

CANNONDALE® JEKYLL™ OWNER'S MANUAL

Congratulations and thanks for purchasing the world's newest, most innovative, and most adjustable full suspension design, the Cannondale Jekyll. Please take a moment to read and understand this supplement and the other literature included with the bike, including the Cannondale Bicycle Owner's Manual and the HeadShok specific supplement. These will provide important safety warnings and performance tips which will make for many miles of safe, high output riding pleasure. If you have any questions about your frame or the contents of this manual, don't hesitate to contact us. See the back page for phone numbers and E-mail contacts.

Your Cannondale Jekyll should have also included a standard owner's manual and a front suspension specific manual. If you did not receive both the Cannondale Bicycle Owner's Manual and the HeadShok owner's manual, please download and print one from the Cannondale website Tech Center or call our customer service line at 1-800-BIKE-USA in the U.S. or Canada to have one sent to you.

Please note that this manual is meant to supplement, not to replace, the Cannondale Bicycle Owner's Manual. The 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 Cannondale Bicycle Owner's Manual thoroughly before riding your bicycle, and keep it and this booklet for future reference.

Because the Jekyll bicycles are so unique, there are some important facts and warnings of which you need to be aware. The warnings are written as appropriate throughout this manual. Please read and heed all warnings, the information is here for your benefit.

JEKYLL FEATURES

The Jekyll pairs one of two lightweight aluminum swingarms with an all-new welded aluminum front triangle. A threaded, pivoting collar is used as the attachment point for the rear shock. By threading the shock absorber fore or aft within the collar, a rider can quickly change the bike's geometry and handling characteristics. Positioning the shock absorber farther forward, for example, lowers the bottom bracket height and slackens the head and seat tube angles, making the bike perfect for high speed descending. Threading the shock farther back raises the bottom bracket and steepens the angles for quicker handling and more cross-country oriented riding. The shock is also fully adjustable to positions between the fully forward and fully aft limits, offering an incredible range of adjustability and ride tuning. The rear wheel travel on the Jekyll is a full 120mm, regardless of where the shock is positioned in the collar. Some Jekyll models use Fox rear shocks equipped with compression adjusters which can be used to stiffen the rear suspension for a more race-oriented ride.

COMPONENT COMPATIBILITY AND PRECAUTIONS FOR ALL JEKYLL MODELS

PIVOTING SHOCK MOUNT COLLAR

The Jekyll uses a pivoting collar above the bottom bracket to secure the rear shock to the frame's front triangle. The two bolts which secure the collar to the frame should be kept tight to 150 In-Lbs (17 Nm). If these bolts are removed, you should apply one drop of Loctite 242 (blue) to the bolt threads inside the collar before reinstalling and tightening the attaching bolts. Make sure not to get any Loctite through the collar onto the shock adjustment threads, nor any on the frame's pivot bushings.

The frame bushings on which the collar bolts pivot should never be greased or oiled. They are Teflon® coated and need no lubrication. Additionally, some lubricants may deteriorate or destroy the coating.

Should your pivot bushings be damaged or wear out, they can be replaced by your local Authorized Cannondale Retailer.

FORKS

The new Cannondale Jekyll frame is compatible with all in-headtube type HeadShok forks (such as the Fatty, Fatty Ultra, and Super Fatty) and the single sided Lefty fork. Using any fork other than those listed here could lead to frame or fork failure, and will void your warranty.

WARNING: Jekyll frames were not designed to use forks other than those manufactured, tested, and approved by Cannondale. If you do so you may break, damage, or shorten the life of the Cannondale frame, with resulting risk of injury or death to the rider. If you do so you will also void your Cannondale frame's warranty.

HEADSET

The Jekyll's head tube is designed to accept HeadShok forks and Head-Shok headset cups only.

FRONT DERAILLEUR

All Jekylls require a standard "bottom-pull" type front derailleur with a 31.8mm clamp diameter. Because the front derailleur mounts to the rear swingarm, and has a limited range of vertical adjustment, some derailleur designs (such as Shimano "Top Swing" derailleurs) are not compatible.

CRANKSET / BOTTOM BRACKET

Like all Cannondales, the Jekyll bottom bracket shell is 68mm wide and has English threads. Proper bottom bracket spindle length depends on the crankset being used. Use whatever length spindle is recommended by the crank manufacturer, providing the proper clearance between the crankarms and the frame is maintained.

CAUTION: DO NOT MACHINE (OR "FACE") EITHER THE HEADTUBE OR THE BOTTOM BRACKET SHELL. THESE SURFACES ARE ACCURATELY FACED AT THE FACTORY SO THIS TRADITIONAL FRAME PREPARATION STEP IS NOT NECESSARY, AND COULD DAMAGE THE FRAME.

CHAINRING SIZE LIMITATIONS

The design of the Jekyll's swingarms limit the maximum usable chainring size to 46 teeth. Use of any larger chainring may damage the swingarm or result in contact between the front derailleur cage and the large chainring.

SWINGARM PROTECTOR

The swingarm on your Jekyll is made of thin wall aluminum tubing and some CNC-machined aluminum parts. To protect the CAAD 4 swingarm (found on some Jekyll models) from damage inflicted by the chain slapping against the chainstay, we have supplied a self-adhesive vinyl protector for the swingarm. This protector should be applied to the top of the right (drive side) chainstay, near the chain. Please inspect this protector frequently. If the protector becomes damaged, abraded, or peels off, it should be replaced to prevent damage to the swingarm. To obtain a new swingarm protector, see an Authorized Cannondale Retailer. The elevated (bonded) swingarm found on other Jekyll models doesn't have a traditional "chainstay", but the protector can be applied to the bottom of the drive side to protect the paint from chain slap.

ALTERNATIVE BRAKES

Hydraulic and disc brakes are a popular upgrade on many suspension bicycles. When selecting a hydraulic brake system for your Jekyll, choose one that mounts to the frame using only the existing cantilever brake studs or disc brake caliper mounts. Do not attempt to modify the existing cantilever brake studs or to clamp, weld, or to in any other way add new or different mounts for a hydraulic brake or disc brake. Any attempt to modify the frame, swingarm, fork, or related components will void the warranty and may weaken or damage the frame. For installation instructions and other warnings, refer to the literature provided by the brake's manufacturer. The mounts on the Jekyll's swingarm and fork are designed to fit a CODA Compact Disc Brake caliper. Other brands of disc brakes which conform to the international mounting standard may fit as well.

MAINTAINING THE APPEARANCE OF YOUR JEKYLL FRAME

To keep your Jekyll frame looking its best, we recommend cleaning it regularly with mild soap and water. Regular cleaning will minimize the chances of corrosion. Do not use abrasive cleansers or solvents. Jekyll frames have a thin coating of clear paint over the whole frame (including the decals.) A coating of wax can be applied if desired.

JEKYLL GEOMETRY ADJUSTMENT

The adjustable geometry of the Jekyll frame allows for a maximum head tube angle of 71 degrees with a corresponding bottom bracket height of 13.5 inches (34.3cm) with the shock threaded fully aft in the pivoting collar. At the other end of the range of adjustment, the minimum head tube angle is 69.5 degrees with a corresponding bottom bracket height of 12.9 inches (32.8cm) with the shock threaded fully forward in the collar. To most easily adjust the geometry, use the following procedure.

1. Loosen the lockring on the shock body, located just in front of the frame's pivoting collar, by turning it counter-clockwise (when viewed from the front of the bike) using a Park red pin spanner tool.
2. Unscrew and remove the bolt which connects the rear of the shock to the rear swingarm. This will require a 10mm open or closed end wrench and a 5mm hex wrench. Once the bolt is removed, pivot the swingarm down and the rear of the shock up so that the two don't touch.
3. Spin the shock body clockwise (when viewed from the front of the bike) within the pivoting collar to steepen the angles and raise the bottom bracket simultaneously, or spin the shock body counter-clockwise to slacken the angles and lower the bottom bracket simultaneously. You must position the blue compression lever on Fox FLOAT RC shocks in line with the shock body to most easily adjust the shock position.
4. Once the shock position is set, align the bolt holes in the rear shock mount and the swingarm, and reinstall the shock mounting bolt. Using the 10mm open or closed ended wrench and the 5mm hex wrench, tighten the shock mounting bolt to 106 In-Lbs (12 Nm).
5. Once the shock is set to the desired position and the swingarm has been reattached, secure the shock in place by tightening the lock ring against the pivoting collar using a Park red pin spanner. Tighten the lock ring firmly to prevent the shock from migrating in the collar's threads.

NOTE: After making the geometry adjustment, you may want to change the angle and/or position of your saddle to maintain optimal comfort and your desired riding position.

CAUTION: IF YOU STEEPEN THE BIKE, MAKE SURE THAT THE FRONT DERAILLEUR DOESN'T INTERFERE WITH THE CHAINRING TEETH. SEE THE FOLLOWING PARAGRAPH ABOUT FRONT DERAILLEUR ADJUSTMENT.

FRONT DERAILLEUR ADJUSTMENT—*VERY IMPORTANT!*

The Jekyll's rear suspension design places the front derailleur on the rear swingarm. This arrangement requires very precise adjustment of the front derailleur. Additionally, the adjustability of the Jekyll's geometry means that the front derailleur adjustment must be checked whenever changing the rear shock position. The front derailleur should be adjusted with the shock positioned as far aft as possible. That is, the frame should be at its steepest, tallest position before adjusting the front derailleur. **See Fig. 1.**

Once the rear shock is set to its most aft position, adjust the front derailleur so that the derailleur cage is approximately 1mm above the large chainring when there is no weight on the bike (**see Fig. 2**). The rear end of the derailleur cage will rock up and away from the chainrings as the suspension is compressed or as the geometry is changed to a slacker, lower position.

The front derailleur can be adjusted to the 1mm clearance above the large chainring at any point in the range of geometry adjustability. However, if the geometry is then adjusted to a more steep, tall setup (with the shock further aft in the mounting collar), the front derailleur will have to be readjusted or it will catch on the chainring teeth.

CAUTION: IF THE JEKYLL'S REAR SHOCK IS MOVED TO A MORE REARWARD POSITION IN THE FRAME'S PIVOTING COLLAR, THE FRONT DERAILLEUR POSITION MUST BE CHECKED BEFORE RIDING. IF THE FRONT DERAILLEUR CATCHES ON THE CHAINRING TEETH, YOU COULD DAMAGE OR DESTROY YOUR FRONT DERAILLEUR. YOU ALSO RISK A SERIOUS CRASH, WHICH COULD CAUSE INJURY OR DEATH. IF YOU DO NOT UNDERSTAND THE ABOVE PROCEDURE FOR ADJUSTING THE FRONT DERAILLEUR, PLEASE SEE YOUR AUTHORIZED CANNONDALE RETAILER.

Fig.1 ▼

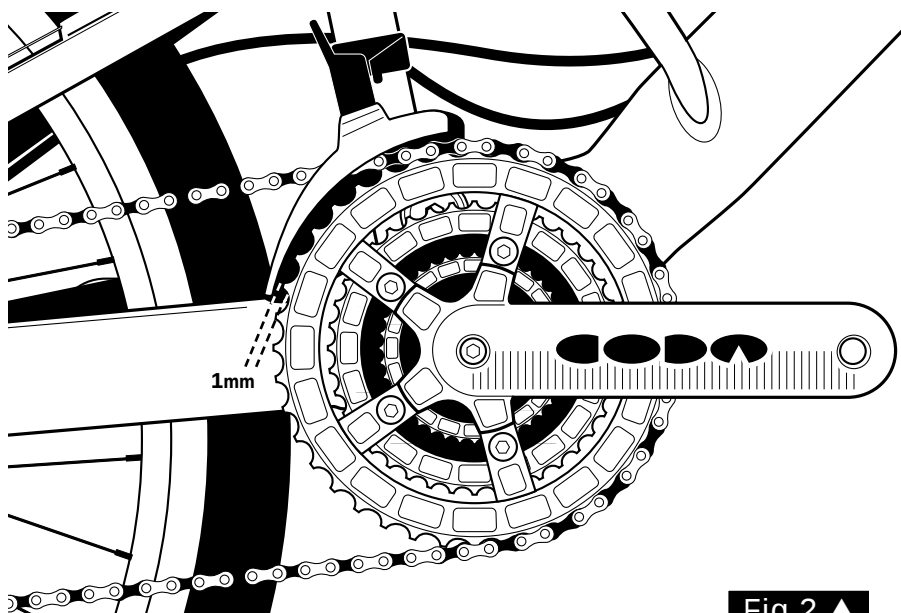
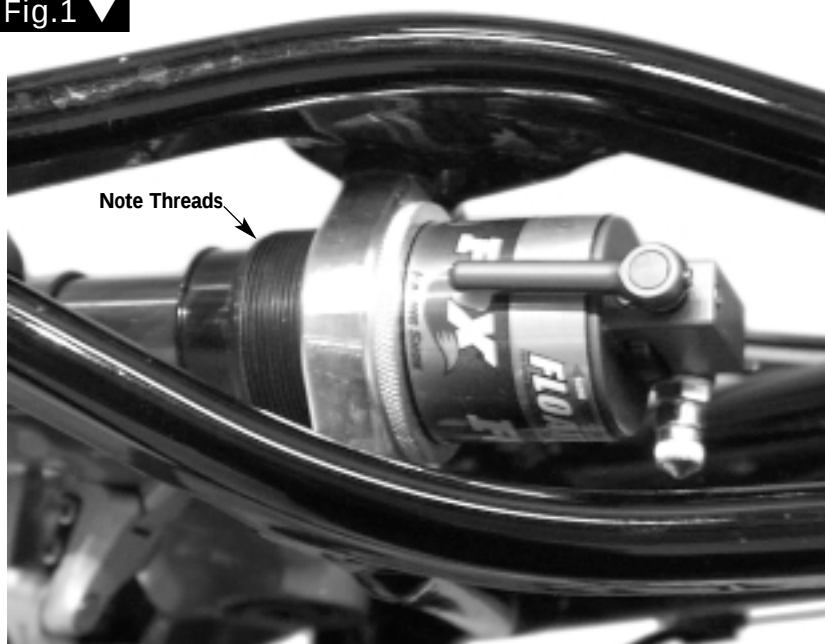
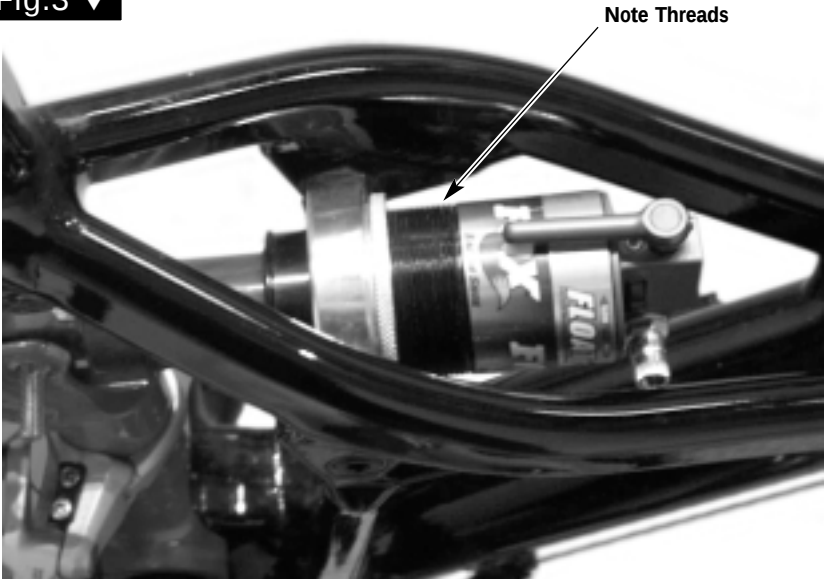


Fig.2 ▲

SHIFTING PRECAUTIONS / CHAIN LENGTH

The chain on a Jekyll must be kept long enough to prevent damage to the rear derailleur when the rear shock is at its most forward position and the rear suspension compresses to its full travel with the chain on the large chainring and one of the larger rear cogs. **See Fig. 3** for the correct shock position in which to set the chain length. Remember that on any bicycle, the gearing combinations of the smallest front chainring / smallest rear cog, and the largest chainring / largest rear cog should never be used. These gear combinations (called “cross chaining”) place undue stress on the chain, chainrings, derailleurs, and rear cogs. Duplicate or similar gear ratios can be achieved in other combinations using the middle chainring.

Fig.3 ▼



CABLE ROUTING

The cables on the Jekyll must be routed correctly to ensure proper operation of the derailleurs and brakes, and to prevent the cable housing from being pinched when the rear suspension is compressed. Also, be sure to use lengths of cable housing which will not impede steering control and will not contact wheels or tires. Based upon the type of swingarm on the Jekyll you have purchased, see the appropriate section below for cable installation instructions.

CAAD4 SWINGARM EQUIPPED JEKYLL

FRONT BRAKE

Run hydraulic line directly from the front brake lever to the front brake. If equipped with a Lefty, the hydraulic tubing should not go through the clamps, but rather to the outside of the Lefty leg and behind to the disc brake. **See Fig. 4.** Note that the zip tie loops need to be loose enough to allow the hydraulic brake line to slide freely up and down. If equipped with a Fatty, Ultra, or Super Fatty fork, the tubing from the front brake lever should be directed behind the shock boot and down the back of the left fork leg to the disc brake. **See Fig. 5.**

Fig.4 ▼

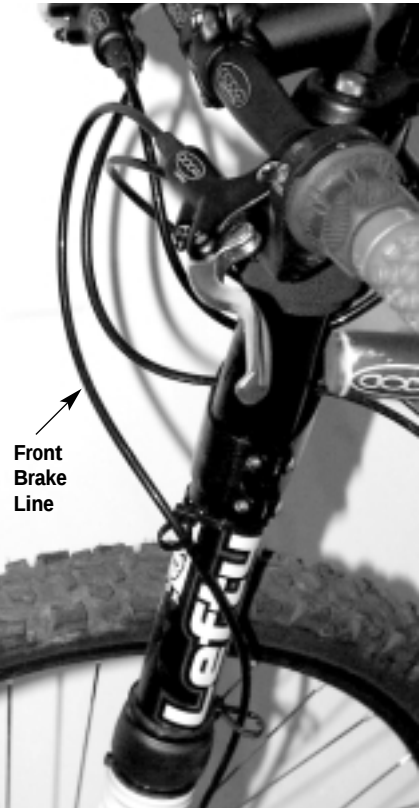
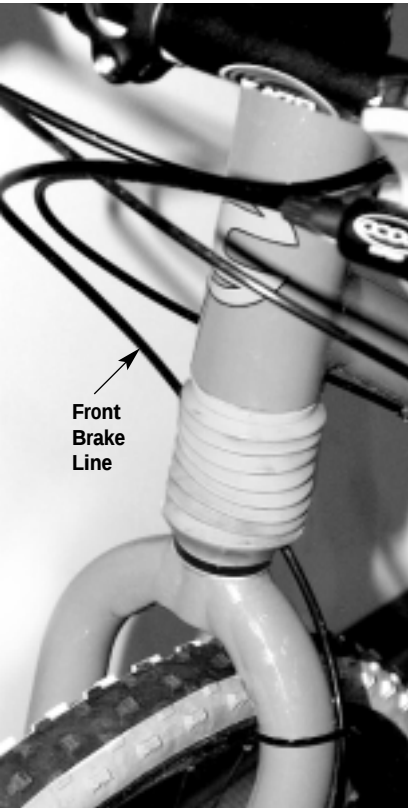


Fig.5 ▼



REAR BRAKE

Run the hydraulic tubing from the rear brake lever to the lower slots in the double housing stops on the left side of the down tube. Secure the hydraulic line in the aluminum guides with the supplied plastic guide clips. Then run the hydraulic line outside the vertical strut and under the clamp just above the swingarm pivot (**see Fig. 6**). The tubing should then be run directly to the rear brake, inside the seat stay.

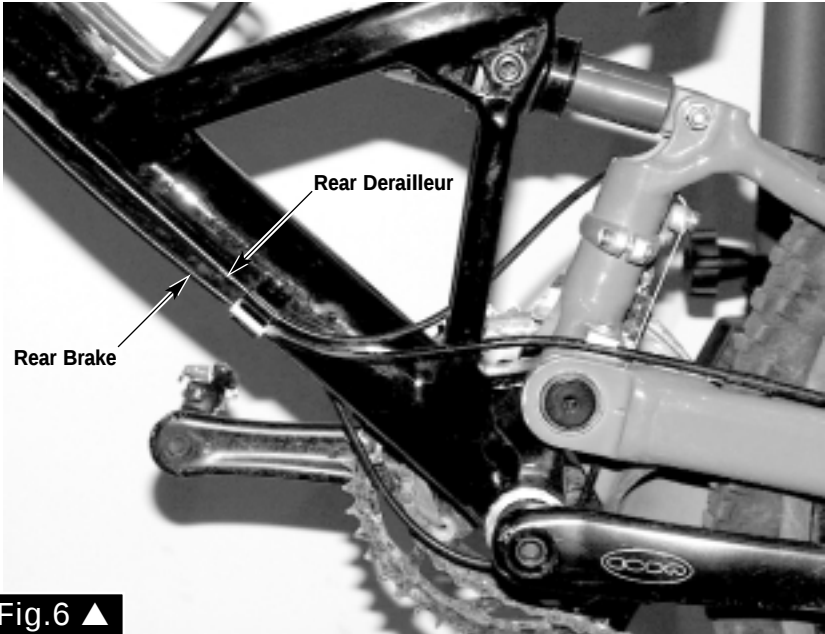


Fig.6 ▲

FRONT DERAILLEUR

Run cable housing from the front shifter to the housing stop on the right side of the downtube. Run exposed cable to the housing stop at the lower end of the downtube. Run cable housing (approx. 32cm.) from this downtube stop, under the bottom bracket, and to the housing stop on the swingarm just behind the rear suspension pivot. Be sure to leave enough slack in this piece of housing to allow for the movement of the swingarm. It is easiest to first position the housing into the stop on the swingarm, and then to run the cable through the housing and out the hole towards the front derailleur.

REAR DERAILLEUR

Run cable housing from the rear shifter to the upper slot in the double housing stop on the left side of the downtube. Insert the included plastic cable stops in each of the top through guides, with the large openings facing out towards the cable housing, away from the center of the down tube. Run exposed cable down to the lower housing stop on the left side of the downtube (**see Fig. 6**). Run cable housing from this stop, under the rear shock and the seat area, across to the housing stop on the right side of the swingarm. Run bare cable to the rearward housing stop on the swingarm. Run cable housing from the rear housing stop on the swingarm to the rear derailleur.

ELEVATED (BONDED) SWINGARM EQUIPPED JEKYLL

FRONT BRAKE

For front disc brakes: Run hydraulic line directly from the front brake lever to the front brake. If equipped with a Lefty, the hydraulic tubing should not go through the clamps, but rather to the outside of the Lefty leg and behind to the disc brake. **See Fig. 4**. If equipped with a Fatty, Ultra, or Super Fatty fork, the tubing from the front brake lever should be directed behind the shock boot and down the back of the left fork leg to the disc brake. **See Fig. 5**.

For V-type front brakes: Run cable housing directly from the front brake lever to the front brake cable “noodle”.

REAR BRAKE

Run the hydraulic tubing or cable housing from the rear brake lever to the upper slots in the double housing stops on the left side of the down tube. Secure hydraulic line in the aluminum guides with the supplied plastic guide clips **-or-** secure cable housing in the aluminum guides with the supplied plastic cable stops, with the large openings facing out towards the cable housing, away from the center of the down tube. Then run the hydraulic line or brake cable housing inside the vertical struts up to the top surface of the swingarm (**see Fig. 7**). The cable housing should be directed to the V-type brake cable “noodle”. Disc brake tubing should be run through the guide under the left cantilever brake stud and directly to the rear disc brake.

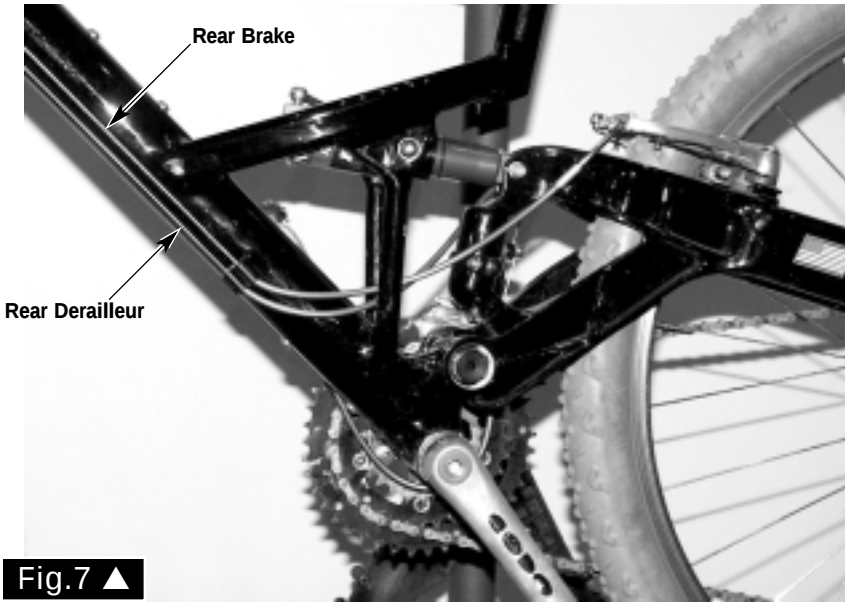


Fig.7 ▲

FRONT DERAILLEUR

Run cable housing from the front shifter to the housing stop on the right side of the downtube. Run exposed cable to the housing stop at the lower end of the downtube. Run cable housing (approx. 32cm.) from this downtube stop, under the bottom bracket, and to the housing stop on the swingarm just behind the rear suspension pivot. Be sure to leave enough slack in this piece of housing to allow for the movement of the swingarm. It is easiest to first position the housing into the stop on the swingarm, and then to run the cable through the housing and out the hole towards the front derailleur.

REAR DERAILLEUR

Run cable housing from the rear shifter to the lower slot in the double housing stop on the left side of the downtube. Insert the included plastic cable stops in each of the top through guides, with the large openings facing out towards the cable housing, away from the center of the downtube. Run exposed cable down to the lower housing stop on the left side of the downtube (**see Fig. 7**). Run cable housing from this stop, under the rear shock and the seat area, across to the housing stop insert on the right side of the swingarm, under the cantilever brake stud. Run bare cable to the rearward housing stop on the swingarm. Run cable housing from the rear housing stop on the swingarm to the rear derailleur.

JEKYLL SEATPOST MOUNTING

The Jekyll will accept any 27.2mm diameter seatpost. The seatpost must be inserted with at least the recommended minimum insertion into the seatube. Grease the seatpost clamp bolt threads and tighten it to 70-80 In-Lbs (8-9 Nm.)

IMPORTANT: Make sure that the end of the seatpost will not come into contact with the rear shock and/or swingarm as the suspension is compressed. To check, first adjust the seatpost height for the bike's intended rider. Then compress the rear suspension as far as possible in order to bottom out the suspension travel. If necessary, cut the bottom of the seatpost to provide at least 1/2" of clearance between it and the suspension parts when the suspension is fully compressed. Repeat this check each time the seat height is readjusted. A good guide is to make sure that the bottom of the seatpost doesn't extend out past the bottom of the seat tube.

WARNING: Use only a 27.2mm diameter seatpost and be sure that the seatpost is held securely by the seatpost collar. The seatpost collar clamp bolt must be torqued to 70-80 In-Lbs (8-9 Nm.) Failure to properly torque the collar could lead to slippage, loss of control and risk of serious injury or death.

JEKYLL REAR SUSPENSION PRELOAD ADJUSTMENT

All Cannondale Jekyll models use a uniquely designed Fox shock absorber to provide 120mm of plush rear wheel travel for all terrain riding. To get the best performance from the rear suspension, the preload pressure in the rear shock should be adjusted to suit the rider's weight. The Fox FLOAT R and FLOAT RC shocks use an air spring to adjust the stiffness of the rear suspension and oil to damp the suspension movement. Before adjusting air spring preload, clean any dirt from the area around the Schrader valve on the shock absorber.

If you can't easily access the Schrader valve to be able to attach a high pressure suspension pump, loosen the shock lock ring using a Park red pin spanner tool, place a 13mm wrench on the forward end of the shock body, and rotate it to an accessible position.

1. With the rider off of the bike, attach a high pressure precision air pump with gauge to the threads and add air pressure equal to the rider's weight (in p.s.i.). If you turned the shock to more easily access the Schrader valve, rotate the shock back to a position where you can easily reach the blue shock compression adjuster and retighten the shock lock ring. Then compress the suspension once to charge the negative air spring. This inflation is a good starting point, but can be fine tuned by following the remaining steps.

2. With the rider off of the bike, slide the shock wiper O-ring (found on the piston of the rear shock) up to the shock body. If you don't have a wiper O-ring on your shock piston, put a zip tie around the piston and slide it up against the shock body.

3. Have the rider sit on the bike in a normal, relaxed cycling position, with both feet on the pedals and weight on the seat. It may be easiest for the rider to lean against a wall or post. It is important that the rider not bounce the bike. Then have the rider carefully dismount the bike, again being careful not to bounce the bike.

4. Measure the distance between the O-ring or zip tie and the shock body. This initial compression is the suspension "sag."

5. Most riders prefer to set the preload so that the bike's rear shock compresses about 1/4" when the rider is seated in a normal, relaxed riding position. Add or release air pressure to the suspension, compress the shock once, and recheck your measurements to achieve the desired sag setting.

NOTE: Rear suspension preload is a matter of personal preference. We encourage riders to experiment with different preload settings and find the setting that suits them best. If too much preload is set, the suspension will be stiff and unresponsive over small bumps. Alternately, if the preload is too soft, the rider may feel some amount of "bouncing" while climbing or sprinting, and may tend to bottom out the shock (compress it to the limit of its travel) on large bumps.

REBOUND DAMPING ADJUSTER KNOB

Rebound damping controls the speed at which the suspension returns to its extended position after being compressed by a bump. The rebound damping on the Fox FLOAT RC and FLOAT R rear shocks can be tuned by turning the red adjuster knob, located on the shock body. To set the rebound damping to a heavier position (for slower suspension return), turn the adjuster knob clockwise when viewed from the front of the bike. Conversely, to set the damping lighter (for quicker suspension return), turn the knob counter-clockwise.

Rebound should be as fast as possible without kicking back and pushing the rider off the saddle when riding the bike in rough terrain. If the rebound is too slow the suspension will not allow the wheel to follow the changing terrain. Determining the proper rebound setting may take a number of rides. During the first few rides adjust the damping and note the different ride characteristics. You may want to change your rebound setting for different riding conditions.

COMPRESSION DAMPING ADJUSTER

Fox FLOAT RC rear shocks also have a compression adjuster which changes the rate at which the shock compresses through the shock stroke, stiffening the shock against small bumps. Determining the proper compression setting is a matter of personal preference. During the first few rides adjust the two position lever to vary the compression characteristics. Note that different trail conditions may favor different compression settings.

WARNING FOR ALL CANNONDALE FRAMES:

WARNING: Inspect the frame carefully for damage after any crash, drop, impact to the frame, or other harsh treatment. Riding a cracked frame could lead to complete bicycle failure. Like other high-performance structures, this frame should be inspected periodically for cracks. DO NOT RIDE a bike with any crack, even a small one. See your authorized Cannondale retailer or call 1-800-BIKE-USA. A crack will weaken the frame and could lead to failure, with risk of serious injury or death to the rider.

