C APPENDIX:

LIST OF CANNONDALE TANDEM-SPECIFIC REPLACEMENT PARTS KITS

Part #	Description
A463/	Tandem rear brake cable housing stops, fit into top tube through guides, pair
A095T/	Shifter boss kit, for pre-'99 tandem frames with 2 1/4" downtube
A448/	Shift cable adjusting barrels, fit '99 tandem downtube stops, pair
A457/	Tandem BB cable guide plus derailleur cable guide rollers & plastic disc
A399/EBO	Tandem stoker stem, 120-170mm, 27.2mm post clamp, 25.4 bar clamp
A181/	Tandem bottom bracket eccentric, complete
2506A	Barrel nut for tandem bottom bracket eccentric
8025S	Bolt for tandem bottom bracket eccentric, M5x.8x60mm
107394	This tandem owner's manual supplement

Please note that this manual is meant to supplement, not replace, your Cannondale Owner's Manual for Multi-Speed Bicycles. That owner's manual contains valuable information regarding safe operation, adjustment, and maintenance of your bicycle, as well as more complete warranty information. Please read the bicycle owner's manual thoroughly before riding your bicycle, and keep it and this booklet for future reference.

GETTING IN TOUCH WITH CANNONDALE

For warranty related questions or for more information on this or any Cannondale product, please feel free to contact us.

USA and Canada:	(800) BIKE-USA
Europe (EC):	(31) 5415-89898
Japan:	(81) 722-99-9399
Australia:	(612) 9979-5851

www.cannondale.com

custserv@cannondale.com

jch/pca/sp 011599 #107394

the two rollers located just behind and below the rear bottom bracket.

3. Thread the front derailleur cable through the vertical brass roller so that the cable is directed up towards the front derailleur.
4. **FOR MOUNTAIN TANDEMS:** Position the horizontal gray plastic disc so that the cable hole through it is to the outside of the center bolt. Route the rear derailleur cable through the cable hole in the disc so that the cable is directed towards the rear derailleur on the right dropout.
5. **FOR ROAD TANDEMS:** Route the rear derailleur cable to the inside of the horizontal brass roller so that the cable is directed towards the rear derailleur on the right dropout.
6. Install the cables to the derailleurs and adjust according to the manufacturer's instructions.

If for any reason the eccentric must be removed from the bike or replaced, it is very important that the outer surfaces (including under the wedge) are thoroughly cleaned and then coated with anti-seize compound or grease before re-installation. Also, the eccentric MUST be re-installed with the head of the allen bolt on the right side of the bike to assure that the bottom bracket is installed the correct direction.

DERAILLEUR CABLE ROUTING

The primary difference in routing derailleur cables on a Cannondale tandem is the use of two rollers to help direct the cables.

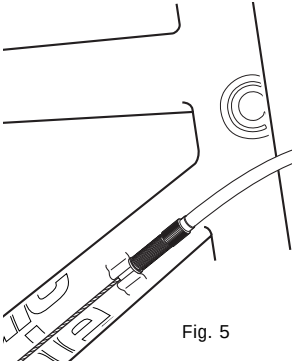

Fig. 5

1. Install and route the cables from the shifters according to the shifter manufacturer's instructions. The front derailleur cable will run through the adjusting barrel (#A448/, for use on '99 tandems) placed in the left stop on the down tube, while the rear derailleur cable will run through the adjusting barrel placed in the right stop on the down tube (Fig. 5 illustrates cable routing on a 1999 frame).

2. Run the cables through the plastic cable guide under the front bottom bracket. The front derailleur cable will run through the left slot, and the rear cable through the right slot. Then route the cables back to

FRONT BOTTOM BRACKET ECCENTRIC

The purpose of the eccentric is to provide a means of adjusting the tension on the timing chain between the two riders which runs on the left side of the tandem. As the chain wears and stretches, use the eccentric to return the chain to a maximum of 1/2" of vertical chain deflection between the two cranks.

ADJUSTING THE ECCENTRIC

1. Using a 4mm allen wrench, turn the socket head bolt on the right side of the eccentric counter-clockwise several turns to loosen the eccentric assembly. Do not completely remove the bolt. If the bolt has been previously installed tightly it will be necessary to tap the head of the bolt with a mallet to free the wedge assembly.

2. Once the assembly is free, use a bottom bracket pin tool such as the Park SPA-1 (green) to rotate the eccentric until proper chain tension is obtained. Secure the assembly in its new position, centered in the frame, by tightening the 4mm allen bolt clockwise to 60 In-Lbs (6.75 Nm.) See Fig. 4.

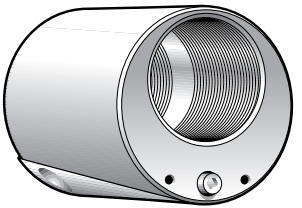

Fig. 4

B CANNONDALE TANDEM DRIVETRAIN INFORMATION

CAUTION: Drivetrain systems are very important to the safety of any bicycle and Cannondale strongly recommends that any work to them be performed by an authorized Cannondale dealer. The following instructions are provided for persons who have a good knowledge of bicycle specific mechanical procedures and who are equipped with the proper tools and equipment. Incorrect installation or service may reduce bicycle performance, and could lead to injury or death. If you have any doubts about your ability to perform the following procedures, contact your local authorized Cannondale dealer.

allowing the captain or stoker to use the drum brake as a drag brake on descents. This allows the riders to set a desired level of secondary braking friction but does not require constant user input.

4. Install the cable through a length of brake housing from the drum brake lever to the housing stop located under the downtube near the headtube, with bare cable continuing to the center slot of the plastic cable guide located under the front bottom bracket.

5. On pre-1999 tandems, the drum brake cable will then run from the center slot of the bottom bracket cable guide directly to the drum brake, without additional housing or guides. For '99 tandems, the drum brake cable must be routed from the plastic cable guide straight back to the cable stop in front of the rear bottom bracket. From this stop the cable will run in housing through the housing guide on the left chainstay, and to the adjusting barrel stop on the brake. For all tandems, the cable must be attached to the brake's cable anchor bolt according to the brake manufacturer's instructions.

6. Adjust the drum brake according to the brake manufacturer's instructions. Use the drum brake cable barrel adjuster to remove slack from the cable as necessary.

3. Run cable housing from the rear stop on the top tube to a stop at the rear brake, install the brake cable to the rear brake, and adjust the brake according to the brake manufacturer's instructions.

REAR DRUM BRAKE INSTALLATION

1. Install the drum brake on the rear wheel according to the brake manufacturer's instructions.

2. Position the rear wheel in the rear dropouts in the normal manner. Before tightening the axle, swing the brake arm around until the hole in the drum brake arm lines up with the slot of the drum brake anchor. This anchor is located on the underside of the tandem frame's left chainstay. Put the bolt supplied with the drum brake through both the hole in the drum brake arm and the frame's drum brake anchor. If used on a 1999 frame, the supplied bolt may be too short. If so, it should be replaced with a longer M5 x 20mm, Grade 8 bolt. Tighten the bolt as per the brake manufacturer's instructions (using Loctite or a nyloc-type nut), and then secure the rear wheel in the dropouts.

3. Install whatever type of lever you wish to use to control the drum brake, according to the lever manufacturer's instructions. Some tandem riders use a friction-type shift lever to control the drum brake

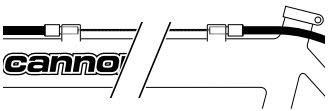

Fig. 2

2. Cable actuated brake systems should use the included pair of black housing stop inserts (#A463/) in the front and rear top tube cable guides, with bare brake cable running between these two cable stops along the length of the top tube (See Fig. 2.) Do not run brake cable housing this entire distance as the increased friction and compression of the housing will decrease braking efficiency.

Note that on some 1999 tandem frames which use a secondary sloping top tube (mountain tandem sizes 20"/16", 20"/18", and 18"/16", road tandem sizes 19"/17" and 21"/17"), two sets of housing stop inserts are provided. Each of the two smaller stops should be placed in either end of the front cable guide (on the secondary sloping top tube), large ends facing out (See Fig. 3.) One of the larger cable housing stop inserts should then be placed in the first guide on the horizontal top tube (actually the second guide back from the head tube) and the other in the rear-most guide on the top tube. The rear brake cable housing should be run from the rear brake lever to the first of the two small guides. A second shorter piece of housing is then used to route the cable around the bend from the second small stop to the larger housing stop insert on the horizontal top tube. This will allow the bare cable to run in a straight line along the horizontal top tube.

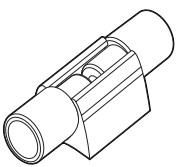

Fig. 3

The cable routing for this lever is somewhat different than traditional road brake levers with aero cable routing. Each brake cable is routed through the front of the lever and out the back of the lever through a rectangular double housing stop block. The first brake cable must be inserted through the countersunk hole in the lever assembly and through the rear of the lever. Run the rectangular housing stop block (with two countersunk holes) down the length of the cable and into the rear of the lever, with the larger side of the holes facing out the back of the lever. Then run the brake cable housing over the cable and into one of the larger holes in housing stop block, which you just positioned inside the lever. Repeat this procedure for a second brake cable if necessary. Note that the second brake cable hole in the brake lever is not countersunk.

The first cable should be run to the rear cantilever or V brake and the second cable may be used for either for the front brake or to the supplemental rear drum brake. See below for rear brake cable routing instructions.

REAR BRAKE CABLE INSTALLATION

1. Be certain that the brake lever is securely clamped to the handlebar. Refer to the brake lever manufacturer's torque specifications.

PRE-1999 RIGHT BRAKE LEVER WITH DOUBLE CABLE PULL

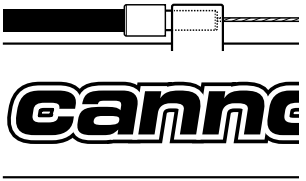

Fig. 1

The right brake lever on some pre-1999 Cannondale road tandems is equipped to pull two brake cables, allowing the use of two brakes from the same lever (See Fig. 1). Note that this setup is standard only on older road tandems equipped with cable actuated brakes. This allows the right lever to either control both a rear rim brake and a rear drum brake, or both front and rear rim brakes, leaving the left brake lever to control the drum brake.

Caution: If the double pull road brake lever is used to control both front and rear rim brakes, the captain will not have independent control of the front and rear brakes as would be standard on a single bicycle. Before using a single lever to control both rim brakes, you should investigate the pros and cons of this configuration by consulting with people or references which are knowledgeable about tandem bicycles. The setup and maintenance of such a system is very important, as each brake will have to be adjusted to activate with equal cable pull from the single lever. Therefore, the setup and maintenance of this configuration should be left to an authorized Cannondale retailer.

be developed by a heavily loaded tandem under heavy braking can reduce stopping power and cause the hydraulic fluid to expand. Brake fluid expansion in a closed system will force the brake pads to close, causing drag on the disc rotor and possible locking of the brakes in extreme conditions, with attendant risk of injury or death to the rider(s). Consult your authorized Cannondale retailer for advice about adding mechanical (non-hydraulic) or “open” system hydraulic disc brakes to your tandem.

WARNING: Brake systems are very important to the safety of any bicycle and Cannondale strongly recommends that any work to them be performed by an authorized Cannondale dealer. The following instructions are provided for persons who have a good knowledge of bicycle specific mechanical procedures and who are equipped with the proper tools and equipment. Incorrect installation or service may reduce braking performance, and could lead to injury or death. If you have any doubts about your ability to perform the following procedures, contact your local authorized Cannondale dealer.

Some 1999 Cannondale tandem frames also feature a disc brake mount on the left rear dropout and/or on the front fork. These disc brake mounts conform to the international mounting standard. Refer to the brake manufacturer's literature for installation instructions and tandem bicycle suitablility.

WARNING: Do not use any type of disc brake on a frame or fork which was not built with an ORIGINAL EQUIPMENT integral disc brake caliper mount. Do not attempt to weld, clamp, or otherwise attach a disc brake mount to a frame or fork. Do not use caliper mounting adapters or brackets unless they are manufactured by or specifically recommended by Cannondale. The incredible braking forces which can be produced by a disc brake, especially on the front wheel of a tandem, can bend or break a fork or frame which has not been designed and tested to withstand such a load. Therefore, the use of non-standard brake caliper mounts places the rider(s) at risk of personal injury or death.

WARNING: Do not use a disc brake system which uses a "closed" hydraulic system on any tandem bicycle. The brake heat which can

A CANNONDALE TANDEM BRAKE INFORMATION

FRAME INFORMATION

All Cannondale tandem frames are equipped with a mount for a supplementary rear Arai brand (or similar) drum brake arm. The mount is welded to the bottom of the left chainstay. Additionally, a cable housing stop is welded to the underside of the downtube near the headtube of the tandem for the routing of the drum brake cable. Finally, Cannondale tandem frames are equipped with housing-through guides on the top tube, allowing the use of hydraulic lines for disc or hydraulic brake systems. If cable actuated brakes are to be used, see instructions below for the use of housing stop inserts (#A463/).

2

CANNONDALE-SPECIFIC INFORMATION

◆ Local tandeming/bicycling clubs in your area have many helpful people. Ask your Authorized Cannondale retailer to put you in touch with them.

◆ *The Tandem Scoop*, the only book about tandeming we know of, contains extensive instructions on smooth technique, racing, touring, and dirt riding, riding with children, blind and disabled stokers, and other subjects. (By John Schubert, published by Burley Designs, Eugene, Oregon, 1996. Paperback, $9. ISBN 0-9637190-0-9)

◆ *The Tandem Book, The Complete Guide to Buying, Riding and Enjoying Tandem Bicycles.* (By Angel Rodriguez and Carla Black, $14.95, available from Adventure Cycling, 800-721-8719 8am.-5pm. M-F Mtn. Time, or www.adv-cycling.org)

requires more road width than a single. With polite assertiveness, claim enough space on the road to operate your tandem safely. Use hand signals to show overtaking motorists when it is or isn't safe to pass you.

Remember, most people you encounter think you're something special. Smile and be a good ambassador for tandeming—the best cycling there is!

FURTHER READING & INFORMATION:

This supplement can't cover everything you might want to know about tandeming. For additional information on riding technique, we suggest you contact:

◆ Tandem Club of America, c/o Jack & Susan Goertz, 2220 Vanessa Dr., Birmingham, AL 35242, 205-991-7766, e-mail: tca_of_a@mind-spring.com. Their magazine, ***Doubletalk***, and attendance at TCA events will make you an expert. Besides, TCA events, such as the various regional tandem rallies, are lots of fun.

◆ The League of American Bicyclists' magazine contains frequent tandem technique articles. Individual membership is $25 from the League, 1612 K St. NW, Suite 401, Washington, DC 20006, 202-822-1333.

TANDEM BIKE FIT:

The captain should fit the tandem as she/he would fit on a single bike. But on a tandem, it's doubly important to have 2-3 inches of crotch clearance for the starting and stopping maneuvers described earlier.

The stoker uses the same seat-to-pedals distance as on a single bike. But the handlebars will be closer (which is okay, since the stoker doesn't need to steer).

SAFETY:

Most of tandem safety comes from good technique, which we've described above. A few specific warnings merit mention, though.

Riding a tandem at night is legal if you have a headlight and taillight—but we don't recommend it. Nighttime riding is more mentally demanding than day time riding. Tandem riding is more mentally demanding than single riding. A tandem at night adds up to too much demand, and too small a margin for error. A tandem is a pleasure vehicle, so use it during day—the most pleasant time to ride.

Always think farther ahead than you do on your single bike. Be aware that your tandem is bigger, heavier, and less maneuverable—so it

Tire pressure is critical. Low tire pressure invites pinch-cut flats, while high pressure improves your performance and makes the tires last longer. Use the maximum pressure named on the tire sidewall.

Cables are critical. Because of their length, they're vulnerable to poor performance from cable friction or poor cable routing. Spokes, handlebar stems, and other components must be inspected for tightness every month, or after every long ride. The front derailleur needs visual inspection, since you can't see it when you're riding (as on your single bike).

The timing chain—between the two cranksets—is unique to tandems. It stretches in normal use, and must be kept tight. A loose timing chain can flop sideways and snag a crank arm, or it can come off entirely. Hold the chain in its middle and wiggle it up and down. You should be able to wiggle it about 1/2 inch, and no more. If it moves more than 1/2 inch take it to your Authorized Cannondale Retailer for tightening.

The timing chain should be checked for tightness every 200-300 miles. Buy a chain wear indicator to know when to replace both chains. A tandem has a lot of expensive chainwheels and cogs, so the chain wear indicator will quickly pay for itself.

debris, brake gingerly. Slow down—drastically—before you reach such surfaces.

Tandems, like singles, get most of their braking force from the front wheel. The rear wheel is more prone to skidding. The left hand lever normally controls the front brake. Apply front braking more than the rear brake for maximum stopping power. Brake before turns, not in them. If you must brake in a turn, do it with the rear brake.

Tandems are much faster than singles on downhills: GO SLOW and control your speed.

MAINTENANCE:

Keep your tandem in perfect shape. You want it to perform well under any circumstance, so give it the maintenance it needs to meet these demands.

Some components (chains, derailleurs, headsets and tires) get more wear and tear than on single bikes. These items should be maintained as on your single bike, but more frequently and more carefully.

One important coordination activity may require talking, at least at first: shifting. The reason: on a single bike, riders intuitively let up on the pedals when they're shifting. On a tandem, the stoker doesn't necessarily do that. This is hard on derailleurs (especially front derailleurs) and may make shifts more difficult. Make sure you both let up on the pedals during critical shifts. Whether you do that by talking or by the stoker feeling when captain is about to shift is up to you.

BRAKING:

Tandems can stop shorter than single bikes on pavement. The reason: a single bike's braking performance is limited by the physics of pitching the rider over the front wheel. The tandem has the stoker's weight to hold the rear wheel down, so pitchover doesn't apply.

The tandem's braking force on pavement is limited by the static friction between the tire and the road. How great is that? It depends on the road and the tire, and there's no way to measure it. Since you don't want a front-wheel skid, don't be too bold. On good pavement, you can stop slightly more abruptly than you would on a single bike. Remember to gauge this by the feeling of deceleration, not by the brake hand lever effort. On poor pavement, unpaved surfaces, sand, oil, or any other

To stop and dismount, reverse the mounting procedure. The captain gets off the seat and holds the bike upright while the stoker climbs off. Then the captain can dismount.

SLOW-SPEED RIDING:

Tandems are stable and easy to maneuver at slow speeds. But they need a confident captain who doesn't overcorrect or induce wobbling. A smooth style is the key to good slow-speed riding. After you've gotten to know your tandem well, you'll find you can make a U-turn on a narrow two-lane road.

COORDINATION AND COMMUNICATION:

Some tandem teams talk a lot about riding. They inform each other of every bump, every shift, every time they slow down, every drink from a water bottle.

Others almost never talk. They prefer to communicate silently.

Whichever style you pick is up to you. Just pick the one that works for you.

feet in the toe clips or pedal bindings. When you're ready, backpedal so the captain's preferred starting pedal is in the up position. Say "ready."

Now the captain can start. Pick up one foot, put it on a pedal, and stand on it while steering straight ahead. (Don't put your rear end on the seat before starting to pedal, because that could make the bike lean over and wobble, and possibly fall.) After you've started the first pedal stroke, get in the saddle, put your other foot on the backside of the pedal, and continue pedaling and steering. Don't worry about the toe clip or pedal binding. Let the toe clip scrape the ground. Pedal until you are going comfortably fast (10 mph or so), and then put your other foot in the toe clip or pedal binding.

STOPPING:

If you stop briefly, say, for a traffic light, the captain stops the bike while the stoker stays strapped in. The captain takes one foot off the pedal, dismounts from the seat, and puts the foot on the ground while holding the bike absolutely upright. Starting up again is just like your initial start-up. The captain should let the stoker know what's happening—talk to one another —no surprises.

STARTING AND STOPPING:

Starting and stopping a tandem is smooth and easy, but only if you do everything in the exact prescribed order. Start by shifting the bike into a comfortably low gear.

The captain mounts first. (Swing your leg forward over the handlebars, not back over the rear of the bike. There might be a person standing there!) Straddle the top tube, plant your feet on the ground, and spread your legs to clear the pedals. Firmly hold the bike upright and squeeze both brakes.

Never let the bike lean to the side, particularly after the stoker gets on. This is the biggest difference between your tandem and your single. (Your single is so light that you don't think twice about leaning it. The tandem is not only heavy, it's top heavy. Once you let it lean a little, the stoker's weight makes it want to lean more. And the stoker just hates the way that feels.)

The stoker gets on now. Because the captain is holding the bike rock-solid, the stoker can mount it like a horse. Put one foot on a pedal and swing your other leg rearward over the saddle. Now the stoker puts both

Many tandem teams delegate hand turning signals to the stoker. This not only encourages communication between the stoker and the captain, it also allows the captain to concentrate on the steering and braking involved in making the maneuver.

Every successful stoker learns to delegate authority. The captain steers. The captain decides when to pedal and when to coast. When coasting, the captain decides where to position the pedals. Never fight the captain on these matters. She/he is busy giving you a great ride so you can enjoy yourself.

GETTING UNDER WAY:

Allow 5-10 minutes for a complete pre-ride inspection. Check the obvious areas: brakes, wheel quick releases, any loose bolts or components and air pressure. Tire pressure is more critical on a tandem, because the tires are more heavily loaded.

Inspect the riders too. All four shoelaces should be double-knotted and tucked out of the way. Any loose clothing is forbidden: tights and tight-fitting jackets are safer. Absolutely nothing should be carried in the hands. The stoker can wear a backpack if it fits tightly and doesn't shift on the shoulders.

Don't hot dog. If your stoker is nervous, ride slowly. In time, the stoker may become more confident and ask for more speed. But if she/he wants to go slow, go slow! The more conservative voice must prevail. That's only fair. Remember, you're the chauffeur, not the stunt pilot.

STOKER – BEST SEAT IN THE HOUSE:

The back seat on a tandem is the fun seat. You have this person in front of you who's giving all his/her attention to making you feel comfortable. The view is terrific out to the sides, just like on a train ride. The view to the front may be a bit bland, but the captain's jersey pockets are a great place to put your binoculars, camera, radio, fruit bars, and other hedonistic goodies.

Your obligations are few: Pedal—at an agreed-upon effort level. Pedal smoothly, so your pedaling doesn't make your upper body move around. Don't shift your upper body weight abruptly. (Your weight shift can inadvertently steer the bike, and force the captain to fight you.) Hold your head high and enjoy the scenery. Tell your captain what she/he is missing while she/he keeps eyes glued to the road for potholes.

your partner with careful, methodical riding habits. Anticipate maneuvers, beginning them far in advance. Be alert to shifting needs. A too-fast or too-slow cadence is doubly annoying to the stoker because she/he can't fix it. Watch the road or trail ahead, and make your steering and braking corrections smoothly, well in advance of when you need to.

Ride slightly farther from the curb, or from parked cars, than you would on a single bike. Your stoker doesn't want to feel hemmed in. If you ride too far to the right, you may find your stoker leaning to the left, trying to veer away from the curb.

When you conduct a maneuver, such as merging across traffic to make a left turn or steering around a pothole, make your decision early. Signal your intentions clearly, proceed on a straight path, and complete the maneuver. A decisive captain will ride smoother, and that will make the stoker happier.

Most new tandemists find captaining exhausting, and they get sore shoulder muscles from being tense. This too will pass. As you become accustomed to the requirements of captaining a tandem, you'll develop a light touch.

1 TANDEM RIDING

Tandems are fun, and with two engines for the same frontal area, they're considerably faster than single bikes. Tandem teams learn to ride together well, to communicate without words, and to anticipate each other's desires. Tandeming is a great way to enjoy cycling with another person.

Tandems are serious business too. One rider (the captain) is entirely responsible for the well-being of the other rider (the stoker). The bike is bigger, heavier, and less forgiving of sloppy riding habits. A tandem captain can't be as spontaneous as a rider on a single, nor can the captain make the same kinds of last-minute recoveries from errors in judgment. So a tandem captain must pay attention and anticipate what's next.

Also, be aware that tandems attract attention. People will stare, wave, shout. Passing cars, temporarily distracted, will often swerve in or out. The presence of a tandem can make people act differently on the road. A bell or airhorn can be very handy in traffic.

THE CAPTAIN'S RESPONSIBILITIES:

The captain's primary job is to make the stoker happy. With an unhappy stoker, the captain won't have a riding partner! So you must reassure

No assembly instructions are in this manual. Your new tandem should be delivered to you only in a completely assembled and properly adjusted condition, complete with all CPSC required safety equipment.

To help you get the most of your Cannondale, we've included this owner's manual with your purchase. The manual is organized into two sections. The first section is a generic guide to tandem bicycle comfort and safety. The second section covers information specific to Cannondale tandems. Both are important.

WARNING: Read all instruction manuals (including the Cannondale Owner's Manual) and supplements regarding the setup, use, and maintenance of your Cannondale tandem bicycle and any other accessories. Failure to follow instructions could result in hazardous conditions which may lead to injury or death of the rider(s).

Note that the second part of the manual contains contemporary technical information, applicable to 1998 and later Cannondale tandems. For technical information or specific setup instructions for earlier Cannondale tandems, please see your nearest authorized Cannondale retailer. To find the Cannondale retailer closest to you, call 1-800-BIKE-USA or visit the Cannondale website at www.cannondale.com.

CONGRATULATIONS AND THANKS FOR YOUR PURCHASE OF A CANNONDALE TANDEM.

You will find many pleasurable hours of riding for two on your new bicycle. The oversize aluminum frame provides the stiffness that a long tandem requires to be efficient while remaining very comfortable and saving about 25% of the weight of a steel frame. Please take a moment to review all of the information provided with the bicycle, including the standard Cannondale Owner's Manual for Multi-Speed Bicycles. These materials will provide both safety information and tips for better riding of your new tandem.

The setup of a tandem is much more complex than for a single bicycle. In addition to sizing and comfort issues for each individual, the bicycle must be made to accommodate the interaction between the two riders. This document is meant to offer hints and suggestions but only scratches the surface of tandem setup. The best configuration for any pair of cyclists on a tandem will be the result of experimentation. You should investigate the pros and cons of any setup decisions by first consulting with people or publications which are knowledgeable about tandem bicycles. The last page of the first section of this manual lists several good references.