USER MANUAL EPIC WC

Mountain Bike



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1. INTRODUCTION

THIS USER MANUAL CONTAINS IMPORTANT INFORMATION. PLEASE READ CAREFULLY AND STORE IN A SAFE PLACE.

This manual was drafted in the English language and may have been translated into other languages as applicable. 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.

This user manual is specific to your Epic WC bicycle and should be read in addition to the Specialized Bicycle Owner's Manual ("Owner's Manual"). 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") as it has additional important, general information and instructions you should follow. If you don't have a copy of the Owner's Manual, you can download it at www.specialized.com or obtain it from Specialized Rider Care or your nearest Authorized Specialized Retailer. Please note all instructions and notices are subject to change and updates

without notice. Please visit www.specialized.com for periodic tech updates.

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. In case of a conflict between the information in this user manual and information provided by a component manufacturer, please contact your nearest Authorized Specialized Retailer.

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When reading this user manual, note the various important symbols and warnings explained below:



WARNING! The combination of this symbol and word indicates a potentially hazardous situation that, 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.



CÁUTION: The combination of the safety alert symbol and the word CAUTION indicates a potentially hazardous situation that, 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 that, if not avoided, could result in serious damage to the bicycle or the voiding of your warranty.



This symbol alerts the reader to information that is particularly important.



Tech tips are useful tips and tricks regarding installation and use.



This symbol means that high-quality grease should be applied as illustrated.



This symbol means that high-quality carbon assembly paste should be applied as illustrated.



This symbol means green Loctite 603 should be applied as illustrated.

1.1. Warranty

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

2. GENERAL INFORMATION

2.1. Intended use

CROSS-COUNTRY, MARATHON, HARDTAILS



Bicycles designed for riding Conditions 1 and 2, plus rough trails, small obstacles, and smooth technical areas, including areas where momentary loss of tire contact with the ground may occur. NOT for jumping. All mountain bicycles without rear suspension are Condition 3, as well as some lightweight rear suspension models.

Intended for cross-country riding and racing which ranges from mild to aggressive over intermediate terrain (e.g., hilly with small obstacles like roots, rocks, loose surfaces, hard pack and depressions). Cross-country and marathon equipment (tires, shocks, frames, drive trains) are light-weight, favoring nimble speed over brute force. Suspension travel is relatively short since the bicycle is intended to move quickly on the ground.

Not intended for hardcore freeriding, extreme downhill, dirt jumping, slopestyle, or very aggressive or extreme riding. Not for spending time in the air, landing hard and hammering through obstacles.

Trade off: Cross-country bicycles are lighter, faster to ride uphill, and more nimble than all-mountain bicycles. Cross-country and marathon bicycles trade off some ruggedness for pedaling efficiency and uphill speed.

2.2. Weight limits

MODEL	CARGO WEIGHT LIMIT kg / lb	STRUCTURAL WEIGHT LIMIT kg / lb
ALL MODELS	5 / 11	127 / 280

CARGO WEIGHT LIMIT: The maximum cargo weight a bicycle has been designed and tested to support structurally.

STRUCTURAL WEIGHT LIMIT: The maximum total weight (rider and cargo) a bicycle is designed and tested to support structurally.

WARNING! The specified cargo weight limit applies only to cargo carried through the use of compatible racks and seat bags. If the cargo weight limit of the bicycle differs from the cargo weight limit set by the rack or seat bag manufacturer, always use the lowest limit. If you add any other load-bearing accessories, including, but not limited to, baskets and child carriers, you do so at your own risk in that these accessories have not been tested for compatibility, reliability, or safety on your bicycle. Failure to follow this warning may result in serious personal injury or death.



CAUTION: Attaching items such as panniers, bags, water bottle cages, storage boxes, racks, or fenders to your bicycle can damage the frame. Using frame protection, such as protective decals, may help prevent damage from occurring.



For more information on the intended use and structural weight limits for the frame and components, please refer to the Owner's Manual.



3. GEOMETRY

FRAME SIZE	XS	S	М	L	XL
A Stack (mm)	603	601	600	614	628
B Reach (mm)	380	415	440	465	490
C Head tube length (mm)	93	93	95	110	125
D Head tube angle (°)	66.5	66.5	66.5	66.5	66.5
E Bottom bracket height (mm)	309	311	313	313	313
F Bottom bracket drop (mm)	61	59	57	57	57
G Trail (mm)	113	113	113	113	113
H Fork length - full (mm)	516	516	516	516	516
Fork rake / offset (mm)	44	44	44	44	44
J Front center (mm)	666	701	726	757	788
K Chainstay length (mm)	430	430	430	430	430
L Wheelbase (mm)	1089	1124	1150	1181	1212
M Standover height (mm)	738	761	764	774	786
N Seat tube length (mm)	392	394	410	450	500
O Seat tube angle (°)	75	74.5	74.5	74.5	74.5
P Top tube length - horizontal (mm)	541	581	612	641	670
Crank length (mm)	165	170	170	175	175
Handlebar width (mm)	760	760	760	760	760
Stem length (mm)	60	70	70	70	70
Saddle width (mm)	155	155	143	143	143
Fork travel (mm)	110	110	110	110	110



4. COMPONENTS

1	Frame	16	Crown race
2	Fork	17	Rear shock
3	Front thru-axle	18	Rear thru-axle
4	Saddle	19	Rear derailleur hanger
5	Seatpost		
6	Seatpost clamp and seatpost clamp bolt		
7	Top cap and top cap bolt		
8	Spacers		
9	Stem		
10	Headset cover		
11	Steerer tube clamp		
12	Compression ring		
13	Steering stop chip and bolt		
14	Upper bearing		
15	Lower bearing		

5. GENERAL NOTES ABOUT ASSEMBLY

This manual is not intended as a comprehensive assembly, use, service, repair, or maintenance guide. Please see an 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! Many components on the Epic WC are proprietary. Use of other components or hardware can compromise the integrity and strength of the assembly. Epic WC-specific components should only be used on the Epic WC 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 components. An improperly modified frame, fork, or component, can cause you to lose control and fall.



WARNING! Before your first ride and regularly thereafter, ensure the pedals are tightened to specification. Pedals can loosen over time depending on the type and frequency of use. This is especially true if they were not installed properly. Riding with loose pedals may damage the threads and the pedal may disengage from the crank, which can result in a loss of control of the bicycle.



In order to successfully build the Epic WC bicycle, 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.

5.1. Required tools

3, 4, 5, 6, 8 mm hex bits	High-quality carbon assembly paste
4 mm hex key (for rear shock adjustments)	High-quality grease
Reversible torque wrench	Blue Loctite
Shock pump	Green Loctite
Cable housing cutters	

5.2. 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.



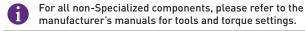
Either way, an incorrect tightening force can result in component failure, which can cause you to lose control and fall. Where indicated, ensure that each bolt is torqued to specification. After your first ride, and consistently thereafter, recheck the tightness of each bolt to ensure secure attachment of the components.



CAUTION: Ensure all contact surfaces are clean and appropriate bolt, bearing, and spacer applications are applied (refer to the instructions for each) prior to installation.

The following is a summary of torque specifications in this manual:

LOCATION	TOOL	TOR	TORQUE		
LOCATION	TOOL	Nm	in-lbf		
Saddle clamp bolt – front	4 mm hex	3.1	27		
Saddle clamp bolt – rear	4 mm hex	6.2	55		
Seatpost clamp bolt	4 mm hex	6.2	55		
SWAT Box bolts	3 mm hex	2.8	25		
Water bottle cage bolts	3 mm hex	2.8	25		
Steering stop chip bolt	3 mm hex	2.5	22		
Steerer tube clamp	3 mm hex	4	35		
Front axle	6 mm hex	9-13.5	80-120		
Faceplate bolts	4 mm hex	5	44		
Stem bolts (all models)	4 mm hex	5	44		
Top-cap compression bolt	4 mm hex	3	27		
Rear axle	6 mm hex	15	133		
Rear derailleur hanger	8 mm hex	25	221		



Repeated installation and removal of bolts may reduce the effectiveness of the pre-applied threadlocker. In this case, it can be replaced with the application of blue Loctite.

5.3. General specifications

ITEM	SPECIFICATION
Seat collar diameter	34.9 mm
Seatpost diameter	30.9 mm
Rear tire max	29 x 2.4 in
Rear wheel travel	75 mm
Shock stroke	40 mm
Shock sag	0–10 mm
Max fork travel	110 mm
MIN / MAX chainring	28 / 38t
Chainline	55 mm
MIN / MAX rear brake rotor	160 / 180 mm



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.



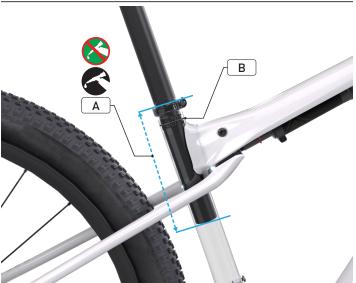
WARNING! While the Epic WC frame is generally compatible with tires up to 29×2.4 , tire dimensions can vary depending on the manufacturer, and not all forks are designed to accept a larger tire. Always check with the fork manufacturer regarding required clearances.



Tire sizes vary significantly from brand to brand. CEN standards require a minimum of 6 mm of clearance between the frame/fork and the tires. When choosing a wheel and tire combo, factor in enough clearance for the conditions, setup, and wheel flex.

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

5.4. Seatpost minimum / maximum insertion



MINIMUM INSERTION (A): To prevent damage to the frame and/or seatpost, it's important to have a minimum amount of seatpost insertion in the frame. The seatpost must be inserted into the frame deep enough so the minimum insertion/maximum extension (min/max) mark (B) on the seatpost is not visible. The frame requires a minimum of 75 mm 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 **MAXIMUM INSERTION DEPTHS** table.

Once the saddle height is determined, torque the supplied seatpost clamp bolt to $6.2\,\mathrm{Nm}\,/\,55$ in-lbf.

MAXIMUM INSERTION DEPTHS							
XS	S	М	L	XL			
215 mm	245 mm	260 mm	271 mm	271 mm			



If the desired seat height cannot be achieved within the minimum and maximum insertion requirements, the seatpost should be replaced for a shorter or longer one.



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



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.



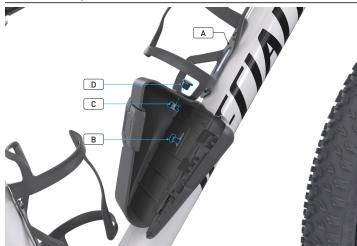
WARNING! Do not apply grease to the carbon contact surfaces between the seatpost and the seat tube. Grease reduces friction, which is critical to proper seatpost grip. Specialized recommends that application of carbon assembly paste, which can increase friction between carbon surfaces. Please visit an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

5.5. Installing the saddle



- Assemble the base clamp (A) and top clamp (B) onto the seatpost head (C).
- Insert the barrel nut (**D**) into the seatpost head using a 6 mm hex key to hold it in place. Place the washer on the front bolt (**E**), then insert the front bolt into the hole in the seatpost head threading it loosely into the barrel nut.
- Place the washer on the rear bolt (F), then insert the rear bolt into the hole in seatpost head threading it loosely into the nut (G).
- Lift up the top clamp and insert the saddle rails (H) into the channels of the rail clamp.
- Align the saddle horizontally with the ground then fully thread the bolts into the barrel nuts.
- Using a torque wrench and 4 mm hex bit, torque (clockwise) the front bolt to 3.1 Nm / 27 in-lbf. Torque the rear bolt to 6.2 Nm / 55 in-lbf.

5.6. Installing the SWAT box



- First, install the Zee cage (A) on the down tube. Using a torque wrench and 3 mm hex bit, torque the bolts to 2.8 Nm / 25 in-lbf.
- Insert the mounting bolt (**B**) through the SWAT Box mounting hole and into the down tube boss. Using a torque wrench and 3 mm hex bit, torque the bolt to 2.8 Nm / 25 in-lbf.
- Insert the SWAT nut (**C**) from the inside of the SWAT Box and through the hole on the base of the Zee cage, then insert the bolt (**D**) from the outside of the SWAT Box through the bottom of the Zee cage into the nut. Torque the nut and bolt to 2.8 Nm / 25 in-lbf.

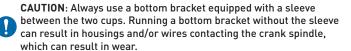
CAUTION: Only use SWAT bolts that come pre-installed on your Epic WC. Aftermarket bolts may be too long and damage the frame or bottom out in the boss causing a loose assembly.

5.7. Bottom bracket

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

Before installing the bottom bracket and crank, make sure all housings and wires are routed through the frame.

CAUTION: Do not face the bottom bracket shell! This can prevent proper installation of the crank. Your Specialized frame does not require any bottom bracket shell pre-installation preparation, as all surfaces have been precisely machined to specific tolerances at the factory for proper interface with a compatible crankset. Please refer to the manufacturer instructions for crank and bottom bracket installation.

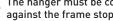


5.8. Installing the derailleur hanger

The rear derailleur hanger comes installed on the frame from the factory. The following instructions are included in the event you need to replace a damaged derailleur hanger.

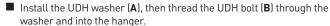


■ Install the UDH into the frame dropout rotating it forward until it's completely seated in the hanger pocket or contacts the rotational stop tab.



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





- Using a reversible (left-hand and right-hand thread) torque wrench and 8 mm hex bit, torque the bolt to 25 Nm / 221 in-lbf.
- A reversible (left-hand and right-hand thread) torque wrench MUST be used to ensure proper left-hand thread bolt torque.



- Apply grease to the rear thru-axle threads, then install it into the dropouts.
- Once the wheel is installed, use a torque wrench and 6 mm hex bit to torque the thru-axle to 15 Nm / 133 in-lbf.

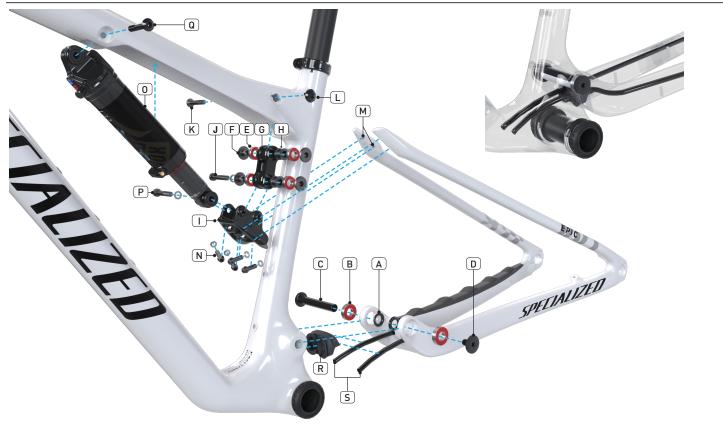


WARNING! Regularly check and confirm the UDH hanger is tight and has not moved before and after riding the bicycle.



WARNING! Before your first ride and regularly thereafter, ensure the thru-axle is torqued to specification. Thru-axles can loosen over time depending on the type and frequency of use. This is especially true if they were not installed properly. Riding with a loose thru-axle can result in a loss of control of the bicycle and can cause you to fall.

6. REAR TRIANGLE



6.1. Specifications

	LOCATION / ITEM	оту	DIMENSIONS	TOOL	TOOL -	RQUE
	LOCATION / ITEM	QTY	DIMENSIONS	TOOL	Nm	in-lbf
A	Main pivot spacers	2	12.1 ID x 19.5 OD x3 W	N/A	-	-
В	Main pivot bearings – 6901-2RS (full complement)	2	12 ID x 24 OD x 6 W	N/A	-	-
С	Main pivot axle	1	M12 x 81 L	5 mm hex	10	89
D	Main pivot bolt	1	M8 x 12.2 L	5 mm hex	10	89
E	Link bearings	4	8 mm ID X 16 mm 0D X 5 mm W	N/A	-	-
F	Top hat spacers	4	6 ID x 8 OD x 9 L	N/A	-	-
G	Link	1	LINK, EPIC WC, MTB, 29, ST, BEARING, CNC	N/A	-	-
Н	Link center spacer	2	8.2 ID x 10 0D x 11.6 L	N/A	-	-
- 1	Seatstay bridge	1	MTB, 29, ALY	N/A	-	-
J	Lower link bolt and washer	1	M6 x 35 L	4 mm hex	7	62
K	Upper link bolt	1	M6 x 40 L	5 mm hex	7	62
L	Upper link nut	1	M6 x 1	N/A	-	-
М	Seatstay holes	4	N/A	N/A	-	-
N	Seatstay bridge bolts and washers	4	M5 x 21 L	4 mm hex	5	44
0	Shock	1	N/A	N/A	-	-
Р	Rear shock mounting bolt and washer	1	M 6 x 35 L	4 mm hex	7	62
Q	Forward shock mounting bolt	1	M6 x 40 L	5 mm hex	7	62
R	ICR boot	1	N/A	N/A	-	-
S	Nylon tubes	2	N/A	N/A	-	-

6.2. Rear triangle assembly

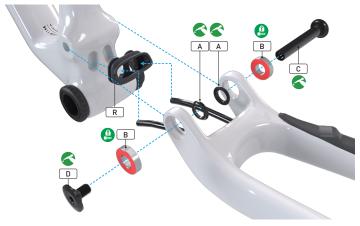
The rear triangle of your Epic WC comes fully assembled from the factory. However, you may need to disassemble the rear triangle for maintenance or repairs during the lifetime of your bicycle. If you don't feel comfortable with this process, please see an Authorized Specialized Retailer.



All pivot bolts are factory treated with thread prep 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.



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.



Chainstay at frame

- Press the ICR boot (R) into the frame.
- Apply green Loctite 603 to the outside diameter of the chainstay bearings (B), then press them into the main pivot bores.
- Grease then place spacers (A) against the inner surfaces of the main pivot bores with the smaller diameter facing the bearing.
- Align the main pivot bores with the holes in the frame and feed the nylon tubes through the ICR boot into the frame.
- Wrap the seatstays around the seat tube.
- Grease then insert the main pivot axle (C) through the main pivot bores into the frame.
- Grease then thread the main pivot bolt (**D**) into the axle. Using a torque wrench and a 5 mm hex bit, torque the bolt to 10 Nm / 89 in-lbf.



The width between the dropouts should be 155 mm if the derailleur hanger is not installed. If it is installed, then the width should be 148 mm.



Link at seatstay bridge

- Insert the link center spacers (H) into the link (G).
- Apply Loctite 603 to the outside diameter of the link bearings (E), then
 press them into the link. Grease then insert the top hat spacers (F).
- Insert the link into the seatstay bridge (I).
- Grease the lower link bolt (J). Place a washer on the bolt, then insert it through the rear holes of the seatstay bridge and through the link.

Hand-tighten the bolt.



Don't torque the lower link bolt yet. You'll torque it to specification later in the assembly process.



Link / seatstay bridge assembly

- Install the link and seatstay bridge assembly into the top tube cavity.
- Insert the upper link nut (L). Grease then insert the upper link bolt (K) through the top tube and into the link. Using a torque wrench and a 5 mm hex bit, torque the upper link bolt to 7 Nm / 62 in-lbf.



Seatstays at seatstay bridge

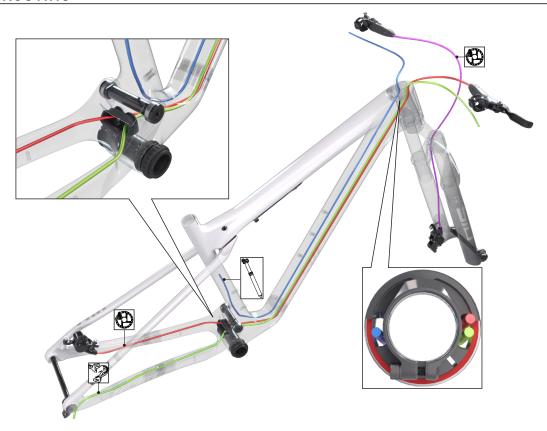
- Line up the holes in the seatstays (M) with the bridge.
- Insert the four seatstay bridge bolts and washers (N two on each side) through the bridge and into the seatstays.
- Hand-tighten each bolt in a cross pattern starting with the forward drive side bolt until all four bolts are fully seated.
- Using a torque wrench and 4 mm hex bit, torque each bolt to 5 Nm / 44 in-lbf.



Installing the shock

- Tilt the seatstays and bridge forward to access the rear shock mount, then align the ear shock eyelet with teh rear shock mounting hole in the frame.
- Place a washer on the rear shock mounting bolt (P), then insert the rear shock mounting bolt through the rear shock eyelet and into the front holes of the seatstay bridge. Using a torque wrench and a 4 mm hex bit, torque the bolt to 7 Nm / 62 in-lbf.
- Using a torque wrench and a 4 mm hex bit, torque the lower link bolt (J) to 7 Nm / 62 in-lbf.
- Install the shock into the top tube cavity. Insert the forward shock mounting bolt (**Q**) through the top tube into the forward shock eyelet. Using a torque wrench and a 5 mm hex bit, torque the bolt to 7 Nm / 62 in-lbf.

7. CABLE ROUTING



7.1. General routing information

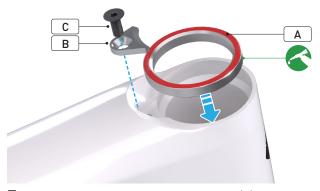


Housings must be installed without the fork installed in the frame.

Because the brake hose (and any optional mechanical housings) passes through the headset assembly, it's best to install the upper bearing and the steering stop chip in the head tube before beginning any routing.

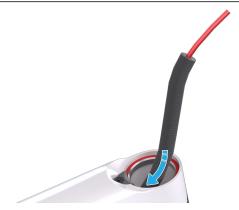


See section 8. HEADSET, FORK, AND STEM ASSEMBLY to view how the routing passes through the headset assembly.



- Apply grease to then install the upper bearing (A) in the head tube.
- Install the steering stop chip (**B**). Using a torque wrench and 3 mm hex bit, torque the steering stop chip bolt (**C**) to 2.5 Nm / 22 in-lbf.

7.2. Rear brake



Red hose in diagram

movement.

- Starting at the exit port on the non-drive side of the chainstay, route the hose through the chainstay and up the down tube until it exits the head tube, then slide a 450 mm foam "churro" tube onto the hose until it sits completely inside the frame.
- See section 8. HEADSET, FORK, AND STEM ASSEMBLY as you'll need to route the hose through the headset and headset cover before you can finish installing the brake according to the manufacturer's instructions.

Once the handlebar is installed, you should be able to turn it in

the opposite direction from the side the hose enters the frame until it's stopped by the steering stop chip without the hose pulling away from the controls. To make sure you have the minimum hose length required, add 30-50 mm of extra hosing to the length you measured and insert it into the frame to account for growth and



7.3. Electronic rear derailleur

All Epic WC models come standard with wireless shifting. Refer to the manufacturer's instructions to complete the installation and setup.

7.4. Optional mechanical rear derailleur

Green cable in diagram

- Starting at the exit port on the drive side of the chainstay, route the rear derailleur 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 (see image under 7.2. Rear brake).
- Once the churro is installed, guide the derailleur housing back down into the down tube until the churro is in the down tube.
- See section 8. HEADSET, FORK, AND STEM ASSEMBLY as you'll need to route the housing through the headset and headset cover before you can finish installing the derailleur according to the manufacturer's instructions.

Once the handlebar is installed, you should be able to turn it in the opposite direction from the side the housing enters the frame $\,$

- until it's stopped by the steering stop chip without the housing pulling away from the controls. To make sure you have the minimum housing length required, add 30-50 mm of extra housing to the length you measured and insert it into the frame to account for growth and movement.
- FOR COUNTRIES ROUTING THE REAR BRAKE ON THE NON-DRIVE SIDE: Regardless which side you choose to route the rear brake, the derailleur housing should always run on the drive side of the compression ring since the shifter is on that side of the handlebar.

7.5. Front brake

Purple hose in diagram

- Loosely install the caliper on the fork leg. Align the brake caliper with the rotor, then torque the caliper bolts according to the brake manufacturer's specification.
- Finish installing the brake according to the component manufacturer's instructions.

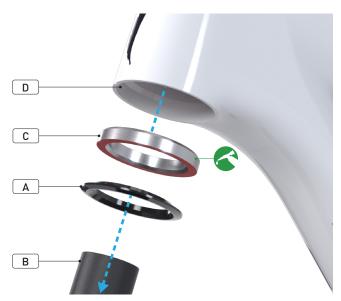
7.6. Optional dropper post

Blue cable in diagram

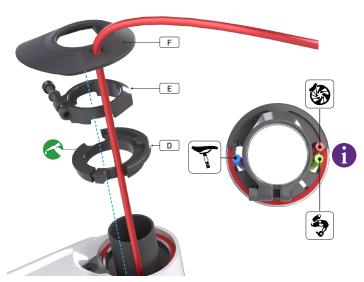
- Route the housing through the head tube on the non-drive side, down the down tube, over the bottom bracket, and up into the seat tube.
- See section 8. HEADSET, FORK, AND STEM ASSEMBLY as you'll need to route the housing through the headset and headset cover before you can finish installing the dropper post according to the manufacturer's instructions.

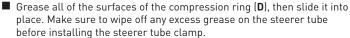
8. HEADSET, FORK, AND STEM ASSEMBLY





- Install the fork crown race (A) onto the fork steerer tube (B) and make sure it's fully seated on the fork crown.
- Apply grease to and install the lower bearing (C) into the bottom of the head tube (D), then install the fork steerer tube with the fork crown race into the head tube.





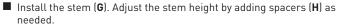
- Install the steerer tube clamp (E). You will tighten it later in the assembly process. Make sure there is no grease on the inside of the steerer tube.
- Slide on the headset cover (F) routing the brake hose and shifter/ dropper cable (if used) through the cutouts.
- Make sure the hose/housings are separated to the appropriate sides of the headset. On the drive side, the rear brake hose is up front and any mechanical housings go behind it.



The Epic WC comes standard with wireless shifting. The green cabling depicted behind the rear brake hose (red) on the drive-side shows the optional mechanical shifting. The blue cabling on the non-drive side shows the optional dropper post.

FOR COUNTRIES THAT ROUTE THE REAR BRAKE ON NON-DRIVE SIDE: Make sure your brake hose (red) exits the NDS side of the compression ring and headset cover and is in front of the dropper post cable (blue) if you're using one.





- Make sure the headset cover and steerer tube clamp are aligned with the stem and centerline of the frame.
- Install the top cap (J) and compression bolt (K). Gently tighten the compression bolt to pre-load the headset. This will be torqued to spec later in the assembly process.
- Align the stem with the front wheel, then gently tighten one of the stem steerer bolts (I). This will be torqued to spec later in the assembly process.
 - The S-Works model has an integrated stem/handlebar system.
 The bolts (I) are installed on the same side with a corresponding nut (M) on the other side.





- Using a 4 mm hex key, remove the faceplate bolts and faceplate.
- Place the handlebar against the stem and rotate it to your preferred position, then loosely thread the faceplate bolts through the faceplate and into the stem body.
- Using a torque wrench and a 4 mm hex bit, tighten each faceplate bolt approximately a half turn at a time in an alternating (cross) pattern until each is torqued to 5 Nm / 44 in-lbf.
- Check that the handlebar is installed correctly by trying to move/rotate the handlebar. If there is any movement, the faceplate pieces are not sufficiently tightened and should be re-torqued.



Seat the headset (1)

■ Fully rotate the handlebar from left to right, repeatedly engaging the steering stop on each side to fully seat the headset assembly.

Align the headset (2)

Fully rotate the handlebar to each side, using a tape measure between the top tube and the end of the handlebar make sure the spaces are equidistant. Engage the steerer stop and push past the stopping point if required to achieve the correct alignment.



You should be able to rotate the handlebar and engage the steering stop, but easily push past the stopping point if the top cap compression bolt and stem steerer bolt are gently tightened.



- Loosen the stem steerer bolt tightened earlier in the process, then making sure the stem and handlebar stay aligned, use a torque wrench and a 4 mm hex bit to torque the top cap compression bolt to 3 Nm / 27 in-lbf.
- Next, using a torque wrench and relevant hex bit, torque the stem steerer bolts to the specification stated on the stem.
- Turn the stem toward the drive side of the bicycle, then lift the headset cover.
- Using a torque wrench and 3 mm hex bit, torque the steerer tube clamp bolt (E) to 4 Nm / 35 in-lbf.
- The headset is now fully tightened and aligned, there should be no free play in the assembly.



Before making any torque adjustments to the headset preload (top cap and bolt), you must loosen the steerer tube clamp bolt (E).

9. REAR SHOCK SETUP

The rear shock can be set up four different ways depending on the type of ride you want—from firm to soft and everything in between.



Setting up and adjusting the rear and fork shocks on your Epic WC requires special tools and skills. If you don't feel comfortable completing these procedures on your own, please visit an Authorized Specialized Retailer for assistance.

9.1. General information



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



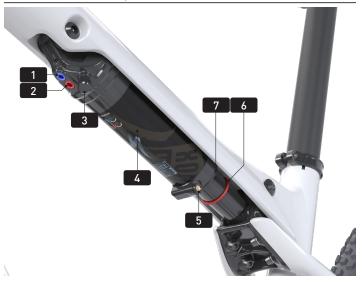
Make sure you're wearing all the gear you'd normally wear on a ride (shoes, helmet, hydration pack if used, etc.).

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.



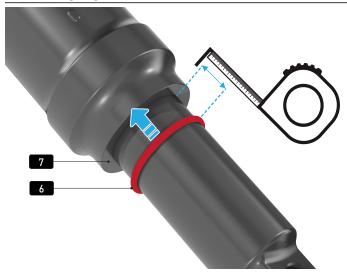
CAUTION: Do not exceed the shock's maximum pressure of 325 psi / 22 bar.

9.2. Rear shock components



1	Compression damping adjuster			
2	Rebound damping adjuster			
3	Positive air spring valve			
4	Air can			
5	Negative pressure release button			
6	0-ring			
7	Seal			

9.3. Setting sag



Sag is the amount the shock moves under the weight of the rider and is measured as the distance between the O-ring [6] and the shock body's seal [7] after the rider's weight has been applied to the bike with no bounce.

Using a 4 mm hex key, turn both the compression damping adjuster (1 - blue) and the rebound adjuster (2 - red) to the fully open (-) position.



To determine what the middle click range is, count how many total clicks there are between the full open and full closed positions. Once you know how many clicks there are, you can count to the middle of that range from either full position.

- Unscrew the air valve cap (3) and attach a high-pressure shock pump. Set your shock pressure based on your personalized baseline suspension setup from the Suspension Calculator on www.specialized. com. Remove the pump and replace the air valve cap.
- Push the 0-ring (6) against the seal (7), mount the bicycle while propped up against a wall, and sit in the saddle in a normal riding position without bouncing. Follow the setup instructions in section 10.6. REAR SHOCK SETTINGS for your preferred ride. Do not set sag while riding!
- If the rider is approaching 125 kg / 275 lb, sag may exceed the bicycle's max amount.

9.4. Adjusting rebound

The rebound damping adjuster (2 - red) 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. A slower rebound is ideal for heavier riders, slower speeds, and bigger hits. A faster rebound is ideal for lighter riders, higher speeds, small bumps, and more traction.

- Adjust the rebound based on the range provided for your bicycle setup and rider weight in the Suspension Calculator on www.specialized. com, as well as other factors like rider experience/preference and terrain conditions. You can fine-tune during the ride if necessary.
- Using a 4 mm hex key, turn the rebound damping adjuster (2 red) clockwise for slower rebound or counterclockwise for faster rebound. If you aren't using the Suspension Calculator for precise adjustments, you can adjust by starting in the middle click range (approx. 5 clicks from slow or fast) and turning the adjuster in either direction based on your ride preference.



It's best not to veer too far from the recommended clicks on the Suspension Calculator since being too far out of the accepted range can negatively impact the ride experience.

9.5. Adjusting compression

Compression damping 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. The following steps will help you find the best setup for your preferred



riding style.

The compression adjuster is not a lockout adjuster. Spring settings should be used for adjusting your pedaling platform.



Don't use a pointed or sharp tool when pressing the negative pressure release button as that can scratch the surface.

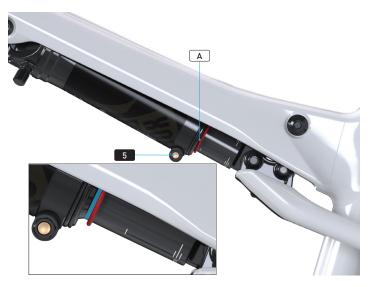
9.6. Rear shock settings



Zero pressure in negative volume chamber

This is the most firm setting (race setting).

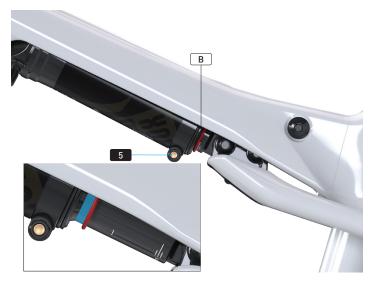
- With the shock pressurized to ride setting, press the negative pressure release button (5) to release any air in the negative spring volume chamber.
- Check your air pressure to make sure it hasn't changed. You should have 0 mm of shock sag which can be fine-tuned by adding/removing pressure.



Mid pressure in negative volume chamber

Introduces a small amount of sag for a less rigid ride.

- Release all of the air from the shock.
- Compress the shock to the midpoint marking (A).
- While holding the shock at the midpoint, press the negative pressure release button (5) for a few seconds.
- Pressurize the shock to ride pressure. You should have 2-3 mm of shock sag (shaded blue) which can be fine-tuned by adding/removing pressure.



Max pressure in negative volume chamber

Introduces more sag for more suppleness at the beginning of the shock stroke creating a more active ride.

- Release all of the air from the shock.
- Compress the shock to the full bottom line (B).
- While holding the shock at the full bottom line, press the negative pressure release button (5) for a few seconds.
- Pressurize the shock to ride pressure. You should have 4-5 mm of shock sag (shaded blue) which can be fine-tuned by adding/removing pressure.

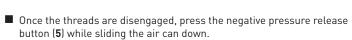


Comfort setting

Introduces added volume spacers and reduces pressure for a more compliant ride that resists bottoming out.

- Release all of the air from the air valve.
- Remove the shock from the frame.
- Unthread (counterclockwise) the air can either by hand or using a strap wrench.
- This process requires special skills and tools and is best completed by a professional with experience. Please see an Authorized Specialized Retailer for assistance.
- CAUTION: Do not use pliers or any other tools that can damage the shock surface.





- Install the first clip-on volume spacer (A) onto the shaft boss in the head of the shock (B) a few millimeters above the boss eyelet flange (C).
- The first clip-on volume spacer must always go into the head of the shock above the boss eyelet flange.



Up to two additional volume spacers can be added to the bottom-out spacer (D). The more spacers you add, the more resistance you create to bottoming out to help compensate for the reduction in air pressure.



Installing the spacers requires pulling the bottom-out spacer down and exposing the damper shaft (E). Slide each volume spacer over the damper shaft then down onto the outer bore of the bottom-out spacer. Once all spacers are installed, make sure the bottom-out spacer can return flush with the boss of the eyelet.

- Reinstall the shock on the bicycle and follow the Max pressure setup instructions.
- Pressurize the shock using 20-30% less pressure than the Max pressure setting. You should have 8-10 mm of shock sag (shaded blue) which can be fine-tuned by adding/removing pressure.

10. BRAIN FORK SETUP

Your Epic WC is equipped with a RockShox fork featuring Specialized Brain technology. Please read all of the information in this section as well as RockShox's Suspension Fork User Manual in its entirety for proper setup and service before riding.

10.1. General information about Brain technology

The Brain is an inertia-valve platform that supports the fork and distinguishes between terrain or rider-weight-induced events. This provides two distinct compression damping rates: one to react to the terrain and the other to support the rider.

The Brain Fade is the fluid bypass circuit that allows the rider to modulate the firmness of the inertia valve and allows the rider to select between a firmer or softer platform.

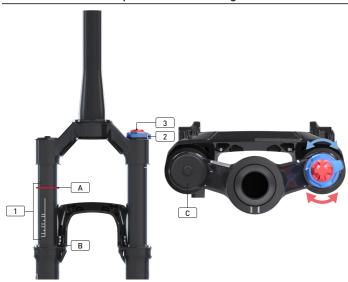
This particular Brain fork is equipped with Position Sensitive Brain technology (PSB). With PSB, the Brain platform doesn't engage until 15-20% into the fork's travel allowing for proper sag, increased traction, and small bump compliance. Once your fork travels 15-20%, the Brain platform engages. The position the Brain engages is pre-set from the factory but can be internally adjusted by an Authorized Specialized suspension technician.

Below is the pressure chart for this fork model. It's also located on the back of one of the fork legs.

RIDER WEIGHT	AIR SE	TTING
kg / lb	psi	bar
< 55 / 120	< 50	< 3.4
55-63 / 120-140	50-70	3.4-4.8
63-72 / 140-160	70-85	4.8-5.9
72-81 / 160-180	85-100	5.9-6.9
81-90 / 180-200	100-115	6.9-8
> 90 / 200	> 115*	> 8*

^{*}Do not exceed 195 psi / 13.4 bar

10.2. Brain fork components and tuning information



RockShox forks can be tuned for your particular weight, riding style, and the terrain. When tuning your fork, always do so in the following order:

- Sag (spring rate tuning)
- Brain Fade adjuster (blue lever) Turn clockwise for firm and counterclockwise for soft.
- Rebound damping adjuster (red knob) Turn clockwise for slow and counterclockwise for fast



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

10.3. Setting sag and air pressure

Sag is the amount the fork compresses from your weight and riding gear when sitting on the bicycle. Proper sag adjustment enhances the ability of the front wheel to follow the contour of the terrain as you ride.

Measuring sag

- To measure sag, verify that the Specialized Brain is open by turning the blue knob (2) counterclockwise.
- Move the travel indicator 0-ring (A) down against the wiper seal of the fork's upper tube (B).
- Sit on the bicycle wearing all of the gear you would normally wear on a ride. Step off the bicycle and measure the distance between the O-ring and wiper seal (or, if applicable, check the location of the travel indicator O-ring against the sag value gradients marked on the upper tube). The measurement is your sag level and should be between 15%-25% of maximum travel.



If you're unable to achieve proper sag, you may need to change the fork's air pressure (see "Air spring tuning" below).

Air spring tuning

Solo Air forks have an adjustable positive air chamber. Air pressure determines the amount of force required to compress your fork.

More air pressure results in less suspension sag and increases the force required to bottom out the fork. Less air pressure results in more suspension sag and reduces the force required to bottom out the fork.

- To set the air pressure, remove the air cap on the air valve (C).
- Refer to the chart on the fork leg or in section 11.1 for recommended air pressure settings. These air pressure settings are intended as a guideline only. Inflate the air chamber to the desired pressure and then adjust according to the riding style and terrain.

11. GENERAL NOTES ABOUT MAINTENANCE

The Epic WC 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 the 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 the frame material. Damage may result in a loss of structural integrity, which may result in a catastrophic failure. This damage may or may not be visible during inspection. Before each ride, and after any crash, you should carefully inspect your bicycle for any 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. Components may be subject to increased wear at different rates, depending on the component. Drivetrain and brake components are especially subject to wear. Periodically have your Authorized Specialized Retailer inspect your bicycle and components for wear.
- 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, lubricated, and (partially) disassembled and inspected for signs of corrosion and/or cracks. 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 to wash your bicycle. Even water from a garden hose can penetrate seals and water may seep into components, such as cranks, bearings, or electrical components, potentially causing damage. Use a clean, damp cloth and bicycle cleaning agents (where appropriate) 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! Use a high-quality repair stand to support the bicycle during assembly or maintenance, and a high-quality bicycle rack for transportation.



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.

11.1. Suspension maintenance

Generally speaking, the rear shock and fork should be serviced after every 50, 100, and 200 hours of accumulated riding time. The type of service required is determined by the type of riding you do, the terrain you ride, the weather you ride in, and your skill level. You may also find that you need to service the rear shock and/or fork earlier than expected depending on the factors mentioned above. For more information on servicing your rear shock and fork, visit sram.com.



Suspension maintenance requires specials tools and skills. If you don't feel comfortable completing your own suspension maintenance, please see an Authorized Specialized Retailer.

11.2. Replacement parts and accessories

Specialized replacement parts, components, and accessories are available through your Authorized Specialized Retailer.

12. SMALL PARTS & COMPONENTS

PART NUMBER	DESCRIPTION
S184700003	Seatpost clamp
S224300002	Link
S226300009	Seatstay bridge
S222500016	Headset cover
Upper: S222500014 Lower: S222500013 Crown Race: S222500015	Headset bearings: SW models with CaneCreek bearings
Upper: S162500005 Lower: S092500001 Crown Race: S222500018	Headset bearings: Non-SW models with standard steel bearings
S222500017	Steering stop chip, steering stop chip bolt, steerer tube clamp, and compression ring
S220500015	Complete bolt kit
S220600005	Bearing/bushing kit
S220200002	Rear thru-axle
S202600002	Rear derailleur hanger
S149900018	Churro
S209900047	ICR boot
S206900004	Chainstay protector
S224200039	Rear shock
S220500014	Rear shock mounting bolt kit



SPECIALIZED BICYCLE COMPONENTS

15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-622