



OWNER'S MANUAL **SUPPLEMENT**

cannondale







WARNING

READ THIS SUPPLEMENT AND YOUR CANNONDALE BICYCLE OWNER'S MANUAL. Both contain important safety information. Keep both for future reference.

2012 QUICK FULL CARBON

126221.PDF (04/10)

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



This manual meets EN standards 14764, 14766, and 14781.

Vélo certifié conforme aux exigences du décret N 95-937 du 24 août 1995 norme NFR030

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.

BICYCLE REPAIR / WORK STANDS

The clamping jaws of a bike stand can generate a crushing force strong enough to seriously damage your frame.

NOTICE

Never place your bike in a bike stand by clamping the frame.

Place your bike in a stand by extending the seat post and positioning the stand clamp on the extended seat post. Don't extend beyond the MINIMUM INSERT line marked on the seat post.

Since your carbon seat post can also be damaged by clamping force, adjust the stand clamp for the minimum clamping force needed to secure the bike.

Also, before clamping, clean the post and protect the seat post finish with a rag.

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.

INTENDED USE

WARNING

UNDERSTAND YOUR BIKE AND ITS INTENDED USE.

USING YOUR BIKE THE WRONG WAY IS DANGEROUS.

Industry usage Conditions 1 - 5 are generalized and evolving. Consult your Cannondale Dealer about how you intend to use your bike.

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

OBSERVE THE "INTENDED USE" FOR YOUR BIKE FOUND IN THE GEOMETRY/ SPECIFICATIONS SECTION OF THIS SUPPLEMENT.



SEAT POST

The limit a seat post can be inserted into the frame is 140 mm. In order to adjust some saddle heights, the seat post may require cutting to shorten it. If this is the case, it should be done by a professional bike mechanic experienced in servicing high-performance carbon components.

When installing or adjusting the seat post:

Always wipe the seat post and inside of the seat tube with a clean dry shop towel.

Apply a generous quantity of carbon gel *KF115*/ to the inside of the seat tube and to the seat post. Use a small nylon brush or old tooth brush to spread the gel evenly.

Insert the seat post and set the saddle height.

Tighten the seat binder bolts evenly to the specified torque with a torque wrench. Do not exceed the maximum torque indicated.

NOTICE

- OBSERVE THE INSERT LIMIT.
- NEVER USE SOLVENTS OR SPRAY CLEANERS.
- DON'T USE GREASE; ALWAYS USE CARBON GEL.
 Cannondale in kit *KF115/* is a small quantity, enough for two or three applications.
- DO NOT INSTALL THE SEAT POST SO THAT IS BOTTOMED OUT INSIDE THE SEAT TUBE. Riding with the seat post bottomed-out in the frame may damage the frame.
- NEVER FORCE THE SEAT POST INTO THE FRAME.
- ALWAYS USE A TORQUE WRENCH.

WARNING

If the seat post requires cutting, have it done by a professional bike mechanic with experience cutting high-performance carbon components.

YOU CAN BE SEVERELY INJURED, PARALYZED OR KILLED IF YOUR IGNORE THIS WARNING.

NOTE: U.S. Consumer Product Safety Commission (CPSC) bicycle regulations require minimum seat post insertion be marked on the seat post.

More Information on Carbon Seat Posts

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

126221.PDF





SEAT BINDER PARTS



SEAT BINDER MAINTENANCE

Periodically, remove the seat binder from the frame, clean the binder and inside the seat tube.

To remove the binder assembly, completely remove both seat binder bolts out through the small frame holes. Then, remove the small retaining screw at the front of the binder. Lift the binder and the wedge up out of the top of the seat tube.

SADDLE CLAMP PARTS



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







KF363/ BB CABLE GUIDE



INTEGRATED FRAME GUIDES

The front cable guides are bonded into the top tube and down tube. Cables are routed inside the tubes without housing.

TIP: When a housing end is inserted into the bonded guide , make sure the ferrule (which must be used) locates into the guide seat before the cable is tensioned.

The rear top tube brake guide is removable. The guide is secured in the tube opening by brake cable tension. Make sure the guide is seated properly in the top tube opening when installing and connecting the rear brake.

The front and rear derailleurs at the bottom bracket opening and pass through the BB cable guide.

SERIAL NUMBER

The serial number for this bicycle is printed on a barcoded label on the underside of the bottom bracket. Use this serial number for warranty registration and theft recovery. See your **Cannondale Bicycle Owner's Manual** for more information on warranty registration.



REAR DROPOUT



REAR DERAILLEUR HANGER

Clean and carefully inspect the dropout for any cracks or damage before replacement. Apply a light film of bike grease to the dropout to minimize any noise or "creaking" that might result from very slight movement between the dropout and hanger during movement of the derailleur. Apply grease and Loctite carefully.

Check derailleur adjustment after replacement. Readjust wheel quick release so it is very tight. See PART I Section 4. A in your Cannondale Bicycle Owner's Manual.

The smaller M4 size outer bolt threaded into the inner may be used as connecting point for compatible fenders /racks. Be sure to use the specified Loctite and a torque wrench when tighening this fastener.

NOTICE

- Do not use a derailleur hanger alignment tool to straighten. If bending adjustment is necessary, remove the hanger from the frame first.
- The larger inner connecting bolt inner is permanently bonded in place. Do not attempt to removed it.

Make sure the outer bolt is installed and tightened even if a fender/rack is not used.



BOTTOM BRACKET

The bottom bracket shell is compatible with the BB30 Standard. See http://www.bb30standard.com/. The SI bottom bracket adapter enables the use of standard English/68mm bottom bracket cranksets.



BEARING MAINTENANCE

Inspect bearing condition annually (at a minimum) and anytime the crankset assembly is disassembled or serviced.

With the crankset removed, rotate the inner bearing race of both bearings; rotation should be smooth quietly. No bearing play or movement inside the shell. If the bearing is damaged, replace both bearings with new ones.



BEARING INSTALLATION

- 1. Clean the inside and outside surfaces of the bottom bracket shell.
- 2. Apply a high-quality bicycle bearing grease to the inside surface of the shell.
- Install the square end of the circlip into the groove first, then moving clockwise, push the clip into the groove until it is fully seated in the groove. Install the other circlip the same way.
- 4. With a headset press, and Cannondale tool KT010/ install the bearings into the shell as shown. Press the bearing until it is seated against the circlip.
- To finish, apply a light coating of a high-quality bicycle bearing grease to both sides of each bearing to help repel moisture.

BEARING REMOVAL

- To remove the bearings, position Cannondale tool *KT011/* behind the bearing so that the tool ridges are seated on the bearing.
- Insert a driver (punch or drift) from the opposite side. Locate it on the back of the tool and use light tapping to drive the bearing from the shell.

NOTICE

Frequent or routine renewal of undamaged bearings is not recommended. Repeated removal and reinstallation can damage the inside BB shell surfaces resulting in poor bearing fit.

DO NOT FACE, MILL OR MACHINE THE BOTTOM BRACKET SHELL FOR ANY REASON.

Doing so can result in serious damage and possibly a ruined bike frame.

TIP: Unless a circlip is damaged, removal is unnecessary during bearing removal. Use a small thin-blade screw driver or pick to lift the hooked end up out of the groove and then pushing the circlip out counter-clockwise.



cannondiale

68 MM ADAPTER INSTALLATION

The following procedure should only be completed by a professional bike mechanic. The adapter IS NOT a repair part and will only work in undamaged frames in good condition.

- 1. Remove the BB30 bearings and circlips from the bottom bracket shell.
- 2. Thoroughly clean and dry the inside of the bottom bracket shell. Remove any grease or dirt. Use a clean lint-free shop towel dampened with alcohol to finish.
- 3. Apply Loctite[™] 609 carefully to the bearing seat positions on both side of the inside shell.
- 4. Clean the outer surface of the adapter. Use a clean shop towel dampened with alcohol.
- The groove side of the adapter must be located on the drive side. With a headset press, the ADAPTER until the groove side face is flush with the drive side face of the SI BB shell.

Allow at least 12 hours (at 72°F) for the Loctite to cure before installing the standard bottom bracket crankset. Follow Loctite Technical Data Sheet <u>http://tds.loctite.com/tds5/docs/609-EN.PDF</u>

NOTICE

We strongly recommended that you use a swab to control the application and avoid spillage of the Loctite. Prolonged contact with the frame finish may result in discoloration or damage. Be sure to immediately wipe up any spills and remove any compound in contact with the painted surfaces.







68MM ADAPTER REMOVAL

The following procedure should only be completed by a professional bike mechanic. The adapter is removable, however, repeated removal and reinstallation could result in damage to the SI BB shell and is not recommended.

- 1. Removal of the SI BB ADAPTER is accomplished through the use of the extraction tool **KF366**/, a two-piece tool set used with a headset bearing press. The arrangement of the tool parts for removal is shown next figure.
- 2. Press the adapter out of the shell using the headset press until the adapter is retained inside the receiver and can be withdrawn from the bottom bracket shell.

Following removal, it will be necessary to clean all remaining Loctite residue with a before reinstalling the SI circlips and bearings. Use Loctite 768. Use a dental pick to remove any adhesive from the grooves. Do not cut, face, or use abrasives to clean the inside if the BB shell. **For Loctite clean-up instructions :** http://tds.loctite.com/



NOTICE

Use only extraction tool Cannondale **KF366**/ and a headset press. Do not use other tools.

Make sure the Reciever part of the tool is centered on the drive side bottom bracket shell while pressing.

We strongly recommend that your have this procedure performed by an Authorized Cannondale Dealer. Damage caused by improper removal is not covered under your warranty.



FORK

Construction

Your fork is a "carbon fiber fork." The steerer tube, crown, and fork legs of the fork made from carbon fiber/composite materials. The dropouts are an alloy material. The illustration at right shows the features and parts of the fork.

Maintenance

The care and maintenance of all carbon bicycle components is very important to your safety. Please consult Section D, Inspect For Safety and APPENDIX D. in your *Cannondale Bicycle Owner's Manual* for safety information regarding carbon components.

Accessories

If you decide to install accessories on your bike such as lights, fenders, or racks please consult with a professional bike mechanic first. The fork must not be modified in any way to mount accessories.

Headset

WARNING

ONLY USE CANNONDALE COMPRESSION ASSEMBLY - KPO17/. Do not use a star nut or any other compression or expanding wedge assembly.

DO NOT INSTALL HEADSET SPACERS ON TOP OF THE STEM. Installing spacers above the stem will raise the TOP CAP inside the steerer removing necessary support for the steerer tube wall. When stem bolts are tightened, the steerer tube can be damaged. All spacers must be below the stem and limited to the MAXIMUM STACK HIEGHT of 55 mm.

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





SI COMPRESSION ASSEMBLY - KP017/

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

- 1. Assemble the fork, headset, spacers, and stem without tightening the stem bolts onto the headtube. When the system is assembled, the carbon steerer tube should be 2-3 mm below the top stem. All spacers must be located below the stem and within the maximum stack height as shown. No spacers may be used above the stem.
- Set-up the compression assembly before inserting it. Adjust the length so that the expander is located at lower stem bolt. The top cap and the expander end provides critical support to the carbon steerer when tightening the stem bolts. Adjust the length by threading the top cap on the expander parts.
- 3. When the assembly is the correct length, insert it into the steerer tube. It is designed to fit snugly inside the steerer. Insert a 5 mm Allen key through the access hole in the TOP CAP and into the EXPANDER BOLT. Tighten the expanding parts by turning clockwise to 6.8Nm, 5 ftLbs.
- 4. Now, to set bearing preload, insert a 6mm allen key into the hex shape in the TOP CAP itself. Turn the entire top cap clockwise to increase preload. Turning it counter-clockwise will decrease the preload. When the headset preload feels correct, turn the stem to align the handlebar and tighten the stem fork clamp bolts to the torque specified for the stem. Consult the stem manufacturer's instructions. The torque values for components are often marked on the part.



HEADTUBE

The headtube is compatible with Campagnolo® Hiddenset headset standard.

Both upper and lower cups are bonded in the headtube and can not be removed.

NOTICE

Do not use cutting tools on the cups.

Only use headsets compatible with the Campagnolo® Hiddenset headset standard.

A complete headset with crown race is available in Cannondale kit - *KB002*/.



CHAINSTAY PROTECTION



The chainstay plate (*KF367/*) located on the right chainstay just behind the chain rings, protects the chainstay from damage in the event the chain is dropped from the chain ring. Contact your Cannondale Dealer for a replacement if it is becomes missing or damaged. The clear chainstay protector (above right) provides limited protection against frame or finish damage caused by the chain. Replacement protectors are available through a Cannondale Dealer.

GEOMETRY/SPECIFICATION



	QUICK FULL CARBON					
	Size	Small	Medium	Large	X-Large	Jumbo
A *	Measured Size (cm)*	38.5/15.2	41/16.1	46/18.1	51/20.1	57/22.4
В	Seat Tube Angle	75	76	74.5	73	72.5
C	Head Tube Angle	71	71	71.5	72	72.5
D	Horizontal Top Tube Length (cm)	53.5	53.5	56	58.5	62
E	Chain Stay Length (cm)	43	43		Н	Н
F	Fork Rake (cm)	5.0	5.0	Н	Н	Н
G	Bottom Bracket Height (cm)	27.4	27.4	27.4	27.4	27.4
Н	Wheelbase (cm)	101.4	102.3	103.9	104.8	107.5
1	Trail (cm)	6.6	6.5	6.2	5.9	5.6
J	Standover Height (cm)	74.3	75.0	78.7	82.8	87.0
K	Bottom Bracket Drop (cm)	7.0	Н	Н	Н	Н
L	Front Center (cm)	59.5	60.4	61.9	62.8	65.4
м	Head Tube Length (cm)	14	13	16	19	22
	Headset		Campy style bearings: 41.8mm 0D w/ 45° chamfers			
	Headset Compression (See page 12.)		Cannondale SI Compression Assembly - KP017/			
	Seatpost Minimum Insert Depth (See page 2	80 mm				
Z	Z Seatpost Insert Limit (See page 2.)			140 mm		
	Seat Binder		KP153/ - MAXIMUM TORQUE 5 Nm, 44 In Lbs			
	Dropout Spacing INTENDED USE (See page 1.)		Front 100 mm, Rear 130 mm			
			CONDITION 2, General Purpose Riding			
	MAXIMUM WEIGHT LIMIT	RIDER : 300 lbs / 136 kg , LUGGAGE: 30 lbs / 14 kg,				
		TOTAL : 330 lbs / 150 kg				

* Measured size is from the center of the bottom bracket to the top of the top tube, measured along the seat tube axis.

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



REPLACEMENT PARTS

CANNONDALE TOOLS			
KT010/	KIT,TOOL-BB BEARING-SI		
KT011/	KIT, TOOL -BEARING REMOVAL SI		
KT012/	KIT,TOOL-LOCK RING-SI		
KT013/	KIT, CRANK EXTRACTION TOOL		
KF365/	KIT,TOOL,SIBB/68 ADP.INSTALL		
KF366/	KIT,TOOL,SIBB ADPAPTER EXTRACT		

FRAME			
KF363/	KIT,BB CABLEGUIDE, w/fixing bolt		
KF055/	KF055/ KIT, ADJUSTER-INLINE SHIFTER-2		
KP063/ KIT,GUIDE,BRAKE SLICE AERO			
KF096/	KIT, DER. HANGER, SINGLE SIDED RD		
KF367/	KIT,CH.STAY PROTECT-SYNAPSE		
Seat Post			
KP153/	KIT,SEATBINDER,QUICK CARBON		
KF115/	KIT,GEL,DYNAMIC,CARBN SEATPOST		

HEADSET & FORK

KB002/	KIT,HEADSET,SI CRB W/15 TC		
KP017/	KIT,COMP ASSY,23.6ID,EXPANDER		

HOLLOGRAM SL BB30					
Cranksets					
KA014/170BLK	KIT,CRANKSET,SL,ROAD 39/53,170				
KA014/172BLK	KIT,CRANKSET,SL,ROAD 39/53,172				
KA014/175BLK	KIT,CRANKSET,SL,ROAD 39/53,175				
KA015/170BLK	KIT,CRANKSET,SL,ROAD 34/50,170				
KA015/172BLK	KIT,CRANKSET,SL,ROAD 34/50,172				
KA015/175BLK	KIT,CRANKSET,SL,ROAD 34/50,175				
Spindle Kits					
QC690/	KIT,BB,CDALE Si,68X104mm Rd				
QC850/	KIT,BB,CDALE Si,68X104mm Rd-SRM				
KA019/	KIT,BB,CDALE Si,68X104 CERAMIC				
Crankarms					
KP020/170L	KIT,CRANKARM-SL BLK,170 LFT				
KP020/172L	KIT,CRANKARM-SL BLK,172 LFT				
KP020/175L	KIT,CRANKARM-SL BLK,175 LFT				
KP020/170R	KIT,CRANKARM-SL BLK,170 RHT				
KP020/172R	KIT,CRANKARM-SL BLK,172 RHT				
KP020/175R	KIT,CRANKARM-SL BLK,175 RHT				
KP022/BLK	KIT,CRANK BOLTS,H-GRAM SL,(2)				
	Spiders				
QC694/	Kit,Spider,H-GRAM SI,130MM BCD				
QC693/	Kit,Spider,H-GRAM SI,110mm BCD				
KP021/	KIT,LOCKRING-SLREQUIRES KT012/				
	Chainring				
KF360/	KIT,BOLT,SI C-RING, MK4/5 ONLY				
QC603/	Kit, Pin,Chain Catch-Sl				
KP024/	KIT,CHAINRING,MK5-53T/130BCD				
KP025/	KIT,CHAINRING,MK5-39T/130BCD				
KP026/	KIT,CHAINRING,MK5-50T/110BCD				
KP027/	KIT,CHAINRING,MK5-34T/110BCD				
Other					
KP023/BLK	KIT,BEARING SHIELD,BB-SL				
KB6180/	KIT,BEARING,BB-SI,2PCS (SKF#6806-2RS /SRI2 /90% FILL)				
KP018/	KIT,BEARING,BB-SI,CERAMIC,2PCS				
QC616/	KIT,CIRCLIPS (2) BB-SI				
QC617/	KIT,SHIM-PLASTIC, BB-SI; CONTAINS 5 0.5MM SHIMS				
QC618/	KIT,WASHER-WAVE, BB-SI				
KP140/	KIT,BB,ADAPTER BB30 TO TAP				
KF365/	KIT,TOOL,SIBB/68 ADP.INSTALL				
KP009/	KIT,ADAPTER,SIBB TO 68MM TAP				

TIP: Replacement Cannondale part numbers are shown throughout this supplement in **BOLD ITALIC** text. For an up to date list of kits available for your bike, please visit our Tech Center at : <u>http://www.cannondale.com/bikes/tech/</u>





CANNONDALE USA

Cycling Sports Group, Inc. 172 Friendship Road, Bedford, Pennsylvania, 15522-6600, USA (Voice): 1-800-BIKE-USA (Fax): 814-623-6173 custserv@cyclingsportsgroup.com

CANNONDALE AUSTRALIA

Cycling Sports Group Unit 8, 31-41 Bridge Road Stanmore NSW 2048 Phone: +61 (0)2 8595 4444 Fax: +61 (0) 8595 4499 askus@cyclingsportsgroup.com.au

CANNONDALE EUROPE

Cycling Sports Group Europe, B.V. mail: Postbus 5100 visits: Hanzepoort 27 7570 GC, Oldenzaal, Netherlands (Voice): +41 61.4879380 (Fax): 31-5415-14240 servicedeskeurope@cyclingsportsgroup.com

CANNONDALE JAPAN

Namba Sumiso Building 9F, 4-19, Minami Horie 1-chome, Nishi-ku, Osaka 550-0015, Japan (Voice): 06-6110-9390 (Fax): 06-6110-9361 cicustserv@cannondale.com

CANNONDALE UK

Cycling Sports Group Vantage Way, The Fulcrum, Poole, Dorset, BH12 4NU (Voice): +44 (0)1202 732288 (Fax): +44 (0)1202 732366 sales@cyclingsportsgroup.co.uk

WWW.CANNONDALE.COM

126221 (04/10) © 2011 Cycling Sports Group



