+S couplers, making sure that the spanner hook is squarely engaged into the corresponding slot on the nut before you begin turning. *The couplers should be tightened to 35 lbs.* This is equivalent to 70 lbs. of pressure on the end of the 6-inch S+S spanner. If you have any trouble tightening any coupler, stop immediately and inspect the threading for grit or debris. No threads should be visible when the coupler is fully tightened. A very small amount of pure Teflon grease is recommended for lubricating. All couplers are properly lubricated before shipment from Co-Motion.

Make sure the wheel QR skewer, seat post binder, handlebar stem, brakes and derailleurs are all properly adjusted and tightened. *Check them twice to be certain.*

If you have removed your crankset, re-install cautiously. Make sure the crank arms are aligned before tightening the fixing bolt.

A Word of Caution

If you are not confident of your ability to verify the proper adjustment and therefore the safety of this bicycle, ***please*** have it checked out by a professional before you ride. We don't want anyone to get hurt. There are many good books and classes on bicycles and their maintenance available worldwide.

With closer baggage scrutiny taking place by the Transportation Safety Administration (TSA) it's important to take extra care when packing your bicycle for travel. We always suggest that travelers tie everything together inside the cases using plastic zip ties, or S+S Machine's TSA Safety Net . This helps keep the contents of your case from shifting during rough handling and it also allows the TSA inspectors to do their jobs and get the bike back into the case so you and your bike can be on your way quickly.



The S&S couplings on your Co-Pilot have been lubricated here at the factory. That lubrication is typically adequate for three years. We recommend high-Teflon-content grease for continued trouble-free operation.

Accessories available from your Co-Motion dealer or direct from Co-Motion Cycles:

S&S spanners, Teflon grease, Travel cases, Cable separators, Padding kits

Additional resources for traveling with your Co-Pilot:

<http://www.sandsmachine.com/>

<http://www.parktool.com/blog/repair-help>

<http://bicycletutor.com/>

<http://www.carbondrivesystems.com/support.php#>

<http://www.fullspeedahead.com/>

<http://bike.shimano.com/>

<http://www.sram.com/>



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