

2010

 **WARNING**

**READ THIS SUPPLEMENT AND YOUR  
CANNONDALE BICYCLE OWNER'S MANUAL.**

Both contain important safety information. Keep  
both for future reference.

# TOWNER'S MA MANUAL SUP PPLEMENT

OWNER'S MANUAL  
RZ ONE FORTY, RZ ONE TWENTY  
124915.PDF

Revised 12/2009

**cannondale**<sup>®</sup>

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.

## **TIP**

*A TIP provides helpful information.*

# 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.**

## 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.

## INTENDED USE

All models are intended for Condition 4 (All Mountain) riding. Condition 4 symbol shown in next figure.



## CONDITION 4

Condition 4 bikes are designed for riding Conditions 1, 2, and 3, plus rough technical areas, moderately sized obstacles, and small jumps.

For trail and uphill riding. All-Mountain bicycles are:

(1) more heavy duty than cross country bikes, but less heavy duty than Freeride bikes, (2) lighter and more nimble than Freeride bikes, (3) heavier and have more suspension travel than a cross country bike, allowing them to be ridden in more difficult terrain, over larger obstacles and moderate jumps, (4) intermediate in suspension travel and use components that fit the intermediate intended use, (5) cover a fairly wide range of intended use, and within this range are models that are more or less heavy duty. Talk to your retailer about your needs and these models.

## NOT INTENDED

For Hardcore Freeriding, Extreme Downhill, Dirt Jumping, Slope-style, or very aggressive or extreme riding.

## TRADE OFF

All-Mountain bikes are more rugged than cross country bikes, for riding more difficult terrain. All-Mountain bikes are heavier and harder to ride uphill than cross country bikes. All-Mountain bikes are lighter, more nimble and easier to ride uphill than Freeride bikes. All-Mountain bikes are not as rugged as Freeride bikes and must not be used for more extreme riding and terrain.

## MAXIMUM WEIGHT LIMIT

RIDER lbs / kg	LUGGAGE * lbs / kg	TOTAL lbs / kg
300 / 136	5 / 2.3	305 / 138

\* Seat Bag Only

## WARNING

UNDERSTAND YOUR BIKE AND ITS INTENDED USE.

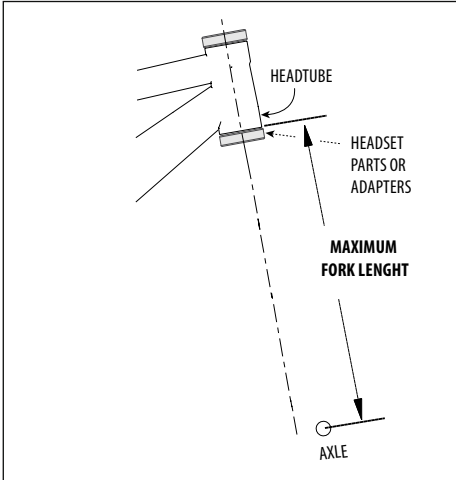
### USING YOUR BIKE THE WRONG WAY IS DANGEROUS.

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.**

## 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 selecting replacement forks. In this manual, the number is also listed in the **GEOMETRY/SPECIFICATIONS**.



**HOW TO MEASURE:** 1. Install headset and fork. 2. Extend fork and measure the distance from the bottom of the head tube to the center of the wheel axle. Do not measure from the bottom of headset bearing cups or head tube adapters. The measurement **MUST** be taken from the bottom of the head tube!!

### **WARNING**

#### **DO NOT EXCEED MAXIMUM FORK LENGTH**

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.**

## TIRE SIZE

### **WARNING**

**OBSERVE THE "MAXIMUM TIRE WIDTH" FOR YOUR BIKE FOUND IN THE GEOMETRY/ SPECIFICATIONS SECTION OF THIS SUPPLEMENT.**

Mounting the wrong size tires can result in the tires hitting the fork or frame when riding. If this happens, you can lose control of your bike and you can be thrown off, a moving tire can be stopped because it touches the fork or frame.

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

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

When you are considering tires for your bike consider...

The actual measured size of a tire may be different than its sidewall marking. Each time you mount a new tire, take the time to inspect the actual clearance between the rotating tire and all parts of the frame. 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.

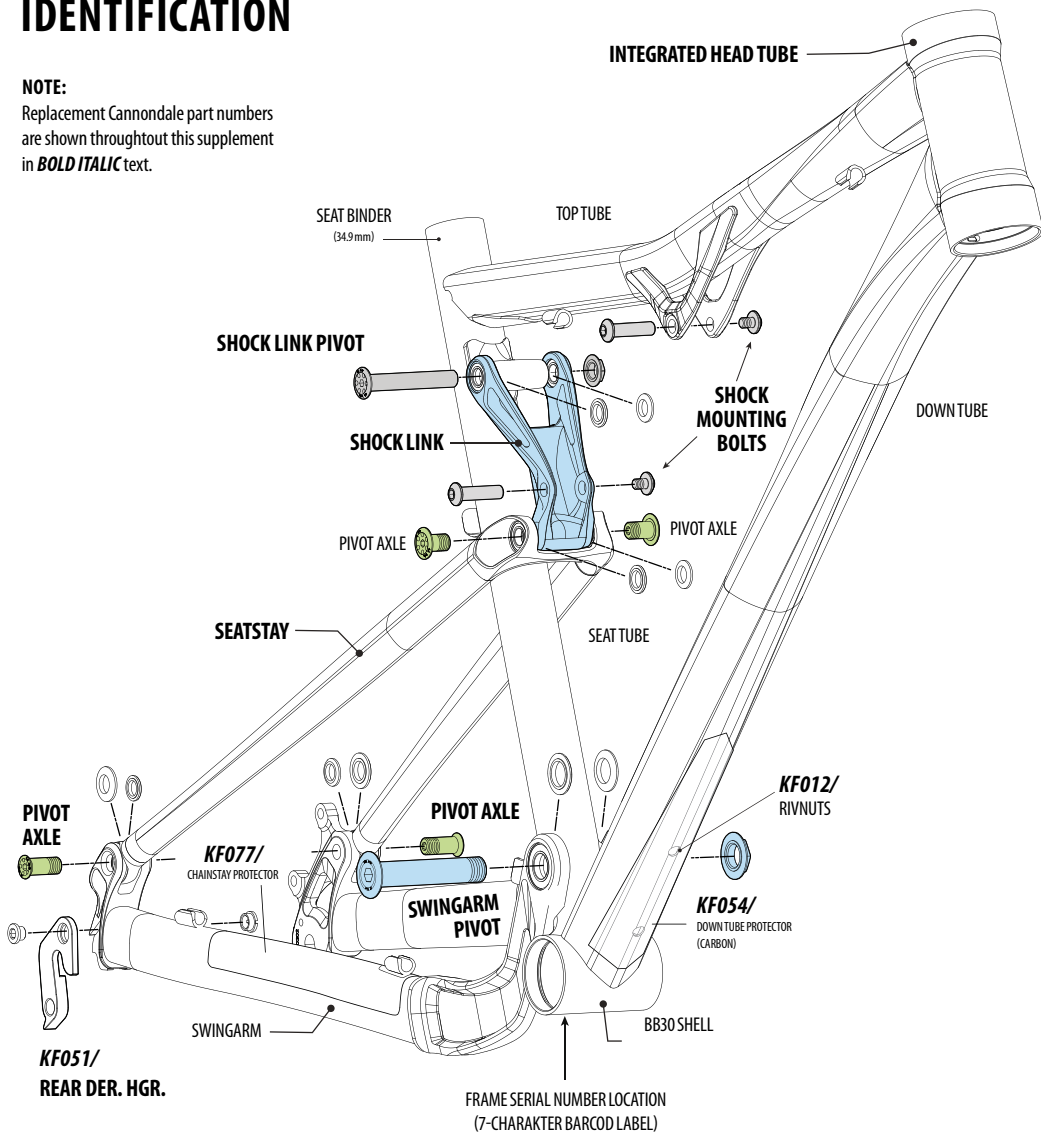
**ASK YOUR CANNONDALE DEALER FOR THE RIGHT TIRES FOR YOUR BIKE AND ITS PARTICULAR COMPONENTS!**

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

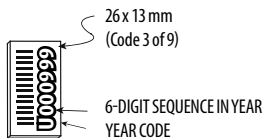
## IDENTIFICATION

**NOTE:**

Replacement Cannondale part numbers are shown throughout this supplement in **BOLD ITALIC** text.

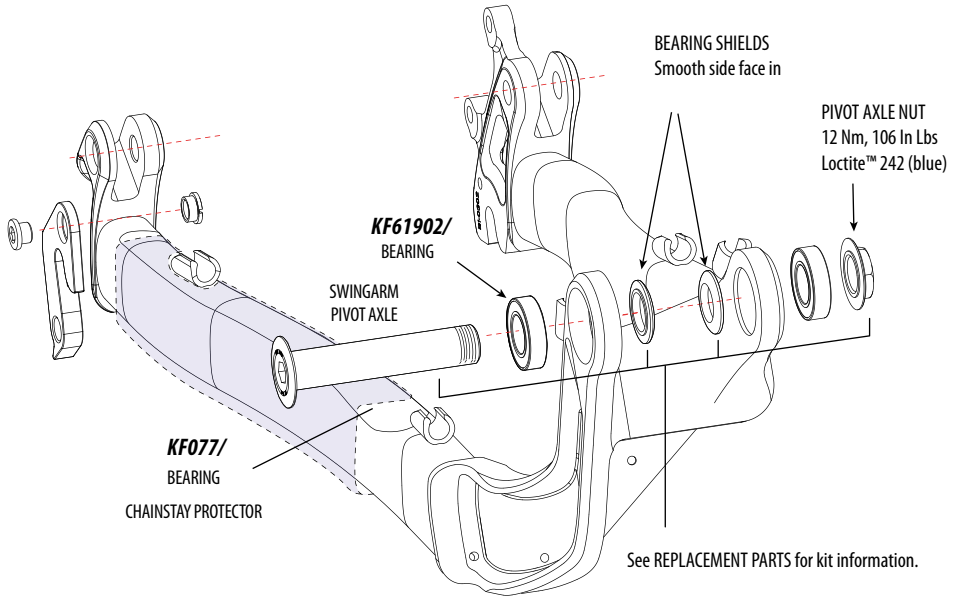


Use this serial number for warranty registration and theft recovery. See your *Cannondale Bicycle Owner's Manual* for more information on warranty registration.



# SWINGARM

All RZ models and frame sizes utilize the same swingarm assembly shown below.



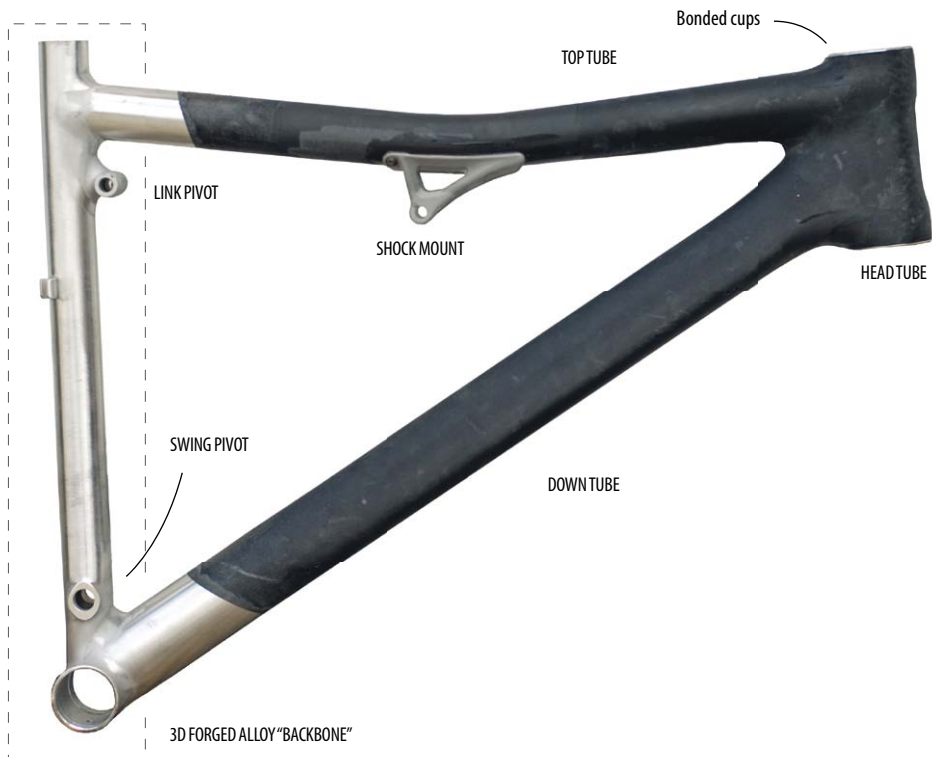
## TIGHTENING TORQUES

Correct tightening torque for the fasteners (bolts, screws, nuts) on your bicycle is very important to your safety. Correct tightening torque for the fasteners is also important for the durability and performance of your bicycle. We urge you to have your Dealer correctly torque all fasteners using a torque wrench.

**If you decide to tighten fasteners yourself always use a good torque wrench!**

ITEM	NM	IN LBS	LOCTITE™
<b>SHOCK MOUNTING BOLTS</b>	12	106	242 (blue)
<b>SHOCK LINK PIVOT*</b>	13	115	242 (blue)
<b>PIVOT AXLE BOLTS</b>	5	44	242 (blue)
<b>SWINGARM PIVOT NUT*</b>	12	106	242 (blue)
<b>REAR DER. HGR</b>	5	44	242 (blue)

\* Clean and apply light grease to frame hole and pivot before installation.



## RZ ONE FORTY CARBON FRONT TRIANGLE

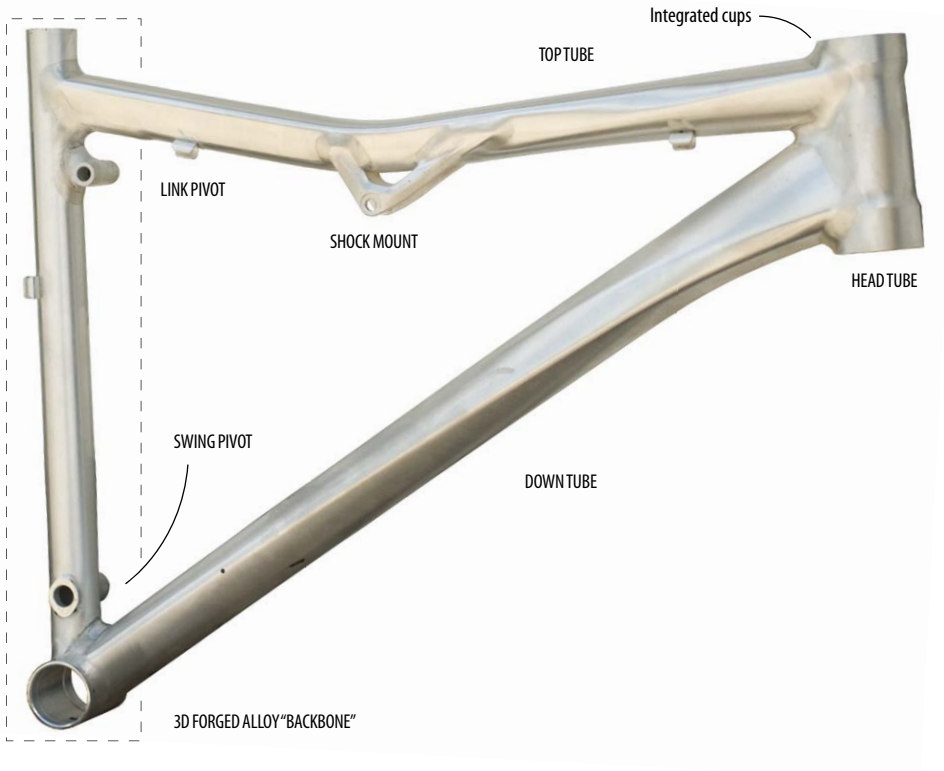
The photo above shows a raw (un-painted) front triangle of carbon fiber version of the RZ One Forty. This frame type utilizes the same single piece 3D-forged seat tube and bottom bracket node of the alloy models. The composite headtube, downtube, and top tube sections of carbon fiber version of the RZ frame are co-molded with the 3D-forged seat tube and bottom bracket node.

### NOTICE

**CARBON OR ALLOY:** Do not face, surface, or cut the head tube bearing cups.

**CARBON:** When removing adapters, bearings, or cup from the carbon head, extra care must be used so that the tool used to drive out the bearing is NOT located on any part of the bonded cup.

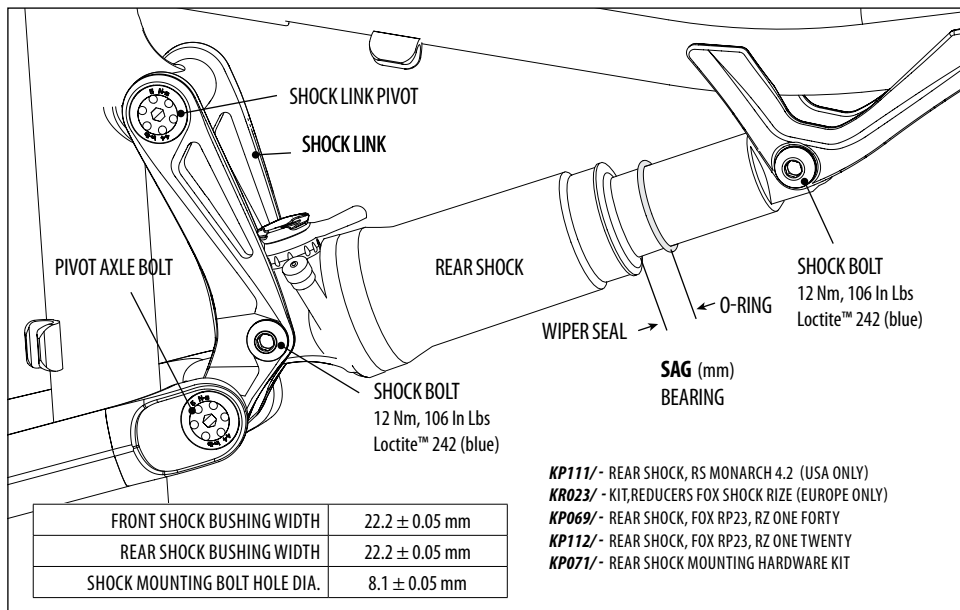




## RZ ONE TWENTY ALLOY FRONT TRIANGLE

The alloy version of the RZ One Twenty (above) is manufactured using Hydroformed 6061-T6 tubing resulting in atube profiles that are multi-faceted and shaped. The RZ One Forty alloy front triangle is manufactured with ovalized tubing and has a more traditional appearance. Both utilize the same 3D-forged seat tube and bottom bracket node.

## REAR SHOCK



- KP111/** - REAR SHOCK, RS MONARCH 4.2 (USA ONLY)
- KR023/** - KIT, REDUCERS FOX SHOCK RIZE (EUROPE ONLY)
- KP069/** - REAR SHOCK, FOX RP23, RZ ONE FORTY
- KP112/** - REAR SHOCK, FOX RP23, RZ ONE TWENTY
- KP071/** - REAR SHOCK MOUNTING HARDWARE KIT

### SET-UP

1. Set the air pressure according to for you body weight. Follow the shock manufacturer's instruction for pressurizing the shock.
2. Slide the O-ring against the shock wiper seal.
3. Sit on the bike in a normal riding position with your hands on the handlebar and feet on the pedals so that your weight compresses the rear shock.
4. Measure the SAG. Adjust the air pressure in the shock to achieve the correct SAG measurement.

Add air to decrease sag.

Release air to increase sag.

RECOMMENDED SAG 25%	
RZ ONE FORTY	RZ ONE TWENTY
12.5 mm, 0.5 in	11.1 mm, 0.44 in

### WARNING

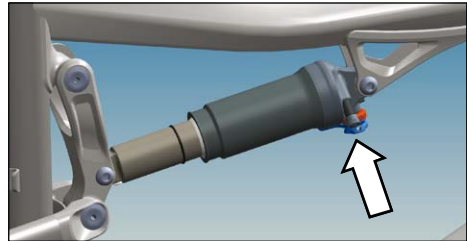
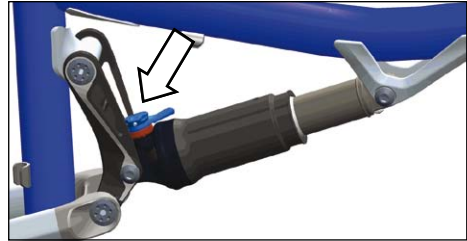
**SELECT ONLY COMPATIBLE SHOCKS AND FORKS FOR YOUR BIKE. DO NOT MODIFY YOUR BIKE IN ANY WAY TO MOUNT ONE. HAVE YOUR SHOCK OR FORK INSTALLED BY A PROFESSIONAL BIKE MECHANIC**

- 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.

## ORIENTATION

**ALL PETITE AND SMALL FRAME SIZES** - MOUNT THE SHOCK WITH THE ADJUSTMENT FEATURES OF THE SHOCK FACING REARWARD AND UP (TOP RIGHT).

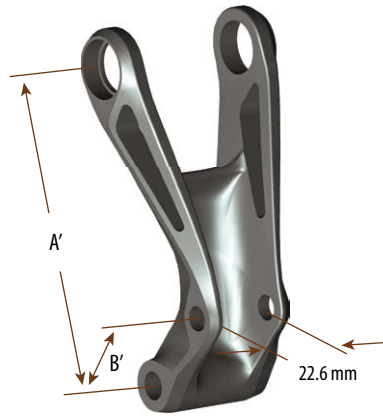
**All Medium, Large, and X-Large frame sizes** - mount the shock with the adjustment features facing forward and down (bottom right).



### NOTICE

**MOUNTING INCORRECTLY CAN RESULT IN SHOCK OR FRAME DAMAGE.**

## LINKS



		RZ One Forty Carbon/Alloy				
A (mm)	B (mm)	SIZE	SM	MD	LG	XL
101	28.3	<b>KP075/BLK</b>	X	X	X	X
		<b>KP075/WHT</b>	X	X	X	X
		<b>KP075/GRN</b>	X	X	X	X

		RZ One Twenty				Feminine			
A' (mm)	B' (mm)	SIZE	SM	MD	LG	XL	P	SM	MD
101	29.5	<b>KP113/STD</b>		X	X	X			X
82	24.3	<b>KP113/SM</b>	X				X	X	

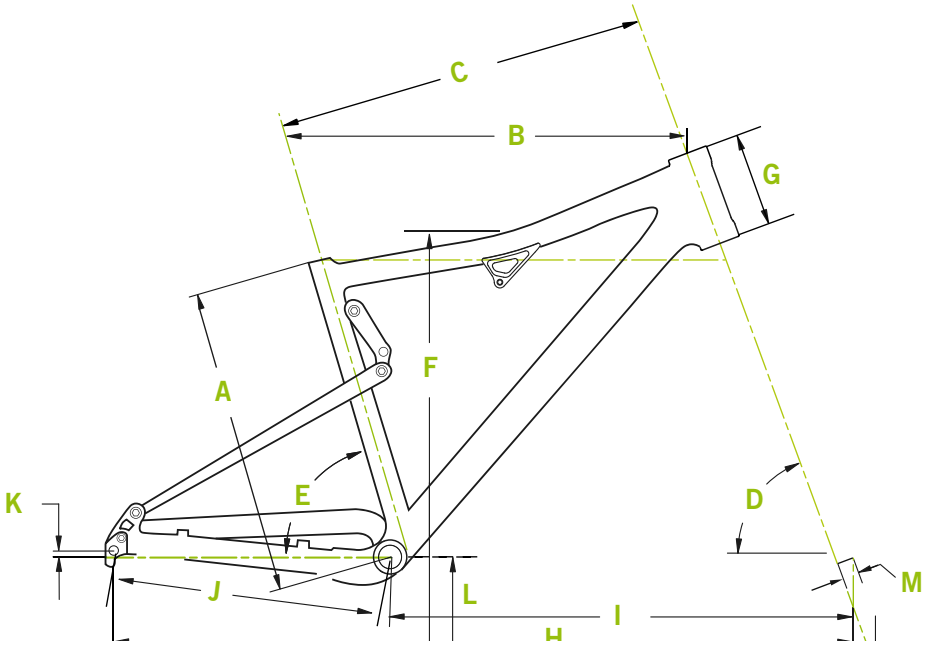
## GEOMETRY / SPECIFICATION

### COMMON SPECIFICATIONS (ALL 2010 RZ MODELS):

INTENDED USE	CONDITION 4		
SEAT POST DIAMETER	31.6 mm		
FRONT DERAILLEUR DIAMETER	34.9 mm		
MAXIMUM TIRE WIDTH	26 X 2.35 in		
HEADTUBE	SYSTEM INTEGRATION (Headshok, 1.5 in, 1.125 in)		
CHAINLINE	50 mm		
BB SHELL WIDTH	68mm, BB30		
DROPOUT SPACING	135 mm		
REAR HUB SPACING	135 mm		
REAR HUB AXLE	QR		
REAR SHOCK BUSHING WIDTH FRONT/REAR	22.2 ± 0.05 mm		
SHOCK MOUNTING BOLT HOLE DIA.	8.1 ± 0.05 mm		
ISCG 05 MOUNT	ONLY Models spec'd w/ Truvativ Hammerschmidt crank		
REAR DISC BRAKE MOUNT	International Standard		
MAXIMUM WEIGHT LIMIT (lbs/kg) * (seat bag only)	RIDER	LUGGAGE*	TOTAL
	300 / 136	5 / 2.3	305 / 138

Size	SPECIFICATIONS	RZ ONE FORTY CARBON, RZ ONE FORTY ALLOY			
		Small	Medium	Large	X-Large
<b>A</b>	SEAT TUBE LENGTH (CM/IN)	43.2/17.0	45.7/18.0	48.3/19.0	50.8/20.0
<b>B</b>	TOP TUBE HORIZONTAL (CM/IN)	56.0/22.0	58.8/23.1	61.5/24.2	64.0/25.2
<b>C</b>	TOP TUBE ACTUAL (CM/IN)	53.3/21.0	56.0/22.0	58.9/23.2	61.4/24.2
<b>D</b>	HEAD TUBE ANGLE	68.0°	*	*	*
<b>E</b>	SEAT TUBE ANGLE	72.0°	*	*	*
<b>F</b>	STAND OVER (CM/IN)	75.9/29.9	77.7/30.6	78.1/30.7	77.5/30.5
<b>G</b>	HEAD TUBE LENGTH - CARBON (CM/IN)	13.4/5.3	*	*	16.0/6.3
<b>G</b>	HEAD TUBE LENGTH - ALLOY (CM/IN)	13.4/5.3	*	*	16.0/6.3
<b>H</b>	WHEELBASE (CM/IN)	108.1/42.6	110.8/43.6	113.6/44.7	116.3/45.8
<b>I</b>	FRONT CENTER (CM/IN)	65.6/25.8	68.3/26.9	71.1/28.0	73.8/29.1
<b>J</b>	CHAIN STAY LENGTH (CM/IN)	42.5/16.7	*	*	*
<b>K</b>	BOTTOM BRACKET DROP (CM/IN)	-0.3/-0.1	*	*	*
<b>L</b>	BOTTOM BRACKET HEIGHT (CM/IN)	33.3/13.1	*	*	*
<b>M</b>	FORK RAKE (CM/IN)	4.5/1.8	*	*	*
<b>N</b>	TRAIL (CM/IN)	7.8/3.1	*	*	*
	MAXIMUM FORK LENGTH (MM)	530	*	*	*
	REAR TRAVEL (CM/IN)	14.0/5.5	*	*	*
	SHOCK EYE-TO-EYE (CM/IN)	20.0/7.9	*	*	*
	REAR STROKE (CM/IN)	5.0/2.0	*	*	*
	RECOMMENDED SAG 25% (CM/IN)	1.25/0.5	*	*	*

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/tech\\_center/](http://www.cannondale.com/tech_center/)



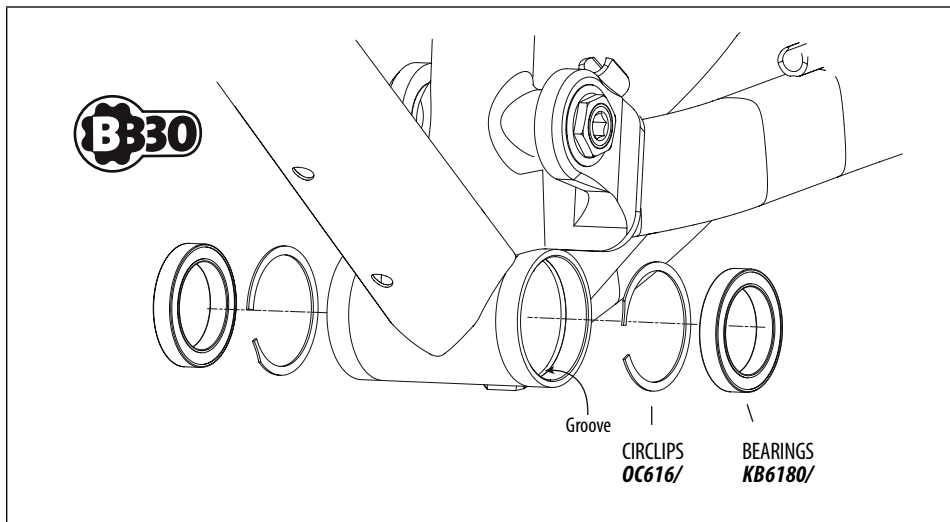
**RZ ONE TWENTY ALLOY**

**RZ ONE TWENTY ALLOY FEMININE**

	Small	Medium	Large	X-Large	Petite	Small	Medium
	43.2/17.0	45.7/18.0	48.3/19.0	50.9/20.0	40.6/16.0	43.2/17.0	45.7/18.0
	56.0/22.0	58.7/23.1	61.3/24.1	64.1/25.2	53.0/20.9	56.0/22.0	57.5/22.6
	53.5/21.1	56.2/22.1	59.1/23.3	61.9/24.4	50.8/20.0	53.5/21.1	55.0/21.7
	69.0°	*	*	*	68.5°	69.0°	69.0°
	73.5°	*	*	*	73.5°	*	*
	73.1/28.8	76.0/29.9	76.1/30.0	76.0/29.9	72.9/28.7	73.1/28.8	75.9/29.9
	na	na	na	na	na	na	na
	13.4/5.3	*	*	16.0/6.3	13.4/5.3	13.4/5.3	13.4/5.3
	107.6/42.4	110.3/43.4	113.0/44.5	116.0/45.7	105.2/41.4	107.6/42.4	109.1/43.0
	65.2/25.7	67.8/26.7	70.5/27.8	73.5/28.9	62.8/24.7	65.2/25.7	66.6/26.2
	42.5/16.7	*	*	*	42.5/16.7	*	*
	0.0/0.0	*	*	*	0.0/0.0	*	*
	33.0/13.0	*	*	*	33.0/13.0	*	*
	4.5/1.8	*	*	*	4.5/1.8	*	*
	7.8/3.1	*	*	*	8.2/3.2	7.8/3.1	7.8/3.1
	520	*	*	*	520	*	*
	12.0/4.7	*	*	*	12.0/4.7	*	*
	18.4/7.2	*	*	*	18.4/7.2	*	*
	4.45/1.8	*	*	*	4.45/1.8	*	*
	1.11/0.44	*	*	*	1.11/0.44	*	*

## 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 cranks. See page 14.



### BEARING MAINTENANCE

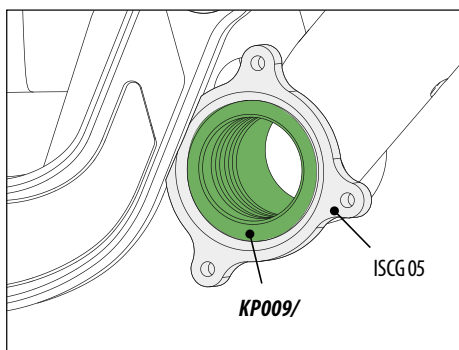
Inspect bearing condition annually (at a minimum) and anytime the crankset assembly is disassembled or serviced.

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.

### TRUVATIV HAMMERSCHMIDT

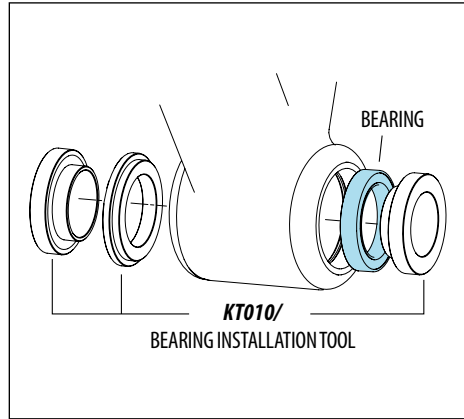
RZ models which support the Truvativ Hammerschmidt cranksets are manufactured a ISCG 05 compatible mount and have a 68mm Standard adapter installed. The mount does not require facing before installation of the crankset.

For more information on Truvativ Hammerschmidt, see <http://www.sram.com/en/truvativ/>



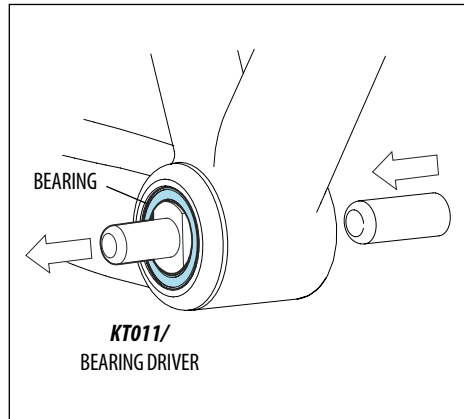
## BEARING INSTALLATION

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.
3. 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.
5. 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

1. To remove the bearings, position Cannondale tool **KT011/** behind the bearing so that the tool ridges are seated on the bearing. See next page.
2. 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.



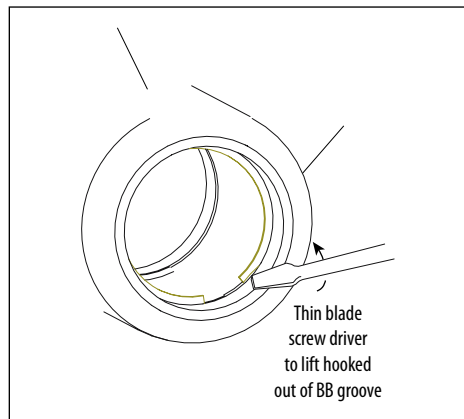
### NOTICE

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.

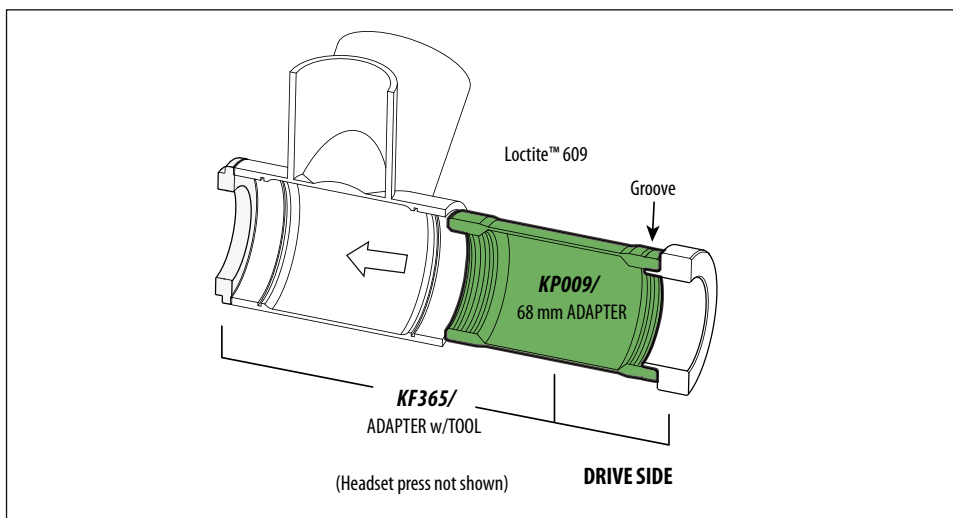


## 68 MM ADAPTER INSTALLATION

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.
5. The groove side of the adapter must be located on the drive side. With a headset press, 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 <http://tds.loctite.com/tds5/docs/609-EN.PDF>



### NOTICE

We strongly recommend 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.

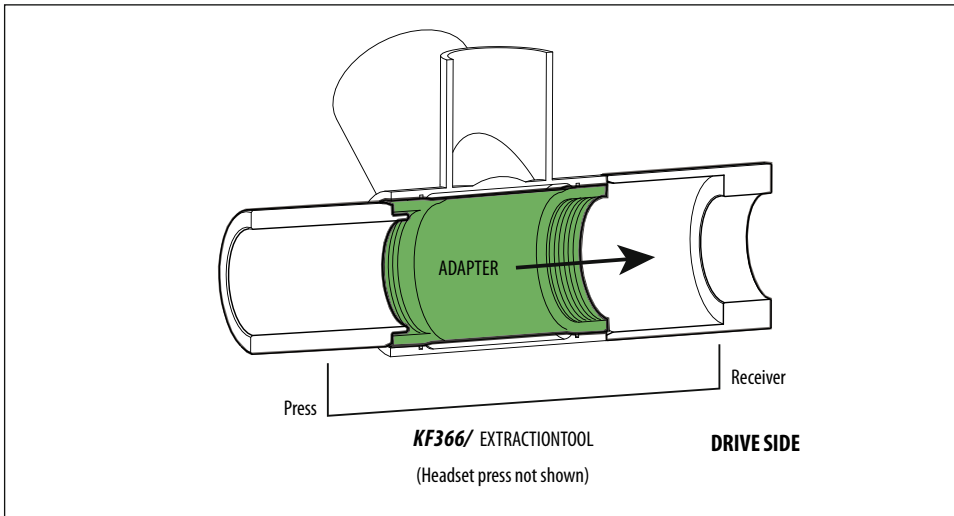


## 68MM ADAPTER REMOVAL

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 of the BB shell. **For Loctite clean-up instructions :** <http://tds.loctite.com/>



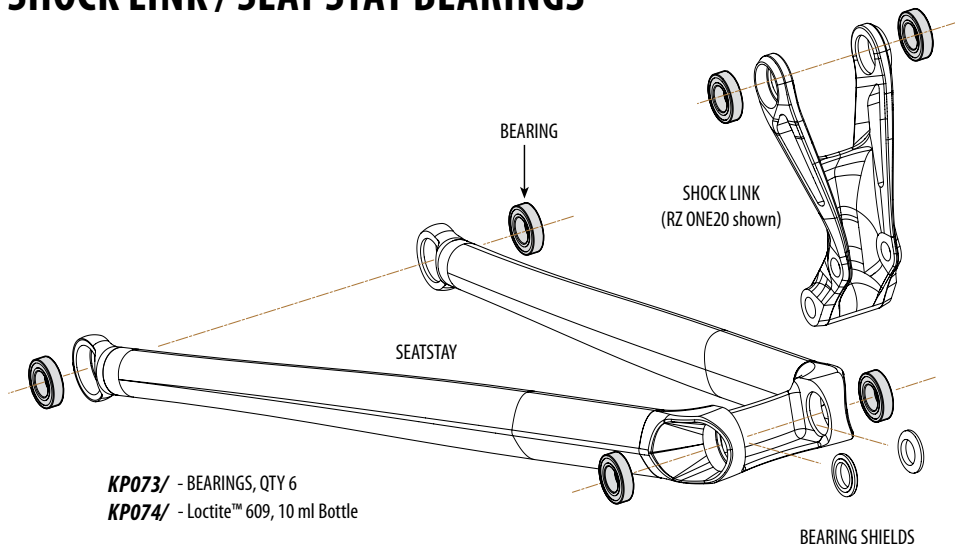
### NOTICE

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

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

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

## SHOCK LINK / SEAT STAY BEARINGS



### MAINTENANCE

Bearings are a sealed cartridge type and do not require periodic lubrication. Unlike interference fit bearings that are pressed in place, these slip fit bearings are fixed in place with the anaerobic adhesive, Loctite™ 638. Please follow the instructions carefully, as the strength of the resulting bond between parts can be affected by surface preparation and time to cure.

### INSPECTION

The condition of the bearings should be inspected every 25hrs or if the seat stay develops side-to-side play. Bearing condition can be inspected without removing the bearings from the part. To do it, disconnect the seat stay at the swingarm and shock link by removing the pivot axles and spacers. With the bearing exposed, rotate the inner race of each bearing with your fingertip. The inner race should rotate smoothly and without any play. The bearing itself should be fully and firmly seated in the depth of the bearing bore. Loose but undamaged bearings may be reinstalled using the technique as described next page. Damaged bearings should be removed and replaced with new ones.

### REMOVAL

The bearings are a slip fit within the bearing bore of both the seat stay and the shock link. They are not a press fit. The bearings are installed with Loctite 638 which bonds the bearing to the part. If the bearing is difficult to remove, you may need to warm the bearing carefully to loosen the Loctite bond. Locate a dowel on the face of the bearing and drive it out. After the bearing is removed, remove the Loctite residue with a small wire brush.

For Loctite instructions :

<http://tds.loctite.com/tds5/docs/638-EN.PDF>

## INSTALLATION

**THE FOLLOWING PROCEDURE SHOULD ONLY BE COMPLETED BY A PROFESSIONAL BIKE MECHANIC.**

For Loctite instructions :

<http://tds.loctite.com/tds5/docs/638-EN.PDF>

1. Remove old Loctite from the bearing bore and wipe the bearing bore clean with alcohol.
2. Use a swab to apply a generous film of Loctite™ 638 to the entire surface of the bearing bore.
3. Clean the outer bearing race of the bearing with a clean shop towel dampened with alcohol.
4. Use the swab to apply a generous film of Loctite™ 638 to the surface of the outer bearing race.
5. Insert the bearing into the bore and press it in firmly until it bottoms against the ridge at the bottom of the bore.
6. Wipe off excess Loctite™.

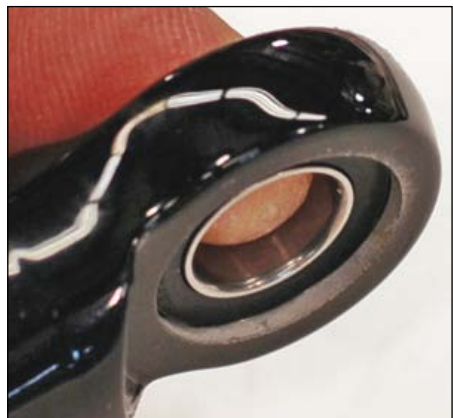
**IMPORTANT:** The bearing must be seated against this ridge until the Loctite cures. Allow the Loctite to cure completely before attempting to continue assembly.

Allow at least 6 hours for Loctite to cure.

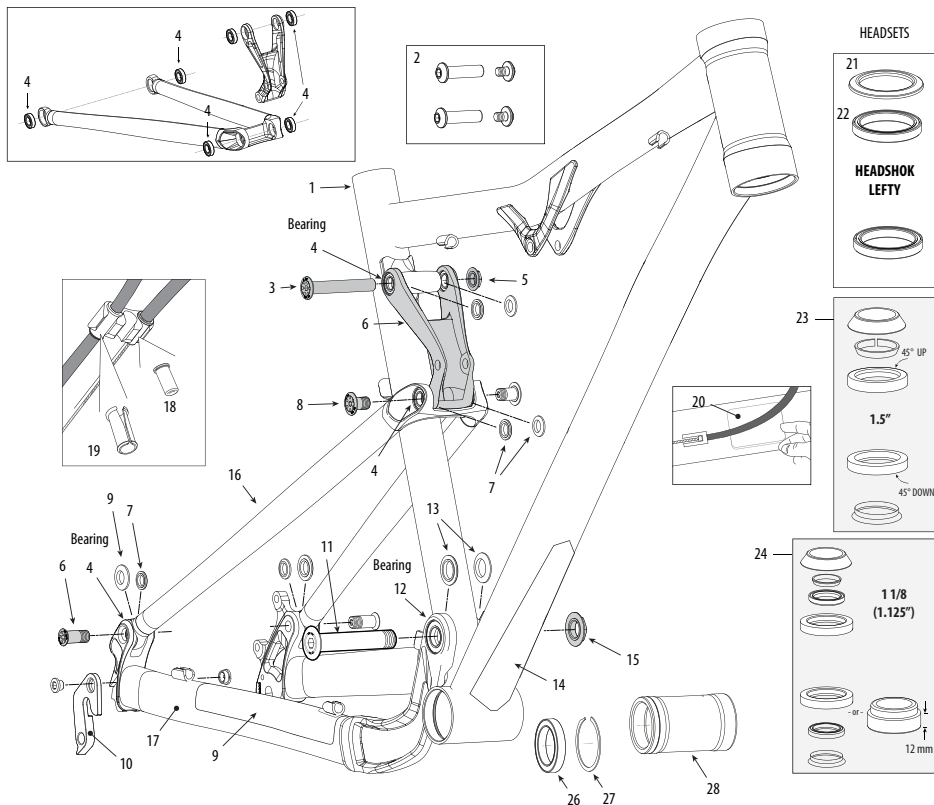
Allow at least 24 hours before riding.

### NOTICE

Be careful to not damage the bearing bore when cleaning.



## REPLACEMENTS PARTS RZ ONE FORTY CARBON / ALLOY

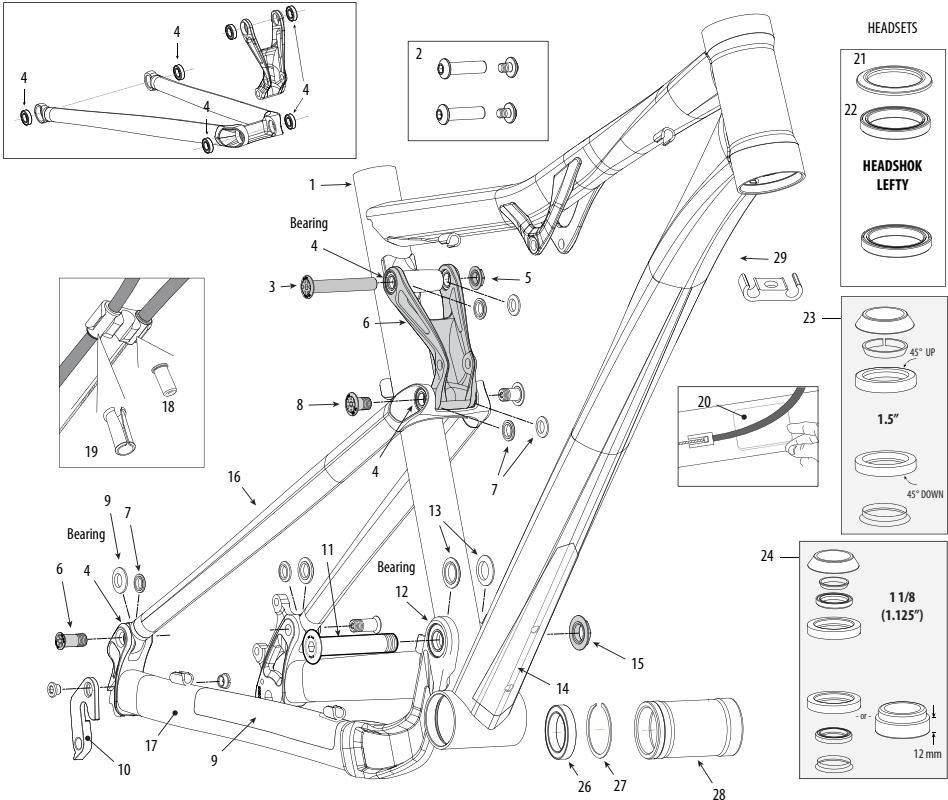


NO. (QTY)	ORDER NO.	KIT DESCRIPTION
	<b>KP111/</b>	KIT,SHOCK,RS MONARCH 4.2,RIZE
	<b>KP069/</b>	KIT,SHOCK,FOX RP23,RIZE
11, 13(2), 15	<b>KP070/BLK</b>	KIT,PIVOT SWINGARM, RIZE,BLK
	<b>KP070/RED</b>	KIT,PIVOT SWINGARM, RIZE,RED
12	<b>KB61902/</b>	KIT,BEARING,1 #6902-2RS(ID-15, OD-28, THICK-7)
2	<b>KP071/</b>	KIT,HWARE,SHOCK MOUNTING,RIZE
3, 5, 6(2), 7(6), 8(2), 9(2)	<b>KP072/BLK</b>	KIT,LINK,HWARE,RIZE BLK
	<b>KP072/RED</b>	KIT,LINK,HWARE,RIZE, RED
4(6)	<b>KP073/</b>	KIT,BEARING,6 #6800-2RS(ID-10, OD-19, THICK-5)
	<b>KP074/</b>	KIT,LOCTITE 638,10 ML
6, 4(2)	<b>KP075/BLK</b>	KIT,LINK,RIZE,BLK --NEED LOCTITE 638
	<b>KP075/WHT</b>	KIT,LINK,RIZE,WHT --NEED LOCTITE 638
	<b>KP075/GRN</b>	KIT,LINK,RIZE,GRN --NEED LOCTITE 638
10	<b>KF051/</b>	KIT,DER HANGER:SINGLE SIDED 2
1	<b>QC843/BBQ</b>	KIT,SEATBINDER,MTN QR,34.9,BLK
	<b>QC842/BBQ</b>	KIT,SEATBINDER,MTN,34.9,BLK

NO. (QTY)	ORDER NO.	KIT DESCRIPTION
	<b>KF014/</b>	KIT,CABLE STOP INSERTS-2
18	<b>KF086/</b>	KIT,GUIDES, HYDR.BRAKE.,10PCS
9	<b>KP077/</b>	KIT,CH.STAY PROTECT -RIZE
14	<b>KP054/</b>	KIT,GUARD,SCUFFGUARD,DOWNTUBE
20	<b>KF103/</b>	KIT,GUARD,SCUFFGUARD-8PK
	<b>KF012/</b>	KIT,RIVNUTS, BAG OF 5
21	<b>QSISEAL/</b>	KIT,SEAL,UPPER BEARING,58MM OD
22	<b>HD169/</b>	KIT,BEARINGS, HEADSET - 2
24	<b>KP058/</b>	KIT,HEADSET,INT HEADSHOK TO 1 1/8"
23	<b>KP119/</b>	KIT,HEADSET,INT HEADSHOK TO 1.5"
26(2)	<b>KP018/</b>	KIT,BEARING,BB-SI,CERAMIC,2PCS
	<b>KB6180/</b>	KIT,BEARING,BB-SI,2PCS
27	<b>QC616/</b>	KIT,CIRCLIPS (2) BB-SI
28	<b>KP009/</b>	KIT,ADAPTER,SIBB TO 68MM TAP
	<b>KF365/</b>	KIT,TOOL,SIBB/68 ADP.INSTALL
	<b>KF366/</b>	KIT,TOOL,SIBB ADAPTER EXTRACT

# REPLACEMENTS PARTS

## RZ ONE TWENTY ALLOY, RZ ONE TWENTY ALLOY FEMININE



NO. (QTY)	ORDER NO.	KIT DESCRIPTION
	<b>KP112/</b>	KIT,SHOCK,FOX RP23 ,RIZE120
11, 13(2), 15	<b>KP070/BLK</b>	KIT,PIVOT SWINGARM, RIZE,BLK
	<b>KP070/RED</b>	KIT,PIVOT SWINGARM, RIZE,RED
	<b>KP070/BLU</b>	KIT,PIVOT SWINGARM,RIZE,BLU
12	<b>KB61902/</b>	KIT,BEARING,1 #6902-2RS(ID-15, OD-28, THICK-7)
2	<b>KP071/</b>	KIT,HWARE,SHOCK MOUNTING,RIZE
3, 5, 6(2) 7(6), 8(2), 9(2)	<b>KP072/BLK</b>	KIT,LINK,HWARE,RIZE,BLK
	<b>KP072/RED</b>	KIT,LINK,HWARE,RIZE,RED
	<b>KP072/BLU</b>	KIT,LINK,HWARE,RIZE,BLU
4(6)	<b>KP073/</b>	KIT,BEARING,6 #6800-2RS(ID-10, OD-19, THICK-5)
	<b>KP074/</b>	KIT,LOCTITE 638,10 ML
6, 4(2)	<b>KP113/STD</b>	KIT,LINK,RIZE 120,BLK M-X --NEED LOCTITE 638
	<b>KP113/SM</b>	KIT,LINK,RIZE 120,BLK P-S --NEED LOCTITE 638
10	<b>KF051/</b>	KIT,DER HANGER:SINGLE SIDED 2
1	<b>QC843/BBQ</b>	KIT,SEATBINDER,MTN QR,34.9,BLK
	<b>QC842/BBQ</b>	KIT,SEATBINDER,MTN,34.9,BLK

NO. (QTY)	ORDER NO.	KIT DESCRIPTION
18	<b>KF014/</b>	KIT,CABLE STOP INSERTS-2
9	<b>KP077/</b>	KIT,CH.STAY PROTECT-RIZE
19	<b>KF086/</b>	KIT,GUIDES, HYDR.BRAKE.,TOPCS
29	<b>KP126/</b>	KIT,GUIDE,HOUSING,BOLT-ON 2
14	<b>KP054/</b>	KIT,GUARD,SCUFFGUARD,DOWNTUBE
20	<b>KF103/</b>	KIT,GUARD,SCUFFGUARD-8PK
21	<b>KF012/</b>	KIT,RIVNUTS, BAG OF 5
	<b>QSISEAL/</b>	KIT,SEAL,UPPER BEARING,58MM OD
22	<b>HD169/</b>	KIT,BEARINGS, HEADSET- 2
24	<b>KP058/</b>	KIT,HEADSET,INT HEADSHOK TO 1 1/8"
23	<b>KP119/</b>	KIT,HEADSET,INT HEADSHOK TO 1.5"
	<b>KP018/</b>	KIT,BEARING,BB-SI,CERAMIC,2PCS
26(2)	<b>KB6180/</b>	KIT,BEARING,BB-SI,2PCS
27	<b>QC616/</b>	KIT,CIRCLIPS (2) BB-SI
28	<b>KP009/</b>	KIT,ADAPTER,SIBB TO 68MM TAP
28	<b>KF365/</b>	KIT,TOOL,SIBB/68 ADP.INSTALL
	<b>KF366/</b>	KIT,TOOL,SIBB ADAPTER EXTRACT

## MAINTENANCE

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><b>APPLY FRAME PROTECTION:</b></p> <p><b>DOWNTUBE</b> - A clear protective material is applied to carbon version of this bike. The material protects the downtube from damage caused by small debris. Have it replaced if it becomes damaged or is missing.</p> <p><b>HOUSING AND CABLES</b> - Your bike has been supplied with small adhesive frame protectors. Place this material on the the frame between where cables and housing rub due to movement. Overtime, cable rubbing can wear into the frame itself causing very serious frame damage.</p> <p><b>SWINGARM</b> - A clear adhesive chain slap protector has been placed on the right chainstay of the swingarm. Replace this protector if it becomes damaged.</p> <p><i>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.</i></p>	<p><b>AFTER FIRST RIDE</b></p>
<p><b>INSPECT THE FRAME, SWINGARM, SEATSTAYS</b> - Clean and visually inspect entire bike frame/swingarm/linkage assembly for cracks or damage. See "Inspect For Safety" in your <i>Cannondale Bicycle Owner's Manual</i>.</p>	<p><b>BEFORE AND AFTER EACH RIDE</b></p>
<p><b>CHECK TIGHTENING TORQUES</b> - In addition to other component specific tightening torques for your bike. Tighten according to the TIGHTENING TORQUES information listed in this supplement. See page 5.</p>	<p><b>EVERY FEW RIDES</b></p>
<p><b>INSPECT BEARINGS, REPLACE WORN OR DAMAGED PARTS</b></p> <ul style="list-style-type: none"> <li>• SHOCK LINK                                      • SHOCK BOLT                                      • SEAT STAYS</li> <li>• SHOCK LINK PIVOT                              • MAIN SWINGARM PIVOT</li> </ul>	<p><b>IN WET, MUDDY, SANDY CONDITIONS</b> EVERY 25 HRS.</p> <p><b>IN DRY, CONDITIONS</b> EVERY 50 HRS.</p>
<p><b>MAINTENANCE OF THE FORK AND SHOCK</b> - Please consult the manufacturer's owner's manual for maintenance information for your fork or rear shock.</p>	



### 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.



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