



Owner's Manual

BIKE MODELS: BB102-AL-8.2, BB104-AL-27.3, BB104-AL-NU.1, BB105-AL-1.1 (2013 V.1)

**Please read every word of this manual
BEFORE you ride your Buddy Bike!**

Because your safety is most important to us it is our policy that a trained professional assemble and adjust your Buddy Bike. Any Buddy Bike that is not assembled by a professional at a bike shop will not be covered by the Limited Warranty.

For your protection it is important to keep a record of the serial number of your bicycle and the date and place of purchase. The serial number can be found under the Rear Bottom Bracket Shell where the rear rider crank joins the bike where the Chain Stay is welded. Please fill out the information below and keep it for your records.

Your name: _____

Bike serial number: _____

Bike model: _____

Bike color: _____

Date of purchase: _____

Dealer name: _____

Dealer address: _____

Dealer phone number: _____

To activate your warranty, please fill out and return the enclosed Warranty Registration card along with a copy of your purchase receipt to:

Buddy Bike, LLC
 2775 Sunny Isles Boulevard, Suite 118
 North Miami Beach, FL 33160
 ATTN: Warranty Registration

Table of Contents

HELMETS AND SAFETY	4
MAXIMUM WEIGHT	4
HOW TO RIDE YOUR BUDDY BIKE	4
KICKSTANDS.....	5
FOLD-OUT FOOT PEGS (sold separately).....	6
PRACTICE BRAKING AND SAFE SPEED CONTROL.....	6
HOW AND WHEN TO SHIFT GEARS.....	7
HOW TO FIT YOUR BUDDY BIKE TO YOU AND YOURS.....	8
SEAT ADJUSTMENTS	8
HANDLEBAR ADJUSTMENTS	8
BRAKE LEVER ADJUSTMENTS	10
REMOVE CABLE STRETCH	10
ADJUST THE ROLLER BRAKE CABLE	11
BRAKE MAINTENANCE	11
LEARN TO USE QUICK RELEASE DEVICES	12
HUB CABLE ADJUSTMENT FOR BUDDY BIKE FAMILY	13
WHEEL AND TIRE MAINTENANCE	13
CHAIN MAINTENANCE	15
BUDDY BIKE MAINTENANCE SCHEDULE	17
LIMITED WARRANTY	18

A NuVinci N360 CVP Drivetrain manual is included with Buddy Bike Sport Deluxe models only. See the enclosed manual for further care and instructions.

Congratulations! You have purchased the Buddy Bike, the alternative tandem bicycle! Now you and your loved one can enjoy safe cycling and quality time together. You can ride with any youngster old enough to sit on a bicycle seat or with another adult. With a maximum weight capacity of 380 pounds, the Buddy Bike is the ideal family bike that can be enjoyed by riders of most ages, sizes and abilities.

Read every word of this manual BEFORE you ride your Buddy Bike!

This manual includes tips on how to ride your Buddy Bike safely, instructions on basic bike maintenance to keep your bike in safe operating condition and a Maintenance Schedule. Please note that some maintenance should only be performed by a professional bike mechanic.

HELMETS AND SAFETY

Always wear a helmet! This means adults too! Your head is too precious to risk especially if you are riding with a child who may require special assistance. Adjust your helmet as shown in **Figure 1** so it offers maximum protection. Use a helmet that bears a CPSC, ANSI or Snell safety label. Please practice safe cycling. For safe cycling information visit our web site: buddybike.com/BikeSafety.html

MAXIMUM WEIGHT

The combined weight of captain and stoker should not exceed 380 pounds. As you mount or pedal do not bear down hard on the handlebars as if you were doing pushups. However, should the handlebars move up or down as you mount or ride the Buddy Bike tighten all the handlebar clamp bolts with a 6-mm Allen wrench to 150—225 inch/pounds as soon as possible, as shown later in this manual in “HOW TO FIT YOUR BUDDY BIKE TO YOU AND YOURS.” Better yet, stop at the nearest bike shop and have a pro do it.

HOW TO RIDE YOUR BUDDY BIKE

Before you start the practice rides that get you familiar with your Buddy Bike’s steering, braking and shifting performance, please adjust the seats, handlebars and brake levers to fit your body, as shown later in this manual in “HOW TO FIT YOUR BUDDY BIKE TO YOU AND YOURS.” Practice riding your Buddy Bike in a traffic-free area, such as an empty school playground, until the rear rider (“captain”) and the front rider (“stoker”) are both thoroughly familiar with its braking, steering and shifting.

For the Captain

Start with the captain riding alone. Straddle the top tube (the tube from the rear seat to the fork column (**Figure 2**) with one foot on the ground, the other foot on a pedal at the 2 o’clock position. Hold the captain’s handlebar (**Figure 5**) firmly. Push off with the foot on the ground and, at the same time, press down hard on that pedal, hoist your body up onto the seat and **KEEP PEDALING**. The momentum will help keep the bicycle balanced.



Figure 1

For Both Riders

Captain and stoker should practice the start-off procedure above until they are comfortable with the procedure. When braking to a stop, reverse the mounting and start-off instructions given above so you are ready to take off again, say from a stoplight. At this point both riders should have one or both feet on the ground and be straddling the bicycle.

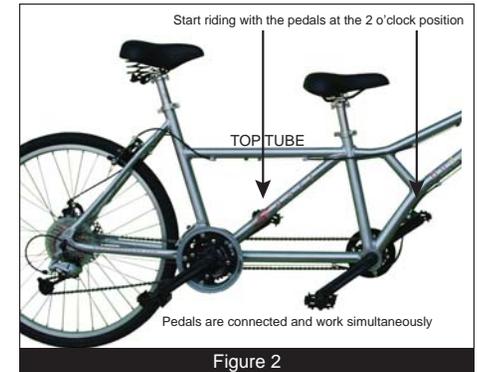


Figure 2

Pedaling Techniques

Captain’s and stoker’s pedals are connected by a bicycle chain (**Figure 2**) and the pedals move simultaneously. As one rider pedals, the other rider must also pedal. Verbal communication on a tandem is important. Both riders should work together or balance and steering may be affected. Advise your stoker if you will pedal, coast or stop. For stoker’s with disabilities, the captain should maintain a slow, steady pace for stoker to work at keeping their feet on the pedals.

SAFETY NOTE: If your stoker is not able to maintain his/her feet on the pedals, talk to your bike shop professional about adding toe clips, cages, velcro exerciser or other adaptive pedals to your Buddy Bike.

Steering Techniques

The Buddy Bike has a much shorter wheelbase than conventional tandems and it is unique in that both sets of handlebars (**Figure 5**) turn as the bicycle is steered. The captain leans into the direction of the turn, moves the handlebars to turn and the stoker’s handlebars will move in the same direction. The stoker should balance in the same direction. Whenever possible, the captain should tell the stoker when a turn is about to be made.

KICKSTANDS (sold separately)

Kickstands available for the Buddy Bike include YCD-20 bi-pod spring kickstand (**Figure 3A**) and Pletscher bi-pod kickstand (**Figure 3B**). Once assembled, to lower either kickstand, lift the bicycle off the ground by the rear seat and use your foot to push the kickstand down then gently lower the bike. To raise the kickstand, lift the bicycle off the ground by the rear seat and use your foot to sweep the kickstand backward. The kickstands are intended to hold and balance the bike while it is not being ridden. Raise the kickstand before either rider mounts the bicycle.

DO NOT mount the bicycle while it is balanced on the kickstand. The kickstand is intended to support the weight of the bike only, no riders.



Figure 3A - YCD-20 Kickstand



Figure 3B - Pletscher Kickstand

FOLD-OUT FOOT PEGS (sold separately)

To install the fold-out foot pegs (**Figure 4A**): 1) remove the adhesive from the padded tape sections and press to the inside curve of each foot peg; 2) with the pegs folded up, position the pegs on the small down tube in front of the front rider seat and 3) use the included screws to secure the pegs to the tube. The foot pegs should be positioned above the path of the pedals so the stoker's feet will be safely out of the pedal motion path.

While the stoker is pedaling, fold the pegs up (**Figure 4B**). For smaller riders, fold each peg down (**Figure 4C**) so they can rest their feet out of the way of the pedal motion path.



Figure 4A



Figure 4B



Figure 4C

PRACTICE BRAKING AND SAFE SPEED CONTROL

First, be aware that the right side of a bicycle is the side to your right as you sit on the seat. **Figure 5** was taken from riders' point of view. The brake lever on the left side of the captain's handlebar (D in **Figure 5**) is for the front brake. The brake lever on the right side of the captain's handlebar (C in **Figure 5**) is for the rear brake. The brake lever on the right stoker's handlebar (E in **Figure 5**) is an additional standard brake caliper on the rear wheel. The stoker's brake provides additional braking power and a sense of control for the stoker but may not stop the bike if used alone. (Not available on model BB105-AL-1.1.)

CAUTION: Your Buddy Bike can go faster than single bikes.

The Buddy Bike weighs 51-57 pounds (varies by bike model) without accessories. That's 28.5 pounds or less for each of you. The rider on a typical bike (excluding road bikes) has to push its 33 pounds alone. You also have half the wind resistance faced by a single biker as the captain is shielded from wind by the stoker. For these reasons your Buddy Bike is easier to pedal, so travel at a speed that lets you slow down or stop quickly and safely in an emergency.

As you practice riding the Buddy Bike in a safe place try stopping at various speeds. Note how many feet it takes to stop at each of these speeds. Use the captain's brakes alone then combined with the stoker's brake. Use this information to keep your speed under control. Go slower in traffic as you may need to make a sudden, unexpected stop. Look as far ahead as possible, be alert as you approach parking lot driveways, children and others on foot, bicycles, skate boards, etc. Watch out for school and other buses approaching a stop. When you come to a stop, both captain and stoker should extend one foot to the ground, and then both feet if you have to wait for a stoplight.

On the flats, the captain can usually control speed by apply-

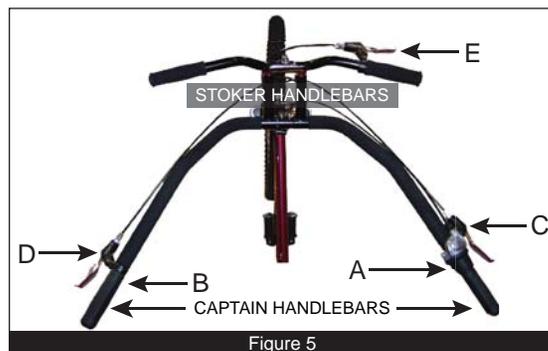


Figure 5

ing both brake levers. Apply the rear brake lever first, then the front brake lever. On a downhill ride or in an emergency situation use both captain's and stoker's brakes to slow or to stop. Both riders should practice braking on the flats and on downhill runs until you both are thoroughly familiar with the braking power and speed control of the brakes.

SAFETY NOTE: When it's raining, your brakes may lose some stopping power. It will take longer to stop when wheel rims are wet. In wet conditions, apply brakes sooner than you would in dry conditions. Both captain and stoker should use both sets of brakes, even at low speeds. Reduce speed in wet weather and beware of slippery surfaces. For more safe cycling information visit our web site: buddybike.com/BikeSafety.html.

HOW AND WHEN TO SHIFT GEARS

Buddy Bike Family (BB102-AL-8.2)

Buddy Bike Family is equipped with a Shimano NEXUS INTER 8 hub. Gears can be changed at anytime, even at a stop. To shift, rotate the gripshift on the right of the captain's handlebar (A in **Figure 6**). The 8 speed gear combinations gives you a range of choices for easy pedaling. By turning the gripshift toward you, select gear 6-8 for pedaling downhill. While on level roads or paths use gears 3-5. Upon pedaling uphill, turn the gripshift away from you to gear 1 or 2. By selecting the proper gear, you can make pedaling comfortable and easier for both riders.

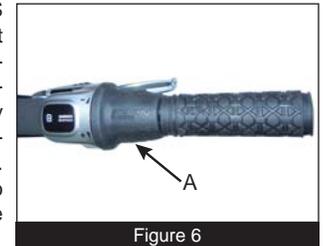


Figure 6

Buddy Bike Sport (BB104-AL-27.3)

Buddy Bike Sport is equipped with a Shimano Deore 27 speed hub. This bike includes a derailleur. It is best to shift gears while pedaling. To shift the gears, push the bottom lever to lower the gear and pull the top lever to shift to a higher gear on the left side (**Figure 7A**) or right side (**Figure 7B**) of the captain's handlebar. The Deore hub is considered a professional level component. The shifters are not numbered or marked so practice shifting until you are comfortable with the procedure and various gear levels.

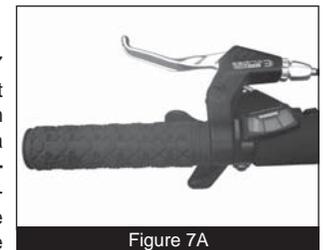


Figure 7A

Buddy Bike Sport Deluxe (BB104-AL-NU.1)

Buddy Bike Sport Deluxe is equipped with a NuVinci N360 continuously variable planetary drivetrain. Since there are no fixed gears, you will adjust the hub ratio as determined by your comfort level. Ratio changes can be made at any time including pedal-free or under heavy load. Change the ratio of the N360 by turning the gripshift on the right of the captain's handlebar (A in **Figure 7C**). The shifter display indicates ratio as a simple graphic; a hill for slower speeds and a flat for faster speeds. A NuVinci N360 CVP Drivetrain manual is included with Buddy Bike Sport Deluxe models only. See the manual for further care and instructions.

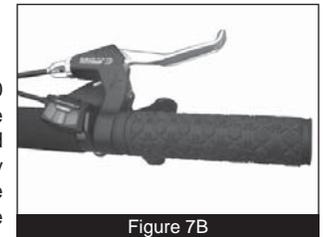


Figure 7B

Buddy Bike Adventure (BB105-AL-1.1)

Buddy Bike Adventure is a single speed bike. There are no gears to change on this model. Your bike professional may be able to adjust the chain tension to customize the bike for your riding style and comfort.

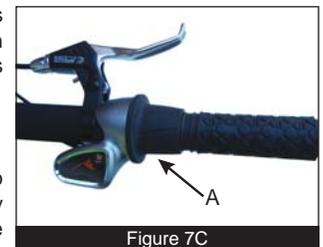


Figure 7C

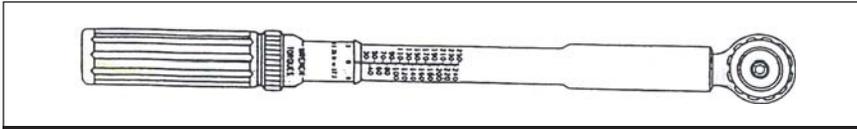


Figure 8 - Torque Wrench

HOW TO FIT YOUR BUDDY BIKE TO YOU AND YOURS

Before you go off for your first practice rides, have your bicycle dealer inspect the Buddy Bike and make the following handlebar and seat adjustments for your riding comfort and safety. If you make adjustments yourself, use a torque wrench (Figure 8). **Use the torque wrench on all applicable nuts and bolts noted throughout this manual so you are sure they are safely tightened.**

SEAT ADJUSTMENTS

You can move each seat in five directions, up or down, closer to or farther from the handlebars, and tilted for comfort.

Seat Height

Adjust seat height for both riders so the knee is slightly bent when one pedal is at the 6 o'clock position (Figure 9). To adjust seat height, turn the seat post quick release lever, (A in Figure 10) to the OPEN position. Move the seat up or down until the rider's knee is bent (Figure 9). Tighten the seat post quick release lever to the closed position, with the end of this lever facing toward the rear. (Be sure to read "LEARN TO USE THE FRONT WHEEL AND SEAT QUICK RELEASES" section later in this manual).

SAFETY NOTE: Keep at least 4 inches of the seat post inside the seat tube (Figure 11).

Seats to handlebar distance

The seat should be close enough to the handlebars so the riders can reach them without strain. To move the seat toward or away from the handlebars, simply loosen the seat clamp bolts that hold the seat on the seat post (Figure 12), and move the seat toward to or away from the handlebars, until the rider has a slight bend at the elbows.

Seat Tilt

Reduce pressure on the hands by tilting each seat so its nose points slightly upward (B in Figure 10). To make these adjustments, loosen the seat clamp bolts (C in Figure 10) with a 5-mm Allen wrench, slide the seat forward or back as necessary and tilt it as noted above. Tighten the clamp bolts to 180—250 inch/pounds with a torque wrench (Figure 8).

HANDLEBAR ADJUSTMENTS

Adjust both handlebars so they can be reached without strain. Move the handlebars up or down, tilt (rotate) them and move them closer to or further away from the rider as needed for comfort.

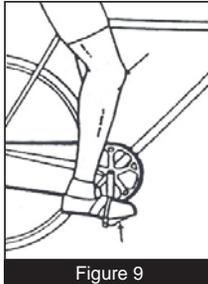


Figure 9



Figure 10

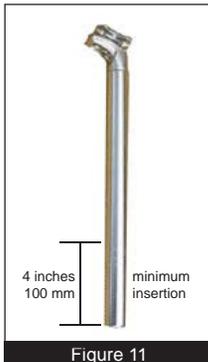


Figure 11

Captain's Handlebar

The captain's handlebar shown in Figure 5 is the longest bar on the Buddy Bike. Loosen clamp bolts (A in Figure 13) with a 6-mm Allen wrench. Tilt the captain's handlebar up or down until the captain can ride with a comfortable bend of his upper body while sitting on the rear seat. Once the handlebar is at a convenient angle, tighten these bolts to 150—225 inch/pounds.

CAUTION: The handlebar stem supports both captain and stoker handlebars. The stem is held by two clamp bolts (A in Figure 14). The stem must always be in the position shown in Figure 14, all the way down to the fork bearing locknut (B in Figure 14). **Do not loosen these bolts to raise the handlebars. Handlebar height can only be adjusted as shown above.**

Stoker's Handlebar

(Not available on model BB105-AL-1.1)

The stoker's handlebar (Figure 5), is adjustable to three different positions, tilt, distance from the stoker's seat and up or down.

SAFETY NOTE: A bike shop professional should adjust the stoker handlebars to accommodate the reach of the stoker. For your stoker's safety, do not rotate the handlebars to closer than a 90 degree angle and **keep at least 2 inches of the stoker's handlebar stem INSIDE the handlebar tubes** (Figure 13).

Tilt: Loosen clamp bolt (B in Figure 13) with a 6-mm Allen wrench, and rotate the handlebar until the stoker can reach it without strain and with ease. Tighten this bolt to 150—225 inch/pounds.

Distance from Seat: Loosen clamp bolts (C in Figure 13) with a 6-mm Allen wrench and move the stoker's handlebar closer to or away from the stoker's seat until it can be reached in comfort. Tighten these bolts to a torque of 150—225 inch/pounds.

Up or Down: Loosen clamp bolts (D in Figure 13) with a 6-mm Allen wrench and rotate the stoker's handlebar to move it up or down to suit the stoker's arm length. Tighten these bolts to 150—225 inch/pounds.

CAUTION: Before your first ride and every four to six months thereafter (depending on ride frequency), stand in front of the Buddy Bike, hold the front wheel between your knees, grasp the captain's handlebar and rotate it firmly from side to side. If the handlebar moves but the wheel does not, retighten the clamp bolts (A in Figure 13) with a 6-mm Allen wrench to a torque of 180—250 inch/pounds. These two handlebar stem bolts (A in Figure 14) hold both stoker and captain handlebars securely on the fork steerer tube.



Figure 12

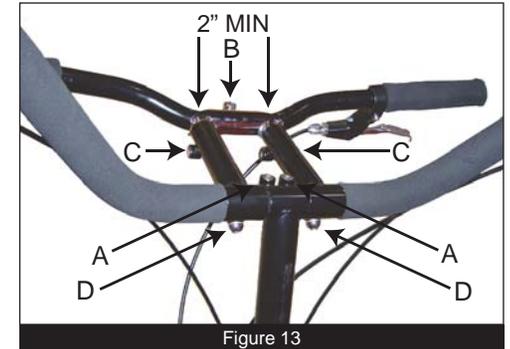


Figure 13

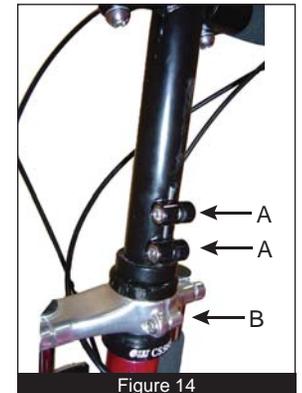


Figure 14

BRAKE LEVER ADJUSTMENTS

There are two adjustments for each brake lever, one for hand reach and one for finger fit.

Hand Reach: You should be able to grasp brake levers quickly from a hand rest position on the handlebars. Rotate each brake lever until you can do so. Loosen the brake lever clamp bolt (D in **Figure 15**), with the 5-mm Allen wrench shown, and rotate the lever on the handlebars to a quickly reachable position. Tighten the clamp bolt to 44—60 inch/pounds.

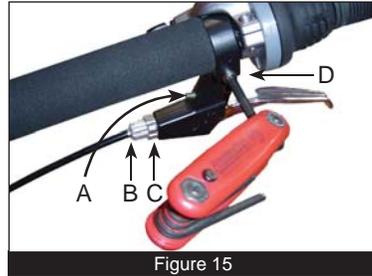


Figure 15

Finger Fit: If the brake lever begins to apply braking force as soon as you depress it, adjust its “reach” with a 2-mm Allen wrench (A in **Figure 15**), until your fingers can safely and comfortably apply force to the brakes. The brake lever can be safely depressed up to about one inch from the handlebar. If the brake lever comes any closer the brake cable has stretched. Cable stretch reduces braking power and response, so remove this stretch.



Figure 16

REMOVE CABLE STRETCH

NOTE: New cables will stretch and require adjustment.

Cable Stretch at Brake Levers

Loosen cable slack adjuster locknut, (C in **Figure 15**) a few turns. Turn slack adjuster (B in **Figure 15**) counterclockwise until slack is removed. Tighten locknut (C in **Figure 15**) against the brake body. Repeat if the brake lever still comes more than an inch from the handlebars. Make this adjustment on all brake levers as necessary.



Figure 17

Cable Stretch at the Brakes

Buddy Bike Family (BB102-AL-8.2) and Buddy Bike Adventure (BB105-AL-1.1)

Captain V Brakes (Front & Rear): If cable slack can't be removed at brake levers, reverse the adjustments in Step 1 above so the cable is as slack as possible. At captain's brake loosen the cable clamp bolt (**Figure 16**) with a 5-mm Allen wrench while holding brake shoes against the wheel rim. Pull out cable slack with a pair of pliers. Tighten the cable clamp bolt to a torque of 44—60 inch/pounds. Repeat as necessary.

Buddy Bike Sport (BB104-AL-27.3 and BB104-AL-NU.1)

Captain Disc Brakes (Front & Rear): Use the barrel adjuster on the brake lever (B in **Figure 18**) or the in-line barrel adjuster (A in **Figure 18**) to remove any cable slack from the system. Turn the adjuster out until there is no free play in the

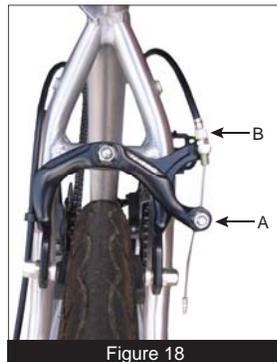


Figure 18

BRAKE LEVER ADJUSTMENTS

There are two adjustments for each brake lever, one for hand reach and one for finger fit.

Hand Reach: You should be able to grasp brake levers quickly from a hand rest position on the handlebars. Rotate each brake lever until you can do so. Loosen the brake lever clamp bolt (D in **Figure 15**), with the 5-mm Allen wrench shown, and rotate the lever on the handlebars to a quickly reachable position. Tighten the clamp bolt to 44—60 inch/pounds.

Finger Fit: If the brake lever begins to apply braking force as soon as you depress it, adjust its “reach” with a 2-mm Allen wrench (A in **Figure 15**), until your fingers can safely and comfortably apply force to the brakes. The brake lever can be safely depressed up to about one inch from the handlebar. If the brake lever comes any closer the brake cable has stretched. Cable stretch reduces braking power and response, so remove this stretch.

REMOVE CABLE STRETCH

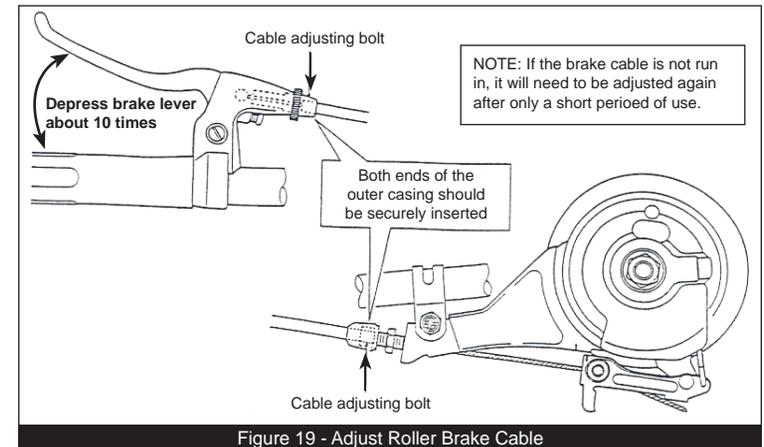


Figure 19 - Adjust Roller Brake Cable

NOTE: New cables will stretch and require adjustment.

Cable Stretch at Brake Levers

Loosen cable slack adjuster locknut, (C in **Figure 15**) a few turns. Turn slack adjuster (B in **Figure 15**) counterclockwise until slack is removed. Tighten locknut (C in **Figure 15**) against the brake body. Repeat if the brake lever still comes more than an inch from the handlebars. Make this adjustment on all brake levers as necessary.

Cable Stretch at the Brakes

Buddy Bike Family (BB102-AL-8.2) and Buddy Bike Adventure (BB105-AL-1.1)

Captain V Brakes (Front & Rear): If cable slack can't be removed at brake levers, reverse the adjustments in Step 1 above so the cable is as slack as possible. At captain's brake loosen the cable clamp bolt (**Figure 16**) with a 5-mm Allen wrench while holding brake shoes against the wheel rim. Pull out cable slack with a pair of pliers. Tighten the cable clamp bolt to a torque of 44—60 inch/pounds. Repeat as necessary.

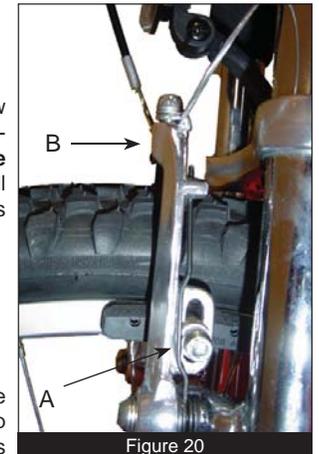


Figure 20

Buddy Bike Sport (BB104-AL-27.3 and BB104-AL-NU.1)

Captain Disc Brakes (Front & Rear): Use the barrel adjuster on the brake lever (B in **Figure 18**) or the in-line barrel adjuster (A in **Figure 18**) to remove any cable slack from the system. Turn the adjuster out until there is no free play in the lever but not so far that the torque arm on the caliper is advanced. The torque arm should return completely when the brake lever is released.

Stoker Brake (All models except BB105-AL-1.1)

Stoker Caliper Brake (Rear): Loosen the fix bolt (similar to A in **Figure 18**) on the stoker caliper brake on the rear wheel and the barrel adjuster (similar to B in **Figure 18**). Pull out cable slack with a pair of pliers. Tighten the fix bolt and the barrel adjuster.

ADJUST THE ROLLER BRAKE CABLE

1) check that the wheel does not easily turn while the brake cable is being pulled; 2) depress the brake lever about 10 times as far as the grip in order to run in the brake cable; 3) check that both ends of the outer casing are securely inserted into the cable adjusting bolts of both the brake lever and brake arm. (**Figure 19**)

BRAKE MAINTENANCE

Brake shoes wear as they do on your car. Inspect them every six months to make sure they are not worn and that the brake shoes are properly aligned on the wheel rim for maximum



Figure 21

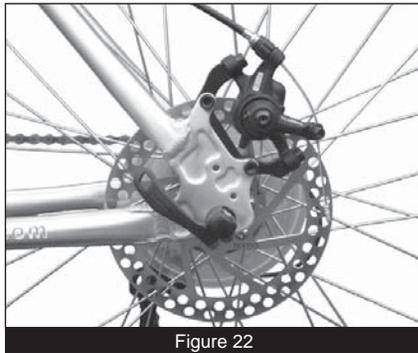


Figure 22

braking power. Brake shoe replacement is a professional bike shop job. Follow these instructions for other adjustments and maintenance:

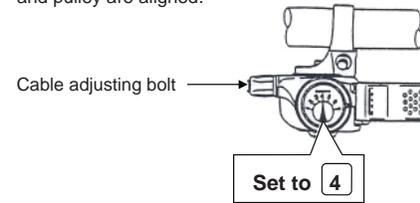
Buddy Bike Family (BB102-AL-8.2) and Buddy Bike Adventure (BB105-AL-1.1)

Captain V Brakes Shoe Adjustments: 1) Keep each brake shoe at least 2 mm away from the tire. The brake shoe must not rub on the tire, only on the rim. Make this adjustment by loosening the brake shoe clamp bolt, (A in **Figure 20**) with a 5-mm Allen wrench, move the shoe up or down in the brake arm slot, tighten the clamp bolt to 50–70 inch/pounds of torque. 2) Adjust brake shoes so they are at least 2 mm away from the wheel rim. Make this adjustment by loosening the brake cable clamp bolt (**Figure 16**) with a 5-mm Allen wrench and by moving the brake cable in or out of the cable clamp bolt. Tighten the bolt to 44–60 inch/pounds.

Captain V Brakes Shoe Balance: Keep each brake shoe the same distance from the wheel

HUB CABLE ADJUSTMENT FOR BUDDY BIKE FAMILY (BB102-AL-8)

Set the gripshift dial to 4. Check to be sure that the red setting lines on the cassette joint bracket and pulley are aligned.



Note: This bike is equipped with the cable adjusting bolt built into the grip shift. Adjustment is made by pulling and turning the spring loaded adjusting bolt until the red marks are lined up.

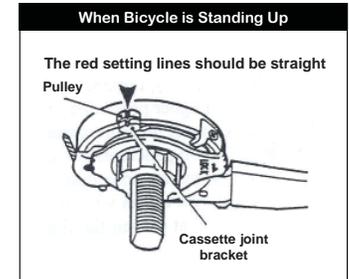
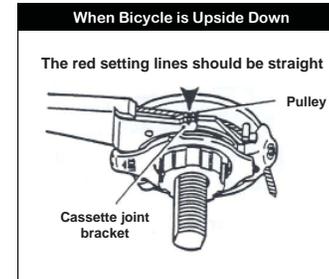


Figure 23

rim. Use a 2-mm Allen wrench in each brake arm to balance brake shoes for even clearance.

Buddy Bike Sport (BB104-AL-27.3 and BB104-AL-NU.1)

Captain Disc Brakes

Before each ride: Check cables for signs of wear or fraying. Squeeze the brake lever firmly and check for proper brake function. Adjust for pad wear if necessary. Ensure rotors are free of foreign substances and oils.

Pad break in: It may take anywhere from 20-40 complete stops to break in the brake pads. You may begin to notice an increase in braking power after the first ride. Brake noise may occur not only during the break-in period but off and on throughout the life of the brake pads. Noise is dependent upon factors such as brake setup, rider weight, riding style, braking style and riding conditions.

Care and cleaning: Extreme care must be taken when cleaning both the bike and its disc brakes. We suggest that you take your bike to a bike shop mechanic to perform any disc brake maintenance. Your bike shop mechanic may provide some of these adjustments: spring tension adjustment, pad wear adjustment and pad replacement.

CAUTION: DO NOT touch the pads or the ro-

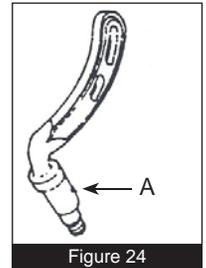


Figure 24

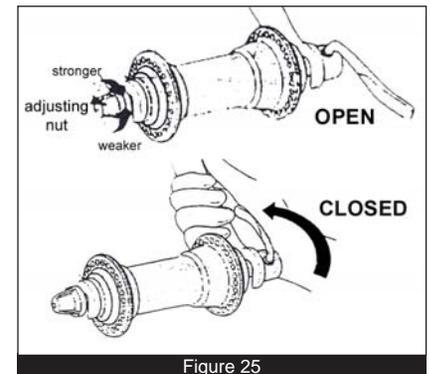


Figure 25

tors with your fingers or the pads and rotors may become contaminated. If you have to touch them for some reason, use powder free latex gloves. Contamination of the pads and rotors may cause brake noise. To eliminate noise, you can clean the rotors with rubbing alcohol.

Stoker Brake (All models except BB105-AL-1.1)

Stoker's Caliper Brake Shoe Adjustments:

The stoker brake is a standard brake caliper on the rear wheel. Remove cable slack at the brake itself (Figure 17). Squeeze stoker's brake lever hard. If the brake lever comes closer than one inch to the handlebar, take the bike to a pro for brake lining replacement.

LEARN TO USE QUICK RELEASE DEVICES

Your Buddy Bike has quick release mechanisms on the wheels and seat posts. They make it easier to remove and reinstall the wheels and to move seats up and down to adjust for rider height. It is **very important** to understand how to use the quick release, to insure that the wheel is tightly and safely held in the fork, and that the wheel will stay in place even if you should hit a bump or pothole.

A quick release is a cam action device, not a nut and bolt unit. Use only your fingers to adjust and tighten the quick release. The opening and closing lever of the quick release has an eccentric bump, a cam on it, (A in Figure 24) which is a powerful lever. This lever amplifies the turning force made by your hand as you force the quick release lever to the closed position (Figure 25).

You need to know how to remove and install the front wheel to fix a flat or to carry the Buddy Bike in your car, and how to reinstall it so it will not pop out and cause loss of control. Here's how to make sure your wheels are securely in place.

WHEEL AND TIRE MAINTENANCE

Before every ride make sure the front wheel is securely clamped in the fork. Lift the bike up a few inches and punch down hard on the front tire with the side of your fist. Do this even if you rode the Buddy Bike the day before. You never know when someone has tampered with, or accidentally turned, the quick release lever to the OPEN position that could let the wheel fall out.



Figure 29

Front Wheel Maintenance/Quick Release

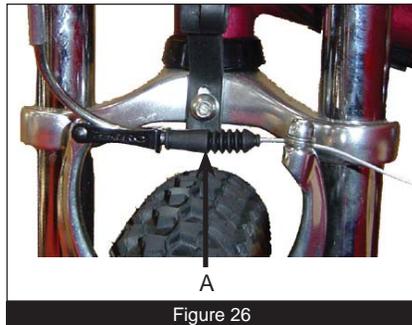


Figure 26



Figure 27



Figure 28

To Remove the Front Wheel: Hold brake shoes against the wheel rim while you pull the cable carrier up and out of the slot in the crossbar (A in Figure 26). Now the brake shoes will be far enough apart so you can remove the front wheel (Figure 27). Turn the quick release lever to the OPEN position (Figure 25) which is when the lever is pointed toward the front of the Buddy Bike. Remove the front wheel. Punch down on the tire if necessary.

To Install the Front Wheel: Replace the front wheel in the fork dropouts. Be sure the tire is centered between the fork blades (Figure 28). Hold the wheel in place while you tighten the quick release lever all the way to the closed position (Figure 25). Check quick release tightness. As you move the quick release lever toward the rear of the bike, past the 12 o'clock position you should feel increasing pressure. You should have a red pressure mark on the palm of your hand from the force needed to close this lever all the way. If you do not feel this pressure, readjust the quick release mechanism as follows:

Adjust the Quick Release: Open the quick release lever past the 12 o'clock position to around the 4 o'clock more open position. Hold the adjuster nut with one hand and turn the quick release lever counter clockwise as far as possible. Do not use any tool on this adjuster nut. Use only your fingers! Turn the quick release lever all the way to the closed position (Figure 25). Again, you must feel considerable turning resistance as the lever moves past the 12 o'clock position to the closed position.

Check Quick Release Tightness: See that the red mark from tightening pressure is on the palm of your hand. Punch down hard on the tire with the flat of your clenched fist. The wheel should not fall out. Open the quick release, remove the wheel and inspect the fork dropouts. You should see "bite" marks on the fork dropout made by the sawtooth edges of the quick release (Figure 29). Repeat these quick release adjustments and tightening steps until you can see these "indents." Replace the cable in the crossbar (Figure 26) as you hold the brake shoes against the wheel rim.

Make sure the brake cable is correctly back in the crossbar slot. Squeeze the brake lever as tightly as possible. If the lever drops to the handlebars, the cable has popped out of the slot. Replace it and check again for correct placement.

CAUTION: The brake spring may also have popped off the brake arm (A in Figure 20). If so, replace it behind the tab on the brake arm, as shown in Figure 20, where arrow A is the brake spring, arrow B shows the brake arm with brake tab. This caution also applies to the rear wheel.

Rear Wheel Maintenance/No Quick Release

If the rear wheel of your Buddy Bike does not have a quick release device. You will need a 15-mm wrench to remove the axle bolts and should carry one with you on long rides in for emergency tire repair.

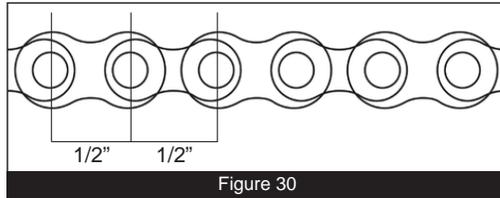
Buddy Bike Family (BB102-AL-8.2) and Buddy Bike Adventure (BB105-AL-1.1)

Remove the Rear Wheel: Shift the chain to the small freewheel cog. Spread brake shoes as explained above for front wheel removal (Figure 27). Use a 15-mm wrench and loosen both axle bolts. Lift the chain off the small cog as you remove the wheel.

Install the Rear Wheel: Make sure the axle is all the way into the dropout slots, and that the wheel is evenly spaced in the bike frame, similar to Figure 28. Tighten the axle bolts to 300—320 inch/pounds.

Buddy Bike Sport (BB104-AL-27.3 and BB104-AL-NU.1)

Remove the Rear Wheel: Removal and installation of the rear wheel has a few extra steps because of the gear cluster. Just like the front wheel, you'll need to deflate the tire. If you do not wish to deflate the tire, it will be necessary to loosen the fix bolt (A in **Figure 18**). Next, adjust your rear shifter until the chain is on the smallest sprocket. Then loosen the quick release lever and carefully removed the wheel.



Install the Rear Wheel: To re-install the rear wheel, first place the chain back onto the smallest sprocket, and then slide the axle evenly up into the rear drop-outs. Tighten the quick release lever the same way as the front wheel, with the lever on the left side of the bike. Make sure the lever is safely tucked in between both of the left chain stays. Inflate the tire AFTER it has been installed. Make sure the pads are lined up correctly with the rim and tighten the fix bolt (A in **Figure 18**) if you removed it earlier.

Wheel Alignment

Wobbly wheels cut braking power. So keep both wheels running true. Wheels can lose alignment over time as spokes stretch. Wheel alignment takes special tools and know-how so have this done by a bike shop.

About Your Tires

Keep tires inflated to the pressure marked on the outer wall of the tire. Lower pressures can cause a flat and will cause more rolling resistance. Higher pressures can cause a tube to blow out. Correct pressure assures longest tire life. Repair tube punctures with a self-adhering patch, follow instructions that came with them. Check inside the tire as well as outside to find and remove what caused the flat.

CHAIN MAINTENANCE

Clean the chains every three to six months, more often if you have ridden over sand and dirt, or through water and mud. You may leave the chain on and clean it using an environmentally safe chain cleaning product and a brush. If you use a solvent such as kerosene to clean the chain it would be best to remove the chain and dunk it into the solvent to avoid splashing the solvent on the tire or brake shoes. To remove the chain you will need a chain rivet tool to push a rivet out. It is best to leave chain removal to bike shop professionals.

Inspect the Chain for Wear Every 3 to 6 Months

Check for chain wear by measuring the distance between chain links (**Figure 30**). If the distance between links exceeds 1/2 inch, replace the chain. Use the correct replacement chain; take the old one to a bike store to be sure. Better yet, have the shop replace the chain! Shift to the small front and rear cogs before removing or replacing the chain. Install a new one, or the cleaned old one, by threading the chain over the chainwheel, then in front of the top derailleur wheel and in back of the bottom derailleur wheel. Join the chain with a rivet tool.

Maintain Correct Chain Tension that Connects Captain to Stoker's Chainrings

Loosen the two 5-mm allen bolts under the stokers bottom bracket. Rotate the offcentric cam forward so the chain has approximately 1/2" of play up and down. Then tighten the two 5-mm allen bolts. Check amount of play again after this procedure and adjust until it is correct.

BUDDY BIKE MAINTENANCE SCHEDULE

Follow this maintenance schedule to keep your Buddy Bike in safe operating condition. Please note that we recommend some of this work be performed by a skilled bicycle mechanic in a bike shop!

MAINTENANCE SCHEDULE			
All handlebar bolts	Check tightness with torque wrench	4 months	See text or bike shop
Bottom bracket	Disassemble, clean, relube	Yearly	Bike shop
Brake cables	Check for slack, frayed cable	6 months	Bike shop
Brake arms	Check mounting bolt tightness	6 months	Bike shop
Brake levers	Check tightness on handlebars	6 months	See text
Brake shoes	Inspect for wear, alignment	6 months	Bike shop
Chain*	Check wear, clean, relube or replace	6 months	Bike shop
Chainwheels	Clean	4 months	Bike shop
Gripshifter	Disassemble, clean, relube (special grease)	4 months	Bike shop
Headset	Check tightness, disassemble, relube	9 months	Bike shop
Pedals	Disassemble, clean, relube	9 months	Bike shop
Rear axle nut	Check tightness	4 months	See text
Tires	Check tire pressure	Weekly	See text
Wheel alignment	Check wheels for out of trueness	6 months	Bike shop
Wheel hubs	Disassemble, clean, relube	6 months	Bike shop



2775 Sunny Isles Boulevard, Suite 118 • North Miami Beach, FL 33160

LIMITED WARRANTY

LIMITED WARRANTY EXCLUSIONS:

- A) This warranty covers only the original retail purchaser and is not transferable.
- B) This warranty does not include frame, fork or component failure due to or because of improper use, pilot error, misuse, neglect, reckless or negligent riding, improper assembly, improper maintenance, and professional or amateur racing including but not limited to bicycle motorcross, stunt bicycling, bicycle trails, single trail mountain biking or similar activities when in training for the same.
- C) This warranty does not cover any personal injuries, damage or failure of the bicycle if used in any competitive amateur or professional event including but not limited to bicycle motorcross, stunt bicycling, bicycle trails, single trail mountain biking or similar activities when in training for the same.
- D) This warranty does not include shipping charges to or from Buddy Bike, LLC.
- E) This warranty does not cover any personal injuries.

THIS LIMITED WARRANTY IS THE ONLY EXPRESS OR LIMITED WARRANTY APPLICABLE TO THE BUDDY BIKE. THE LIMITED WARRANTY SET FORTH HEREIN MAY NOT BE EXTENDED, ENLARGED OR OTHERWISE MODIFIED BY ANY BUDDY BIKE DEALER, AGENT OR EMPLOYEE, AND BUDDY BIKE DOES NOT ASSUME ANY LIABILITY OR MAKE ANY WARRANTY EXCEPT AS STATED IN THIS LIMITED WARRANTY.

PARTS

Buddy Bike will repair or replace, at its option, defective parts for this bicycle at no charge, for a period of one year after the date of original purchase. Parts subject to normal wear and tear, including tires, tubes, saddle, pedals, handlebar foam/wrap and grips are not covered by this one year period. Parts subject to normal wear and tear which are found to be defective by the purchaser within 30 days of purchase, including tires, tubes, saddle, pedals, handlebar foam/wrap and grips will be replaced by Buddy Bike at no charge. This warranty does not include dealer service charges for parts replacement or shipping charges to or from Buddy Bike.

FRAME

All Buddy Bike frames and forks are guaranteed to be free from defects in materials and workmanship for a period of three (3) years from date of original purchase. A frame or fork found defective in materials or workmanship will be repaired or replaced at Buddy Bike's option.

REGISTRATION

Please complete the included registration form and return to Buddy Bike within 60 days of original purchase.

Buddy Bike, LLC
2775 Sunny Isles Boulevard, Suite 118
North Miami Beach, Florida 33160
ATTN: Warranty Registration





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Patent Number 5,503,419

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Please practice safe cycling.
For safe cycling information visit our web site:
www.buddybike.com/BikeSafety.html