

131920



***SLICE***

*OWNER'S MANUAL SUPPLEMENT*

**cannondale**

## 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 inside cover of this supplement.

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

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/>

## EXPLICIT DEFINITIONS

In this supplement, particularly important information is presented in the following ways:

### **WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### **NOTICE**

Indicates special precautions that must be taken to avoid damage.

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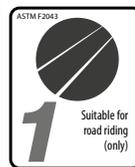
## YOUR CANNONDALE DEALER

To make sure your bike is serviced and maintained correctly, and that you protect applicable warranties, please coordinate all service and maintenance through your authorized Cannondale Dealer.

### **NOTICE**

Unauthorized service, maintenance, or repair parts can result in serious damage and void your warranty.

## INTENDED USE



The intended use of all models is ASTM CONDITION 1, High-Performance Road.

### **WARNING**

**UNDERSTAND YOUR BIKE AND ITS INTENDED USE. USING YOUR BIKE THE WRONG WAY IS DANGEROUS.**

Please read your Cannondale Bicycle Owner's Manual for more information about Intended Use and Conditions 1-5.

## SAFETY INFORMATION

### IMPORTANT COMPOSITES MESSAGE



#### WARNING

Your bike (frame and components) is made from 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.

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

### INSPECTION & CRASH DAMAGE OF CARBON FRAMES/FORKS



#### WARNING

##### AFTER A CRASH OR IMPACT:

Inspect frame carefully for damage (See PART II, Section D. Inspect For Safety in your Cannondale Bicycle Owner's Manual. )

Do not ride your bike if you see any sign of damage, such as broken, splintered, or delaminated carbon fiber.

##### ANY OF THE FOLLOWING MAY INDICATE A DELAMINATION OR DAMAGE:

- An unusual or strange feel to the frame
- Carbon which has a soft feel or altered shape
- Creaking or other unexplained noises,
- Visible cracks, a white or milky color present in carbon fiber section

**CONTINUING TO RIDE A DAMAGED FRAME INCREASES THE CHANCES OF FRAME FAILURE, WITH THE POSSIBILITY OF INJURY OR DEATH OF THE RIDER.**

## TRAINERS

If you ride a trainer that requires removal of the front wheel and clamps the fork dropouts: Be sure your fork quick release is tight! Relative movement will wear parts, weaken and damage your bike.

If you ride a trainer that holds the bike up by clamping the rear quick release between two cones: Take off the nice, lightweight quick release that came with your bike. Substitute a heavy, classic all steel quick release and clamp it tight! Relative movement will wear parts, weaken and damage your bike. Note that many modern quick releases will not fit the clamping cones in this kind of trainer because their shapes are incompatible.

Be particularly cautious with a carbon frame or fork. Carbon is relatively soft, not abrasion resistant. If there is any relative movement, carbon will wear quickly.

If you ride a trainer a lot, consider using an old bike: Corrosion from sweat will take its toll. Weight is irrelevant. Save wear on your expensive components.

Ask your dealer for help with trainers, the right one and the correct way to use it.

### NOTICE

**TRAINERS** - Improperly mounting a bike in a trainer, or using one that is not compatible with your particular bike frame can cause serious damage.

**WATER BOTTLES** - An impact, crash, or loose bottle cage can result in damage to your frame.

This kind of damage is not covered by the Cannondale Limited Warranty.

## WATER BOTTLES

Side impacts to a water bottle or cage can result in damage threaded inserts due to the leverage on a very small area. In a crash, certainly the last thing you should be worried about is saving the threaded inserts in your frame. However, when you are storing or transporting your bike, take steps to prevent situations where a water bottle may be hit or bumped by a strong force that would cause damage. Remove bottle and cage when you are packing your bike for travel.

Periodically check the attachment of the bottle cage; tighten the cage bolts if necessary. Don't ride with a loose bottle cage. Riding with loose cage bolts can produce a rocking motion or vibration of the attached cage. A loose cage will damage the insert and possibly lead to the inserts to pull out. It may be possible to repair a loose insert, or install another insert only if the frame is undamaged. Replacement requires the use of a special tool. If you notice damage to the threaded insert, please ask your Cannondale Dealer for help.

## 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.

## AERODYNAMIC HANDLEBARS

Aerodynamic or “Triathlon” handlebar extensions are fitted to some triathlon or racing bikes. They are also added by customers. Understand that when riding on these extensions your steering and braking are adversely affected. When on the extensions, most riders find it hard to look back over their shoulder without swerving, inadvertently steering. Some riders find it harder to move their head/neck to see forward. Be sure to practice riding with aero handlebar extensions on hazard and traffic free roads. Practice the transition from having your hands on the extensions to having your hands on the regular handlebars and brake levers.

### CONVENTIONAL ROAD



### AERODYNAMIC

extensions



brake levers



Lower/ forward  
on extensions



### WARNING

#### **DO NOT RIDE ON THE AERO HANDLEBAR EXTENSIONS IN TRAFFIC OR ON DIFFICULT ROADS.**

Ride on the aero handlebar extensions only when the road is clear of traffic and hazards and you have a long line of sight.

When using the extensions understand that you are compromising steering and braking in favor of speed. If you need to take evasive steering or braking action while on the extensions you could have an accident, with risk of serious injury, paralysis or death.

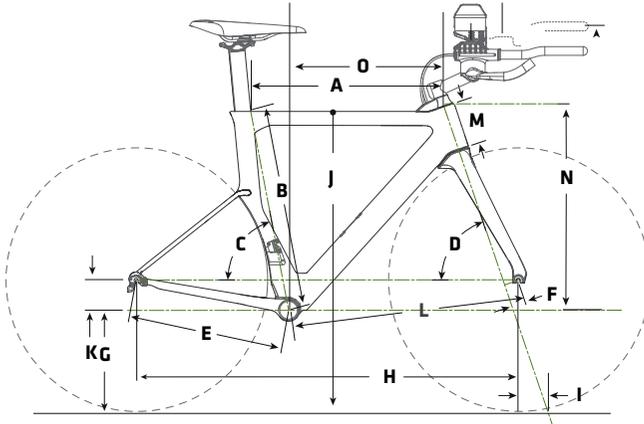
Aerodynamic handlebars and extensions are a design trade-off which positions you further forward than on a conventional road bike, so:

- Overly hard use of the front brakes will pitch you forward, off the bike, more easily.
- Rear braking performance will not equal that of a conventional road bike.

When braking hard on any bike, including time trial or triathlon, you must shift weight back to allow front brake use without pitching yourself forward, off the bike. Shifting weight back allows more rear braking effect before the rear wheel begins to skid when braking hard, or braking on a steep downhill. See Part 1, Section 4C. of your Cannondale Bicycle Owner’s Manual.

Aerodynamic handlebars and extensions are intended for racing and competition in time trial and triathlon and are poorly suited for riding in cities or congested urban areas where conflicts with cars will frequently require panic braking.

## TECHNICAL INFORMATION



### GEOMETRY / SPECIFICATIONS

SIZE	44	48	51	54	57	60
<b>A</b> HORIZONTAL TOP TUBE LENGTH (CM)	45.0	47.0	48.9	50.7	52.6	54.5
<b>B</b> MEASURED SIZE (CM)*	46	48.6	50.3	52.4	54.4	56.5
<b>C</b> SEAT TUBE ANGLE (DEGREES)	79°	★	★	★	★	★
<b>D</b> HEAD TUBE ANGLE (DEGREES)	71.2°	★	★	71.5°	72°	72.5°
<b>E</b> CHAIN STAY LENGTH (CM)	38.0	40.5	★	★	★	★
<b>F</b> FORK RAKE (CM)	3.5	4.5	★	★	★	★
<b>G</b> BOTTOM BRACKET HEIGHT (CM)	25.9	26.2	★	★	★	★
<b>H</b> WHEELBASE (CM)	91.3	96.0	98.1	100.0	101.7	103.4
<b>I</b> TRAIL (CM)	6.9	6.8	6.8	6.6	6.3	6.0
<b>J</b> STANDOVER AT TOP TUBE MIDPOINT (CM)	71.1	73.9	75.6	77.7	79.7	81.7
<b>K</b> BOTTOM BRACKET DROP (CM)	5.3	7.7	★	★	★	★
<b>L</b> FRONT CENTER DISTANCE (CM)	53.7	56.3	58.3	60.2	61.9	63.6
<b>M</b> HEAD TUBE LENGTH (CM)	10.0	8.0	9.8	11.8	13.7	15.6
<b>N</b> STACK (CM)**	46.5	48.7	50.7	52.7	54.7	56.7
<b>O</b> REACH (CM)	36.0	37.5	39.0	40.5	42.0	43.5

HEADTUBE	11/8"		
BB SHELL/ WIDTH	BB30A / 73mm		
SEAT POST	KP360/		
FRONT DERAILLEUR	Direct Mount		
DROPOUT SPACING	130mm		
REAR BRAKE	Direct Mount Rim Brakes		
INTENDED USE	ASTM CONDITION 1, High-Performance Road		
Maximum Weight Limit (Lbs/Kg) *(Seat Bag Only)	RIDER		
	LUGGAGE* TOTAL		
	300 / 136	5 / 2.3	305 / 138

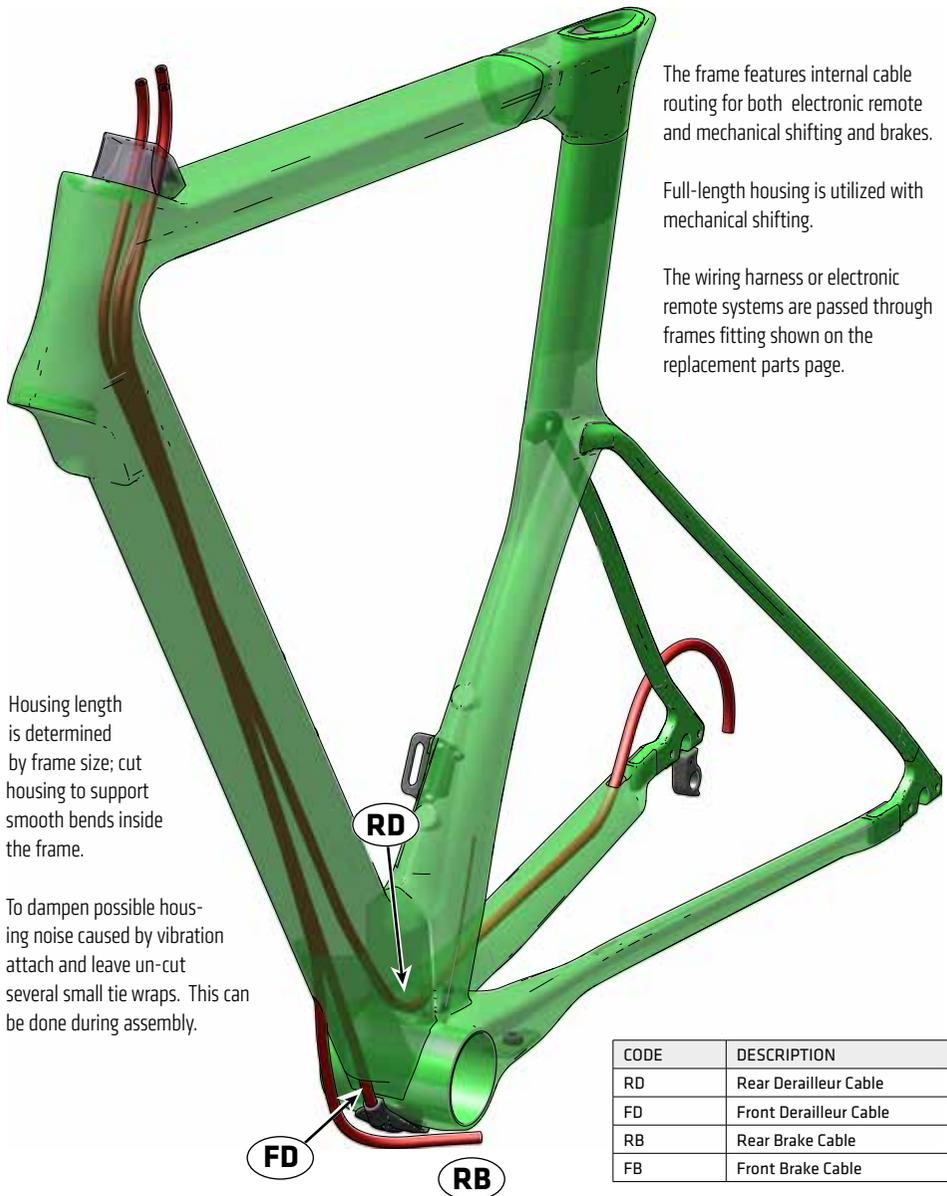
\* THE SLICE SEAT POST HAS TWO POSITIONS FOR MOUNTING THE SADDLE. A FULL RANGE OF ANGLES FROM 77 TO 81 DEGREES IS ACHIEVABLE DEPENDING ON THE RIDER'S PREFERENCE AND/OR THE EVENT.

## CABLE ROUTING

The frame features internal cable routing for both electronic remote and mechanical shifting and brakes.

Full-length housing is utilized with mechanical shifting.

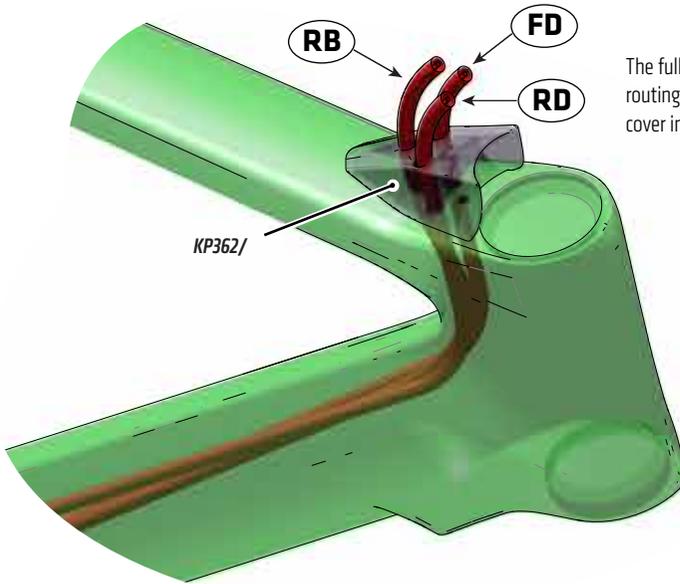
The wiring harness or electronic remote systems are passed through frames fitting shown on the replacement parts page.



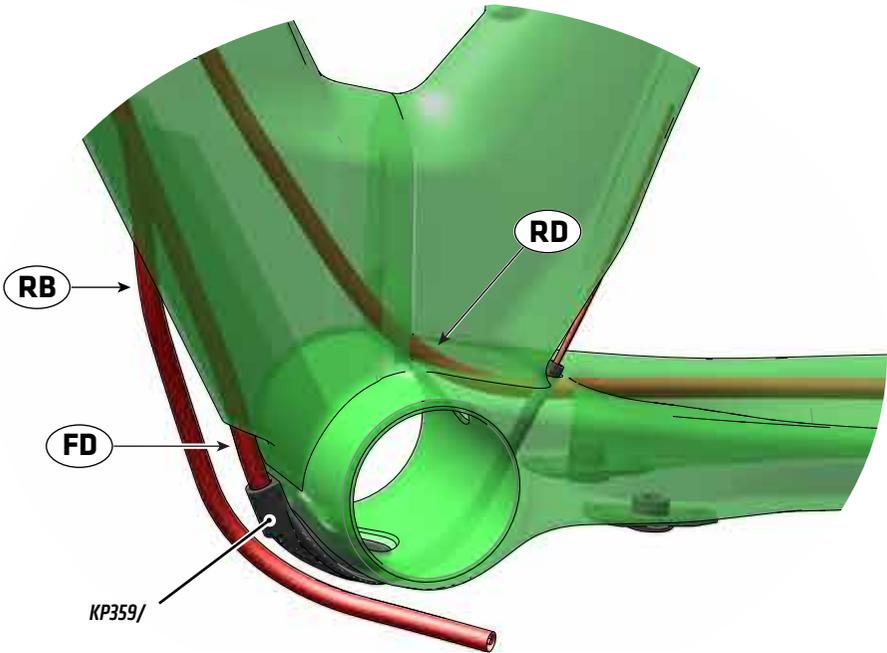
Housing length is determined by frame size; cut housing to support smooth bends inside the frame.

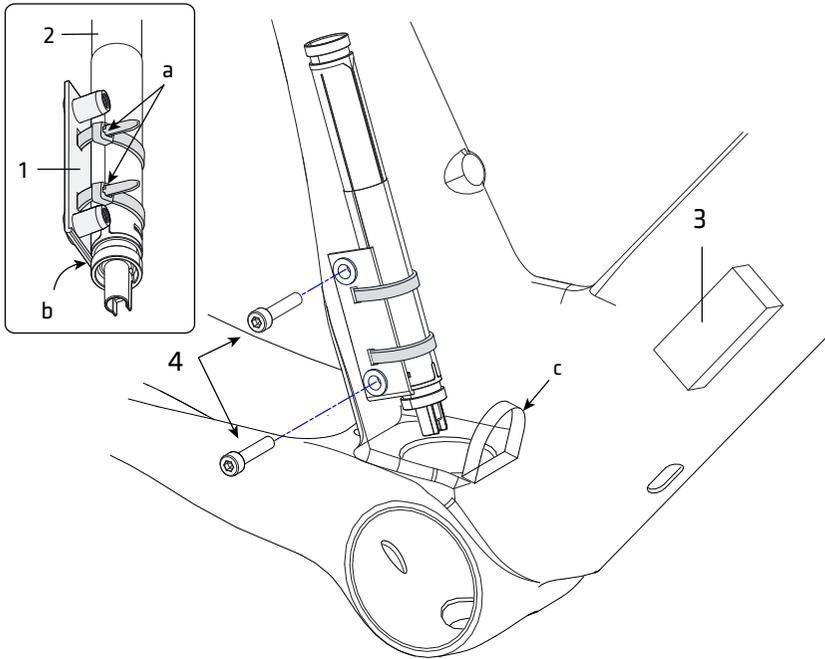
To dampen possible housing noise caused by vibration attach and leave un-cut several small tie wraps. This can be done during assembly.

CODE	DESCRIPTION
RD	Rear Derailleur Cable
FD	Front Derailleur Cable
RB	Rear Brake Cable
FB	Front Brake Cable



The full housing and harness are routing through the top tube cover into the frame as shown.





## DI2 BATTERY INSTALLATION

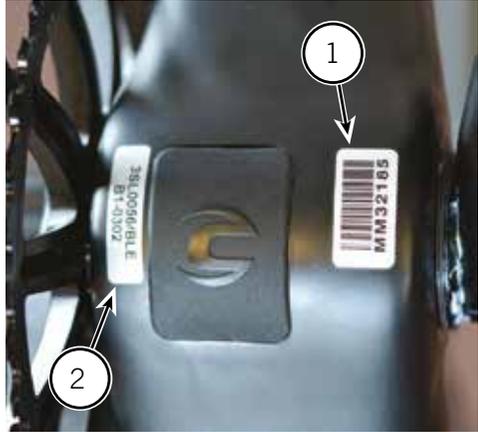
1. Remove the BB components in order to install the seat post battery.
2. Attach the mounting plate (1) to the battery (2) with 3mm cable ties. Make sure the plate lip (b) tie heads (a) are positioned as shown.
3. Attach the battery wire, handlebar wire and the front and rear derailleurs wires to the Di2 junction box (3). Insert the junction box and wire leads into the downtube through the small window (c). Allow the battery wire to drop out through the bottom of the BB shell.
4. Attach the battery wire to the battery. Insert the battery up through the BB hole into the seat tube with the mount down. Apply a light film of grease to the mounting bolt (4) threads and install the mounting bolts through the frame into the mounting plate inside the seat tube. Tightened the bolts to secure the battery.
5. Insert the wires up into the frame openings so that the BB components can be installed without interference.

## SERIAL NUMBER

The serial number located on the bottom bracket. It is a 7-character barcode (1). Use this serial number to registration your bike. See your Cannondale Bicycle Owner's Manual for more information on warranty registration.

[www.cannondale.com/registerbike/](http://www.cannondale.com/registerbike/)

Other codes (2) on the BB shell are related to production including model year, frame type, frame size, and color coding. The same product code may appear on many bikes and does not uniquely identify your frame.



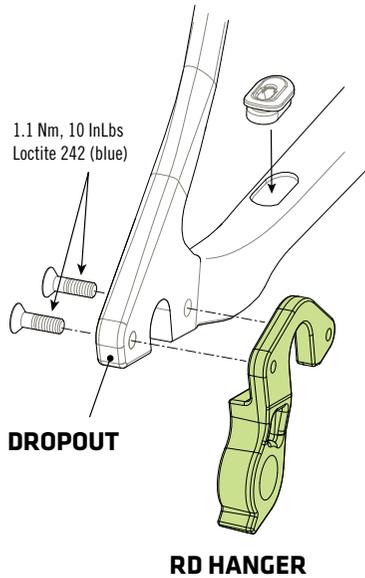
## REAR DERAILLEUR HANGER

### To replace:

Remove the mounting screws and remove the old hanger from the dropout. Clean the area around the dropout and inspect the frame carefully for any cracks or damage. If you find damage have the frame inspected by your Cannondale Dealer.

If the dropout is un-damaged, apply a light film of bike grease to both sides of the dropout. This will help minimize any noise or “creaking” that might result from very slight movement between the dropout and hanger during movement of the derailleur.

Slide the new hanger onto the dropout. Apply Loctite to the screw threads and tighten to the specified torque.



### NOTICE

Do not use a derailleur hanger alignment tool. If bending adjustment is necessary, remove the hanger from the frame first!

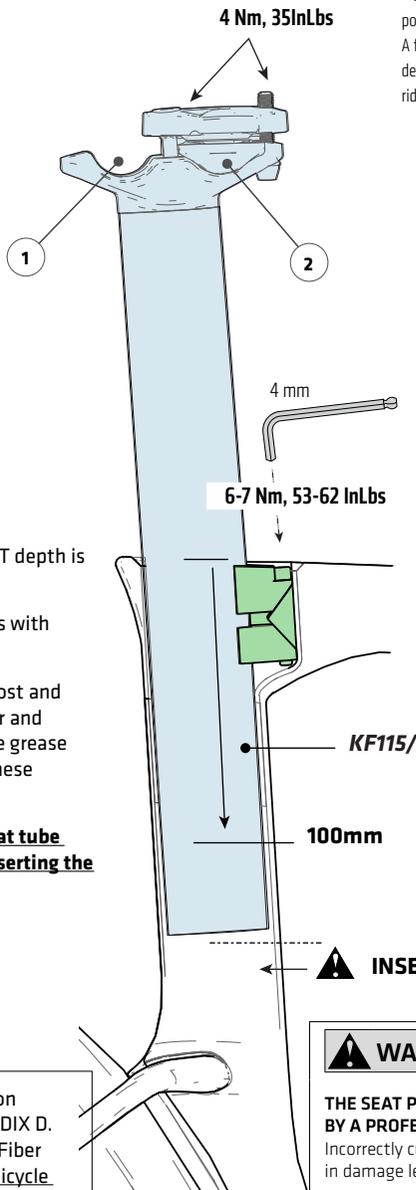
## SEAT POST



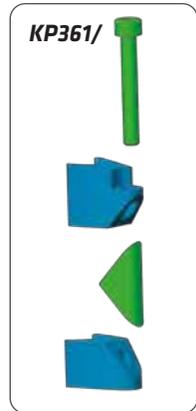
### Please Note:

- The seatpost **MINIMUM INSERT** depth is 100mm.
- The frame **INSERT LIMIT** varies with frame size.
- Periodically, remove the seat post and grease the bolt threads, washer and wedge faces with standard bike grease (avoid applying carbon gel to these areas).
- **Apply carbon gel inside the seat tube and on the seat post before inserting the seatpost.**

For more information about carbon fiber seat posts, see also "APPENDIX D. Care and Maintenance of Carbon Fiber Seat Posts" in your Cannondale Bicycle Owner's Manual.



\* The SLICE MS seat post has two positions (1,2) for mounting the saddle. A full range of angles from 77 to 81 degrees is achievable depending on the rider's preference and/or the event.



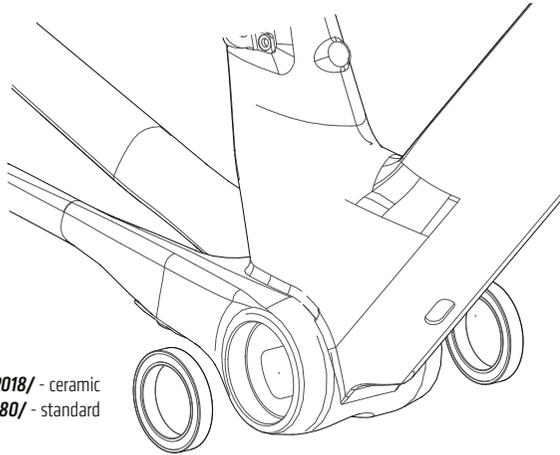
**▲ INSERT LIMIT**

### **▲ WARNING**

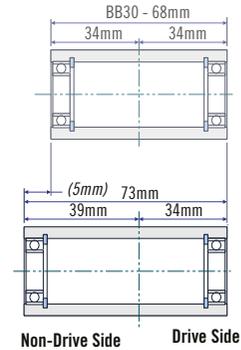
**THE SEAT POST MUST ONLY BE CUT BY A PROFESSIONAL BIKE MECHANIC.**  
Incorrectly cutting the seat post can result in damage leading to an accident.

## BOTTOM BRACKET

The bottom bracket shell width is **BB30-73A** cranksets. See [www.BB30standard.com](http://www.BB30standard.com).



**KP018/** - ceramic  
**KB6180/** - standard



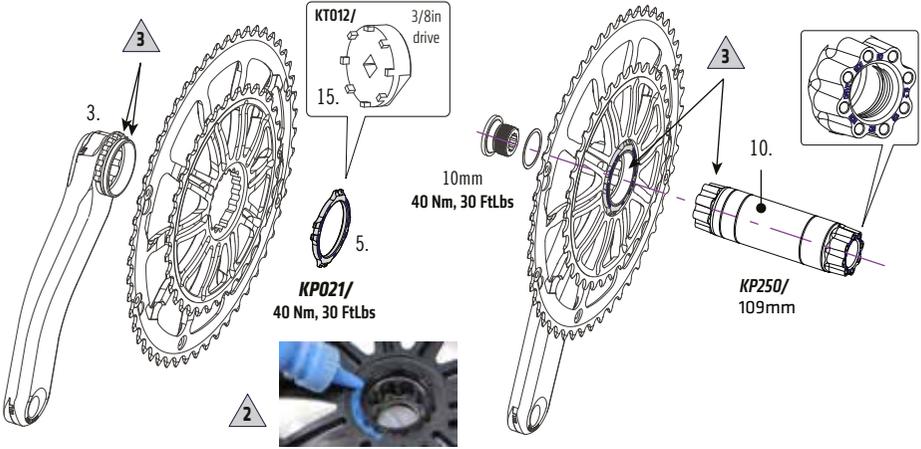
**BB30-73A**  
Asymmetric

## SISL2 Crankset Installation

The following procedure should only be completed by a professional bike mechanic.

For Loctite instructions: <http://tds.loctite.com>

1. Connect the SISL2 drive side crankarm to the spidering. Apply Loctite 242 to the crankarm spidering interface and locking. Tighten the locking to 47Nm (34 FtLbs) using the Cannondale special tool **KT012/**.
2. Apply grease to the drive side end of the 109mm SISL2 spindle and the crankarm spline hole. Also apply grease to the fixing bolt threads and thin washer. Tighten the fixing bolt with a 10mm Allen key to 40 Nm, (30 FtLbs).
3. Slide the 2.5mm drive side spacer marked "BB30 SISL2 DRIVE SIDE SPACER" onto spindle followed by the SL2 bearing shield. The markings on the shield face out.
4. Apply bearing grease to the spindle and slide drive side crank arm/spindle into the non-drive side BB bearing. Use a rubber mallet to tap the crankarm through until the spacer and shield are seated against the drive side BB bearing.
5. On the non-drive side, slide the bearing shield onto the spindle end. The markings on the shield face out.
6. Slide the wave washer and one 0.5mm shim onto the spindle.
7. Slide the non-drive side spacer onto the spindle, marking facing out.
8. Apply bearing grease to the crankarm BB spline hole, spindle end and the thin washer and fixing bolt threads. Tighten-non drive the fixing bolt to 40 Nm, (30 FtLbs) and check to see if wave washer is properly preloaded (still has slight wave and not loose). If it is loose, remove the crankarm and add another shim. Up to 3 shims can be used. Add shims as needed.
9. When the preload is set and the non-drive side fixing bolt is torqued, you are done.



**KP244/**  
39 X 53



**KP245/**  
34 X 50



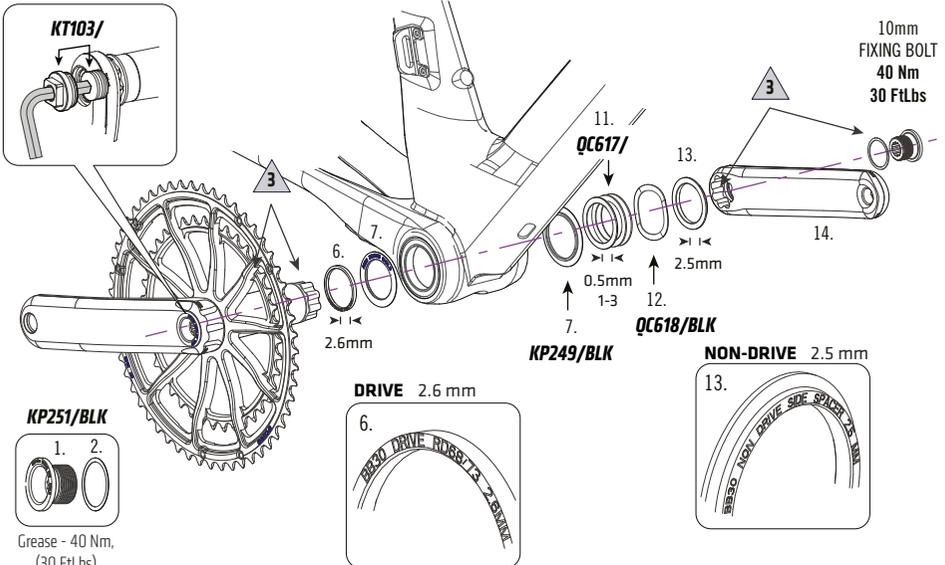
**KP137/**  
H-GRAM TT  
130 BCD



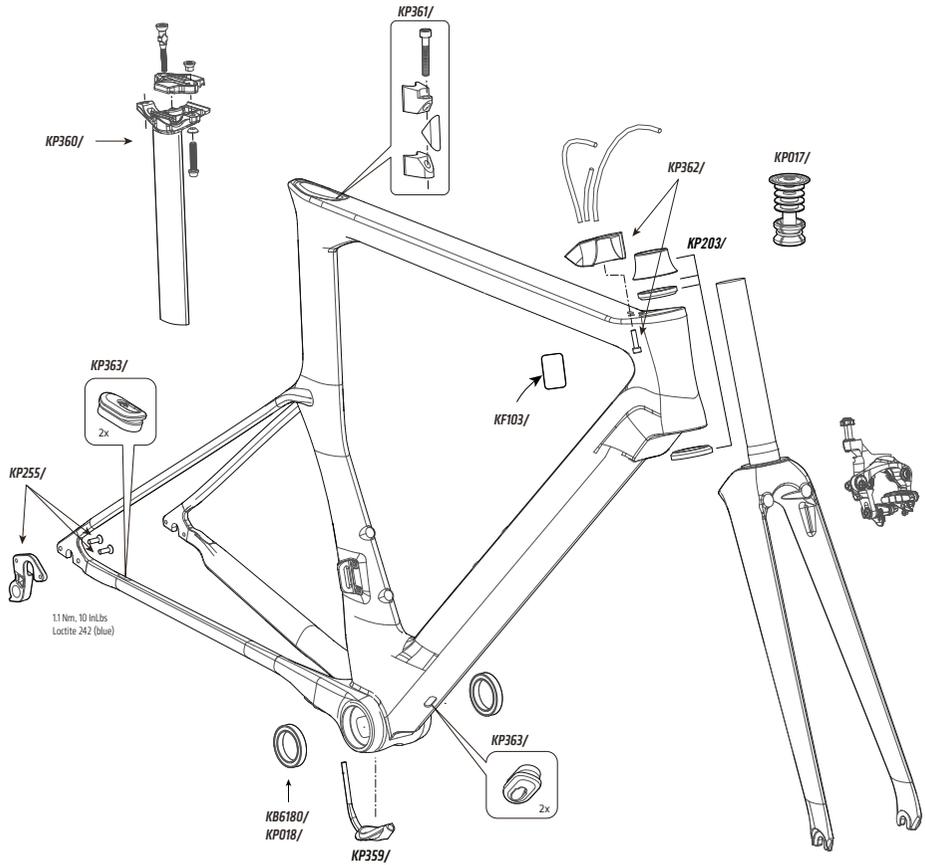
**QC694/**  
H-GRAM  
130 BCD



**QC693/**  
H-GRAM  
110 BCD



## REPLACEMENT PARTS



CODE	DESCRIPTION
KP017/	KIT COMP ASSY 23 6ID EXPANDER
KP362/	COVER
KP203/	HEADSET (1 1/18)
KP359/	BB CABLE GUIDE
KP363/	GROMMET - Di2 (QTY 2)
KP255/	RD HANGER
KP362/	COVER ASSY.
KF103/	KIT GUARD SCUFFGUARD 8PK

CODE	DESCRIPTION
KF115/	CARBON GEL
KP360/	SEAT POST ASSY.
KP361/	SEAT POST WEDGE ASSY.
KB6180/	KIT BEARING BB SI 2PCS
KP018/	KIT BEARING BB SI CERAMIC 2PCS
KP250/	KIT SPINDLE-SL2 ROAD 109



Warning! Read this supplement and your Cannondale bicycle owner's manual.  
Both contain important safety information. Keep both for future reference.

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