

EPIC



USER MANUAL



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SPECIALIZED BICYCLE COMPONENTS

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0000088147_UM_R1_06/17

Please note all instructions are subject to change and updates without notice.

Please visit www.specialized.com for periodic tech updates.








Feedback: techdocs@specialized.com

1. INTRODUCTION

This user manual is specific to your Specialized Epic 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 is intended and tested for Mountain Bike (condition 4) 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 user 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, 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. Before your first ride, make sure your components, such as brakes and drivetrain, are assembled and adjusted in accordance with the manufacturer's instructions and are functioning properly.



WARNING! Many components on the Epic, including, but not limited to, the rear suspension and cable guides, are proprietary to the Epic. 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 specific components should only be used on the Epic 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 bicycle 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 bicycle, it is very important to follow the order of assembly 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

- Epic frames have a 30.9mm seatpost diameter and require that the seatpost have a tolerance of 30.78mm to 30.95mm.

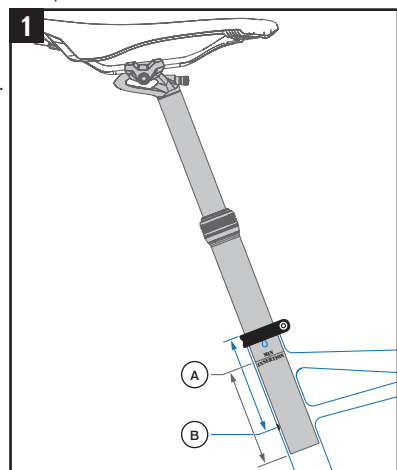
SEATPOST MINIMUM INSERTION:

To prevent damage to the frame and/or seatpost, it is important to have a minimum amount of seatpost insertion in the seat tube. This minimum insertion must meet the following requirements:

- 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 (fig.1 A).
- The seatpost must also be inserted into the seat tube deep enough to be visible through the sight hole (fig.1 B), or if no sight hole is present, the insertion must meet or exceed the minimum measured insertion depth (fig.1 B) required by the size of the frame (see below).
- If the seatpost and frame minimum insertion requirements differ from each other, always use the longer minimum insertion. For example, if the frame requires 70mm, but the seatpost requires 100mm, then 100mm is the minimum insertion required.

- **SMALL / MEDIUM FRAME SIZE:** Minimum insertion 70mm
- **LARGE / X-LARGE FRAME SIZE:** Minimum insertion 100mm

If the seatpost is at the min/max mark and the seatpost is not visible through the sight hole or does not meet or exceed the minimum measured insertion depth of the frame, the seatpost is not inserted deeply enough into the seat tube and should be lowered until it can be seen through the sight hole. This may result in the saddle being too low. If so, the seatpost must be replaced with a longer one.





WARNING! Failure to follow the seatpost and frame minimum insertion requirements 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 to turn or move 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.



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.

2.3. BOTTOM BRACKET

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

2.4. REAR AXLE

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

For additional information regarding compatibility, please refer to www.specialized.com.

3. SPECIFICATIONS



WARNING! Specialized frames are compatible **ONLY** with forks that have a specific maximum amount of travel (see table below). 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.

FORK LENGTH:

| WHEEL SIZE | FORK TRAVEL |
|------------|-------------|
| ALL MODELS | 100MM |

FRAME SPECS:

| ITEM | PART # | SPEC |
|------------------------|------------|---|
| HEADSET (CARBON FRAME) | | CARBON: 11/8" UPPER / 1.5" LOWER - DROP-IN BEARINGS |
| HEADSET (ALLOY FRAME) | S182500004 | ALLOY: 11/8" UPPER / 1.5" LOWER - CUSTOM PRESS-IN CUPS* |
| SEAT COLLAR DIAMETER | S184700003 | STC MY18 EPIC SEAT COLLAR 35 MM WITH T1 BOLT |
| SEATPOST DIAMETER | | 30.9MM |
| DERAILLEUR HANGER | S172600001 | HGR MY18 MTB THRU AXLE DER HANGER |
| BOTTOM BRACKET SHELL | | BSA THREADED 73MM |
| REAR HUB SPACING | S170200003 | AXL MY17 EPIC HT THRU-AXLE 148MM X 12MM |



* The press-in headset cups on the alloy frames are custom machined to be flush with the head tube, but use standard 11/8" upper and 1.5" lower press-in cup diameter dimensions.

4. GENERAL NOTES ABOUT MAINTENANCE

The Specialized Epic 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.

5. BIKE SETUP SPECIFICATIONS

5.1. BOLT SIZE / TOOLS / TORQUE SPECS



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:

PIVOT TORQUE SPECS:

| LOCATION | ALLEN KEY | TORQUE (in-lbf) | TORQUE (Nm) |
|------------------------------------|-----------|-----------------|-------------|
| MAIN (BOTTOM BRACKET) | 6MM | 160 | 18 |
| S-LINK @ SEAT TUBE | 4MM | 80 | 9.0 |
| EXTENSION @ SEATSTAY (OUTER BOLT) | 6MM | 160 | 18 |
| *EXTENSION @ SEATSTAY (INNER BOLT) | 4MM | 80 | 9.0 |
| UPPER SHOCK EYE | 4MM | 60 | 6.8 |

***CAUTION:** Reverse thread. Always remove the inner bolt first! Failure to remove the inner bolt first can result in damage to the S-Link.

GENERAL TORQUE SPECS:

| LOCATION | ALLEN KEY | TORQUE (in-lbf) | TORQUE (Nm) |
|--|-----------|-----------------|-------------|
| SEAT COLLAR | 4MM | 55 | 6.2 |
| WATER BOTTLE BOSS | 3MM | 25 | 2.8 |
| 12MM REAR AXLE | 6MM | 133 | 15.0 |
| DERAILLEUR HANGER | 2.5MM | 7 | 0.8 |
| REAR BRAKE CHAINSTAY WEDGE | 2.5MM | 7 | 0.8 |
| DOWN TUBE ICR PORT @ BB | 3MM | 25 | 2.8 |
| REAR DERAILLEUR HOUSING PROTECTOR (ABOVE BB) | 2MM | 7 | 0.8 |
| BRAIN RESERVOIR UPPER BOLT | 3MM | 43 | 4.9 |
| BRAIN RESERVOIR LOWER BOLT (SKID PLATE) | 4MM | 43 | 4.9 |
| BRAIN HOSE SEATSTAY CLIPS | 2.5MM | 7 | 0.8 |



CAUTION: Ensure that all contact surfaces are clean and bolt threads are greased or have a threadlocking compound (refer to the instructions for each bolt) prior to installation.

5.2. TOOLS REQUIRED

| | | |
|-----------------------------|-----------------------------------|-----------------------------|
| ■ 2.5, 3, 4, 6mm Allen keys | ■ High-quality grease | ■ Cable and housing cutters |
| ■ Torque wrench | ■ Blue threadlocker (Loctite 242) | ■ High pressure shock pump |

6. SUSPENSION PIVOT ASSEMBLY STEPS

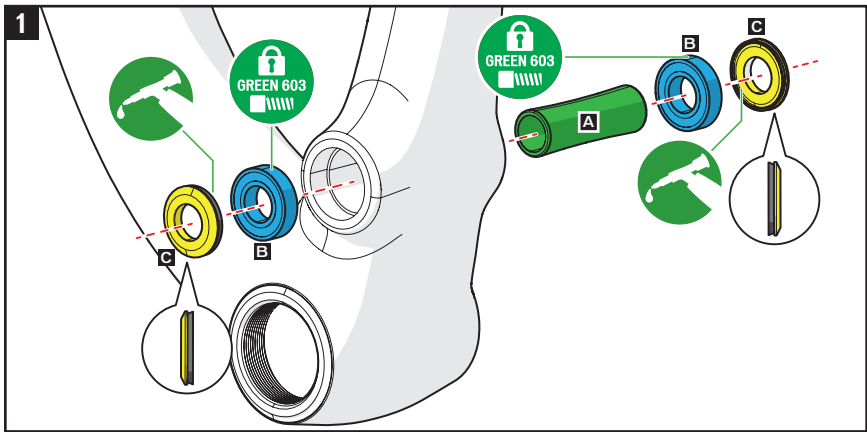
When assembling the pivots, it is recommended to follow a specific order of assembly.

Torque all pivot axles (torque specs on page 5) only once all pivots have been assembled, in the same order as assembly.

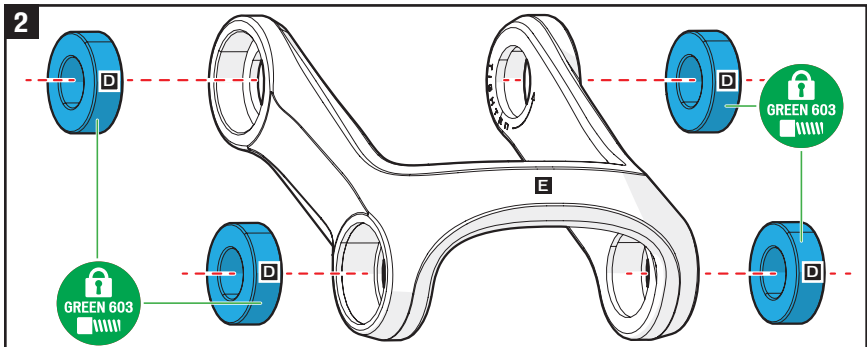
For each pivot area, grease the surface of the spacer that is in contact with the bearings. All pivot axles should have a blue threadlocking compound on the threads.

When overhauling the pivot assemblies for regular maintenance, follow the steps to ensure proper assembly.

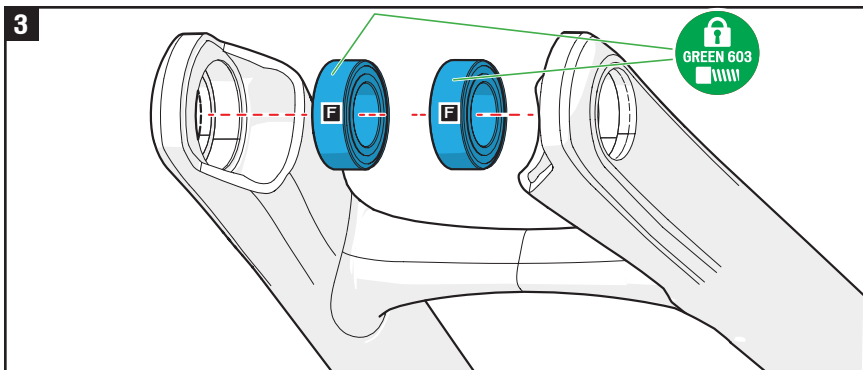
6.1. ASSEMBLING PIVOTS



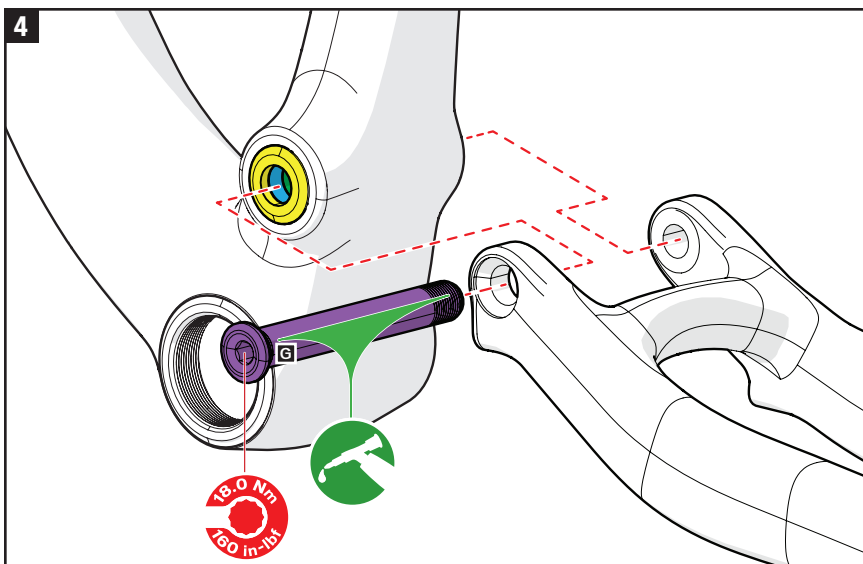
- Align the center sleeve (A) and press main the pivot bearings (B) into the main pivot bore.
- Grease, then install the main pivot spacers (C), with the rubber seals facing toward the bearing.



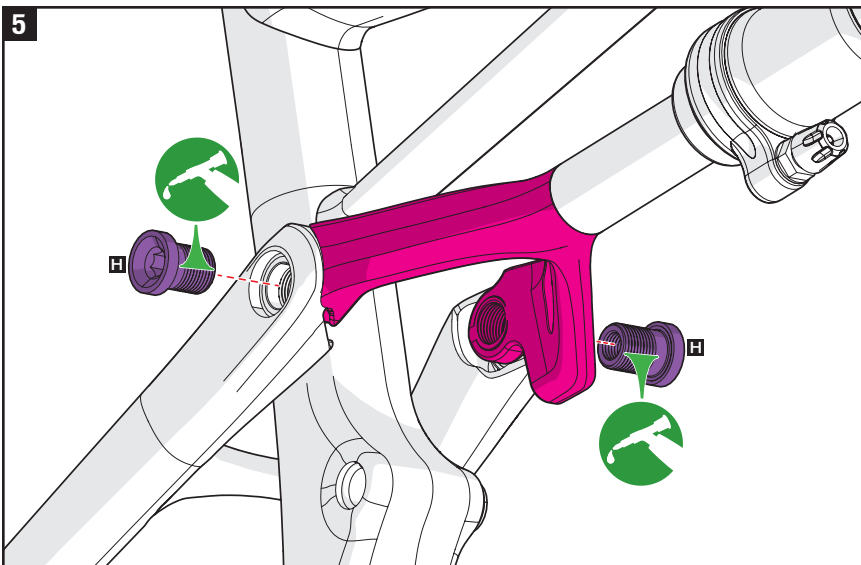
- Apply the specified green Loctite to the bearings (D) and bearing bores, then press the bearings into the link (E).



- Apply the specified green Loctite to the bearings (F) and bearing bores, then press the bearings into the seatstay pivot bearing bores.



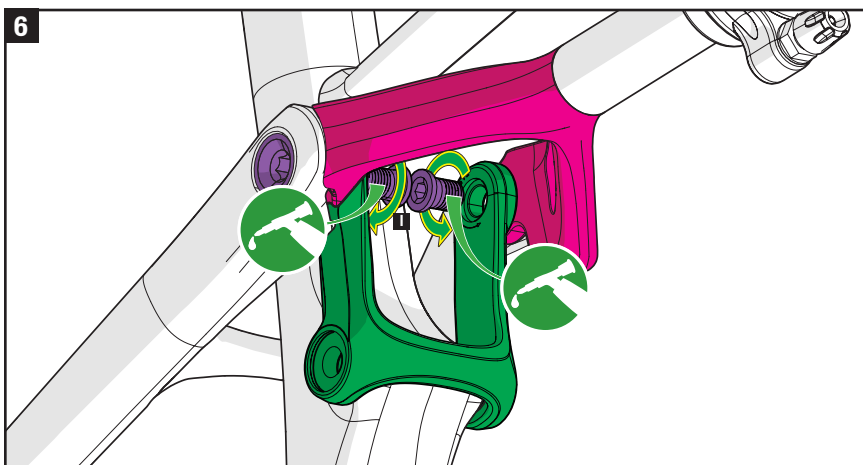
- Align the chainstay bore with the bearings. Grease then install the pivot axle (G). Torque to 160 in-lbf / 18 Nm.



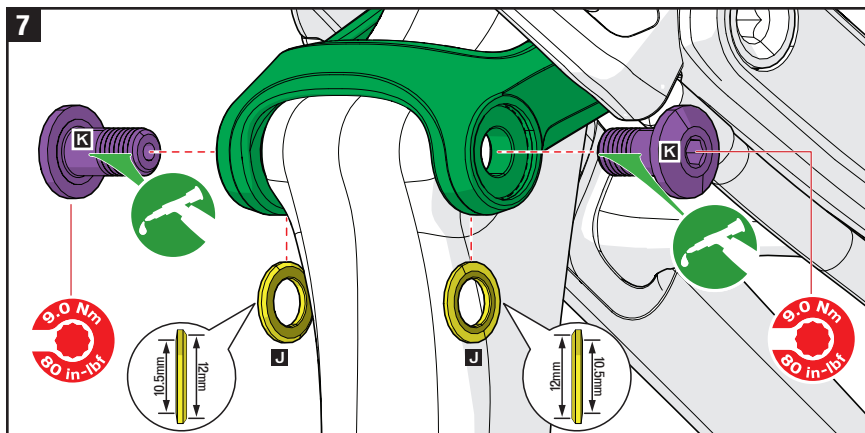
- Align the shock extension and seatstay in front of the seat tube, then grease and install the seatstay pivot outer bolts (H). Do not torque until fully assembled.



Place a cloth or piece of foam around the seat tube to prevent the link or seatstay bridge from impacting the seat tube during assembly and damaging the finish.



- Align the link with the extension at the seatstay pivot hole.
- Grease, then install the inner pivot bolts (I) from the inside. These bolts have reverse threads. Do not torque until fully assembled.

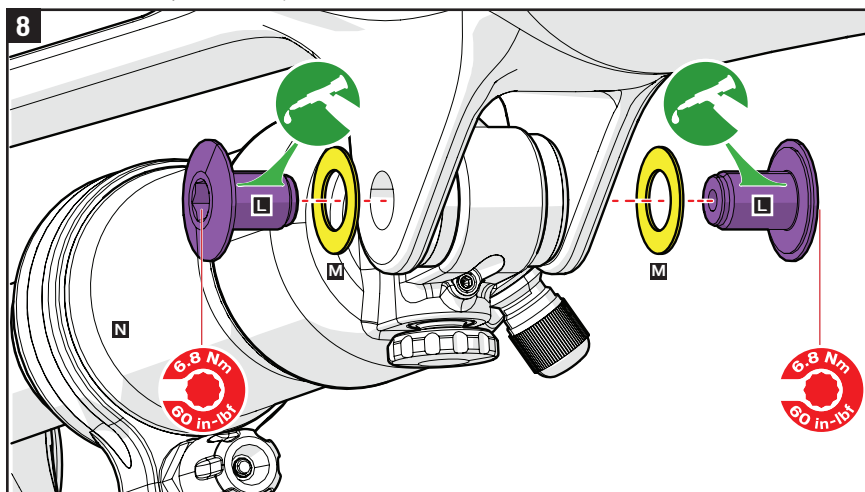


- Place the spacers (J) against the inside surface of the bearings.



The smaller 10.5mm diameter flat surface goes against the bearings, while the larger 12mm diameter flat surface goes against the frame. See inset illustrations in Fig.7.

- Rotate the link into position to align the bearings with the frame thread bore. Grease then thread the bolts (K) into the frame. Torque to 80 in-lbf / 9.0 Nm.

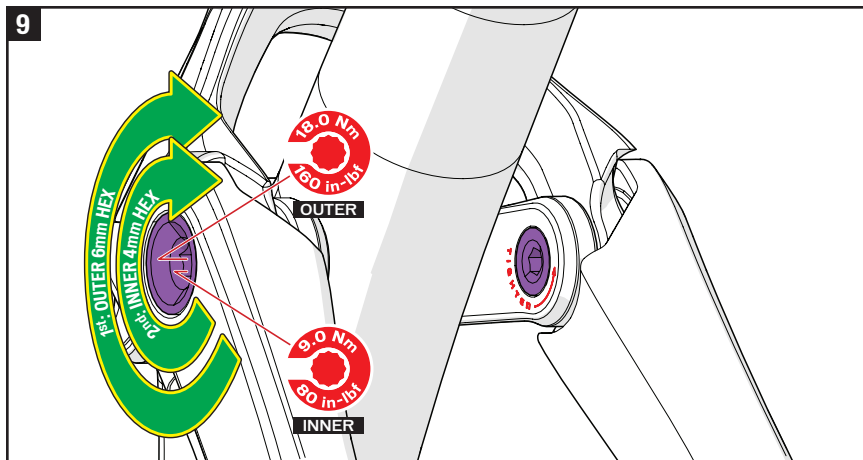


- Grease the upper shock mount bolts (L), then place washers (M) on the bolts.
- Align the shock assembly (N) with the upper shock eye mount, then insert the bolts into the mount. Torque to 60 in-lbf / 6.8 Nm.



As the upper shock eye is moved forward to align with the upper shock eye mount, the rear triangle will flex naturally as it moves forward. This will result in a slight amount of flex resistance from the rear triangle. This is natural. Align the upper shock eye bolt and frame mount with care.

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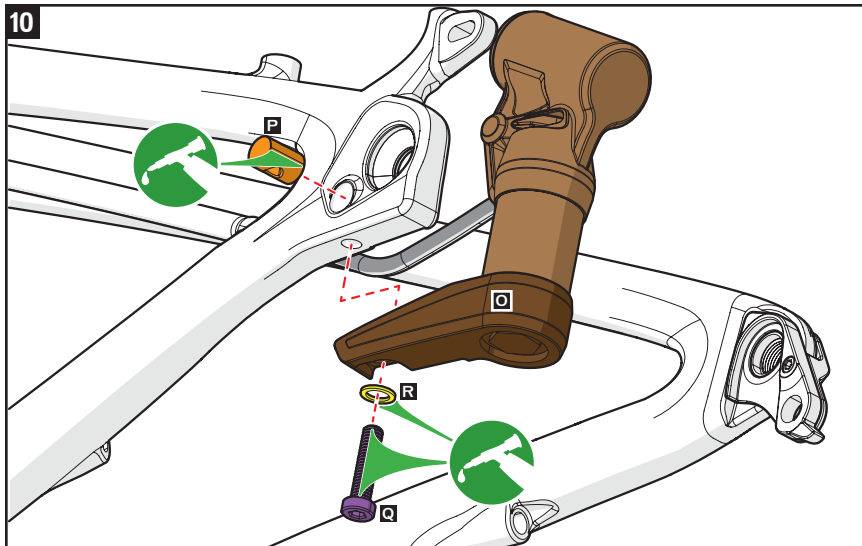


- Torque the outer bolts to 160 in-lbf / 18.0 Nm, then the inner bolts to 80 in-lbf / 9.0 Nm.



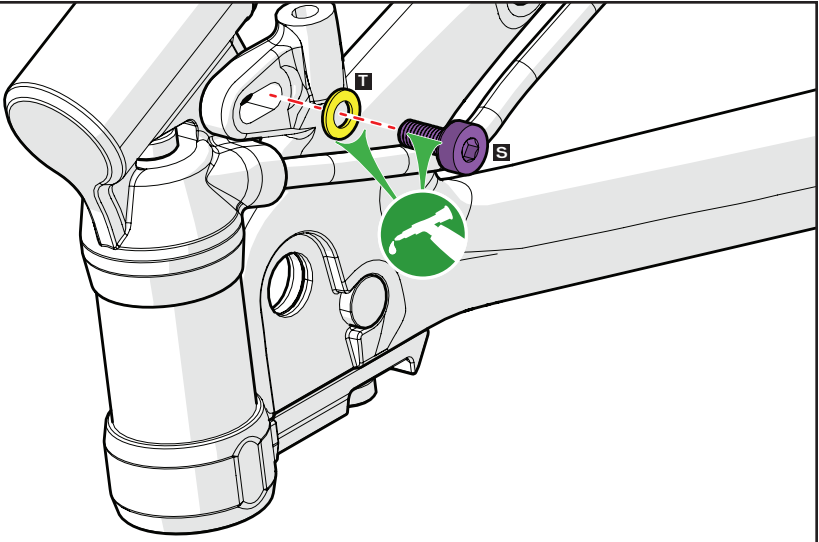
Torque the outer bolts first, then torque the inner bolts. Access the inner bolts with a 4mm hex key from the outside, through the outer bolt hole, and tighten in the standard clockwise direction.

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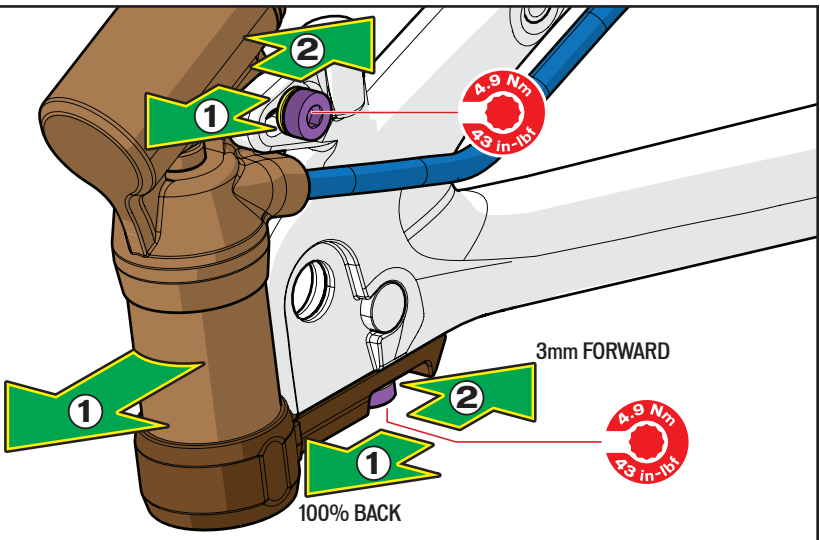
- Position the brain reservoir under the dropout and align the bracket (skid plate, O) hole with the vertical dropout hole.
- **CARBON FRAME:** Insert the barrel (P) into the horizontal dropout hole, then install the bolt (Q) and washer (R). Lightly hand tighten the bolt.
- **ALLOY FRAME:** Install the bolt (Q) and washer (R). Lightly hand tighten the bolt.

11

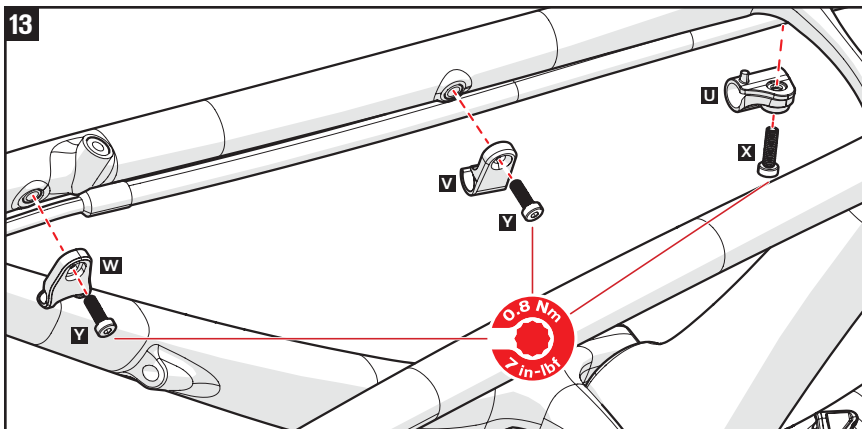


- Install the bolt (S) through the washer (T) and the brake mount bolt hole, then thread into the Brain reservoir. Lightly hand tighten the bolt.

12

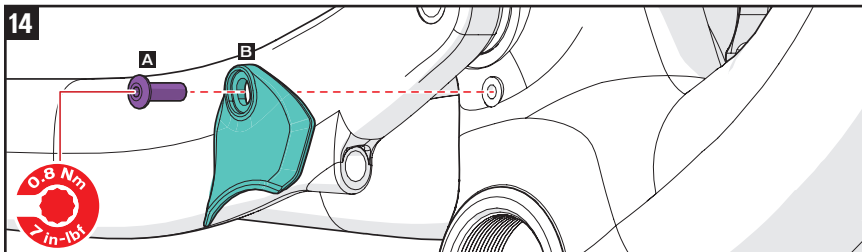


- Gently pull the Brain assembly all the way to the back of its adjustment range (1), then push it forward 3mm (2). Tighten the lower bolt first, then the upper bolt. Torque both bolts to 43 in-lbf / 4.8 Nm.



- Position the clips on the Brain hose (U at the top, V in the middle, W at the bottom).
- Install the bolts into clips (X at the top, Y at the middle and bottom). Torque all clip bolts to 7 in-lbf / 0.8 Nm.

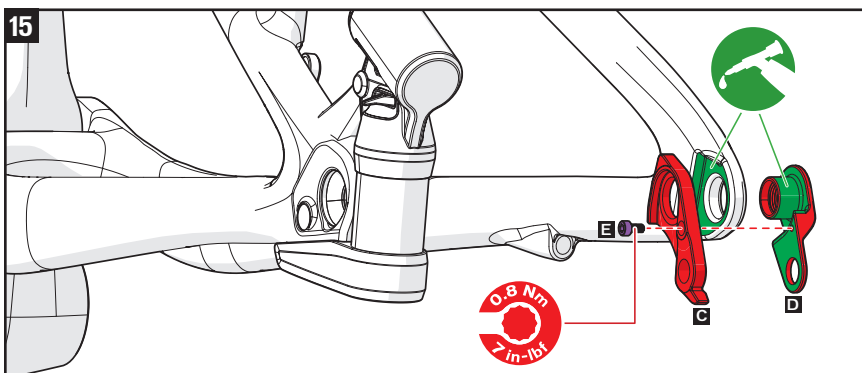
6.2. INSTALLING SMALL PARTS



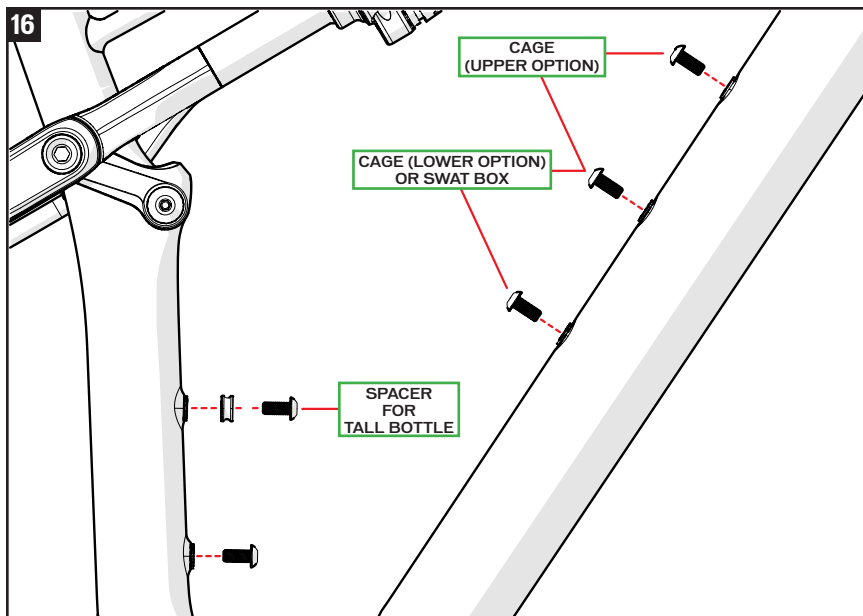
- **CARBON FRAME:** Install the bolt (A) through the protector (B) and into the frame. Torque to 7 in-lbf / 0.8 Nm.



The protector plate can be realigned when the bottom bracket is installed to match the curve of the bottom bracket.



- Grease then install the rear derailleur hanger (C is inside, D is outside). Install the hanger bolt (E) and torque to 7 in-lbf / 0.8 Nm.



- **CARBON FRAME:** When placing a large water bottle on the seat tube, to provide clearance for the bottle at the link area, install the supplied water bottle cage spacer between the cage and the seat tube at the upper hole.

7. INTERNAL CABLE ROUTING

Epic frames have an Internal Cable Routing (ICR) port on the drive-side of the head tube to route a telescoping seatpost down the down tube to the bottom bracket area. Removal of the bottom bracket provides access to the bottom bracket area of the down tube through ports in the bottom bracket shell to help guide the seatpost housing up the seat tube.

Follow the same basic procedures for routing the telescoping seatpost cable housing as for the shift and brake housings.



If you're running a telescoping seatpost like the Command Post IR, you should refer to the Command Post IR Adjustable-Height Seatpost Instruction Guide or other dropper post instruction guide, and complete the installation of the dropper post cable housing before installing any other cable housing.

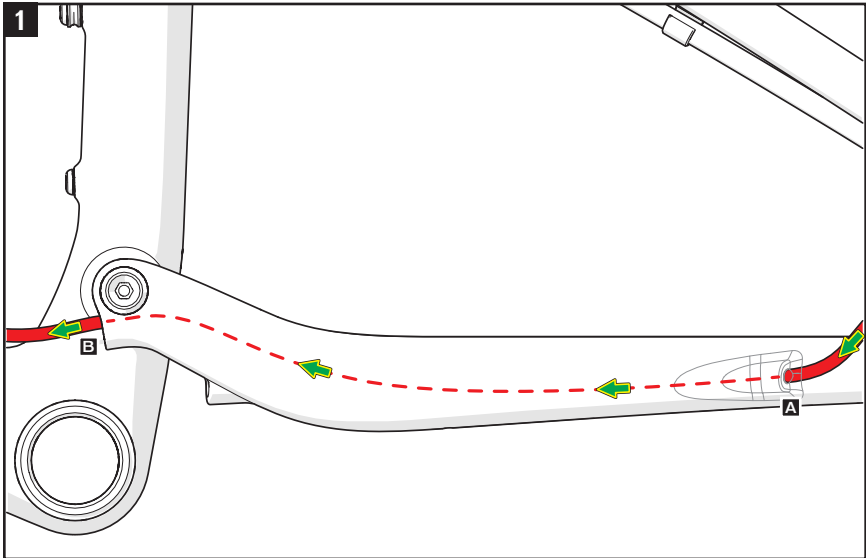
REAR BRAKE:



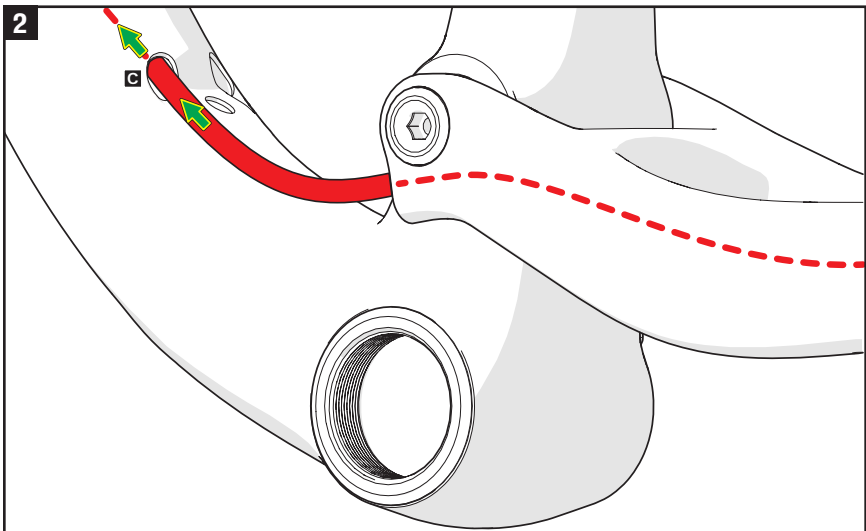
Make sure the fork is removed before starting the routing process.



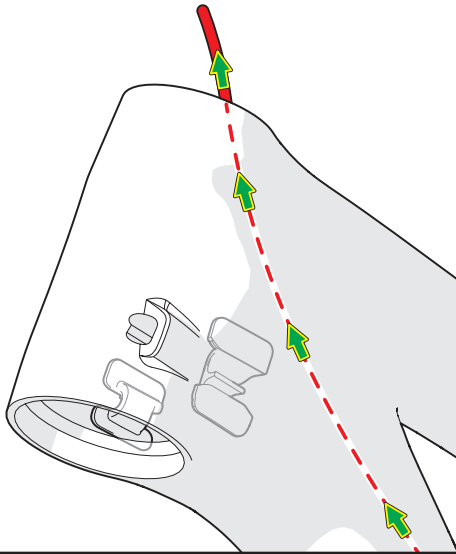
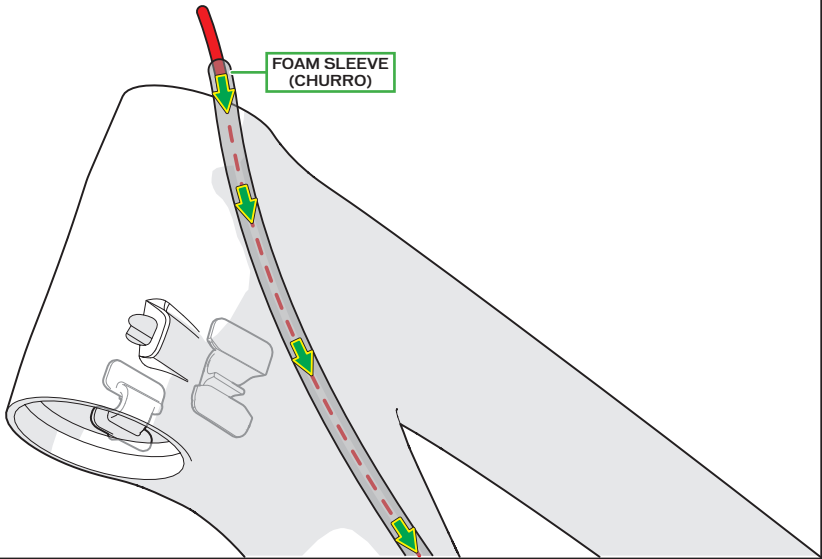
Make sure the brake hose is sealed with a plug or Park Tool barb to prevent contamination. Make sure all parts and tools are clean before installation.



■ Fig.1: Insert the brake hose starting from the ICR port on the chainstay near the rear brake mount (A) until it exits at the main pivot ICR port (B).



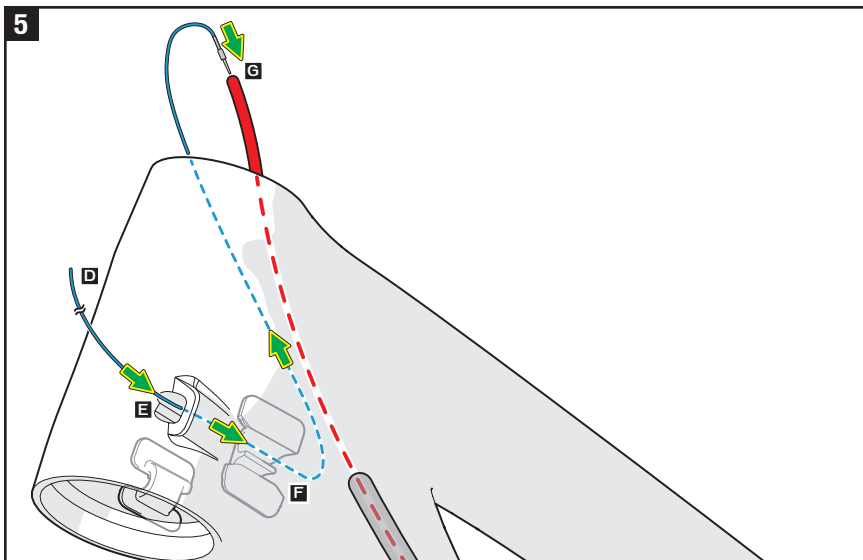
■ Fig.2: Insert the hose into the non-drive-side hole of the down tube ICR port (C) and run the hose up the down tube until it exits out the top of the head tube (fig.3).

3**4**

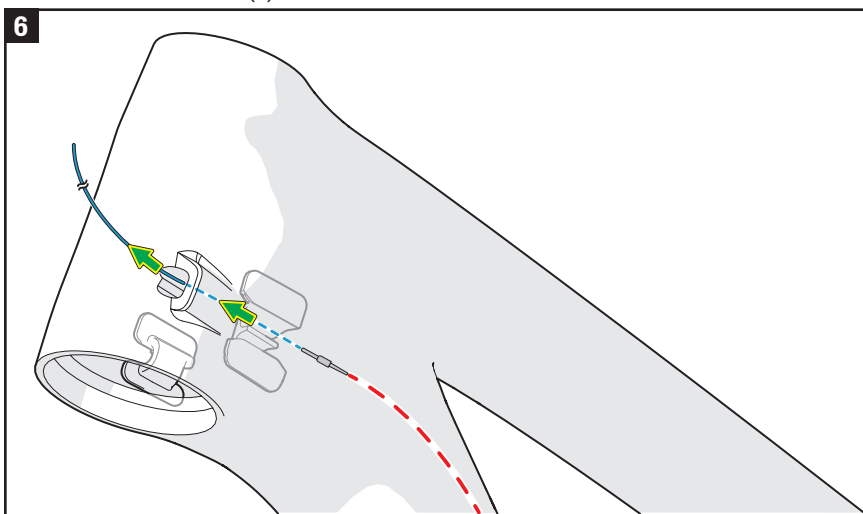
■ Fig.4: Install a foam sleeve (Churro) over the brake hose and guide it into the down tube.



A little puff of talc powder inside the Churro can help slide it onto the brake hose. Only do this if the brake hose is sealed with a plug or Park Tool barb.

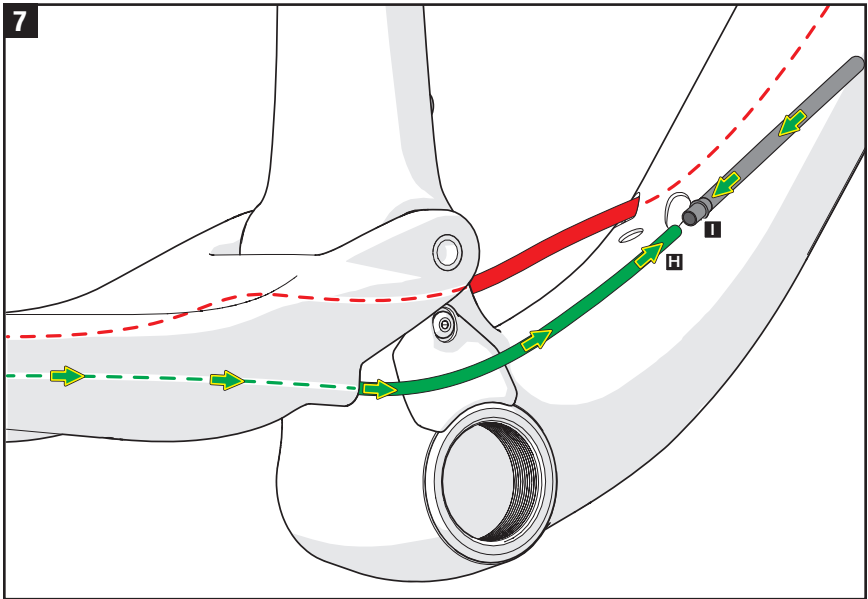


5 Fig.5: Insert a Park Tool barb-tipped wire (D, barb end first) through the non-drive-side head tube ICR port (E), through the upper hole of the down tube cable guide (F), then up and out the top of the head tube. Thread the wire barb into the brake hose (G).



- 6**
- Fig.6: Guide the brake hose back down into the down tube until it is just below the internal hose guide.
 - Fig.6: Pull on the wire exiting the head tube ICR port to guide the brake hose through the internal hose guide and out the head tube ICR port.
 - Mount the brake caliper onto the seatstay brake mount so it is in position, but not yet torqued to spec.
 - Insert the wedge assembly in the chainstay ICR port below the main pivot, so it is below the housing. Make sure the housing loop from the chainstay ICR port to the brake caliper has a gradual bend with no excessive tightness. Once this loop is correct, torque the wedge to 7 in-lbf / 0.8 Nm.

REAR DERAILLEUR:



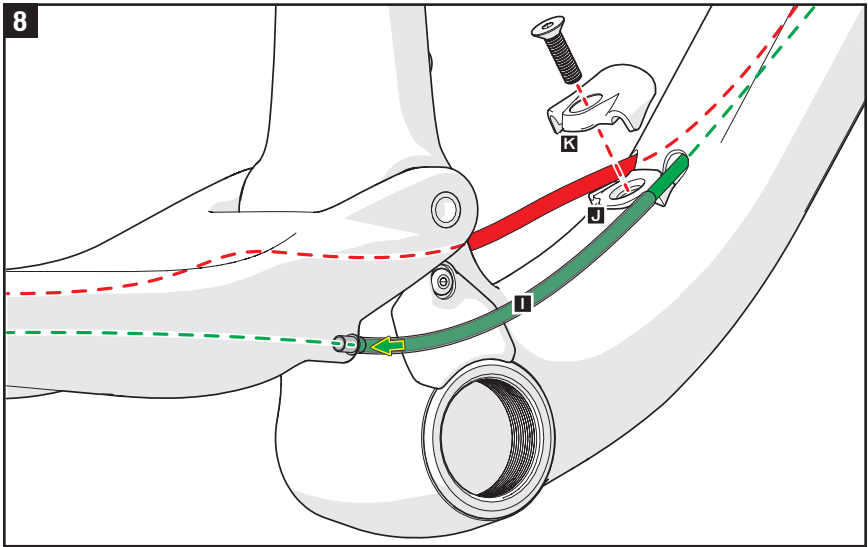
- Fig.7: Insert a 1400mm long section of shift housing into the ICR port at the drive-side dropout and guide it through the chainstay until it exits at the main pivot ICR port (H).
- Fig.7: Install a shift cable housing tube (I) over the shift housing that's exiting the chainstay ICR port, while guiding the housing into the down tube ICR port. The Lazy Loop is designed to set the housing between the chainstay and down tube ICR ports at a specific length and curve.



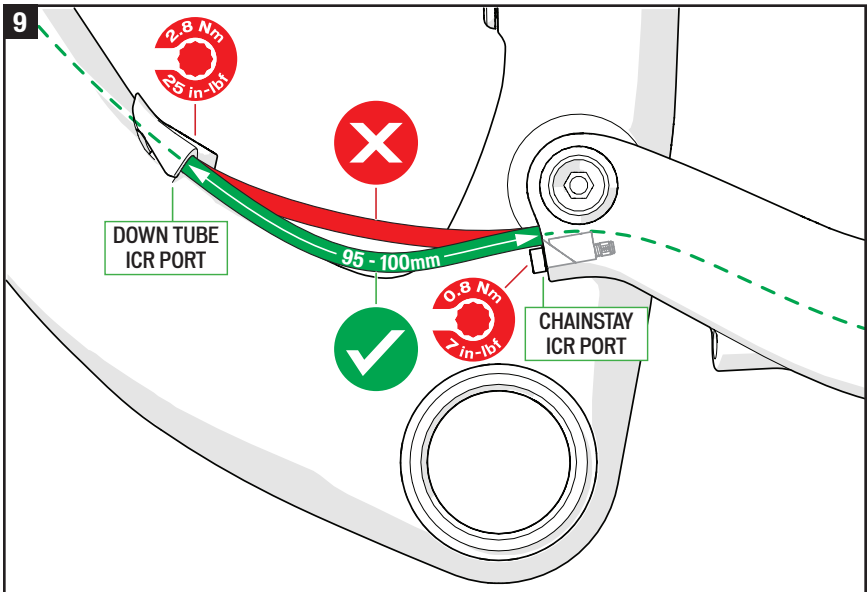
When guiding the housing from the chainstay ICR port to the down tube ICR port, guide just enough housing out of the chainstay so the end of the housing is in line with the down tube ICR port, then install the shift cable housing tube (I) over the housing (H) before aligning the housing with the down tube ICR port and routing it up the down tube. For optimal shifting, do NOT kink the housing.

- Repeat the steps from the rear brake section, **fig.3-6**, but for the shift housing instead of the brake hose. Make sure the shift housing does not wind around the brake hose.

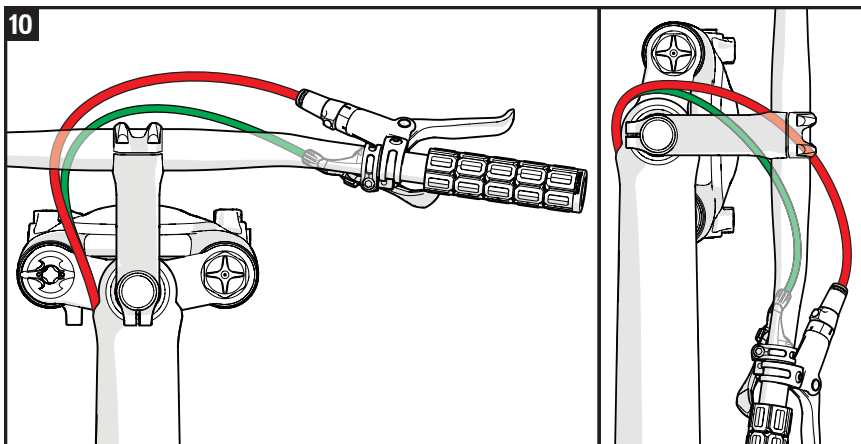
FINAL ASSEMBLY:



- Fig.8: Install the down tube ICR port assembly with the rubber part (J) below and the alloy part (K) above the housings.
- Trim the exposed housing from the dropout to the derailleur so it is the correct length according to the derailleur manufacturer's instructions.



- Fig.9: Measure the exposed brake hose between the chainstay and down tube ICR ports, so there is 95-100mm of exposed housing.
- Fig.9: Once the length/curve of the brake hose is correct, torque the down tube ICR port bolt to 25 in-lbf / 2.8 Nm and the chainstay ICR port wedge bolt to 7 in-lbf / 0.8 Nm. Be sure not to clamp down on the shift cable housing tube (fig.8, item I).
- Install the front end assembly (fork, headset, stem, handlebar, brakes, shifter, grips).



- **Fig.10:** Trim the exposed brake hose and shift housing from the head tube to the brake lever and shifter so the handlebar can rotate 90 degrees in each direction without pulling on the hose and housing
- Attach the brake housing to the brake lever according to the brake manufacturer's instructions.
- Install shift housing ferrules at each end of the housing, then insert the housing ends into the derailleur and shifter.
- Install the shift cable into the shifter and down the housing until it exits at the dropout, then adjust according to the derailleur manufacturer's instructions.
- Install the rear wheel, adjust the brake caliper position relative to the rotor, then torque according to the brake manufacturer's instructions.

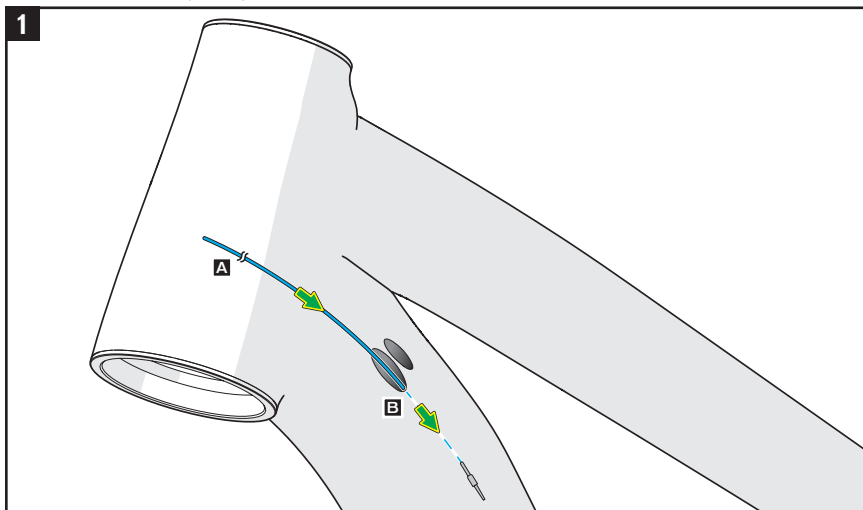
7.2. ALLOY FRAME



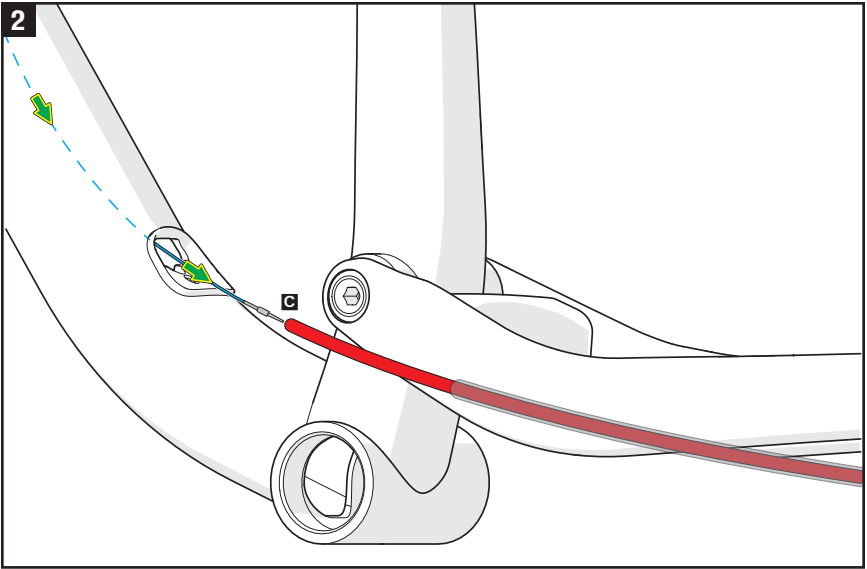
The front end assembly (fork, headset, stem, handlebar, etc) does not need to be removed from the frame to route the housings.

REAR BRAKE:

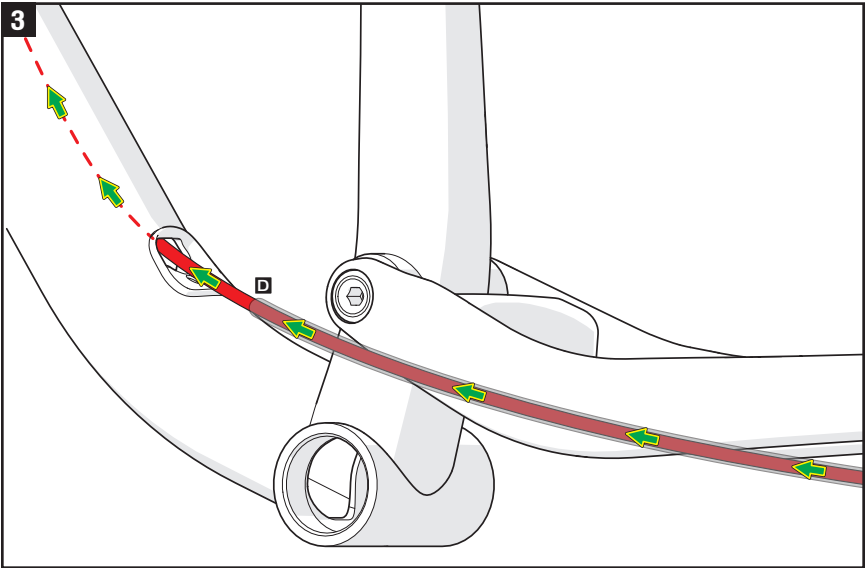
- Install a foam sleeve (Churro) over the brake hose.



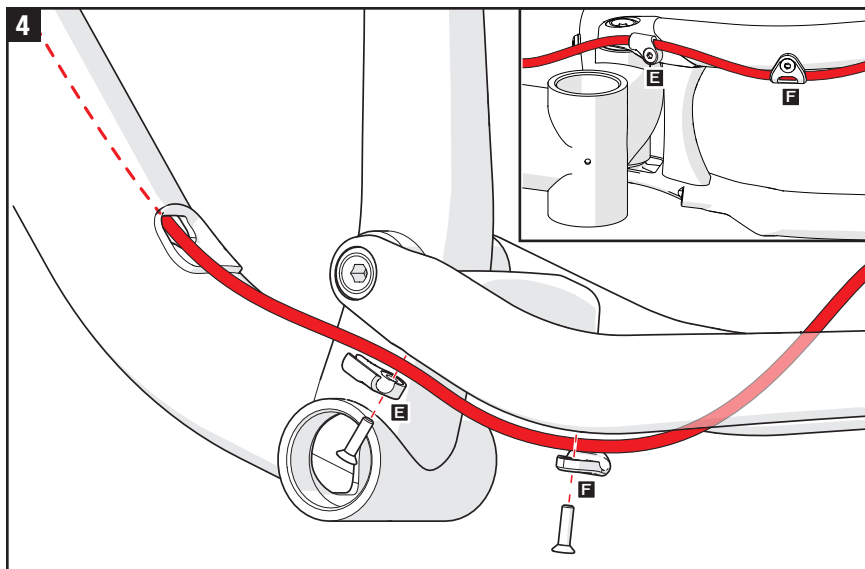
- **Fig.1:** Insert a Park Tool barb-tipped wire (A, barb end first) through the lower non-drive-side head tube ICR port (B) and down the down tube until it exits the ICR port at the base of the down tube.



■ Fig.2: Insert a Park Tool barb-tipped wire (C, barb end first) in the brake hose.

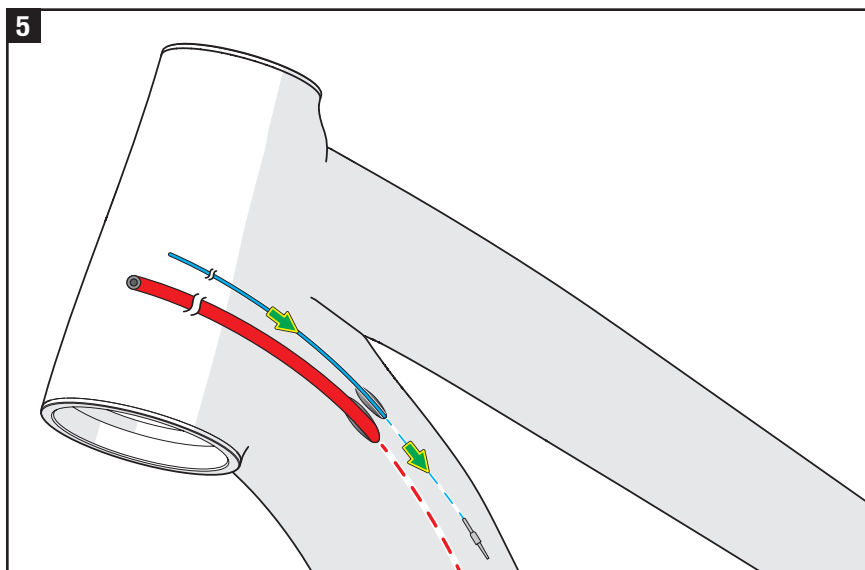


■ Fig.3: Pull the Park wire out the head tube to pull the hose up the down tube while working the Churro through the down tube ICR port (D).

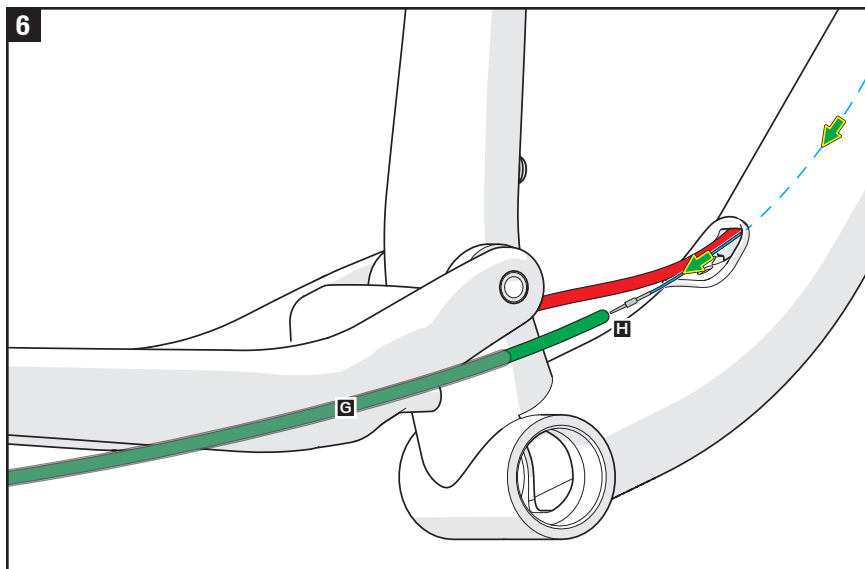


- Fig.4: Run the brake hose under the chainstay and up between the seatstays, then mount the brake caliper onto the rear triangle.
- Fig.4: Install the two clips over the hose on the underside of the chainstay to get the correct hose position and curve from the brake caliper to the chainstay clips. Torque the clip bolts to 7 in-lbf / 0.8 Nm.

REAR DERAILLEUR:

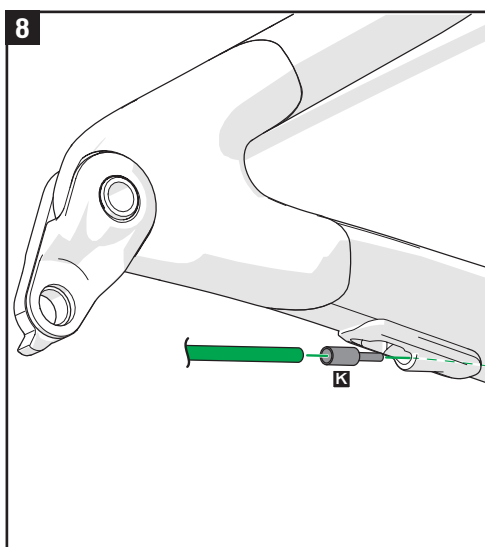
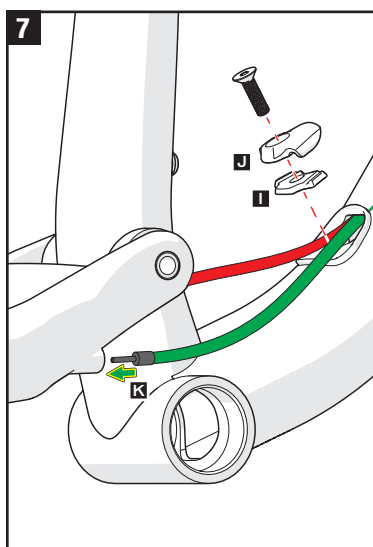


- Fig.5: Insert a Park Tool barb-tipped wire (barb end first) through the upper non-drive-side head tube ICR port and down the down tube until it exits the ICR port at the base of the down tube.

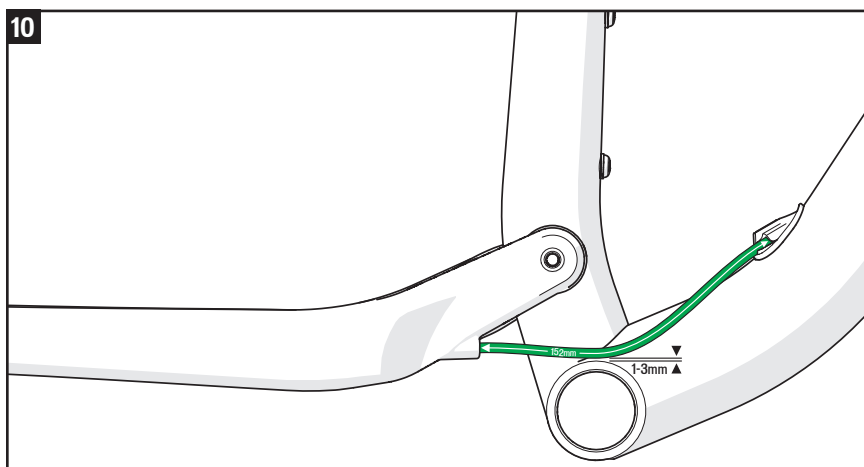
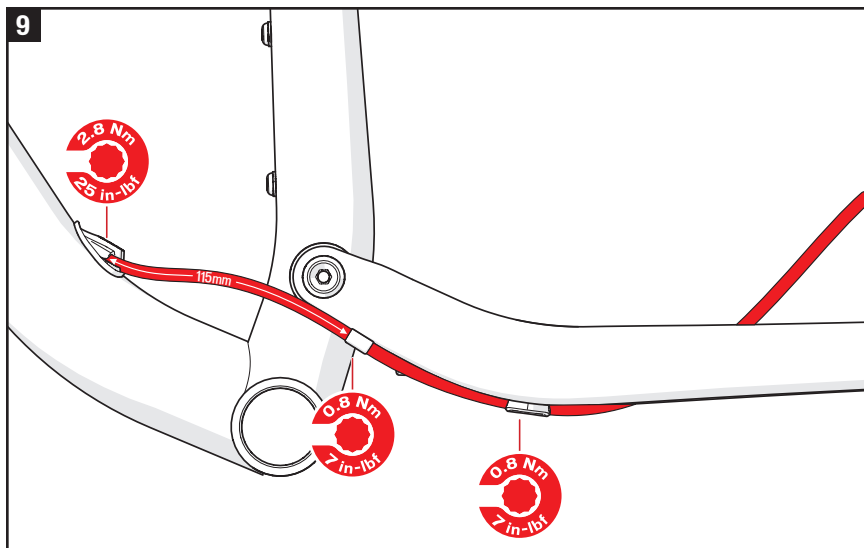


- Fig.6: Install a Churro (G) over the shift housing.
- Fig.6: Insert the barb (H) in a section of shift housing (minimum housing length 1150mm), then pull the Park wire out the head tube to pull the housing up the down tube while working the Churro through the down tube ICR port.
- Trim a section of shift housing according to the derailleur manufacturer's instructions to go from the dropout ICR port to the derailleur, then install shift housing ferrules with extended tips on each end (fig.7, fig.8).

FINAL ASSEMBLY:



- Fig.7: Install the down tube ICR port assembly with the rubber part (I) below and the alloy part (J) above the housings. Do not torque at this time.
- Fig.7: Install a ferrule with extended tip on the shift housing, then place the shift housing into the chainstay ICR port near the main pivot.



■ **Fig.9&10:** Adjust the length/curve of the brake hose and shift housing loops between the down tube and chainstay ICR ports by pulling the hose and housing at the head tube in or out.



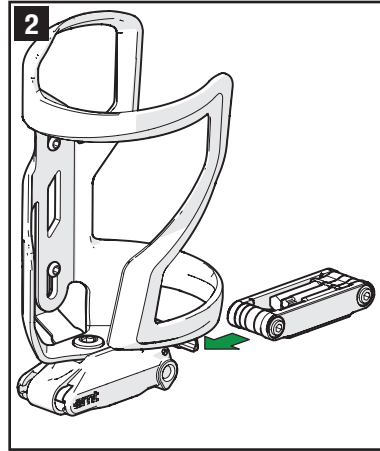
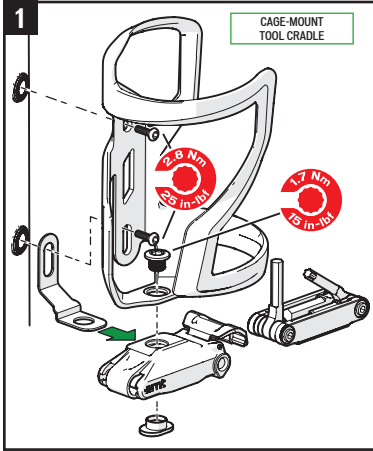
The exposed housing should measure 115mm (fig.9 brake hose) and 152mm (fig.10 shift housing). For the shift housing, this should position the housing about 1-3mm above the bottom bracket shell.

- Once the housing loops are the correct length/curve, torque the down tube ICR port bolt to 25 in-lbf / 2.8 Nm.
- Trim the exposed brake hose and shift housing from the head tube to the brake lever and shifter so the handlebar can rotate 90 degrees in each direction without pulling on the hose and housing (see carbon frame fig.10).
- Install the brake housing in the brake lever according to the brake manufacturer's instructions.
- Install a ferrule on the shifter end of the shift housing, then place the ferrule in the shifter.
- Install the shift cable into the shifter and down the housing until it enters the chainstay and exits at the dropout.
- Install the section of shift housing trimmed to length to go from the dropout ICR port to the derailleur.
- Finish installing and adjusting the brake and derailleur according to the manufacturer's instructions.

8. SWAT PARTS

8.1. EMT TOOL

Specialized Z Cage II / Cage-Mount Tool cradle



- Install the metal bracket into the Cage-Mount Tool cradle (the round hole goes into the cradle, the oblong hole aligns with the Z Cage's lower frame mounting hole).
- Align the hole at the base of the Z Cage II over the hole in the Cage-Mount Tool cradle.
- Insert the T-Nut into the Frame Tool cradle from below.
- Thread the T-Bolt into the T-Nut. Torque the T-Bolt to 15 in-lbf / 1.7 Nm.
- Install the EMT tool into the cradle.



The EMT Tool with Cage-Mount Tool cradle and Z Cage II can be installed on many bike models. Some frames are not compatible due to interference between the frame and the Cage-Mount Tool cradle. Verify that the fit is unobstructed before installation.



The Z Cage II is available in left- or right-side bottle entry options.

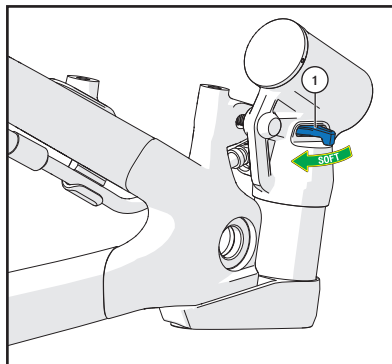
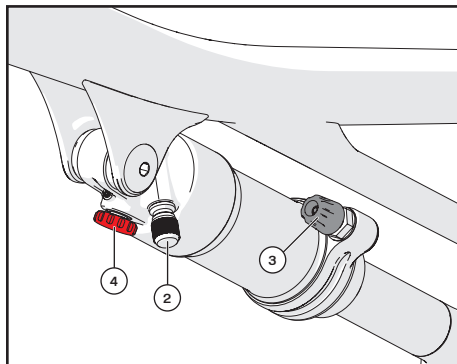
9. AUTOSAG AIR SHOCK SETUP

Epic models are equipped with AUTOSAG, a unique feature designed to simplify and speed up the adjustment of air pressure. The AUTOSAG feature automatically determines the correct amount of sag, and eliminates the need to refer to an air chart to determine the correct pressure based on rider weight. However, the shock still requires compression and rebound adjustment based on type of terrain and rider weight. Please refer to the charts on page 26.



Air pressures, rebound and compression settings are suggested starting point recommendations only. They should be adjusted according to the rider's needs for each type of terrain to achieve optimal performance. Shock air pressure can also be set up manually to rider preference.

9.1. STEP 1: SETTING AUTOSAG



1. Position the shock compression lever or knob (blue) to the full open or off position ①. Remove the positive air valve cap ② (black).
2. Attach a high-pressure shock pump to the positive air valve.
 - Inflate to the rider's weight in pounds (lb) plus 50psi. For kilograms, multiply by three (e.g. 75kg = 225psi).



CAUTION: Do not exceed 350psi before activating the Autosag valve (this is a starting pressure only). After the Autosag is activated, Fox recommends a maximum working pressure of 300psi when riding.

3. Make sure you're wearing all gear that would normally be worn on a ride (shoes, helmet, hydration pack if used, etc.). Mount the bicycle, prop up against a wall, and sit in the saddle in a normal riding position. Do not set sag while riding.
4. Unthread then press the grey AUTOSAG valve ③. The pressure will decrease until the suspension settles into its pre-adjusted sag point. Once the Autosag valve is no longer releasing pressure, let go of the Autosag valve.
5. Cycle the shock a few times ④, then dismount the bicycle.
6. Do not depress the AUTOSAG valve again, otherwise the proper sag setting will be lost, and will require this procedure to be repeated from step #2.
7. Put the positive air valve cap back on.



Rider weight in pounds (lb) plus the PSI (depending on model as described above) is the lowest amount of pressure that should be in the shock before activating AUTOSAG. If the air pressure is too low, the AUTOSAG button may let air out of the negative chamber, which would result in incorrect sag.



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 AUTOSAG is correctly set, sag should measure approximately 20-30% of stroke, depending on riding/terrain experience, i.e. travel. If the rider is approaching 300lbs, AUTOSAG may not function, and sag may exceed the bike's prescribed amount.

9.2. STEP 2: ADJUSTING REBOUND

The level of rebound damping can be adjusted by turning the red knob (4). Rebound damping controls the rate at which the shock returns after it has been compressed, and is adjusted to your weight with 1-2 click micro adjustments for rider style and terrain.

- Clockwise for slower rebound (slow speed, bigger hits).
- Counter-clockwise for faster rebound (higher speeds, small bumps, more traction).

We recommend adjusting your rebound based on the range provided for your weight, then micro-adjusting the rebound for riding style and different types of terrain. It's best not to veer too far from the recommended clicks for your weight, since being too far out of the accepted range can ruin the ride experience.

| RIDER WEIGHT | | CLICKS |
|--------------|-----------|--------|
| LBS | KG | |
| 90 - 130 | 41 - 60 | 7 - 10 |
| 140 - 190 | 64 - 86 | 5 - 7 |
| 200 - 250 | 91 - 113 | 3 - 5 |
| 260 - 280 | 118 - 127 | 1 - 3 |

9.3. STEP 3: ADJUSTING COMPRESSION

The Brain shock is designed with an inertia valve to provide a platform that stays firm under pedaling forces and rider inputs but opens when a bump is encountered. The level of compression damping determines how easily the platform opens, and can be adjusted by turning the blue Brain Fade adjuster knob (1) counter-clockwise (firmer maximizes pedaling efficiency) or clockwise (softer maximizes control on descents and variable terrain). Refer to the compression chart to set the compression damping.



The SID Brain fork compression knob turns in the standard direction (Firm=clockwise). The Rear Brain shock compression knob turns in the opposite direction.

Backing off from full firm can help with tracking in loose terrain conditions while riding off camber sections or climbing. The soft setting can also help during lengthy downhill or rugged conditions where the rider may want the suspension active at all times. Choose the optimal compression setting based on the terrain conditions.

| CONDITIONS | CLICKS |
|----------------------|--------|
| XC / RACE | 0 - 1 |
| SMOOTH HARDPACK | 2 - 4 |
| TRAIL RIDING | 2 - 4 |
| DOWNHILL / TECHNICAL | 4 |

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) | | | | | | |



SPECIALIZED BICYCLE COMPONENTS

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