# Jekyll

Owner's Manual Supplement



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

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

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# **Safety Messages**

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



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

## NOTICE

Indicates special precautions that must be taken to avoid damage.

#### SYMBOLS:



= Apply NGLI-2 Synthetic grease



= Loctite® 242



= Tightening torque in Newton meters.

## **Cannondale Supplements**

This manual is a "supplement" to your Cannondale Bicycle Owner's Manual.

This supplement provides additional and important model specific safety, maintenance, and technical information. It may be one of several important manuals/supplements for your bike; obtain and read all of them.

Please contact your Authorized Cannondale Dealer immediately if you need a manual or supplement or have a question about your bike. You may also contact us using the appropriate country/region/location information.

You can download Adobe Acrobat PDF versions of any manual/supplement from our website: http://www.cannondale.com.

## **Contacting Cannondale**

#### Cannondale USA

Cycling Sports Group, Inc. 1 Cannondale Way Wilton, CT 06897, USA 1-800-726-BIKE (2453)

#### CSG Europe (Woudenberg)

Cycling Sports Group Europe B.V. Geeresteinselaan 57 3931JB Woudenberg The Netherlands PH: 00.31.541.200374

#### International Distributors

Consult our website to identify the appropriate Cannondale Dealer for your region.

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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.

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# 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 warning.

## **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**



The intended use of all models is ASTM CONDITION 4, All-Mountain.



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

## Servicing



## WARNING

This supplement 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 Dealer.

## **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 torque fasteners yourself always use a torque wrench.

Find Tightening Torque Information:

The wide range of bicycle models and components used means that a listing of tightening torque would be out of date by the time it was published. Many fasteners should be installed with a thread locking adhesive such as Loctite®.

To determine correct tightening torque and any adhesive application for a fastener we ask you to check:

Many components are marked. Onproduct marking is becoming common.

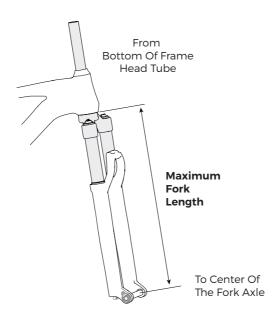
·Torque specs in the component manufacturers instructions shipped with your bicycle.

Torque specs listed on the websites of component manufacturers.

With your dealer. Dealers have access to current data and have experience with correct torque for most fasteners.

## **Maximum Fork Length**

Maximum Fork Length is an important frame safety testing specification for front suspension mountain bikes. You must observe the measurement when installing headset parts, headset adapters, installing and adjusting a fork, and selecting replacement forks.



## **WARNING**

You must select a replacement fork not only based on head tube diameter but the critical factor of frame maximum fork length.

Do not exceed maximum fork length. Exceeding the MAXIMUM FORK LENGTH limit can overload the frame causing it to break while riding.

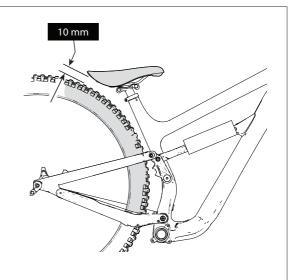
Your retailer MUST follow and observe this specification for your bike. For Maximum Fork Length specifications for Cannondale bicycles, see www.cannondale.com.

You can be severely injured, paralyzed or killed in an accident if you ignore this warning.

## **Rear Tire Clearance: Full Suspension**

## Applies to:

- saddles
- seat posts
- rear racks
- any accessory with possible collision with the moving tire.



## To check clearance:

- Release all the air from the rear shock.
   Remove the coil spring from coil shocks.
   spring coil (removal should only be done by a professional bike mechanic). Do not disconnect or remove the shock.
- Compress the suspension fully with the tire inflated to its maximum inflation pressure.
- At various points across the tire, measure the distance between the tire and the component or accessory.
- If there is less than 10 mm of clearance available, the component or accessory must be adjusted or changed until I there is at least 10 mm of clearance.

## **WARNING**

Maintain 10 mm of clearance between rear tire, any rear rack, saddle, seat post, frame seat tube, or any mounted accessory.

Check following saddle or seat post adjustments.

If you have questions maintaining tire clearances for parts of your bike consult with an Authorized Dealer or a professional cycling mechanic.

You can be severely injured, paralyzed or killed in an accident if you ignore this warning.

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## Tire Size x Maximum Width



## WARNING

Observe the Tire Size x Maximum Width for your bike found in the "Specifications" page of this manual.

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 tires that are larger than the maximum recommended size. Such tires could contact the fork, frame, saddle, seatpost, or seatbinder when the suspension is fully compressed or while riding.

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

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 authorized brand retailer 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.

## Serial Number

To register your bike: go to the **Product Registration** section of our website at www.cannondale.com



- 1. Serial Number
- Product Codes

## **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.

You can be severely injured, paralyzed or killed in an accident if you ignore this warning.

# Minimum Seat Post Insert - Frame



## WARNING

Keep the frame's minimum seat post insertion length inserted into the frame at all times. The length is found in the "Specifications" table in this manual.

# To mark the seat post with a frame minimum seat post insertion mark:

- 1. Remove the seat post.
- 2. Measure the length of the specification up from the bottom of the seat post.
- 3. Make a permanent ink line mark on the seat post.

If you have questions, about minimum seat post insert of the frame or a seat post minimum insert, please consult with your dealer or a professional bicycle mechanic.

Failure to insert and maintain either frame seat post minimum insert and also seat post minimum insert, can place very high stresses these parts causing failure while riding.

You can be severely injured, paralyzed or killed in an accident if you ignore this warning.

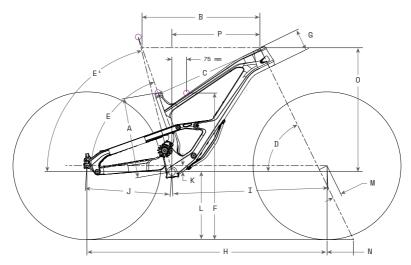
# **Technical Information**

# **Specifications**

Item	Specification
Rear Travel	165mm
Head Tube	UPR: 1-1/8", LWR: 1-1/2"
Headset	1.125 - 1.5 tapered, IS42 top, IS52 lower
Bottom Bracket Type / Width	BSA Threaded/73mm
Front Derailleur	N/A
Seatpost Dia. / Binder	31.6 mm / 34.9 mm
▲ Min. Seatpost Insertion	100 mm
▲ Max. Seatpost Insertion	SM: 250mm MD-LG: 275mm XL 286mm
▲ Tire Size x Max. Width	29" x 2.5" (measured)
▲ Max Fork Length	581mm
Fork (Travel/Offset)	170mm / 44mm
Rear Shock: Eye-to-Eye / Stroke	205 mm / 65 mm /FT: M8 × 30 mm,
/ Bushing Width	RR: Trunnion Frame Mount
Sag	25%-30%, 15 mm - 20 mm
Chain Guide	BB Shell: ISCG05
Idler:	K22031 Jekyll Idler Guide
Rear Brake Mount / Type	Post Mount
Min. / Max. Rotor Dia.	180mm/203mm
Rear Axle: Type / Length	148×12 Maxle TA M12 × 1.5p x 180mm
	Overall Length
Ai Offset	Rear Wheel: 3 mm Boost Ai Offset to NDS
SRAM/Shimano:	55mm Chainline
▲ Intended Use	ASTM Condition 4, All-Mountain
▲ Max Weight Limit Total	305 lbs. / 138 kg.
(rider+all equipment)	
Additional Technical Features	Guidler, Gravity Cavity Internal Shock Mount,
	Tube-in-Tube Cable Routing

All Specifications subject to change without notice.

# **Geometry**



Dimensions = centimeter

Item	Size	S	М	L	XL
	Wheel Size	29	29	29	29
Α	Seat Tube Length	39.0	41.0	44.5	50.0
В	Top Tube Horizontal	56.9	60.8	62.3	66.0
С	Top Tube Actual	54.1	56.9	58.8	62.7
D	Head Tube Angle	64.0	64.0	64.0	64.0
Е	Seat Tube Angle Effective	77.5	77.5	77.5	77.5
Е	Seat Tube Angle Actual	71.5	70.5	72.5	73.5
F	Standover	75.0	75.0	76.0	77.0
G	Head Tube Length	10.0	11.0	12.0	13.0
Н	Wheelbase	119.3	122.7	126.4	131.1
I	Front Center	76.5	79.4	82.3	86.3
J	Chain Stay Length	43.0	43.5	44.2	45.0
K	Bottom Bracket Drop	3.0	3.0	3.0	3.0
L	Bottom Bracket Height	34.8	34.8	34.8	34.8
M	Fork Rake	4.4	4.4	4.4	4.4
N	Trail	13.5	13.5	13.5	13.5
0	Stack	62.5	63.4	64.3	65.2
Р	Reach	42.5	45.0	47.5	51.0

## **Rear Shock**

## **Setting Sag**

See the illustration on the following page:

- Set the air pressure according to your body weight. Follow the shock manufacturer's instruction for pressurizing the shock.
- Slide the O-ring (8) against the shock wiper seal (7).
- 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.
- 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.

## **Mounting the Shock**

See the illustration on the following page:

## It is important to know:

The orientation of adjuster on the shock should be positioned as shown.

Any adjustment of the shock should be done before riding. It may be necessary to remove the downtube protector in order to gain easy access to shock adjustment features.

The downtube protector covers the rear shock and must remain in place while riding. If it becomes damaged, it should be replaced with a new one.

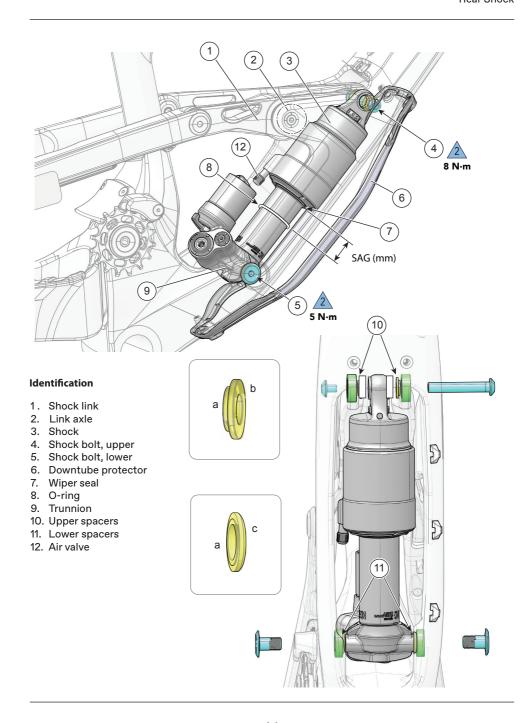
When the suspension is active, keep your hands out of the linkage area to avoid personal injury.

#### Removal:

- Secure bike in a work stand. Support the rear wheel to prevent it from falling.
- 2. Remove the lower rear shock mounting bolts (5) and bearing spacers (11).
- Remove the link axle (2) and allow the linkage to move backward in order to access the upper shock bolts (4). Place a thick towel between the seat tube and link (1) to prevent the linkage from striking the seat tube
- Disconnect the upper shock mounting bolts
   (4) and remove the bearing spacers (10).
- 5. Remove the shock (3).

#### Installation:

- Secure bike in a work stand.
- Install the lower shock into the lower frame mount. Assemble the lower spacers (11) between the trunnion and bearing with the rounded side (c) of the spacer facing the shock.
- 3. Install and tighten the lower shock bolts (5).
- Install the upper shock mounting bolts (4); position the spacers (10) between the shock bushing and the bearing face. The larger side (b) of the spacers (10) face the bushings.
- 5. Install the link axle. See LOCKR Axles.



## **LockR Axles**

Be sure to support the bike or swingarm to prevent personal injury or bike damage when removing/disconnecting linkages of an axle.

#### To remove:

- 1. Loosen the screw (1) 4-6 turns using a T25 Torx key.
- 2. Tap head of screw (1) with a rubber mallet to un-seat the wedge bolt (2) located on the opposite side.
- 3. Remove the screw (1), wedge (3) and wedge bolt (2) from the still installed axle (4).
- 4. If the wedge (3) did not come out with the screw (1), insert a 5 mm hex key into the wedge (3) and turn to free and remove it. If the wedge still sticks, insert a wooden or plastic dowel into the drive side and drive it out.
- 5. To remove the axle (4) on the non-drive side,, insert a 6 mm hex key into the axle on the non-drive side and turn counter-clockwise until it can be removed.

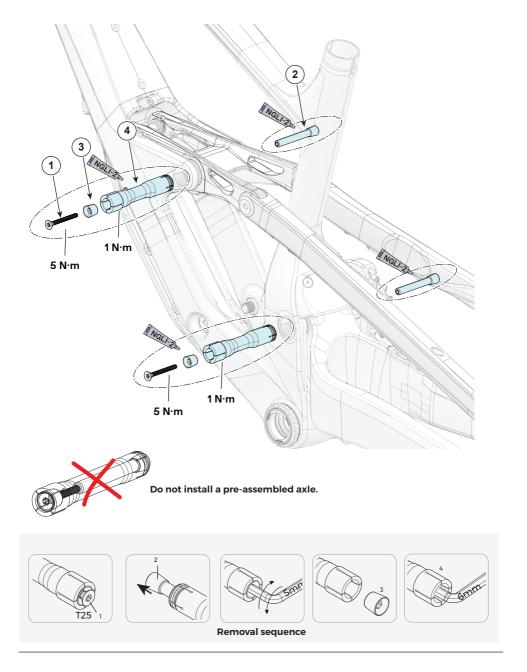
#### To install:

- Disassemble and clean all parts of the LockR axle. Do not install it assembled.
   Inspect the parts for damage (burrs, scratches, deformity, wear). Replace the entire LockR assembly if any damage is found.
- 2. Apply a light coating of a high-quality bicycle bearing grease to all parts.
- 3. Align the linkage and bearing and insert the threaded end of the pivot axle (4) into the non-drive side.
- 4. Tighten the inserted pivot axle (4) to 1 N·m using a 6 mm hex key fitted torque wrench from the non-drive side.

#### NOTICE

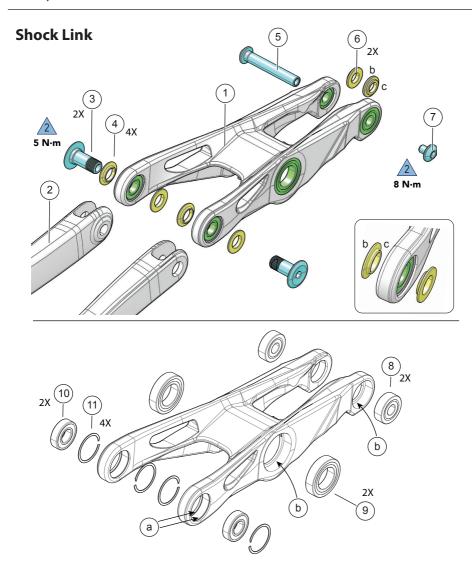
Use a calibrated torque wrench. Exceeding 1 N·m will result in permanent damage to the LockR pivot system.

- 5. Insert the wedge bolt (2) into the drive side of the axle (4) and insert the small end of the wedge (3) into the non-drive side axle head.
- 6. Thread the screw (1) into wedge bolt (3) with a wrench and tighten to 5.0 N·m.



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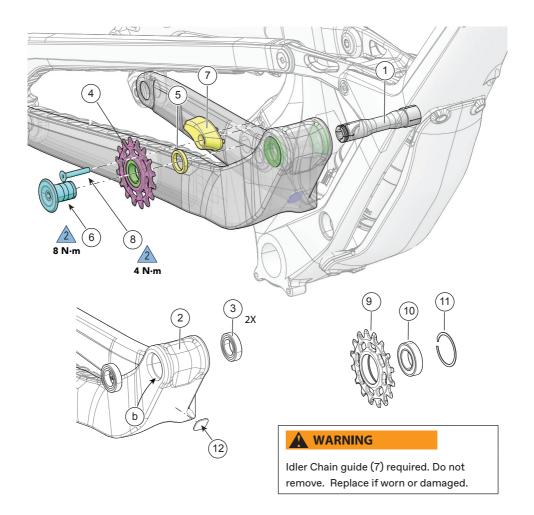
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## Identification

- Link
   Seatstay
- Seatstay
   Bolt
- 4. Spacer
- 5. Shock bolt, long
- 6. Spacer
- 7. Shock bolt, short
- 8. Link bearing, front
- 9. Link bearing, mid
- 10. Link bearing, rear
- 11. Ring clip
- a. groove
- b. large side
- c. small side

## Main Pivot / Idler / Chain Guide

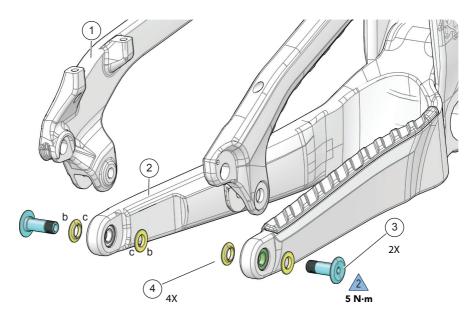


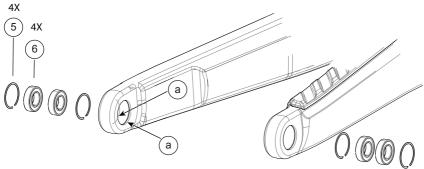
#### Identification

- 1. Pivot axle, main
- 2. Chainstay
- 3. Pivot bearings
- 4. Idler assy.
- 5. Idler spacer
- 6. Axle bolt
- 7. Idler chain guide
- 8. Bolt, idler guide
- 9. Idler gear
- 10. Idler bearing
- 11. Ring clip
- 12. Guard, adhesive

b. Bearing land

# **Dropouts**



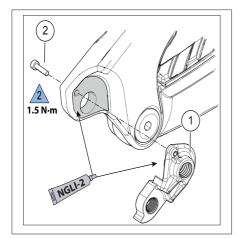


## Identification

- 1. Seatstay
- 2. Chainstay
- 3. Axle Bolt
- 4. Bearing spacer
- 5. Ring clip
- 6. Bearing
- a. groove
- b. large side
- c. small side

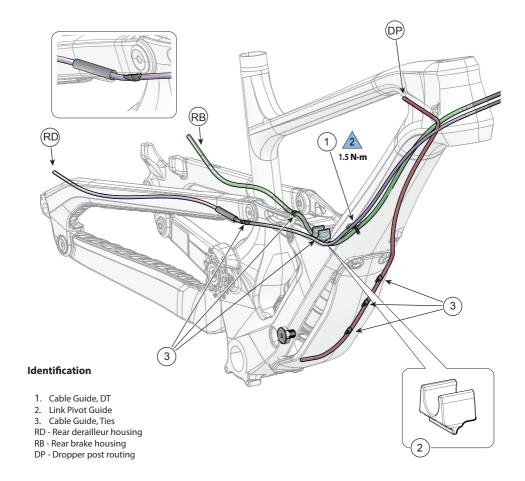
# Rear Derailleur Hanger

Anytime the RD Hanger is replaced due to damage or a crash, clean the dropout and also check for any damage.



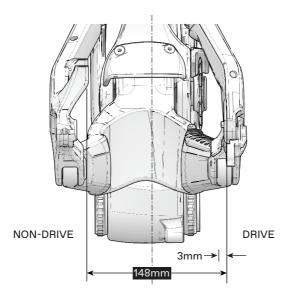
- 1. RD Hanger
- 2. Screw

# **Cable Routing**



- Periodically check cable guide and guide cable ties for tightness. Replace if loose or damaged.
- Notice shape/orientation of pivot axle guide. RD and RB housing are attached to this guide with cable tie.

## **Boost Ai Offset**



The Ai rear hub is offset 3 mm to the drive side. This both aligns the cassette with the Ai frame's 55mm chainline and aligns the rim/tire with the frame's centerline for correct tire clearance.

- Ai wheels have equal spoke angles and tension on both sides (non-dished wheel) which improves wheel stiffness and strength.
- The 3mm offset is for 148 X 12mm spacing only!
- Other Ai-equipped bike with 142mm or 135mm rear spacing use a 6mm offset.

#### NOTICE

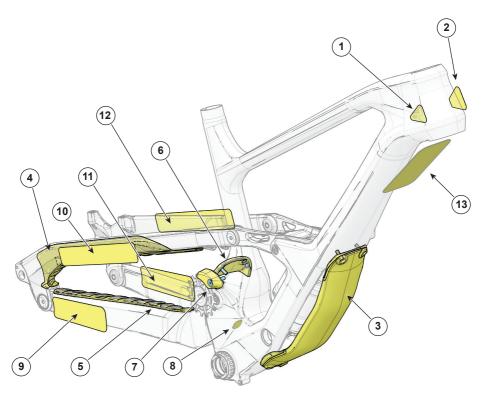
USE ONLY 3mm "Ai" OFFSET REAR WHEELS. Incorrect wheel offset can damage your frame.

Standard-dish rear wheel assembled on this frame will result in insufficient tire clearance, leading to rubbing and serious frame damage. This kind of damage is not covered by the Cannondale Limited Warranty.

Building/Truing a Wheel

If you choose to build or to true a rear wheel for use on this bike, make sure the 3 mm offset is present. Consult with your Cannondale Dealer if you have any questions.

## **Guards/Protectors - Placement**



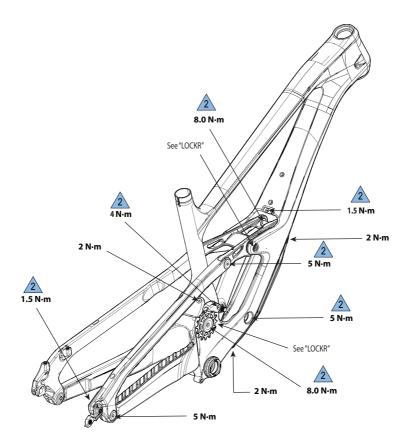
#### Identification

- 1. Headtube,left
- 2. Headtube, right
- 3. Downtube, lower
- 4. Seatstay, inner
- 5. Chainstay, upper
- 6. Seatube, fender
- 7. Guidler chain guide
- 8. Swingarm, pad
- 9. Chainstay, right, outer
- 10. Seatstay, right, outer
- 11. Chainstay, left, inner
- 12. Seatstay, left, outer
- 13. Headtube, upper

## **NOTICE**

Damaged, loose, missing, incorrectly positioned protectors can lead to frame damage. Damage of this type is not covered by the Cannondale Limited Warranty. Make sure all frame protectors and guards are present, installed correctly and are in good condition.

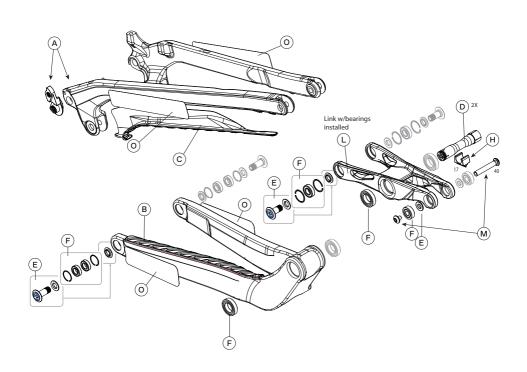
## **Tightening Torques**



Correct tightening torque for the fasteners (bolts, screws, nuts) on your bicycle is very important to your safety and to 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 calibrated torque wrench!

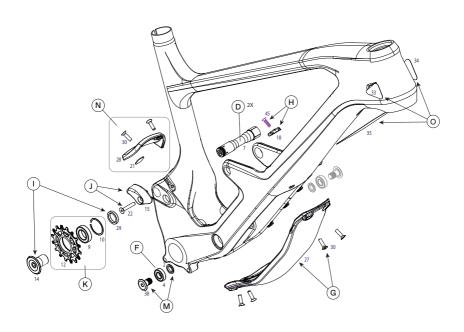
# **Replacement Parts**



# Seatstay, Chainstay, Shock Link

ID	Part Number	Description	
Α	CK3257U00OS	Derailleur Hanger TA ST	
A		SS 015	
В	K34231	Jekyll CS Protector	
С	K34241	Jekyll SS Protector	
D	K36061	Expanding Axle	
D		Hardware 87mm	

ID	Part Number	Description	
E	K36071	Jekyll Link CS Hardware	
F	K36081	Jekyll Pivot Link CS	
F		Bearings	
L	K91071	Jekyll Suspension Link	



# **Front Triangle**

ID	Part Number	Description
Н	K32121	Jekyll Link DT Cable Guides
I	K22021	Jekyll Idler Bolt and Spacer
J	K22031	Jekyll Idler Guide
К	K22011	Jekyll Idler Pulley with
K		Bearing

ID	Part Number	Description
М	K36051	Jekyll Shock Bolts and
IVI		Spacers
N	K11081	Jekyll Rear Fender
K34641 Je		Jekyll Clear Frame
U		Protection

## Maintenance

The following table lists only supplemental maintenance items.

Please consult your <u>Cannondale Bicycle Owner's Manual</u> for more information on basic bike maintenance.

## **Developing an Schedule**

Item	Frequency
Cable Routing - Make sure control cables are in place, undamaged and attached securely.  Frame Protection - Check the various frame protectors (downtube, headtube, chainstay, swingarm) on your bike. Make sure they are in place and in good condition.	Before first ride
Damage Inspection - Clean and visually inspect the entire bike frame/swing arm/linkage assembly for cracks or damage.	Before and after each ride
Check Tightening Torques - In addition to other component- specific tightening torques for your bike, tighten according to the "Tightening Torques" information listed in this supplement.	Every few rides
Disassemble, clean, inspect, re-grease, and/or replace worn or damaged parts in the following assemblies:	In wet, muddy, or sandy conditions every 25 hrs.
Shock Link     Pivot Axles     Frame Pivot Bearings	In dry, conditions every 50 hrs.

Fork and Shock- Consult the manufacturer's owner's manual for maintenance requirements.



Any part of a poorly maintained bike can break or malfunction leading to an accident where you can be killed, severely injured or paralyzed.

Frequent checks are necessary to identify the problems that can lead to an accident. See "Inspect For Safety" in your <u>Cannondale Bicycle Owners Manual</u>.

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## **CANNONDALE USA**

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