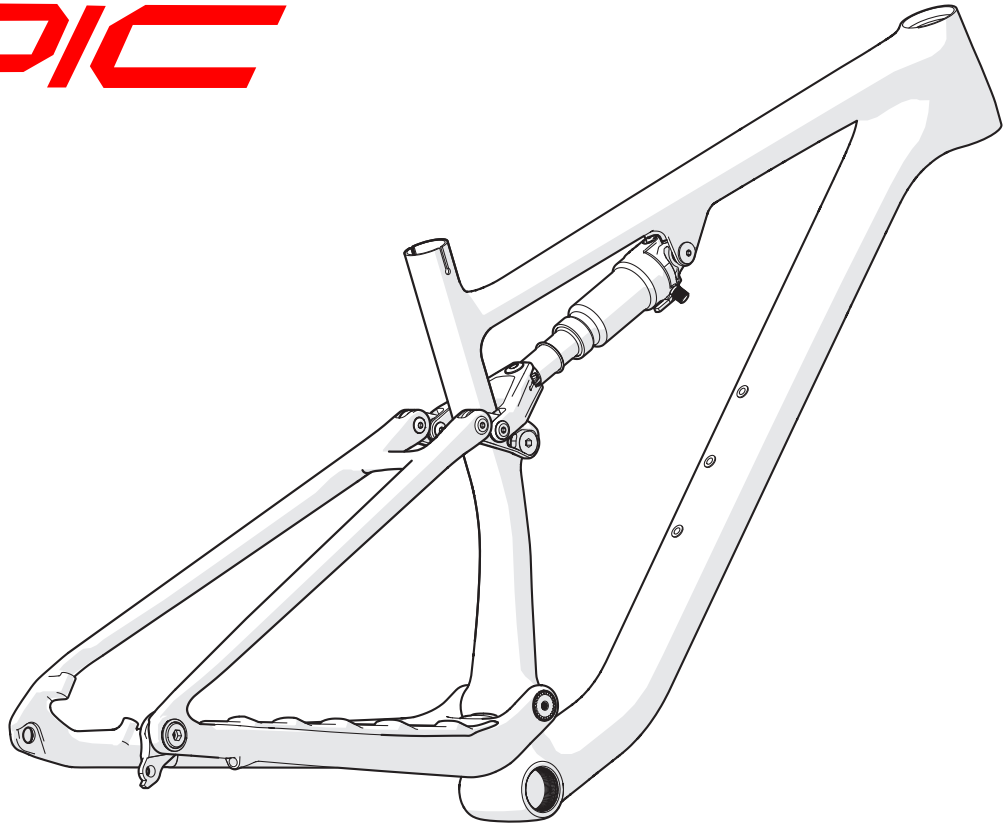
EPIC

EVO



USER MANUAL

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SPECIALIZED BICYCLE COMPONENTS
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0000146748_UM_R1, 01/20

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Info: specialized.com / 877-808-8154

1. INTRODUCTION

This user manual is specific to your Specialized Epic EVO bicycle. It contains important safety, performance and technical information, which you should read before your first ride and keep for reference. You should also read the entire Specialized Bicycle Owner's Manual ("Owner's Manual"), because it has additional important general information and instructions which you should follow. If you do not have a copy of the Owner's Manual, you can download it at no cost at www.specialized.com, or obtain it from your nearest Authorized Specialized Retailer or Specialized Rider Care.

Additional safety, performance and service information for specific components such as suspension or pedals on your bicycle, or for accessories such as helmets or lights, may also be available. Make sure that your Authorized Specialized Retailer has given you all the manufacturers' literature that was included with your bicycle or accessories. If there is a difference between the instructions in this manual and the information provided by the component manufacturer, please refer to your Authorized Specialized Retailer.

When reading this user manual, you will note various important symbols and warnings, which are explained below:

	**WARNING!** The combination of this symbol and word indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death. Many of the Warnings say "you may lose control and fall." Because any fall can result in serious injury or even death, we do not always repeat the warning of possible injury or death.
	**CAUTION:** The combination of the safety alert symbol and the word CAUTION indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury, or is an alert against unsafe practices. The word CAUTION used without the safety alert symbol indicates a situation which, if not avoided, could result in serious damage to the bicycle or the voiding of your warranty.
	**INFO:** This symbol alerts the reader to information which is particularly important.
	**GREASE:** This symbol means that high quality grease should be applied as illustrated.
	**CARBON FRICTION PASTE:** This symbol means that carbon friction paste should be applied as illustrated to increase friction.
	**TORQUE:** This symbol highlights the correct torque value for a specific bolt. In order to achieve the specified torque value, a quality torque wrench must be used.
	**TECH TIP:** Tech Tips are useful tips and tricks regarding installation and use.

1.1. INTENDED USE

The Specialized Epic EVO is intended and tested for Mountain Bike (condition 3 - Cross-country, Marathon, Hardtails) use only. For more information on intended use and structural weight limits for the frame and components, please refer to the Owner's Manual.

1.2. WARRANTY

Please refer to the written warranty provisions provided with your bicycle, or visit www.specialized.com. A copy is also available at your Authorized Specialized Retailer.

2. GENERAL NOTES ABOUT ASSEMBLY

This manual is not intended as a comprehensive assembly, use, service, repair or maintenance guide. Please see your Authorized Specialized Retailer for all service, repairs or maintenance. Your Authorized Specialized Retailer may also be able to refer you to classes, clinics or books on bicycle use, service, repair, and maintenance.

WARNING! Due to the high degree of complexity of the Epic EVO, proper assembly requires a high degree of mechanical expertise, skill, training and specialty tools. Therefore, it is essential that the assembly, maintenance and troubleshooting be performed by an Authorized Specialized Retailer.

WARNING! Many components on the Epic EVO, including, but not limited to the rear suspension, are proprietary to the Epic EVO. Only use originally supplied components and hardware at all times. Use of other components or hardware will compromise the integrity and strength of the assembly. Epic EVO specific components should only be used on the Epic EVO and not on other bicycles, even if they fit. Failure to follow this warning could result in serious injury or death.

WARNING! Never modify your frame or components in any way. Do not sand, drill, file, or remove parts. Do not install incompatible forks or suspension parts. An improperly modified frame, fork, or component, can cause you to lose control and fall.

In order to successfully build the Epic EVO bicycles, it is very important to follow the order of operations as outlined in this manual. Modifying the order of assembly will result in a longer build process.

2.1. FORK/HEADSET/STEM

- The headset uses a 1 1/8" (41.8mm x 30.5 x 8mm, 45x45°) Campagnolo Standard compatible upper bearing and a 1.5" (52mm x 40 x 7mm, 45x45°) lower bearing. Ensure that replacement bearings are compatible with the Specialized headset specification. No tools are needed for installation or removal of both bearings. Grease bearing surfaces before installation.
- Inspect the fork, stem, seatpost and seat tube, to ensure that there are no burrs or sharp edges. Remove any burrs or sharp edges using fine grit sandpaper.
- All edges of the stem in contact with the steerer tube should be rounded out to eliminate any stress points.

WARNING! Burrs and sharp edges can damage the carbon and alloy surfaces of the components. Any deep scratches or gouges in the stem or fork can weaken the components.

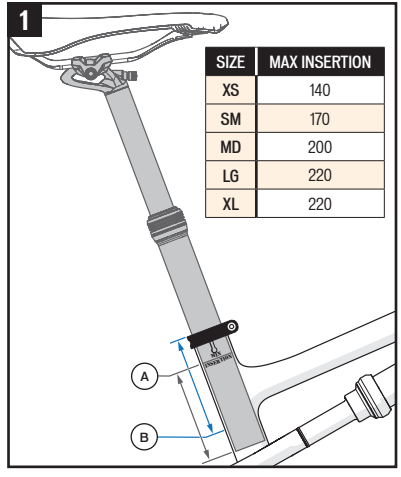
2.2. SEATPOST

SEATPOST MINIMUM INSERTION:

Both the frame and seatpost have minimum insertion requirements. In addition, the frame has a maximum insertion requirement to prevent damage to the frame and seatpost.

- **MINIMUM INSERTION:** The seatpost must be inserted into the frame deep enough so the minimum insertion/maximum extension (min/max) mark on the seatpost is not visible. The frame requires a minimum of 80mm of insertion.
- **MAXIMUM INSERTION:** The seat tube is reamed to a specified maximum insertion depth for each frame size. This ream depth limits the insertion depth of the seatpost. Please refer to the table in fig.1.

1



SIZE	MAX INSERTION
XS	140
SM	170
MD	200
LG	220
XL	220

- If the post is at the minimum or maximum insertion and the saddle is not at the desired position, the seatpost must be replaced with a longer or shorter seatpost.
- Once the saddle height is determined torque the seatpost wedge bolt to 55 in-lbf (6.2 Nm).

Do not apply grease to the contact surfaces between the seatpost and the seat tube. Grease reduces the friction, which is critical to proper seatpost grip. Specialized recommends the application of carbon assembly compound (fiber paste), which can increase friction between carbon surfaces. Please visit your Specialized Authorized Retailer for additional information.

The specified ream depths are listed in the table in fig.1. The tolerance of the ream depth can vary from frame to frame. Install a regular 30.9 seatpost in the seat tube to verify the actual ream depth of the frame.

WARNING! Failure to follow the seatpost and frame insertion requirements (fig. 1) may result in damage to the frame and/or seatpost, which could cause you to lose control and fall.

If the seatpost is cut short, the min/max mark on the seatpost may no longer be accurate. Before cutting the seatpost, note the min/max depth required by the seatpost manufacturer.

WARNING! For general instructions regarding the installation of the seatpost, refer to the appropriate section in the Owner's Manual. Riding with an improperly tightened seatpost can allow the saddle and seatpost to slide down, which can damage the frame and cause you to lose control and fall.

WARNING! Inspect the seatpost and seat tube to ensure that there are no burrs or sharp edges. Remove any burrs or sharp edges using fine grit sandpaper.

2.3. BOTTOM BRACKET

Epic EVO models have a threaded 73mm width bottom bracket shell and is compatible with any BSA threaded outboard bearing bottom bracket. Please refer to the crank manufacturer documentation for bottom bracket compatibility.

2.4. REAR AXLE

Epic EVO models are equipped with 148mm Boost rear hub spacing and require a 148mm Boost compatible rear wheel.

The Epic EVO frame uses the SRAM UDH (Universal Derailleur Hanger) at the rear dropout. This hanger must be installed following SRAM's installation instructions. Please refer to the installation steps on page 17, or refer to the SRAM UDH User Manual.

3. GENERAL NOTES ABOUT MAINTENANCE

The Epic EVO is a high performance bicycle. All regular maintenance, troubleshooting, repair and parts replacement must be performed by an Authorized Specialized Retailer. For general information regarding maintenance of your bicycle, please refer to the Owner's Manual. In addition, routinely perform a mechanical safety check before each ride, as described in the Owner's Manual.

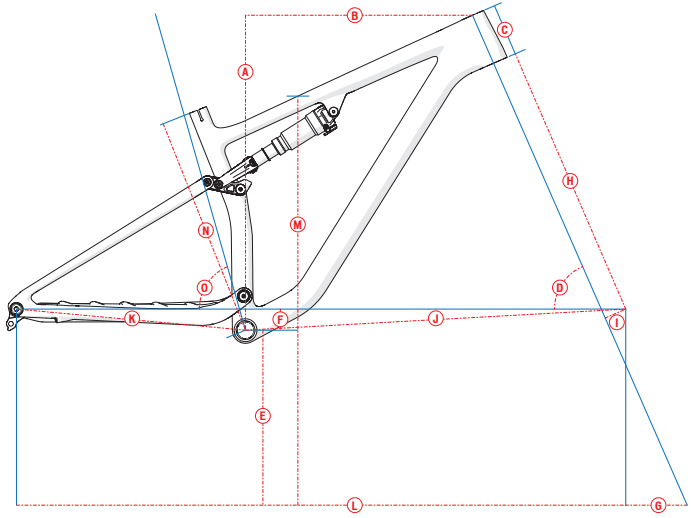
- Great care should be taken to not damage carbon fiber or composite material. Any damage may result in a loss of structural integrity, which may result in a catastrophic failure. This damage may or may not be visible in inspection. Before each ride, and after any crash, you should carefully inspect your bicycle for any fraying, gouging, scratches through the paint, chipping, bending, or any other signs of damage. Do not ride if your bicycle shows any of these signs. After any crash, and before you ride any further, take your bicycle to an Authorized Specialized Retailer for a complete inspection.
- While riding, listen for any creaks, as a creak can be a sign of a problem with one or more components. Periodically examine all surfaces in bright sunlight to check for any small hairline cracks or fatigue at stress points, such as welds, seams, holes, and points of contact with other parts. If you hear any creaks, see signs of excessive wear, discover any cracks, no matter how small, or any damage to the bicycle, immediately stop riding the bicycle and have it inspected by your Authorized Specialized Retailer.
- Lifespan and the type and frequency of maintenance depends on many factors, such as use, rider weight, riding conditions and/or impacts. Exposure to harsh elements, especially salty air (such as riding near the ocean or in the winter), can result in galvanic corrosion of components such as the crank spindle and bolts, which can accelerate wear and shorten the lifespan. Dirt can also accelerate wear of surfaces and bearings. The surfaces of the bicycle should be cleaned before each ride. The bicycle should also be maintained regularly by an Authorized Specialized Retailer, which means it should be cleaned, inspected for signs of corrosion and/or cracks and lubricated. If you notice any signs of corrosion or cracking on the frame or any component, the affected item must be replaced.
- Regularly clean and lubricate the drivetrain according to the drivetrain manufacturer's instructions.
- Do **not** use a high pressure water spray directly on the bearings. Even water from a garden

hose can penetrate bearing seals and crank interfaces, increasing bearing and crank wear. Use a clean, damp cloth and bicycle cleaning agents for cleaning.

- Do **not** expose the bicycle to prolonged direct sunlight or excessive heat, such as inside a car parked in the sun or near a heat source such as a radiator.

WARNING! Failure to follow the instructions in this section may result in damage to the components on your bicycle and will void your warranty, but, most importantly, may result in serious personal injury or death. If your bicycle exhibits any signs of damage, do not use it and immediately bring it to your Authorized Specialized Retailer for inspection.

WARNING! When placing the frame and/or bicycle in a repair stand, clamp the stand to the seatpost and not the frame. Clamping the frame can cause damage to the frame that may or may not be visible, and you may lose control and fall.



4. SPECIFICATIONS

4.1. GEOMETRY

	FRAME SIZE	XS	SM	MD	LG	XL
A	STACK (mm)	603	593	597	611	629
B	REACH (mm)	380	406	436	460	485
C	HEAD TUBE LENGTH (mm)	95	95	100	115	135
D	HEAD TUBE ANGLE (LOW) (°)	66.5				
	HEAD TUBE ANGLE (HIGH) (°)	67				
E	BB HEIGHT (LOW) (mm)	326	336			
	BB HEIGHT (HIGH) (mm)	332	342			
F	BB DROP (LOW) (mm)	46	36			
	BB DROP (HIGH) (mm)	52	42			
G	TRAIL (mm)	114				
H	FORK LENGTH (full) (mm)	530				
I	FORK RAKE/OFFSET (mm)	42 / 44				
J	FRONT CENTER (mm)	672	697	729	759	792
K	CHAINSTAY LENGTH (mm)	438				
L	WHEELBASE (mm)	1106	1132	1164	1194	1227
M	STAND-OVER HEIGHT	760	779	781	793	804
N	SEAT TUBE LENGTH (mm)	375	400	430	470	520
O	SEAT TUBE ANGLE (LOW) (°)	75.5	74.8	74.5	74.5	74.5
	SEAT TUBE ANGLE (HIGH) (°)	76	75.3	75	75	75
	CRANK LENGTH (mm)	165 / 170	170	175		
	HANDLEBAR WIDTH (mm)	750 / 760				
	STEM LENGTH (mm)	60				
	SADDLE WIDTH (mm)	155		143		
	SEATPOST MAX INSERTION (mm)	140	170	200	220	220

4.2. GENERAL SPECIFICATIONS

ITEM	PART #	SPECIFICATION
HEADSET	S192500021	HDS CANE CREEK,CAA2016,41.8/28.6/FLAT IS52/40 W/AL RACE SEAL, CROWN RACE FOR MY20 EPIC/EPIC HT SW
SEAT COLLAR	S184700003	STC MY18 EPIC SEAT COLLAR 34.9 MM WITH TI BOLT
SEAT COLLAR DIAMETER		34.9mm
SEATPOST DIAMETER		30.9mm
DERAILLEUR HANGER	S202600002	HGR SRAM AC UDH DERAILLEUR HANGER AL BLACK (00.7918.089.000)
BOTTOM BRACKET SHELL		BSA THREADED 73mm
REAR HUB AXLE	S170200003	AXL THROUGH AXLE, JD JD-QR43, 7075-T73 AXLE W/C6801 WASHER, REAR, 148MM SPACING, 172MM LENGTH, 12MM
REAR TIRE MAX		29 x 2.4"
REAR WHEEL TRAVEL		110mm
SHOCK LENGTH / STROKE		190mm / 40mm
SHOCK SAG		11mm (27.5%)
SHOCK EYELET		8mm ID x 20mm W
MAX FORK TRAVEL		120mm
MIN / MAX CHAINRING		28 - 36t
MIN / MAX REAR BRAKE ROTOR		160 / 180mm

WARNING! Specialized frames are compatible **ONLY** with forks that have a specific range of travel. Use of different styled forks or forks with longer travel may result in catastrophic failure of the frame which may result in serious personal injury or death.

WARNING! While the Epic EVO frame is generally compatible with tires up to 29 x 2.4, tire dimensions can vary depending on the manufacturer, and not all forks are designed to accept a larger tire. Always check with the fork manufacturer regarding required clearances.

CAUTION: Certain chainrings may not have adequate clearance with the chainstay. Verify spacing and chainline before using it.

4.3. TOOLS REQUIRED

■ 3, 4, 5, 6, 8mm ALLEN (HEX) KEYS	■ BLUE THREADLOCKER (LOCTITE 243)
■ TORQUE WRENCH (reversible type, for SRAM UDH)	■ GREEN RETAINING COMPOUND (LOCTITE 603)
■ HIGH PRESSURE SHOCK PUMP	■ CABLE AND HOUSING CUTTERS
■ HIGH QUALITY GREASE	

4.4. BOLT SIZE / TOOLS / TORQUE SPECIFICATIONS

WARNING! Correct tightening force on fasteners (nuts, bolts, screws) on your bicycle is important for your safety. If too little force is applied, the fastener may not hold securely. If too much force is applied, the fastener can strip threads, stretch, deform or break. Either way, incorrect tightening force can result in component failure, which can cause you to lose control and fall.

Where indicated, ensure that each bolt is torqued to specification. After your first ride, and consistently thereafter, recheck the tightness of each bolt to ensure secure attachment of the components. The following is a summary of torque specifications in this manual:

GENERAL TORQUE SPECS:

LOCATION	TOOL	TORQUE (in-lbf)	TORQUE (Nm)
SEAT COLLAR	4mm HEX	55	6.2
12MM REAR AXLE	6mm HEX	133	15.0
DERAILLEUR HANGER	8mm HEX	221	25.0
WATER BOTTLE BOSS	3mm HEX	25	2.8

BEARING SPECIFICATIONS

	QTY	PIVOT LOCATION	DIMENSION	BEARING
A	2	MAIN PIVOT (Chainstay)	12 ID x 24 OD x 6 W	6901V-2RS
B	2	UPPER LINK @ SEAT TUBE BEARING	10 ID x 19 OD x 5 W	6800V-2RS
D	2	UPPER LINK @ EXTENSION BEARING	10 ID x 19 OD x 5 W	6800V-2RS
C	2	UPPER LINK @ SEATSTAY BEARING	10 ID x 19 OD x 5 W	6800V-2RS

SPACER/AXLE/BOLT SPECIFICATIONS

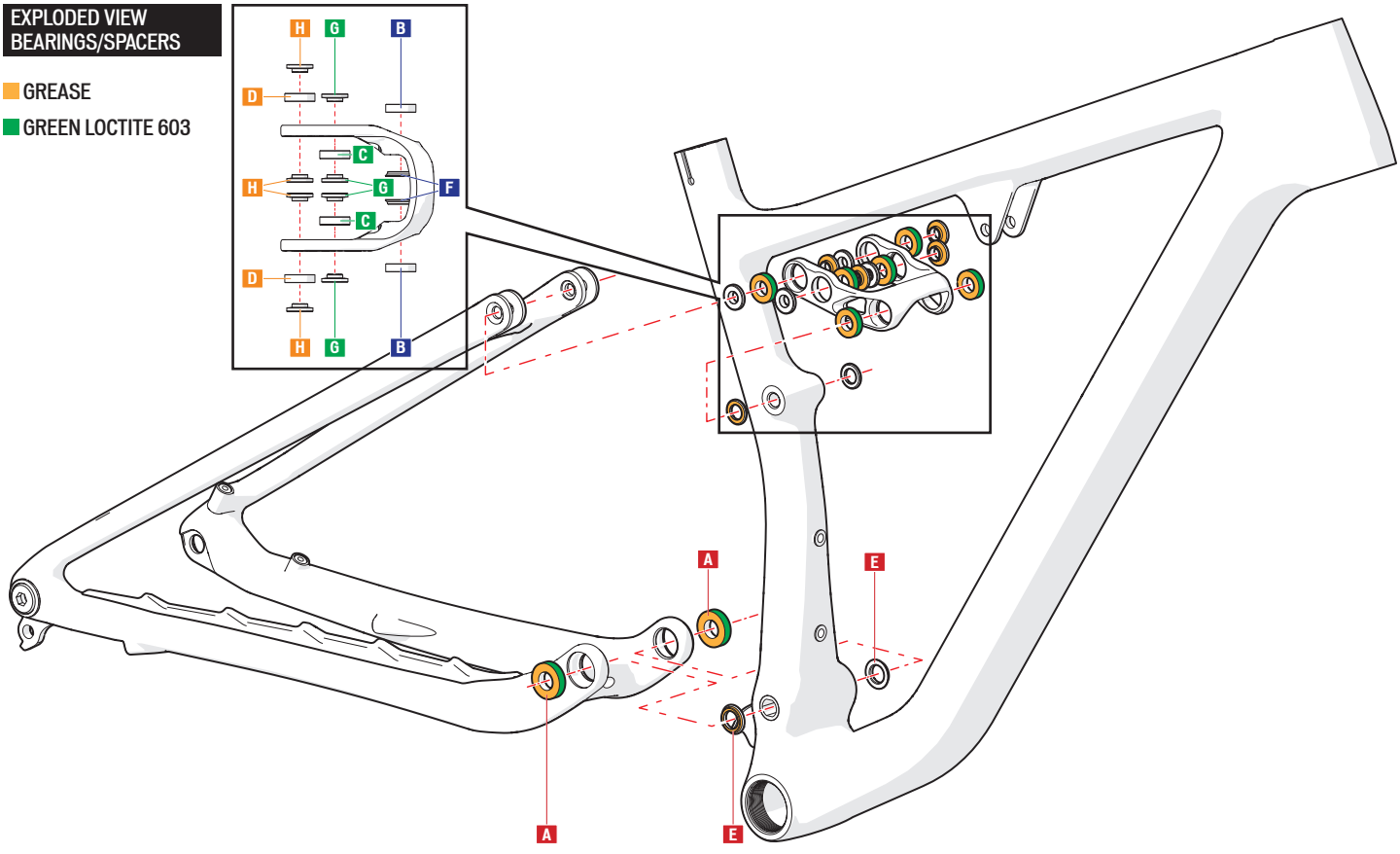
	QTY	LOCATION / ITEM	DIMENSIONS	TOOL	TORQUE (in-lbf/Nm)
E	2	MAIN PIVOT SPACER	12.1 ID x 19.5 OD x 3 W		
F	2	LINK @ SEAT TUBE SPACER	10.1 ID x 16.5 OD x 2 W		
H	4	LINK @ EXTENSION SPACER	8 ID x 16.5 OD x 2 W		
G	4	LINK @ SEATSTAY SPACER	8 ID x 16.5 OD x 2 W		
I	1	MAIN PIVOT AXLE	12 OD x 86 L		
J	1	MAIN PIVOT BOLT	M8 x 12.2 L	5mm HEX	89 / 10
K	2	LINK @ SEAT TUBE BOLT	M10 x 16 L	6mm HEX	89 / 10
L	2	LINK @ EXTENSION AXLE	8 OD x 17.23 L	4mm HEX	
M	2	LINK @ EXTENSION BOLT	M5 x 8 L	4mm HEX	53 / 6.0
N	2	LINK @ SEATSTAY AXLE	8 OD x 17.23 L	4mm HEX	
O	2	LINK @ SEATSTAY BOLT	M5 x 8 L	4mm HEX	53 / 6.0
P	1	FORWARD SHOCK EYE AXLE	8 OD x 29.5 L	4mm HEX	
Q	1	FORWARD SHOCK EYE BOLT	M5 x 8 L	4mm HEX	53 / 6.0
R	2	FORWARD SHOCK EYE WASHER	8.25 ID x 15 OD x 0.3 W		
S	1	REAR SHOCK EYE BOLT	M8 x 26 L	6mm HEX	213 / 24.0
T	1	REAR SHOCK EYE WASHER	8.2 ID X 13 OD x 0.5 T		

SHOCK MOUNTING / HARDWARE SPECIFICATIONS

	QTY	LOCATION / ITEM	DIMENSIONS	TOOL	TORQUE (in-lbf/Nm)
U	2	FORWARD SHOCK EYE BUSHING SPACER	12.68 ID x 18 OD x 3.45 W		
V	2	FORWARD SHOCK EYE BUSHING O-RING	12 ID x 14 OD x 1 W		
W	1	FORWARD SHOCK EYE BUSHING	7 ID x 12.71 OD x 19.8 W		
X	1	FORWARD SHOCK EYE PIN	12.7 ID x 15 OD x 12.7 W		
Y	2	ECCENTRIC FLIP CHIP	15 OD x 8 ID x 6.5 W		

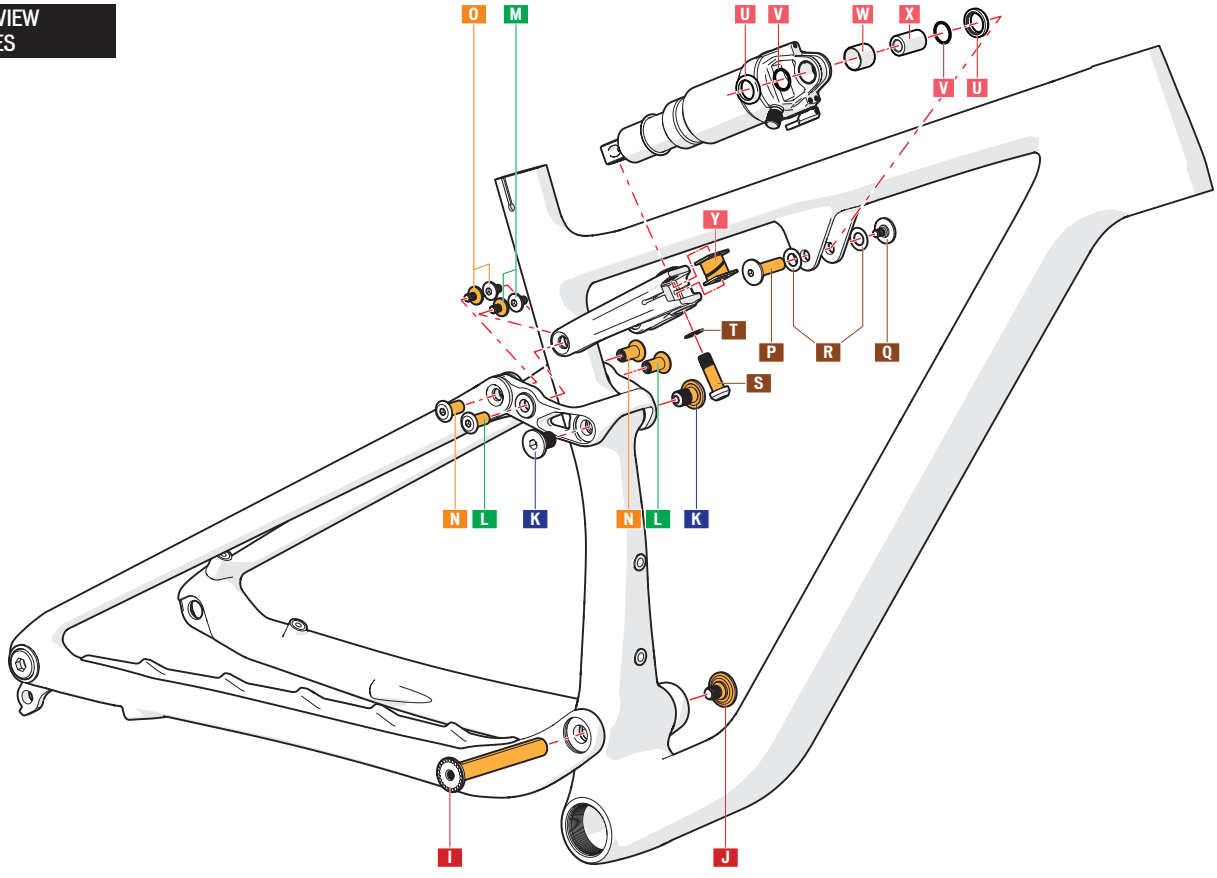
EXPLODED VIEW BEARINGS/SPACERS

- GREASE
- GREEN LOCTITE 603



EXPLODED VIEW BOLTS/AXLES

GREASE



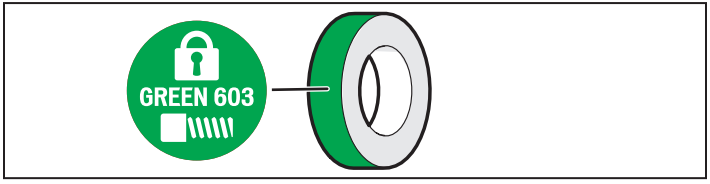
5. REAR TRIANGLE PIVOT ASSEMBLY

In order to successfully build the Epic EVO rear triangle, it is very important to follow the order of operations as outlined in this manual. Modifying the order of assembly will result in a longer build process.

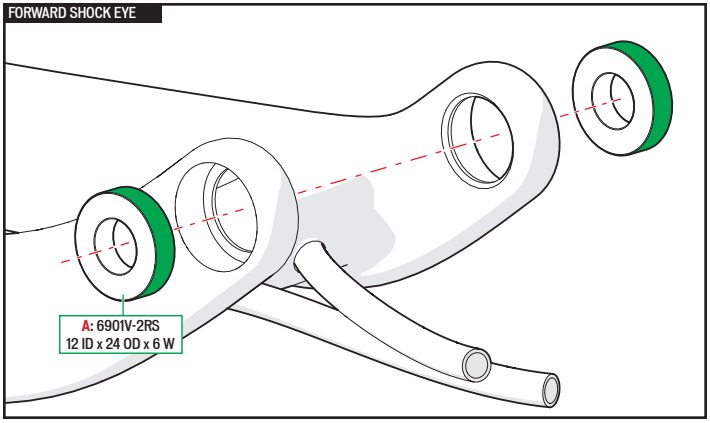
Grease all surfaces that contact inner bearing races before placing the spacers against the bearings. This helps keep the spacers in place when assembling each pivot. Always place the smaller (tapered) surface against the bearing, and the wider surface against the frame or stay.

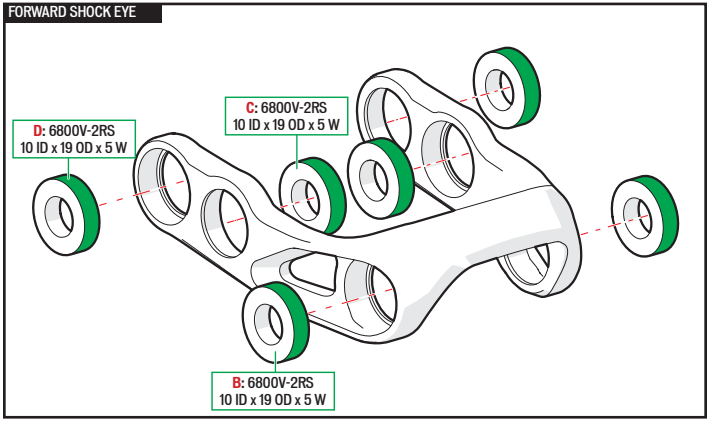
Install the bottom bracket after the rear triangle is assembled.

5.1. BEARING INSTALLATION



Apply green retaining compound to all the bearing/bore interface surfaces, then press all the bearings into their respective pivot locations:

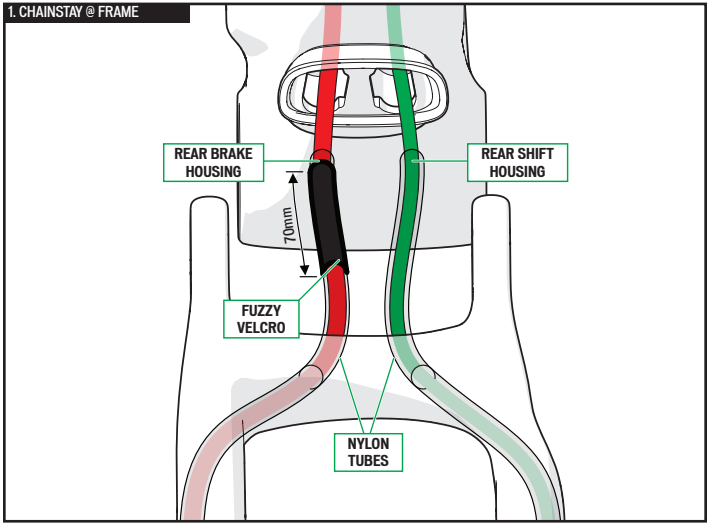




5.2. PIVOT ASSEMBLY

All pivot bolts are factory treated with a blue Nylok patch to help prevent the threads from seizing and/or creaking. Additionally, grease can be applied to the entire contact surface of the bolts, including the threads.

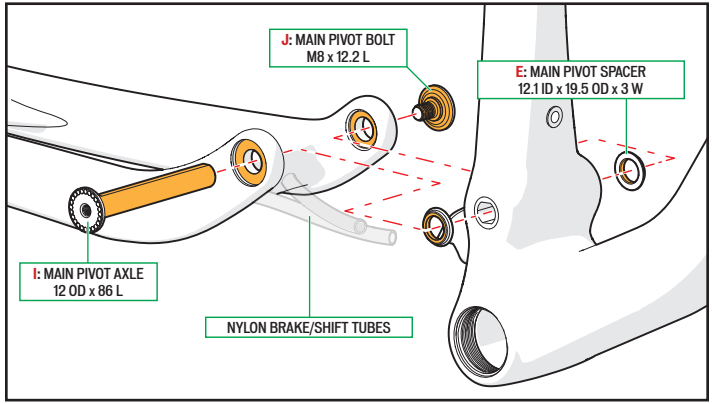
To properly assemble the Epic, lightly grease the contact surfaces of the bolts, as well as the surfaces of the spacers that interface with the inner race of bearings (highlighted ORANGE).



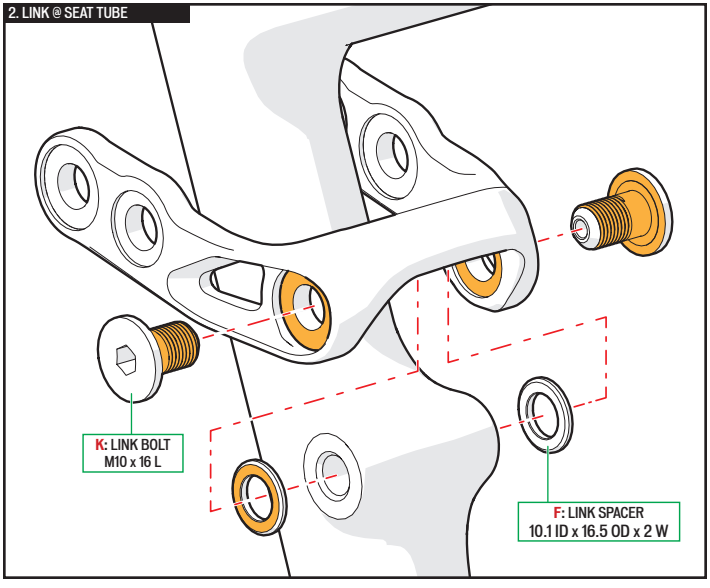
- When installing the rear triangle, make sure the nylon tubes go into their respective sides (left nylon tube in left hole).
- Wrap a 25mm wide x 70mm long piece of adhesive-backed fuzzy hook-and-loop (Velcro) around the brake-side nylon tube, 260mm from the chainstay ICR port (positioned where the two nylon tubes would cross).

To prevent kinking the nylon tubes, install shift housings in the tubes before inserting the nylon tubes into the seat tube holes.

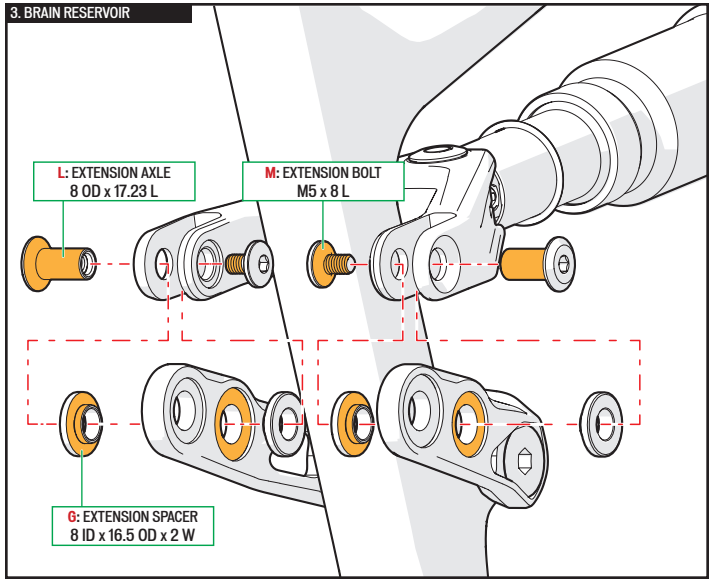
A touch of talcum powder applied to the holes of the rubber boot can help the nylon tubes slide into the front triangle more easily.



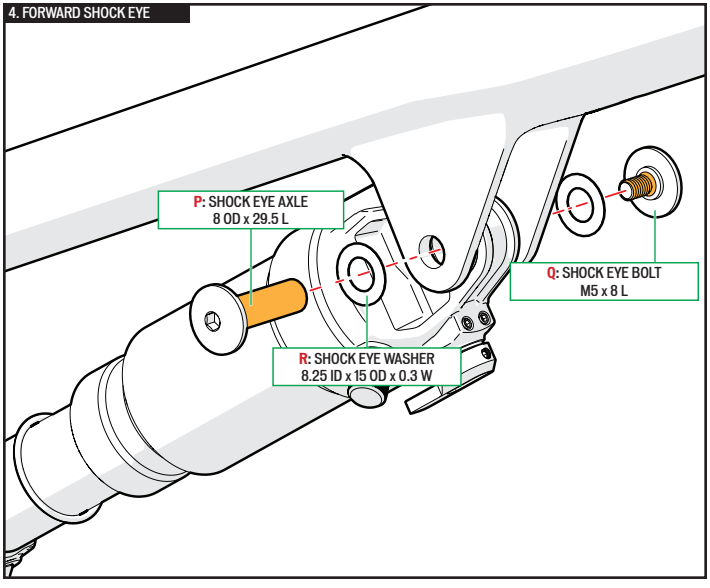
- Grease then place spacers (x2) **E** against the inner surfaces of the bearings.
- Align the chainstay bearings with the frame's main pivot bore.
- Grease, then inert the main pivot axle **I** into the frame.
- Grease, then thread the main pivot bolt **J** into the axle.



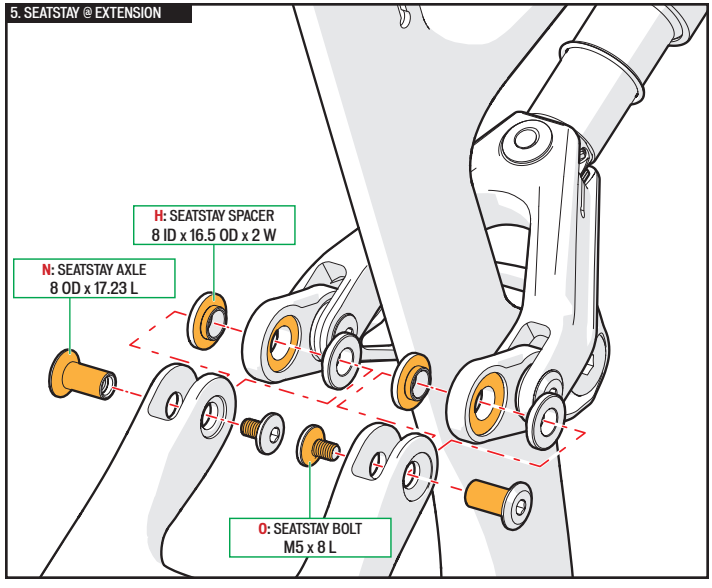
- Grease, then place the link spacers (x2) **F** against the link bearings.
- Align the link with the seat tube pivot bore.
- Grease, then thread the link bolts (x2) **K** into the frame.



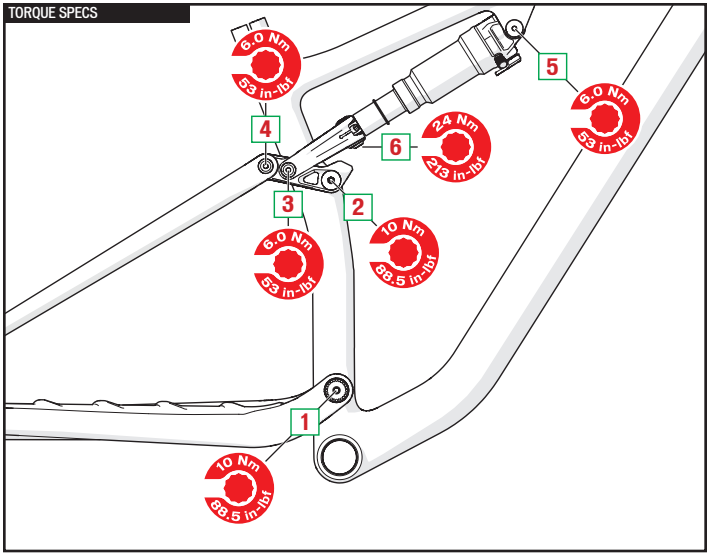
- Grease, then place the extension spacers (x4) **G** into the link bearings.
- Align the extension with the extension bearings.
- Grease, then insert the extension axles (x2) **L** into the pivot bore.
- Grease, then thread the extension bolts (x2) **M** into the extension axles.



- Align the forward shock eye with the the frame mount.
- Lightly grease, then place a washer (x2) **R** on the forward shock eye axle and bolt.
- Insert the axle **P**, then thread the bolt into the axle **Q**.



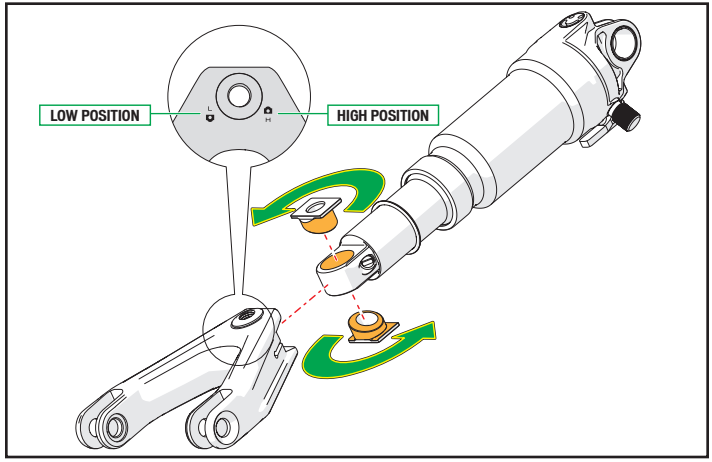
- Grease, then place the seatstay spacers (x4) **H** into the link bearings.
- Align the seatstay with the link bearings.
- Grease, then insert the seatstay axles (x2) **N** into the pivot bore.
- Grease, then thread the seatstay bolts (x2) **O** into the seatstay axles.



- Torque each pivot bolt according to the torque spec listed above.

#	PIVOT LOCATION	in-lbf	Nm
1	MAIN	89	10.0
2	LINK @ SEAT TUBE	89	10.0
3	LINK @ EXTENSION	53	6.0
5	SEATSTAY @ LINK	53	6.0
4	FORWARD SHOCK EYE	53	6.0
6	REAR SHOCK EYE	213	24.0

6. FLIP CHIP



All models are assembled with the Flip Chip in the Low position. Switching to the High position raises the bottom bracket height by approximately 6mm and steepens the head tube angle by approximately 0.5 degrees.

WARNING! Changing the frame configuration (Flip Chip position, tire size, fork length) can alter the BB height and/or the head tube angle, which can have negative effects on the bike's handling characteristics and ride quality. Please refer to your Authorized Specialized Retailer before making any modifications.

- Remove the upper and lower shock eye bolts, then remove the shock.
- Remove the Flip Chip halves out of the lower shock eye.
- Rotate the two Flip Chips 180 degrees then push them back into the lower shock eye.
- Install the shock on the frame, then thread the bolts in.
- Torque the forward shock eye, followed by the rear shock eye.

7. INTERNAL ROUTING

The housings must be installed without the fork installed in the frame.

REAR BRAKE:

- Starting at the exit port on the inside surface of the non-drive side of the chainstay, route the housing through the chainstay until it exits the nylon tube inside the frame.
- Guide the housing up the down tube until it exits the head tube, then slide a “Churro” foam tube onto the housing.
- Once the Churro is installed, guide the housing back down into the down tube, then guide the housing out the port on the non-drive side of the head tube.
- Finish the brake assembly installation according to the manufacturer’s instructions.

REAR DERAILLEUR (Mechanical):

- Starting at the exit port in front of and below the drive side dropout, route the housing through the chainstay until it exits the nylon tube inside the frame.
- Guide the housing up the down tube until it exits the head tube, then slide a “Churro” foam tube onto the housing.
- Once the Churro is installed, guide the housing back down into the down tube, then guide the housing out the larger port on the drive side of the head tube.
- Finish the shift assembly installation according to the manufacturer’s instructions.

SHIFT SYSTEM (Shimano Di2 Wired electronic):

- Starting at the exit port in front of and below the drive side dropout, route the rear derailleur (RD) wire through the chainstay until it exits the nylon tube inside the frame.
- Route the RD wire out the bottom bracket shell and plug it into a SM-JC41 Junction B box.
- Choose where the battery will be placed, then route a battery wire from the battery to the Junction B box.
- Route a wire through the head tube ICR port, down the down tube and out the bottom bracket, then plug the wire into the Junction B box.

DROPPER POST: The battery can be zip-tied to the cable housing and placed below the dropper post, inside the seat tube.

STANDARD POST: The battery can be installed inside the seatpost, using the 30.9mm seatpost Di2 battery grommet system.

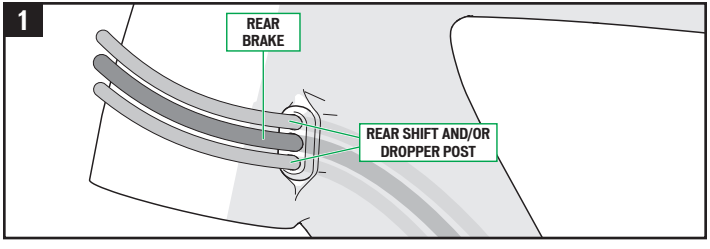
If the battery does not fit inside the seatpost or seat tube, an alternative is to place the battery inside the top tube, behind the head tube.

- Complete the assembly and installation of the wiring and shift system according to the manufacturer’s instructions.

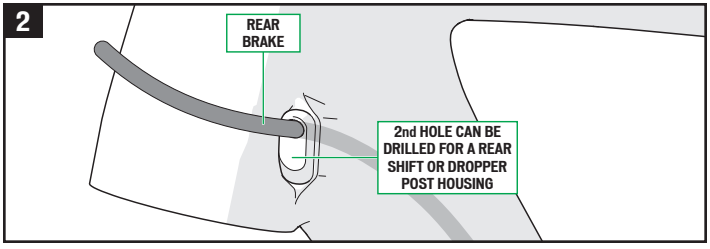
HEAD TUBE ICR PORT:

The Epic EVO comes with two head tube ICR port guides.

- Use the 3-hole guide if:
  - You’re running a mechanical or wired electronic rear derailleur and a cable actuated dropper post

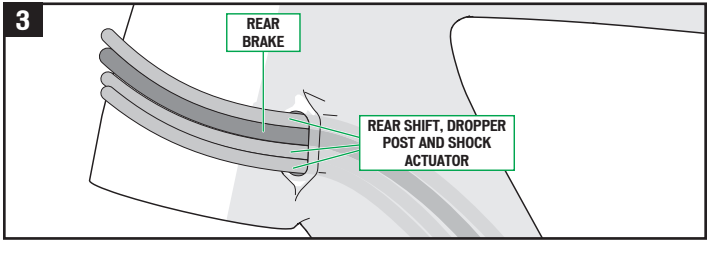


- Use the 1-hole guide if:
  - You’re running SRAM AXS wireless shifting and not running a cable actuated dropper post



If you're running either a cable actuated dropper post or mechanical shifting only, you can either use the 3-hole guide (Fig. 1), or you can complete the drilling from the back of the closed hole in the 1-hole guide (Fig. 2).

- Use no guide if:
  - You're running a mechanical or wired electronic rear derailleur, a cable actuated dropper post and a cable actuated rear shock remote lever.



If a cable actuated rear shock remote lever is used, the cable housing will enter the head tube ICR port and go into the top tube, then exit the top tube above the rear shock (fig.3).

8. AIR SHOCK SETUP

When setting suspension, always set the shock first and fork second for air pressure, rebound, then compression.

Make sure you're wearing all gear that would normally be worn on a ride (shoes, helmet, hydration pack if used, etc.).

Please visit the suspension calculator tool at www.specialized.com. The suspension calculator provides a personalized baseline suspension setup recommendation based upon your specific height and weight. The baseline information should be considered as a suspension setup starting point. Adjust your suspension as needed based on your experience/preference and terrain conditions.

8.1. SETTING AIR PRESSURE

1. Set the shock compression lever or knob (blue) to the full open or off position, and set the rebound knob to the middle of the click range.
2. Attach a high-pressure shock pump to the air valve and set your shock pressure based on the personalized baseline suspension setup from the suspension calculator.
3. To check the sag, push the o-ring against the seal, then mount the bicycle while propped up against a wall and sit in the saddle in a normal riding position, without bouncing the suspension. Do not set sag while riding!

Sag is measured as the distance between the o-ring and the shock body's seal, after the rider's weight has been applied to the bike, with no bounce. When the pressure is correctly set, sag should measure approximately 11mm of stroke, depending on rider experience/preference and terrain conditions. If the rider is approaching 300lbs, sag may exceed the bike's prescribed amount.

To equalize the air pressure, cycle the shock or fork anytime after the air pressure has been adjusted.

CAUTION: Do not exceed the shock manufacturer's maximum pressure. Refer to the shock manufacturer specifications for maximum shock pressures.

8.2. ADJUSTING REBOUND

Rebound damping (red knob) controls the rate at which the shock returns after it has been compressed. Each rear shock has a range of rebound clicks to fine-tune the rebound return rate.

- Adjust the rebound based on the range provided in the suspension setup tool for your bike setup and rider weight, as well as other factors like rider experience/preference and terrain conditions, then fine-tune during the ride if necessary. If you do not have access to the suspension setup tool, start in the middle of the click range.
- Clockwise for slower rebound (heavier riders, slow speed, bigger hits).
- Counter-clockwise for faster rebound (lighter riders, higher speeds, small bumps, more traction).

It is best not to veer too far from the recommended clicks, since being too far out of the accepted range can negatively impact the ride experience.

8.3. ADJUSTING COMPRESSION

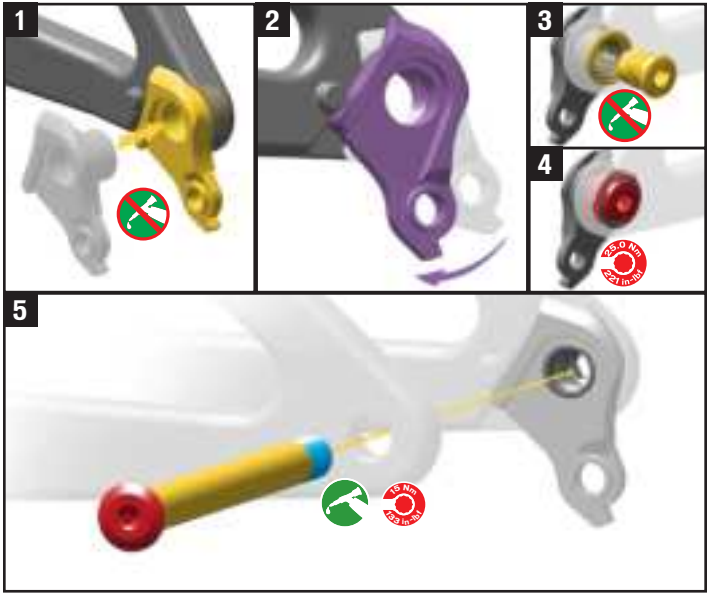
Compression damping (blue knob) controls the amount of support of the shock platform. In other words, the shock's ability to resist low-speed pedaling forces while still being able to absorb high-speed compression forces.

Please refer to the suspension manual for specifics about the compression options provided by your suspension. Typically, a suspension is equipped with some or all of the following settings:

- **OPEN:** Low-speed compression setting optimized for the perfect balance of control and plushness for steep, aggressive descents.
- **PEDAL (certain models):** Moderate low-speed compression setting is activated for an optimal blend of pedaling efficiency and bike control on variable terrain.
- **LOCK:** The firmest low-speed compression setting is activated for maximum pedaling efficiency.

9. DERAILLEUR HANGER

WARNING! Correct grease application is critical to rider safety. ONLY apply grease as instructed.



INSTALLATION PROCEDURE:

- **Fig.1:** Install the UDH hanger assembly into the frame dropout.
- **Fig.2:** Rotate the UDH hanger forward until it is completely seated in the hanger pocket or contacts the rotational stop tab.

Apply grease ONLY to the thru axle threads. Do NOT apply grease to the frame, UDH hanger or UDH bolt threads.

The hanger must be completely seated in the hanger pocket or against the frame stop tab when tightened to the specified torque.

- **Fig.3:** Install the UDH washer, then thread the UDH bolt through the washer and into the hanger.
- **Fig.4:** Tighten the bolt to 221 in-lbf / 25 Nm. The UDH hanger bolt is left-hand threaded.

A reversible (left-hand and right-hand thread) torque wrench MUST be used to ensure proper left-hand thread bolt torque.

- **Fig.5:** Apply grease to the thru axle threads before axle installation.
- **Fig.5:** Install the thru axle and wheel, then torque the rear axle to 133 in-lbf / 15 Nm.

WARNING! Regularly check and confirm the UDH hanger is tight and has not moved before and after riding the bicycle.

10. SETUP DATA

DATE						
RIDER WEIGHT						
FORK PSI						
FORK REBOUND (# of clicks from full slow)						
FORK COMPRESSION (# of clicks from full firm)						
SHOCK PSI						
SHOCK REBOUND (# of clicks from full slow)						
SHOCK COMPRESSION (# of clicks from full firm)						