



READ THIS MANUAL CAREFULLY!
It contains important safety information.
Keep it for future reference.

SCALPEL

Owner's Manual Supplement

119658.PDF

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Please note that the specifications and information in this manual are subject to change for product improvement. For the latest product information, go to <http://www.cannondale.com/bikes/tech/>.

ABOUT THIS SUPPLEMENT

Cannondale Owner's Manual Supplements provide important model specific safety, maintenance, and technical information. They are not replacements for your *Cannondale Bicycle Owner's Manual*.

This supplement may be one of several for your bike. Be sure to obtain and read all of them.

If you need a manual or supplement, or have a question about your bike, please contact your Cannondale Dealer immediately, or call us at one of the telephone numbers listed on the back cover of this manual.

You can download Adobe Acrobat PDF versions of any Cannondale Owner's Manuals or Supplements from our website: <http://www.cannondale.com/bikes/tech>.

- This manual is not a comprehensive safety or service manual for your bike.
- This manual does not include assembly instructions for your bike.
- All Cannondale bikes must be completely assembled and inspected for proper operation by a Cannondale Dealer before delivery to the owner.

WARNING

This document may include procedures beyond the scope of general mechanical aptitude.

Special tools, skills, and knowledge may be required. Improper mechanical work increases the risk of an accident. Any bicycle accident has risk of serious injury, paralysis or death. To minimize risk we strongly recommend that owners always have mechanical work done by an authorized Cannondale retailer.

SAFETY MESSAGES

In this manual, information which affects your safety is emphasized in the following ways:

WARNING

A **WARNING** indicates a potentially hazardous situation which, if not avoided, can result in serious injury or death.

CAUTION

A **CAUTION** Indicates a potentially hazardous situation which, if not avoided, can result in serious damage to the product. The matters described under **CAUTION** may, if not avoided, lead to personal injury, or results depending on the situation and degree of damage. Important matters are described in **CAUTION** (as well as **WARNING**), so be sure to observe them.

*A **NOTE** provides helpful information or tips intended to make the information presented clearer.*

INTENDED USE

Cross-Country, Marathon

INTENDED for cross-country riding and racing which ranges from mild to aggressive over intermediate terrain (e.g., hilly with small obstacles like roots, rocks, loose surfaces and hard pack and depressions). There are no large “sick drop” or drop offs, jumps or launches (wooden structures, dirt embankments) requiring long suspension travel or heavy duty components. Cross-country and marathon equipment (tires, shocks, frames, drive trains) are light-weight, favoring nimble speed over brute force. Suspension travel is relatively short since the bike is intended to move quickly on the ground and not spend time in the air landing hard and hammering through things.

NOT INTENDED for use in extreme forms of jumping/riding such as hardcore mountain, Freeriding, Downhill, North Shore, Dirt Jumping, Hucking etc.

TRADE OFF Cross-Country bikes are lighter, faster to ride uphill, and more nimble than All-Mountain bikes. Cross-Country and Marathon bikes trade off some ruggedness for pedaling efficiency and uphill speed.



WARNING

USING YOUR BICYCLE IMPROPERLY IS HAZARDOUS.

BUILDING UP A FRAMESET

Before building up a frameset, consult with your Cannondale Dealer and the component manufacturers, and discuss your riding style, ability, weight, and interest in and patience for maintenance.

Make sure the components chosen are compatible with your bike and intended for your weight and riding style.

Generally speaking, lighter weight components have shorter lives. In selecting lightweight components, you are making a trade-off, favoring the higher performance that comes with less weight over longevity. If you choose more lightweight components, you must inspect them more frequently. If you are a heavier rider or have a rough, abusive or “go for it” riding style, buy heavy duty components.

Read and follow the component manufacturers warnings and instructions.

IMPORTANT COMPOSITES MESSAGE

Your bike includes composite materials also known as “carbon fiber.”

All riders must understand a fundamental reality of composites. Composite materials constructed of carbon fibers are strong and light, but when crashed or overloaded, carbon fibers do not bend, they break.

For your safety, as you own and use the bike, you must follow proper service, maintenance, and inspection of all the composites (frame, stem, fork, handlebar, seat post, etc.) Ask your Cannondale Dealer for help.

We urge you to read PART II, Section D. “Inspect For Safety” in your Cannondale Bicycle Owner’s Manual BEFORE you ride.



WARNING

YOU CAN BE SEVERELY INJURED, PARALYZED OR KILLED IN AN ACCIDENT IF YOU IGNORE THIS MESSAGE.

BRAKES

All Scalpels are built using the International Standard brake mounts. Use 6” rotors only.

CHAINRINGS

Cannondale designed the Scalpel around a drivetrain that uses a 44-tooth chainring as the outer ring. Other rings may work but are not recommended. Use of a 42-tooth chain ring will complicate the setup of the front derailleur. Use of a 46-tooth chainring may damage the right chainstay.

FRONT DERAILLEUR

The front derailleur position on the Scalpel is a different. The angle of the cage should be run with the rear slightly inboard. The height of the front derailleur should be such that the lower edge of the cage sits 1.5 to 2.0mm above the chainstay. This will prevent any damage to the chainstay or the front derailleur during suspension compression. Note that this may position the front derailleur higher than you normally might set it.

BOTTOM BRACKET SHELL

Scalpel frames are designed for either the traditional bottom brackets or SI Hollowgram. SI Hollowgram frames may be converted to standard using Cannondale adapter kit KF365/) See pages 10 -11.

CHAIN HEIGHT

In the work stand or on the shop floor, you will notice that when the chain is in certain gear ratios, the chain will sag and rest on the chainstay. When the chain stays are preloaded (the suspension sagged-in), this distance will change. With proper air pressure in the rear suspension and forward pressure on the pedals, the chain will then run above, not on, the chainstay. As the bike moves through its travel, the chain will continue to rise above the chainstay. This movement is instrumental to the EPO suspension design.

The chain height will not be a concern except in one gear ratio. When the chain is in the inner chain ring and small cog (cross-chained) the chain may rub the chainstay. This is not a recommended gear ratio due to the unnecessary stress it puts on a chain. Because the Scalpel is a high performance race bike, riders should not cross-chain. To paraphrase one frame engineer: “You wouldn’t drive your Porsche around town at 20 mph in fifth gear—it’s inefficient.” So too, is cross-chaining.

SELECTING REAR SHOCKS

WARNING

SELECT ONLY COMPATIBLE SHOCKS AND FORKS FOR YOUR BIKE. DO NOT MODIFY YOUR BIKE IN ANY WAY TO MOUNT ONE. HAVE YOUR SHOCK OR FORK INSTALLED BY A PROFESSIONAL BIKE MECHANIC

- Riding with the wrong rear shock can damage the frame. You could have a serious accident. Make sure the total travel, eye-to-eye length, and stroke length of the rear shock you select meet the specifications listed in this manual.
- When selecting different shocks or forks for your bike, make sure that the shock or fork you select is compatible with your bike's design and how you will use your bike.

SAG

Sag is the distance the bike suspension compresses with a rider (wearing all appropriate gear) mounted in a normal riding position (seated, hands on handlebar and feet on the pedals) on flat ground.

The recommended sag for your bike is intended to maximize the bike's suspension travel and it is usually specified as a percentage (%) of the fork or shock's total travel.

Maintaining the recommended sag in both the front and rear suspension helps assure that the fork and shock operate normally without excessive top-out or bottom-out that can lead to difficult handling or damage.

CAUTION

Please read the fork and rear shock manufacturer's owner's manual and instructions provided before attempting any set-up or adjustment.

Small adjustments to sag are performed by adjusting preload of the shock or fork.

With coil springs this is done by adding or removing spring shims, adjusting the installed length of the spring with a preload adjusting ring. With air springs, changing air pressure changes preload

Larger adjustments to sag may require changing the installed springs in the fork or shock. Changing the spring may be a simple task or very complex depending on the design of the fork or shock. In general: increasing preload decreases sag, decreasing preload increases sag.

Finding tuning sag within the suspension fork or rear shock range is a matter of personal preference taking body weight and how you ride into consideration.

SELECTING TIRES

Any properly installed and inflated tire must not contact any part of the swingarm, frame, or fork and throughout full suspension travel.

The U.S. Consumer Product Safety Commission (CPSC) requires at least 1/16" (1.6 mm) tire clearance from any part of the bike. Allowing for lateral rim flex and a wheel or rim that is out-of-true will likely mean choosing a rear tire that provides even more clearance than the CPSC recommends.

If the manufacturer's manual contains no such guidelines, or if you don't have a manual, consider that Rock Shox requires at least 1/4" (5 mm) clearance between the tire and the fork crown or bridge when the fork is completely compressed.

Be aware that completely compressing the fork may involve removing the spring stack, letting the air out of the fork, or both.



SELECT PROPERLY SIZED/ FITTED TIRES FOR YOUR BIKE.

Mounting the wrong size tires on your bike can increase the chances that you will have an accident where you can be severely injured, paralyzed, or killed. If the tires touch the frame or fork when riding, you can lose control of your bike. If a moving tire is stopped because it touches the frame or fork, you can be thrown off the bike. You can be severely injured or killed.

Do not mount oversized tires, ones that rub or touch the frame, ones that result in too little clearance with the frame, or ones that can touch the frame or fork when the suspension is fully compressed or when riding.

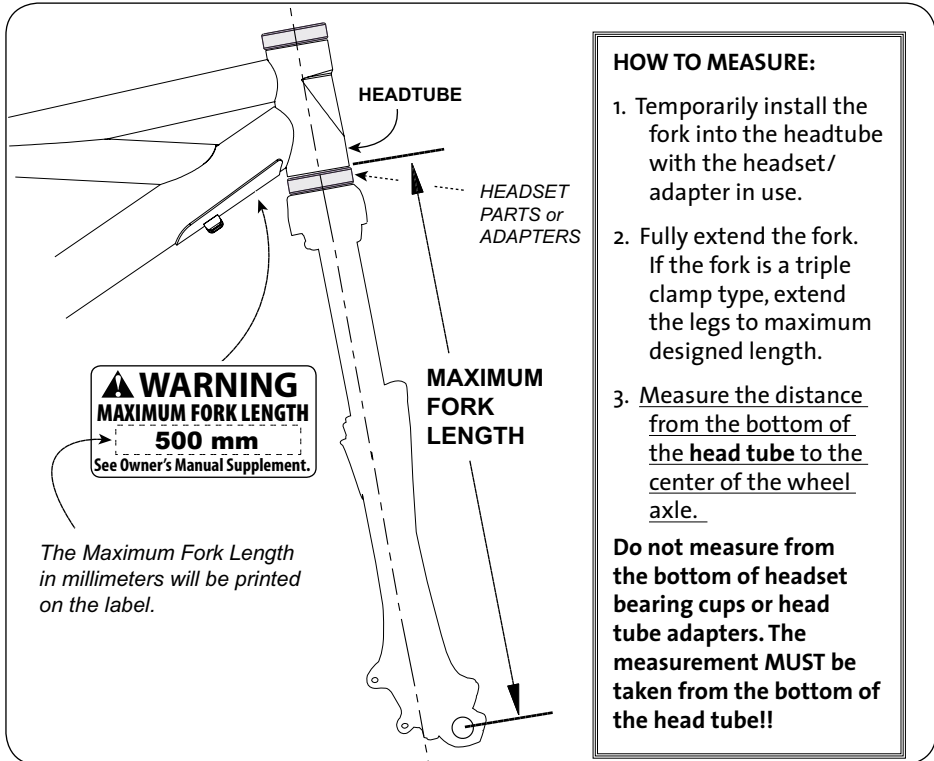
Take care that the tires you select are compatible with your bike's frame design. Also, be sure to follow the manufacturer's recommendations of your front fork and rear shocks.

Ask your Cannondale Dealer for the right tires for your bike and its particular components!

A tire must not contact the chainstays. Tire contact with a rotating tire can cause serious damage to the chainstays. The MAXIMUM TIRE WIDTH specification for your bike can be found in the SPECIFICATIONS section of this manual.

MAXIMUM FORK LENGTH

Maximum Fork Length is an important frame safety testing specification. You must observe the measurement when installing headset parts, headset adapters, installing and adjusting a fork, and replacement forks. The specification is printed on a warning label indicated in the figure below. In this manual, the number is also listed in the **SPECIFICATIONS** section.



WARNING

DO NOT INSTALL HEADSET PARTS OR FORKS RESULTING IN A MAXIMUM FORK LENGTH LONGER THAN THE SPECIFICATION FOR YOUR FRAME. DO NOT ADJUST A TRIPLE CLAMP FORK SO THAT MAXIMUM FORK LENGTH EXCEEDS THE FRAME LIMIT. Exceeding the MAXIMUM FORK LENGTH limit can overload the frame causing it to fail (break) while riding.

YOU CAN BE SEVERELY INJURED, PARALYZED OR KILLED IN AN ACCIDENT IF YOU IGNORE THIS WARNING.

FRONT TRIANGLE

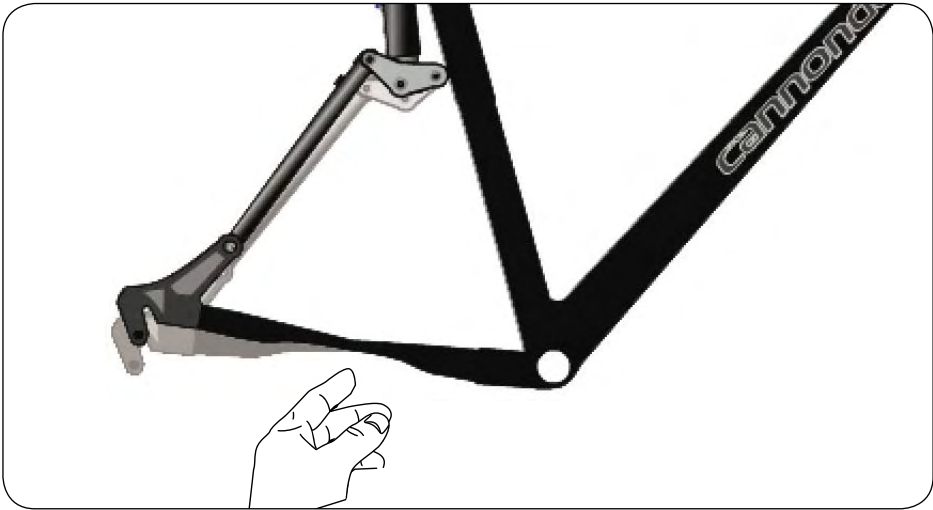


- 1. Top Tube
- 2. Down Tube
- 3. Seat Tube
- 4. Rear Shock "Frog" Link
- 5. EPO Chainstay (carbon fiber composite)
- 6. Seatstay (composite)
- 7. Head Tube
- 8. Rear Shock

The Scalpel's front triangle is hand-welded, heat-treated 6061-T6 aluminum, and features the Power Pyramid down tube. The Power Pyramid simultaneously increases in diameter and decreases in wall thickness throughout its length. As a result, the down tube has a weight-saving thinner wall and a super-rigid, oversized profile at the bottom bracket shell to resist pedaling forces. At its upper end, the Power Pyramid has a slimmer diameter for compatibility with the head tube and a beefier wall for added strength.

The Scalpel also boasts easy portability, with an open, uncluttered front triangle that places all of the suspension components aft of the seat tube. And for enhanced stand-over clearance, the Scalpel's top tube has a downward bend just forward of the saddle - a feature that we fittingly call the Crotch Notch.

COMPOSITE CHAINSTAYS



The carbon fiber composite chain stays deliver 2.7 inches of rear wheel travel. The chain stays' unique shape and the careful orientation of their fibers during fabrication force the stays to bend at a precise point mid-way along their length. (As opposed to other designs with flexing chain stays, where the stays bend throughout their length.) By isolating the point at which the stays bend - in reality, the pivot point around which the swingarm rotates - our engineers are able to dictate the performance characteristics of the rear suspension.

Before the chain stays ever bend upward, though, they are bent downward. Pre-loading the Scalpel's rear shock also pre-loads the chain stays, bending them downward at the pivot so the suspension is extended an additional 1" at the rear dropouts. The natural inclination of the stays to spring back to their resting (unloaded) state functions as an integral negative spring that dramatically enhances small bump response.

Pre-loading the stays also moves the rear wheel's axle to a level just below the Scalpel's mid-stay pivot. The result is that, through the first part of its travel, the rear wheel is able to move back out of the way of impacts as it also moves upward. In the latter part of the travel the pivot is below the rear axle, eliminating chain growth, pedal feedback and bobbing.

As the swingarm goes through its travel, the suspension also morphs from using the chain stays' decreasing negative spring (for push initial response) to using the rear shock's ramping, positive air spring for progressive response toward the end of its travel (to prevent harsh bottoming out).

SI BOTTOM BRACKET SHELL INFORMATION

Bearings

The two bearings in the SI bottom bracket shell are a maintenance free sealed cartridge type and do not require lubrication. The bearings can be worn out overtime or damaged due to corrosion. The condition of the bearings should be inspected annually or anytime the crankset assembly is disassembled or serviced. Please consult the Si Cranksets Owner's Manual Supplement for specific information on servicing the Si crankset on your bike. It is available on our website: <http://www.cannondale.com/tech/>

Cannondale special tool **KT011/** is needed to remove the bearings. Replace bearings as a new set. Install only new bearings.

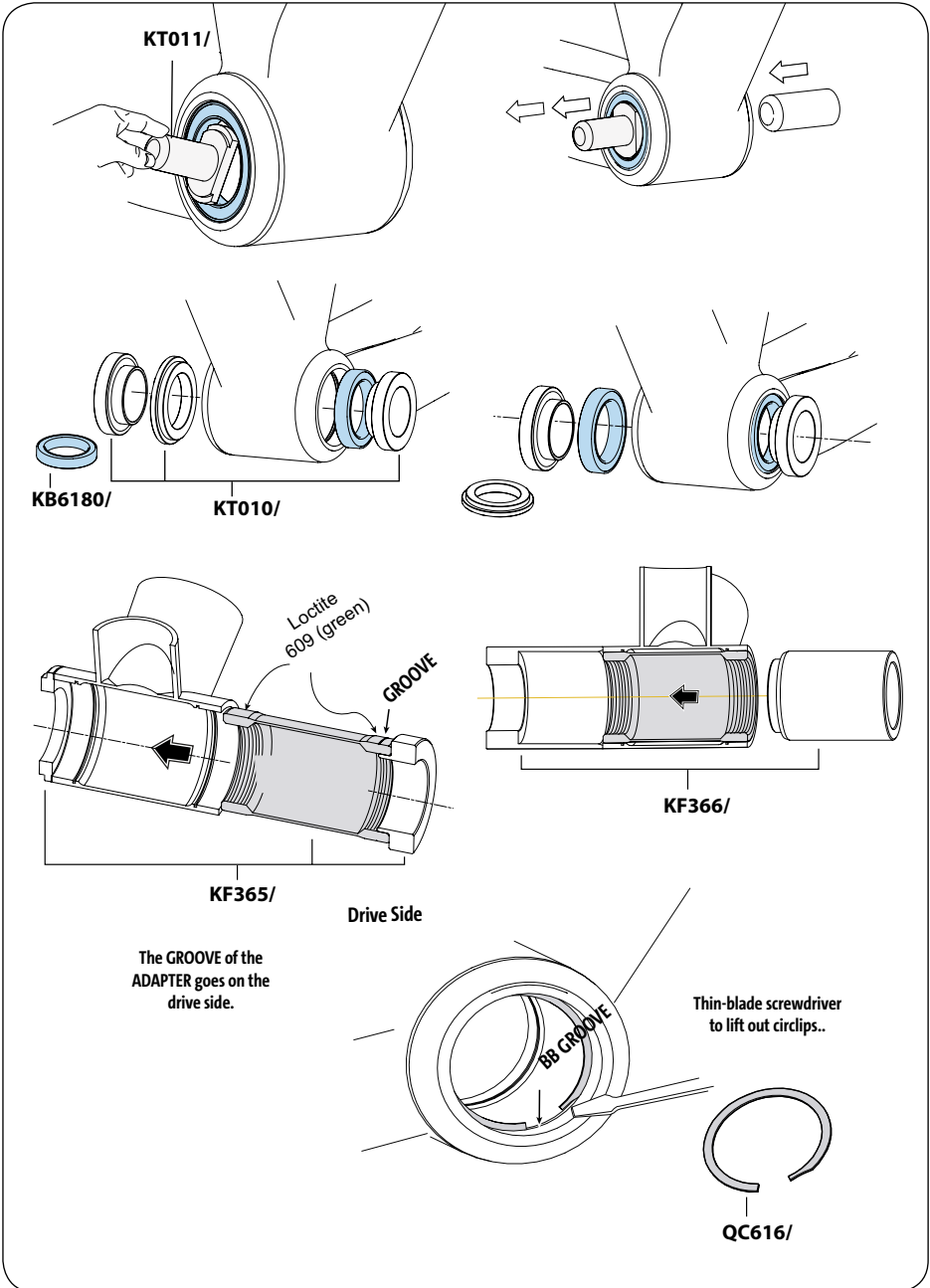
Cannondale special tool **KT010/**, a press set for use with headset bearing press, is needed to install the bottom bracket bearings. The two circlips must be installed before the bearings.

It is not necessary to remove the circlips to replace the bearings. Replacements are available if they become damaged. They can be lifted from the BB groove by the hooked end with a thin blade screwdriver.

Si-to-Standard BB Adapter

The SI bottom bracket adapter enables the use of standard English/68mm bottom bracket cranksets. The adapter is removable on alloy BB frames, however, repeated removal and reinstallation could result in damage to the SI BB shell and is not recommended. The adapter IS NOT a repair part and will only work in undamaged frames in good condition. Improper installation or removal can result in damage and void applicable frame warranty.

Cannondale Kit #	Description
KF365/	This kit includes the Si bottom bracket adapter and tools for use with a standard bicycle headset bearing press.
KF366/	This kit includes a two-piece adapter extraction tool for use with a standard bicycle headset bearing press.

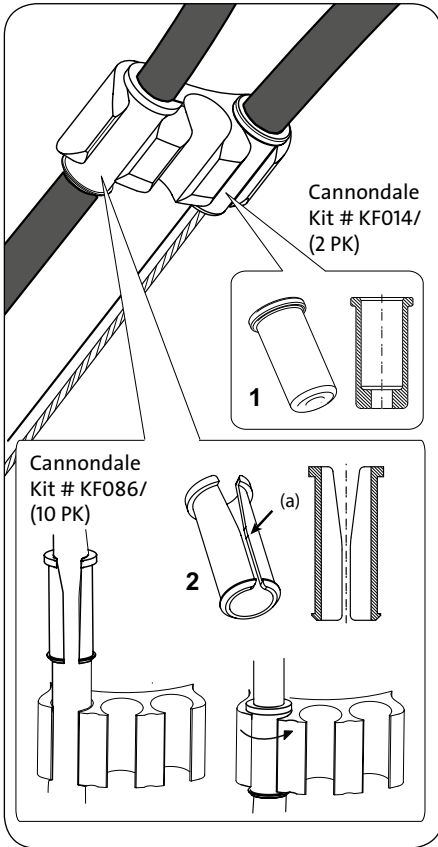


HOUSING GUIDES AND CABLE STOPS

Lines and cables on your bike are routed through frame guides using cable stops (1) and /or cable thru guides (2).

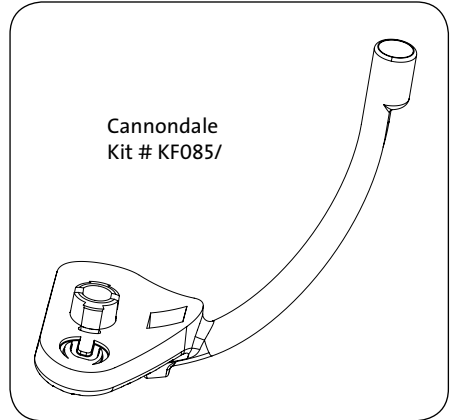
Periodically, you should check to make sure the stops and guides are in good condition and seated properly in the frame guides.

For stops, make sure the stop is seated securely in the frame guide and the housing is fixed within the stop.



BOTTOM BRACKET FRONT DERAILLEUR CABLE GUIDE

This snap in derailleur cable guide is mounted on the lower bottom bracket shell.

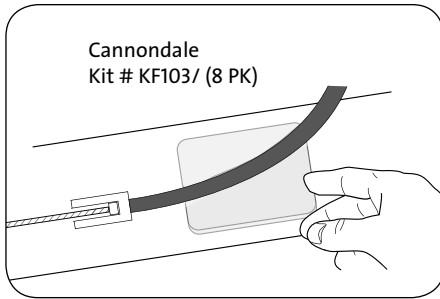


LINE AND CABLE FRAME PROTECTION

Normal line and cable movement against the frame can wear away painted finishes and decals. Overtime, cable rubbing can wear into the frame itself causing very serious frame damage.

Check over your bike after your first few rides. Apply a clear adhesive guard material in areas where rubbing is found.

When applied correctly, clear guards are good protection for your bike.



To apply the guard material (included with your bike):

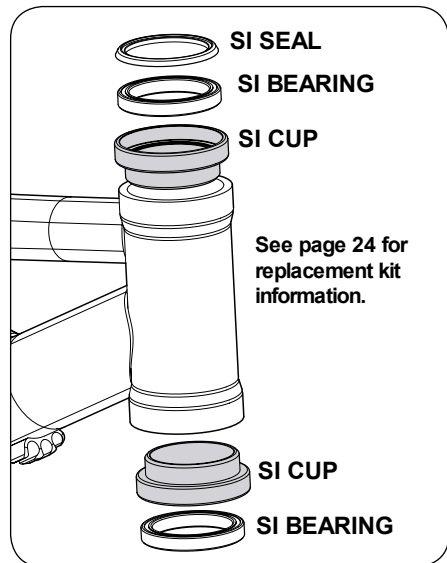
1. Clean the frame with a mild detergent and wipe dry with a clean towel. Do not use solvents or harsh chemicals to clean the frame. **OPTIONAL:** Trim the adhesive guard material to the shape required.
2. Remove the backing and position the guard under the cable/ line.

3. Rub the guard firmly against the frame with your fingers to fix it in place.
4. Periodically, recheck the guards and other areas of the frame as you continue to ride. Replace the guards if they wear out.

PLEASE NOTE: Damage to your bike caused by cable rubbing is not a condition covered under your warranty. Also, adhesive frame guards are not a fix for incorrectly installed or routed cables or lines. If you find that applied guards are wearing out very quickly, consult with your Cannondale Dealer about the routing on your bike.

HEAD TUBE

The head tube accepts Cannondale HeadShok System Integration™ headsets (shown), and OnePointFive 1.5 (38.1mm) headsets.



MAINTENANCE & ADJUSTMENT

The following table lists only supplemental maintenance items. Please consult your *Cannondale Bicycle Owner's Manual* for more information on basic bike maintenance. Consult with your Cannondale Dealer to create a complete maintenance program for your riding style, components, and conditions of use. Follow the maintenance recommendations given by the component manufacturers for the various non-Cannondale parts of your bike.

WHAT TO DO	HOW OFTEN
<p>CABLE RUB:</p> <p>Clean and inspect frame. Apply protection (adhesive guard material as needed)</p>	AFTER FIRST RIDE
<p>CHAIN STAYS:</p> <p>Clean and visually inspect the carbon chain stays for deep scratches, cracks, dents, splintering, delamination or excessive wear. Do not ride if damaged. Have an inspection performed by your Cannondale dealer.</p> <p>Replace chainstay protector if missing or worn.</p>	EVERY 10 HOURS
<p>TIGHTENING TORQUES: Check shock link assembly and rear shock mounting bolt tightness.</p>	EVERY 15 HOURS
<p>SHOCK LINK & SEATSTAY ASSEMBLIES:</p> <p>Check for tightness and damage. Hold the mainframe of the bike stationary and try to move the rear wheel from left to right. Any unnecessary movement or creaking is a sign of a loose or damaged pivot.</p>	EVERY 15 HOURS
<p>Disassemble, clean and inspect all parts, replace as needed, and reassemble. Pay particular attention to the 2 white washers between the seat tube and “frog link” as well as the 8 teflon bushings locate at the top and bottom of the seat stay.</p>	EVERY 50 HOURS

 **WARNING**

ANY PART OF A POORLY MAINTAINED BIKE CAN BREAK OR MALFUNCTION LEADING TO AN ACCIDENT WHERE YOU CAN BE KILLED, SEVERELY INJURED OR PARALYZED.

Please ask your Cannondale Dealer to help you develop a complete maintenance program, a program which includes a list of the parts on your bike for YOU to check regularly. Frequent checks are necessary to identify the problems that can lead to an accident.

ABOUT CLEANING

When cleaning your bike:

USE ONLY A MILD SOAP AND WATER SOLUTION. Clean water and a common dish washing liquid will work best.

COVER SENSITIVE AREAS WITH A CLEAN PLASTIC BAG. Secured temporarily with a rubber band or masking tape, a bag can prevent water damage to various bike components (bearings, seals, fork / shock adjustment features).

SPRAY OFF BEFORE WIPING. To preserve the appearance of paint, finish, and decals, use a low pressure water hose to first spray off heavy soils and dirt.

CAUTION

DO NOT power wash or spray water under high pressure to clean. Power washing will force contaminants into parts where they will promote corrosion, immediately damage, or result in accelerated wear.

DO NOT use compressed air to dry.

DO NOT use abrasive or harsh chemical cleaner/solvents which can damage the finish or attack and destroy both the outside and internal parts.

When rinsing, avoid directing the spray directly at shock/fork adjusters or bearings.

TIGHTENING TORQUES

The following tightening torques are specific to your bike. Please consult the manufacturer of the component in question for the correct torque value.

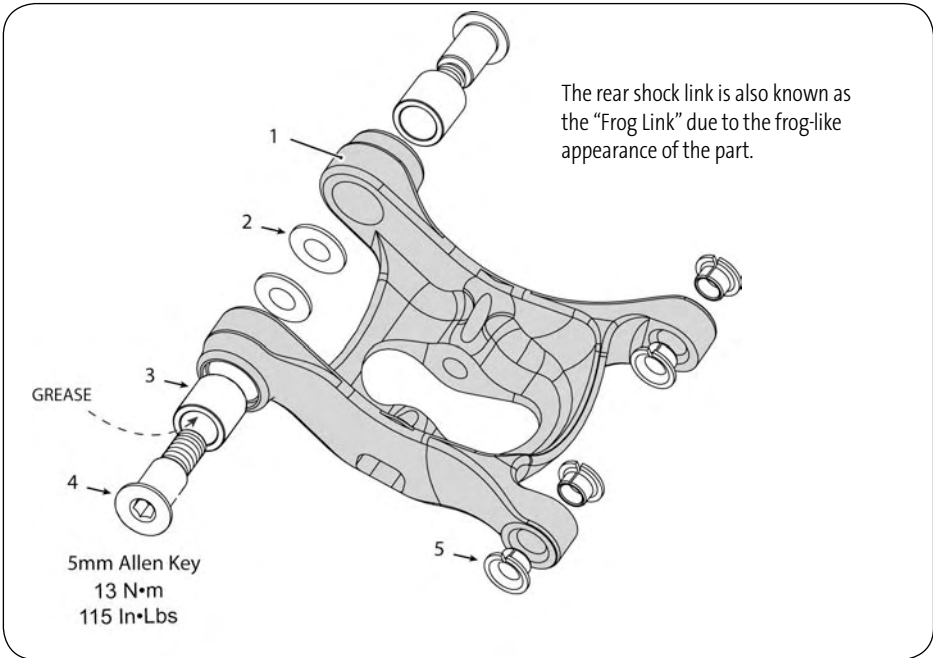
ITEM	N•m	In•Lbs	Loctite™
SHOCK MOUNTING BOLTS	13.0	115.0	none
T-NUT SCREWS	2.25	20.0	242 (blue)
SHOCK LINK PIVOT BOLTS	13.0	115.0	242 (blue)
SEAT POST CLAMP BOLT	Consult seat post specification		

SHOCK LINK ASSEMBLY MAINTENANCE

Greased link pivot bearings using a high-quality bike bearing grease. Take care to not contaminate the bearings during installation of the bolts.

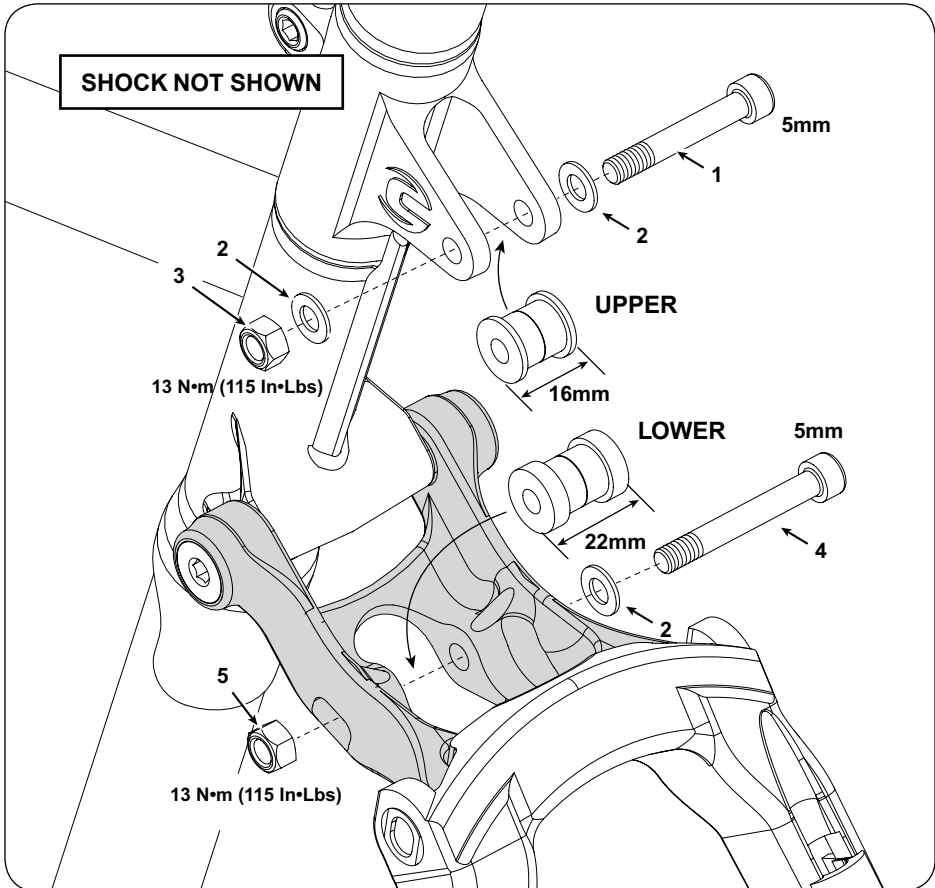
DO NOT lubricate the flange bushings. Bushings are press fit. They should be inspected often and replaced when necessary. To remove, carefully locate a punch between the two halves and drive out.

CAUTION
Grease ONLY pivot bolts. Lubricants on flange bushings can collect dirt and grit (contaminants) resulting in damage and accelerated wear of the parts. Always install clean and dry.



- 1. Frog Link
- 2. Washer (Teflon, .551x.394x.04)
- 3. Bearing

- 4. Pivot Bolt
- 5. Flanged Bushing (Flanged, 6mmIDx5.5mmL)



- | | |
|------------------------------------|---|
| 1. Upper Shock Bolt | 4. Lower Shock Bolt (M6x1.0x45mm, SHCS) |
| 2. Washer, 12.50Dx6.51Dx1.6MMTHKSS | 5. Lock Nut (Nyloc) |
| 3. Nut (Nylock) | |

IMPORTANT:

Before attempting the service the shock link or remove the rear shock, remove the seatstay from the rear dropouts. If the seatstays are not released from the dropouts, the preload would make removing the frog link pivot bolts difficult and may result in damage.

COMPOSITE SEATSTAY MAINTENANCE

Composite Seat Stay

The seat stay (1) is a thermoplastic composite material.

Make sure the mounting bolts are properly tightened to the recommended torque.

Check the seat stay itself for signs of damage and have it replaced new when damage is found.

T-Nuts

The four T-nuts (2) are Teflon coated and should not be lubricated. If any creaking or noise is detected either the T-nuts or seatstay bushing may be damaged.

Flange Bushings

Do not apply lubricants to the T-nuts or Flange bushings. They should be inspected often and replaced when necessary.

The seatstay inserts (7) are bonded in place during manufacture and are non-removable.

T-Nut Screws

The T-nut screws (4) should be checked for tightness periodically. Loose can result in play detected in the seatstay.

TIP:

For better access to the bolt heads, use a allen key with a ball end to tighten.

Seat Stay Cable Routing

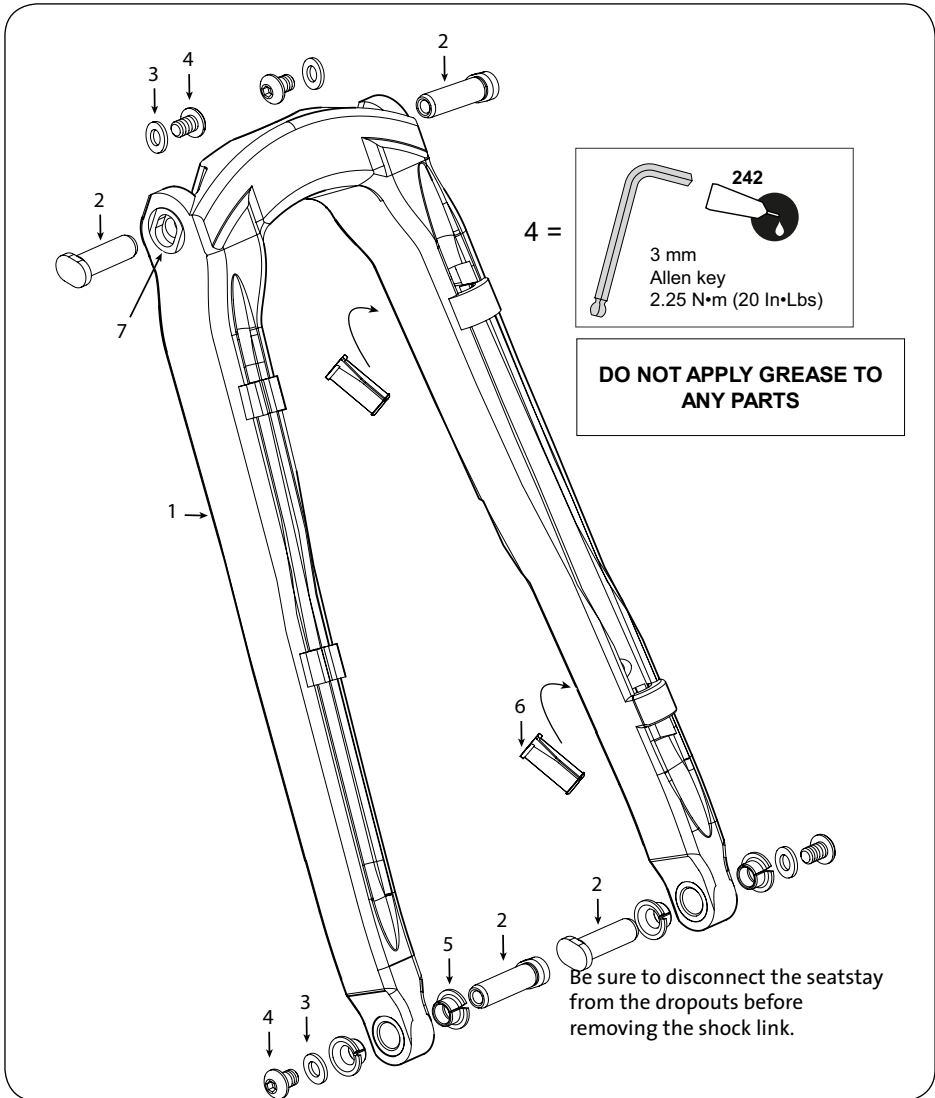
On the right side of the seat stay, insert the housing guides (6) into the holder from the underside. Then, route the housing through the guides.

CAUTION

Do not apply grease or other lubricants to the T-nuts. Grease or lubricants can collect dirt and grit (contaminants) resulting in damage and accelerated wear of the parts.

Always install the parts clean and dry.

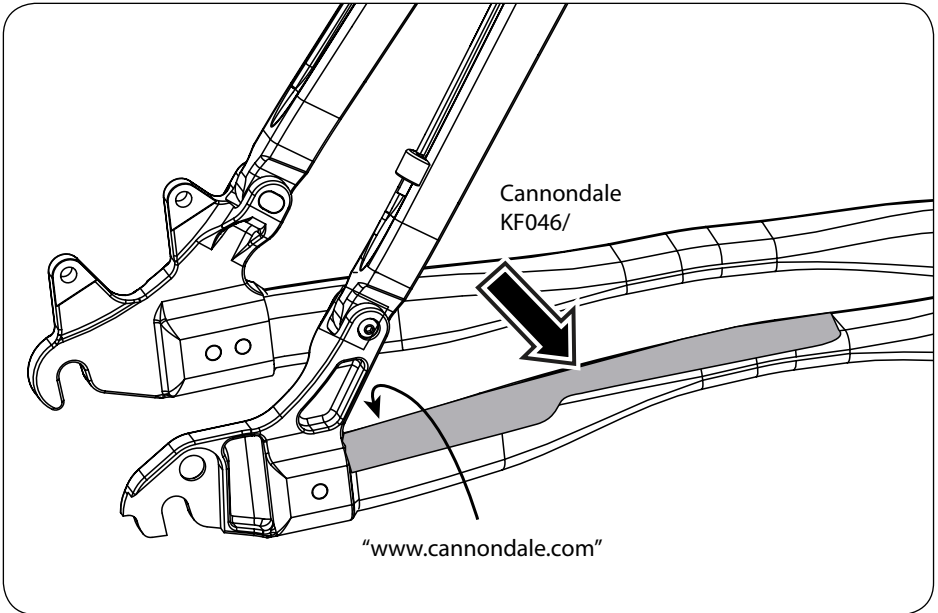
DO NOT OVER-TIGHTEN - Over-tightening T-nuts screws will result in damage to the flange bushings.



1. Composite Seat Stay
2. T-Nut (QTY 4)
3. Washer (QTY 4, SS.,162IDx.3080)
4. Screw (QTY 4- M4x.7x8mmSOC HEADCAP,SS)

5. Flanged Bushing (QTY 4)
6. Cable Through Guide
7. Bonded Insert (Do not remove)

RIGHT CHAINSTAY PROTECTOR REPLACEMENT



Replacement:

Check the condition of the chainstay protector before each ride.

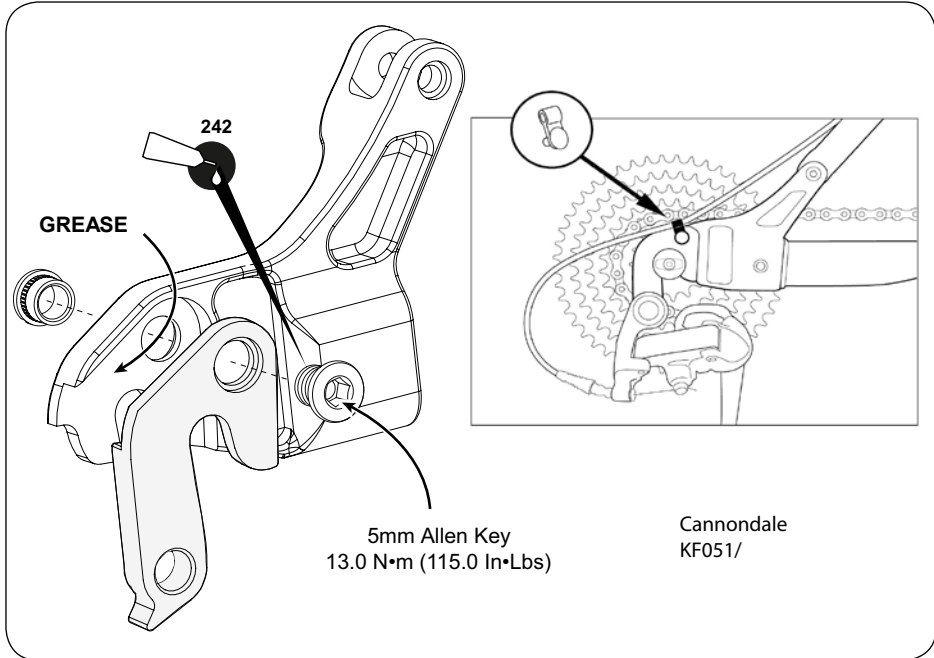
Replace it if it is missing or damaged.

WARNING

DO NOT RIDE YOUR SCALPEL IF YOU SEE ANY SIGN OF DAMAGE, SUCH AS BROKEN, SPLINTERED, OR DELAMINATED THERMOPLASTIC CARBON FIBER.

A delamination or break in the adhesive bond between the bottom bracket or dropouts and the carbon fiber chain stays may be present if the seam has turned white. You should also periodically inspect the aluminum part of the frame for cracks. If you have any questions, contact your Cannondale retailer, or contact Cannondale directly. Continuing to ride a damaged frame increases the chances of frame failure, with the possibility of injury or death of the rider.

REAR DERAILLEUR HANGER REPLACEMENT



Replacement:

Clean and inspect the dropout. Do not install a replacement hanger onto a damaged dropout.

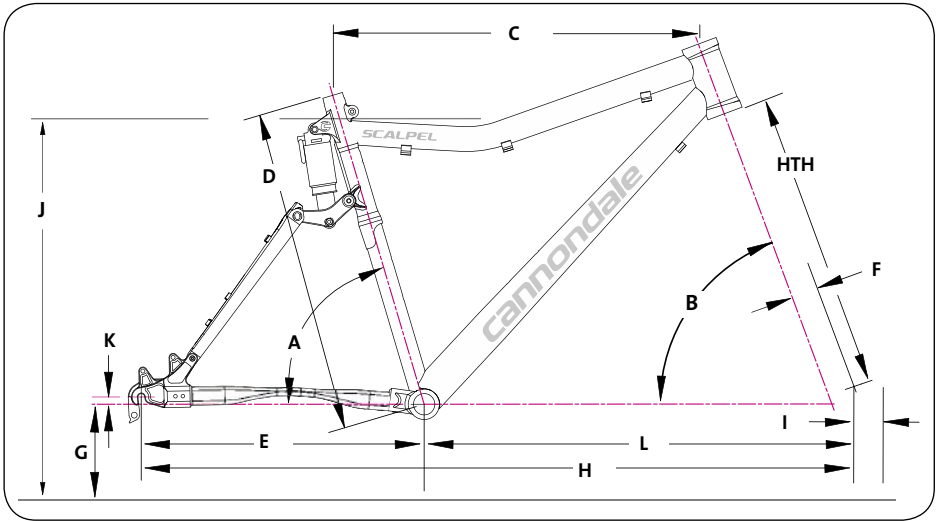
Apply a light film of bike grease between the hanger and dropout to minimize any noise or “creaking” that might result from very slight movement between the dropout and hanger during movement of the derailleur.

Tighten hanger nuts to specified torque.

Check alignment of derailleur following remounting.

Readjust wheel quick release so it is very tight.

GEOMETRY



ITEM	REF	SM	MD	L	XL
SEAT TUBE ANGLE	A	70°	70°	70°	70°
HEAD TUBE ANGLE	B	73.5°	73.5°	73.5°	73.5°
HORIZONTAL TOP TUBE LENGTH(CM/IN)	C	55.9/22.0	59.7/23.5	63.5/25.0	64.8/25.5
SEAT TUBE LENGTH TO TOP (CM/IN)	D	47.0/18.5	47.0/18.5	55.9/22.0	55.9/22.0
CHAINSTAY LENGTH (CM/IN)	E	43.4/17.1			
BOTTOM BRACKET HEIGHT (CM/IN)	G	31.8/12.5			
WHEELBASE (CM/IN)	H	106.2/41.8	110.0/43.3	113.0/44.5	115.6/45.5
STAND OVER HEIGHT (CM/IN)	J	71.4/28.1	73.7/29.0	77.0/30.3	79.2/31.2
BOTTOM BRACKET DROP (CM/IN)	K	1.1/0.44			
FRONT-CENTER DISTANCE (CM/IN)	L	63.5	67.1/26.4	70.8/27.9	72.6/28.6
HEAD TUBE HEIGHT (CM/IN)	HTH	55.9/22.0			
MAXIMUM FORK LENGTH (mm)		500			
FORK RAKE (CM/IN)		4.6/1.8			
REAR TRAVEL (MM/IN)		6.75/2.66			
SHOCK EYE-TO-EYE (MM/IN)		14.0/5.5			
SHOCK STROKE (MM/IN)		25.4/1.0			
RECOMMENDED SAG		25%			

All dimensions given with suspension fully extended.

SPECIFICATIONS

ITEM		SPECIFICATION	
MODEL		SCALPEL	SCALPEL SI
FRAME MATERIAL		6061-T6, TIG WELDED, ALUMINUM ALLOY	
SIZES		SM, MD, LG, XLG	
RECOMMENDED SAG		25%	
MAXIMUM TIRE WIDTH		2.1 IN	
HEADTUBE		HEADSHOK, ONEPOINTFIVE	
HEADTUBE HEIGHT		114mm (4.5 in)	
MAXIMUM FORK LENGTH		500MM	
SEATPOST DIAMETER		27.2 MM (1.07 IN)	
REAR SHOCK	MOUNTING BOLT DIAMETER	6MM (.23 IN)	
	UPPER BUSHING WIDTH	16MM (.63 IN)	
	LOWER BUSHING WIDTH	22MM (.87 IN)	
	EYE-TO-EYE LENGTH	5.5"	
	STROKE LENGTH	1"	
	LEVERAGE RATIO	2.7:1	
REAR WHEEL TRAVEL		67MM, 2.7 IN	
FRONT DERAILLEUR		31.8MM BOTTOM PULL, TRADITIONAL SWING	
BOTTOM BRACKET SHELL WIDTH		68 MM, ENGLISH	SI HOLLOWGRAM
CHAIN LINE		47.5 - 50 MM	
DROPOUT SPACING		135 MM	
REAR HUB SPACING		135 MM	
REAR HUB AXLE		QUICK RELEASE	
REAR BRAKE MOUNT		INTERNATIONAL STANDARD, 6" ONLY	

REPLACEMENT PARTS (KITS)

ORDER	KIT DESCRIPTION	NOTE
KF051/	Rear Derailleur Hanger	
KF069/	Composite Seatstay with hardware	
KF035/	Seat Stay Rebuild Kit 4 T-bolts, 8 Bushings, 4 Washers, And 4 T-nut Screws	
KF070/	Rear Shock Link Kit with hardware	
KF043/	Rear Shock Link Pivot Rebuild Kit	
KF044/	Rear Shock Upper Mounting Hardware (shock to frame)	
KF056/	Screws/washers, 10 - Scalpel; 3mm Which Screw Into The T-nuts On Seatstay	
KF068/	Teflon Washer Replacement Kit (Qty 10 per)	
KF045/	Seat Binder	
KF046/	Chainstay Protector Replacement	
KF014/	Kit, Cable Stop Inserts (Qty 2)	
KF086/	Kit, Guides, Hydr.brake., (Qty 10)	
KF085/	Kit, Guides, BB Cable,single	
KF012/	Kit, Rivnuts, (Qty 5)	
KT010/	Si Bearing Install Tool Set	
KT011/	Si Bearing Removal Tool	
KT012/	Si Lock Ring Tool	
KT013/	Si Crankarm Extract Tool Set	
KB6810/	Si Bottom Bracket Bearings (2x)	
QC616/	Si Bottom Bracket Circlips	
QHDST/EBO	SI Headset Kit (2 SI Bearing Cups, 1 Bearing)	
HD169/	SI Headset Bearing Kit (2 bearings)	
QSMSEAL/	Si Upper Headset Seal (1 seal)	
HDTL149/	Headshok Fork Installation Tool	

For an up to date list of kits available for your bike, please visit our Tech Center at : <http://www.cannondale.com/bikes/tech/>