

STUMPJUMPER



USER MANUAL



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SPECIALIZED BICYCLE COMPONENTS

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0000097877_UM_R1, 12/17

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 Stumpjumper FSR 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 Stumpjumper FSR bicycles are 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 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 Stumpjumper FSR, proper assembly requires a high degree of mechanical expertise, skill, training and specialty tools. Therefore, it is essential that the assembly, maintenance and troubleshooting be performed by an Authorized Specialized Retailer.



WARNING! Many components on the Stumpjumper FSR, including, but not limited to, the rear suspension and cable guides, are proprietary to the Stumpjumper FSR. 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. Stumpjumper FSR specific components should only be used on the Stumpjumper FSR and not on other bicycles, even if they fit. Failure to follow this warning could result in serious injury or death.



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



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

2.1. FORK/HEADSET/STEM

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



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

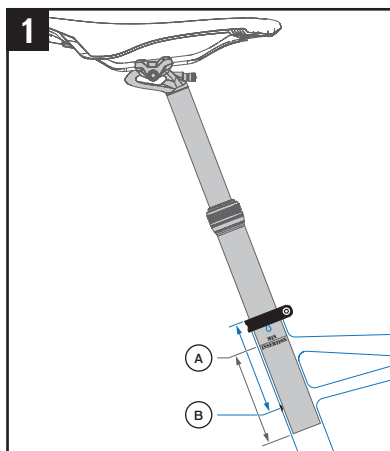
2.2. SEATPOST

SEATPOST MINIMUM INSERTION:

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 meet or exceed the 100mm minimum measured insertion depth (fig.1 B) required by the frame.
- If the seatpost and frame minimum insertion requirements differ from each other, always use the longer minimum insertion. For example, if the frame requires 100mm, but the seatpost requires 90mm, then 100mm is the minimum insertion required.

If the seatpost is at the min/max mark and the seatpost 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 meets or exceeds the frame insertion requirement. This may result in the saddle being too low. If so, the seatpost must be replaced with a longer seatpost.



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.

CAUTION: Be sure to not bottom out the seatpost in the frame.



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! 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

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



CAUTION (CARBON FRAME): Do not face the bottom bracket shell! Chasing the threads is acceptable if necessary.

2.4. REAR AXLE

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

2.5. CHAINGUIDE

Certain models are equipped with a custom chainguide which attaches to the two ISCG tabs. The chainguide can be rotated upward to allow the chain to come on and off the chainring. There are two guide brackets available (28-32t and 28-36t).

Setting the chainguide position:

- With the chainguide section rotated up, place the bracket in position, then lightly tighten the two ISCG bolts.
- Rotate the chainguide down and align the chain imprint on the guide with where the chain would be.
- With the chain in the lowest (largest) gear and approximately 50% sag (let some air out of the shock), inspect the clearance between the chainguide and the chain. If at this point there is contact between the chainguide and the chain, rotate the bracket forward until there is no longer any contact.
- Tighten the two bolts to 55 in-lbf (6.2 Nm).



CAUTION (CARBON FRAME): Do not use bolts that engage in the frame more than 7 threads (7mm).

2.6. FLIP CHIP



All models are assembled with the Flip Chip in the Low position. Switching to the High position raises the bottom bracket height by approximately 5-6mm and steepens the head tube angle by approximately 0.5 degrees.



Place a rag between the link and the seat tube to make sure the link doesn't make contact with the seat tube.

- Remove the upper shock eye bolt and the two extension bolts, then remove the extension/shock assembly from the bike.
- Remove the lower shock eye bolt, then remove the Flip Chip halves out of the lower shock eye.
- Rotate the two Flip Chips 180 degrees then push them back into the lower shock eye.
- Assemble the rear shock eye to the extension and install the bolt (do not torque at this time).
- Install then torque to specification the upper shock eye bolt and the two extension bolts.
- Torque the lower shock eye bolt to specification.

3. GENERAL NOTES ABOUT MAINTENANCE

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

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



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



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

4. SPECIFICATIONS

4.1. GENERAL SPECIFICATIONS

| ITEM | PART # | SPECIFICATION |
|----------------------|------------|---|
| HEADSET | S182500005 | 11/8" UPPER / 1.5" LOWER DROP-IN BEARINGS |
| SEAT COLLAR DIAMETER | S184700004 | 38.6mm |
| SEATPOST DIAMETER | | 34.9mm |
| DERAILLEUR HANGER | S172600001 | HGR MY18 MTB THRU AXLE DER HANGER |
| BOTTOM BRACKET SHELL | | BSA THREADED 73mm |
| CHAINGUIDE TABS | | ISCG05 (two-bolt mounting only) |
| REAR HUB SPACING | S170200003 | AXL MY17 EPIC HT THRU-AXLE 148mm X 12mm |

The specs below are the stock configurations for each model.

| MODEL | WHEEL / TIRE | SHOCK TRAVEL | SHOCK EXTENSION ¹ | SHOCK STROKE | FORK TRAVEL | BB HEIGHT ¹ | HEAD TUBE ANGLE ¹ |
|------------|--------------|--------------|------------------------------|--------------|-------------|------------------------|------------------------------|
| SJ 29 ST | 29 x 2.3 | 120 | 115 / 118 | 190 x 42.5 | 130 | 333 / 338 | 67.5 / 68 |
| SJ 27.5 ST | 27.5 x 2.3 | 130 | 115 / 118 | 190 x 45 | 130 | 325 / 331 | 66.5 / 67 |
| SJ 29 | 29 x 2.6 | 140 | 95 / 98 | 210 x 50 | 150 | 342 / 347 | 66.5 / 67 |
| SJ 27.5 | 27.5 x 2.6 | 150 | 95 / 98 | 210 x 52.5 | 150 | 336 / 342 | 65.5 / 66 |

¹ The shock extension length, bottom bracket (BB) height and head tube angle all have two settings based on the Flip Chip position. The stock configuration for the Flip Chip is in the lower position (highlighted in **BOLD**). Refer to section 2.6 for information about adjusting the Flip Chip.

4.2. FRAME/BIKE CUSTOMIZATION:

Stumpjumper FSR frames are available in two frame types (29" or 27.5"), each of which is available in two stock configurations (SJ ST and SJ), with different wheel/tire, shock, shock extension and/or fork options. Each of these variables will affect the bottom bracket height and head angle of the frame, as well as the general ride characteristics of the bike. If you decide to make changes to the stock configuration, e.g. changing to from SJ to SJ ST or changing the tire size, please check with your Authorized Specialized Retailer what components, if any, need to change for compatibility.



WARNING! Changing the frame configuration can alter the BB height and/or the head tube angle, which can have negative effects on the bike's handling characteristics and ride quality. In certain cases, it can also result in frame/shock incompatibility. Please refer to your Authorized Specialized Retailer before making any modifications to the wheel/tire size, shock, shock extension and/or fork length.

MAXIMUM FORK LENGTH AND TIRE SIZE:

| WHEEL SIZE | MAX FORK TRAVEL | MAX REAR TIRE SIZE | CHAINRING SIZE |
|------------|-----------------|------------------------|-----------------------|
| 29" | 150mm | 27.5 x 3.0 or 29 x 2.6 | 28 ² - 36t |
| 27.5" | 160mm | 27.5 x 3.0 | 28 ² - 36t |



WARNING! Specialized frames are compatible **ONLY** with forks that have a specific range of travel (see tables). 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.



²28t chainring: Any potential contact between the chain and the protector generally goes away when the chain is under tension and the suspension is at the recommended sag.



WARNING! While the 29 frame is generally compatible with tires up to 27.5 x 3.0 or 29 x 2.6 and the 27.5 frame with tires up to 27.5 x 3.0, 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.

4.3. TOOLS REQUIRED

| | | |
|-------------------------------------|-----------------------------------|-----------------------------------|
| ■ 1.5, 2.5, 3, 4, 5, 6mm Allen keys | ■ High pressure shock pump | ■ Cable and housing cutters |
| ■ T10, T25 Torx keys | ■ High-quality grease | ■ Cutting blade (for Nylon tubes) |
| ■ Torque wrench | ■ Blue threadlocker (Loctite 242) | ■ Protective strip (tube cutting) |

4.4. BOLT SIZE / TOOLS / TORQUE SPECIFICATIONS



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

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

GENERAL TORQUE SPECS:

| LOCATION | TOOL | TORQUE (in-lbf) | TORQUE (Nm) |
|---------------------------------|-----------|-----------------|------------------|
| SEAT COLLAR | 4mm HEX | 55 | 6.2 |
| WATER BOTTLE BOSS | 3mm HEX | 25 | 2.8 |
| 12MM REAR AXLE | 6mm HEX | 133 | 15.0 |
| DERAILLEUR HANGER | 2.5mm HEX | 7 | 0.8 |
| HOUSING GUIDES / BB PORT | 3mm HEX | 7 | 0.8 |
| CHAINSTAY PROTECTOR | T25 TORX | 7 | 0.8 |
| DOWN TUBE PROTECTOR | T25 / 3mm | 7 | 0.8 |
| SWAT LATCH | T10 TORX | 6 ³ | 0.7 ³ |
| ISCG TABS (max 7 threads depth) | 4mm HEX | 55 | 6.2 |
| HOUSING TUBE SET SCREW | 1.5mm HEX | N/A | N/A |



CAUTION (non-pivot bolts): Ensure all contact surfaces are clean and greased.

³ **CAUTION:** Tighten SWAT latch screws intermittently until there is no more wiggling of the latch or pipeline, then turn each screw another ¼ turn.

PIVOT TORQUE SPECS (Torque the pivot bolts in the order listed below, after the assembly is complete):

| LOCATION | ALLEN KEY | TORQUE (in-lbf) | TORQUE (Nm) |
|------------------------------------|-----------|-----------------|-------------|
| MAIN (BOTTOM BRACKET) ⁴ | 6 | 210 | 23.7 |
| LINK @ SEAT TUBE | 6 | 180 | 20.3 |
| LINK @ SEATSTAY | 6 | 180 | 20.3 |
| DROPOUT (HORST LINK) | 6 | 180 | 20.3 |
| LINK @ EXTENSION | 6 | 180 | 20.3 |
| UPPER SHOCK EYE | 5 | 90 | 10.2 |
| LOWER SHOCK EYE | 6 | 210 | 23.7 |

4.5. REAR TRIANGLE PIVOT ASSEMBLY



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



Grease all bearing surfaces 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.



PIVOT BOLTS: All pivot bolts are factory treated with a one-time use Loctite Dryloc thread coating. If the bolts are removed for maintenance, either clean and apply a new coat of Loctite blue 242 threadlocker, or install new bolts.

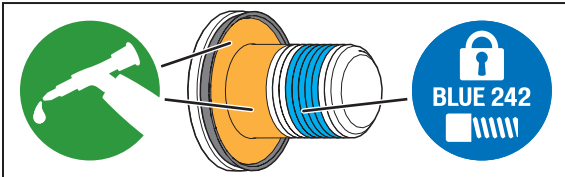
Only apply grease to the unthreaded portion of the bolt shaft and the inner bolt head surface (orange highlighted portion of bolts as shown in illustrations below). Do NOT grease the threads.



CAUTION (DRIVE-SIDE MAIN PIVOT): This bolt has a left-hand thread (counter-clockwise to tighten). Use of the drive-side main pivot bolt at any other location can result in damage to the frame and bolt threads.

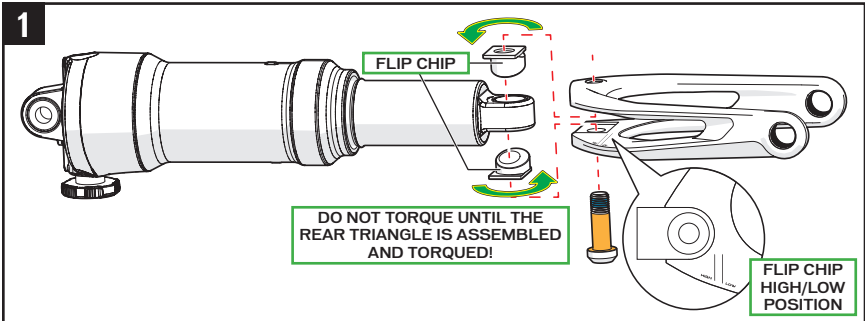


For best alignment results, do not torque any of the rear triangle pivot and shock bolts until the rear triangle is fully assembled to the front triangle.



With all the bearings installed in the chainstay, seatstay and link, follow the specific order as listed below:

1. EXTENSION @ SHOCK

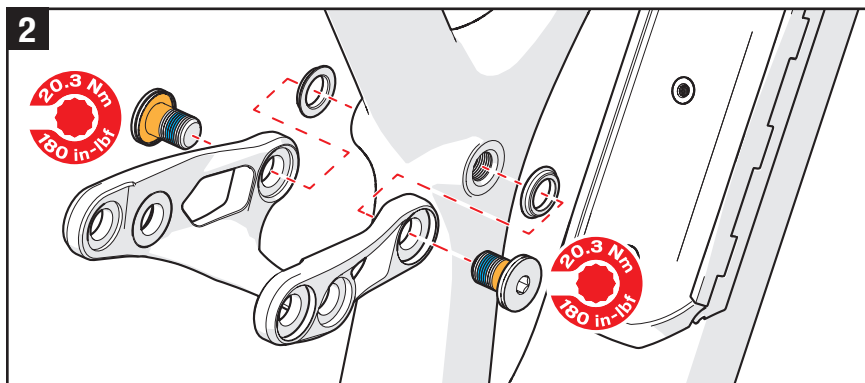


- Place the Flip Chip eccentric sleeves inside the lower shock eye, in the High or Low mounting position.
- Align the shock eye with the extension hole, then install the bolt/nut.



Do not torque the lower shock eye bolt until the last step!

2. LINK @ SEAT TUBE

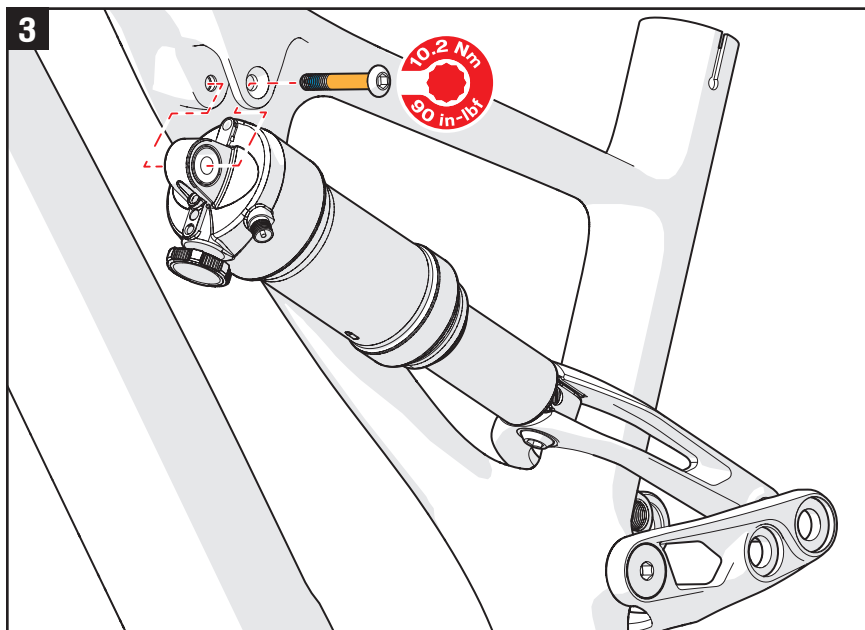


- Grease, then place the spacers against the inner surface of the link @ seat tube bearings (tapered surface against bearing).
- Align the link with the seat tube pivot, then insert the pivot bolts.



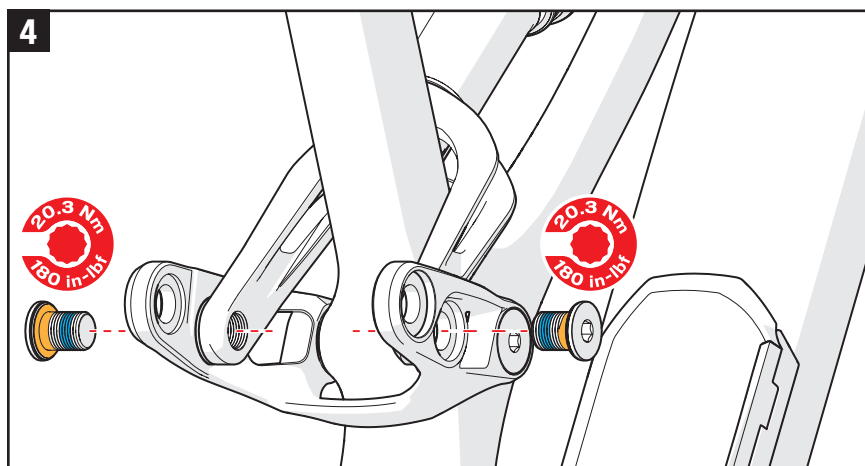
Place a small rag between the link and seat tube to prevent any damage to the seat tube.

3. SHOCK @ UPPER SHOCK EYE MOUNT



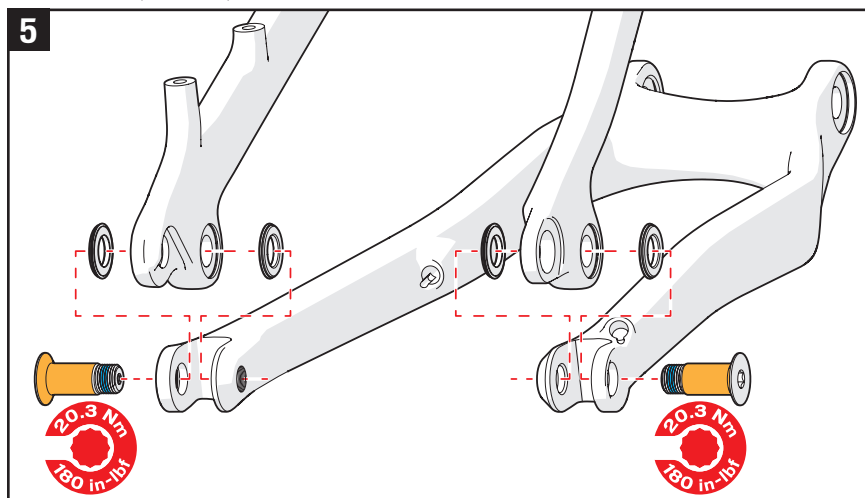
- Place the extension around the seat tube, then align the upper shock eye with the frame mount.
- Insert the upper shock eye bolt.

4. EXTENSION @ LINK



- Align the extension with the bearings, then insert the pivot bolts.

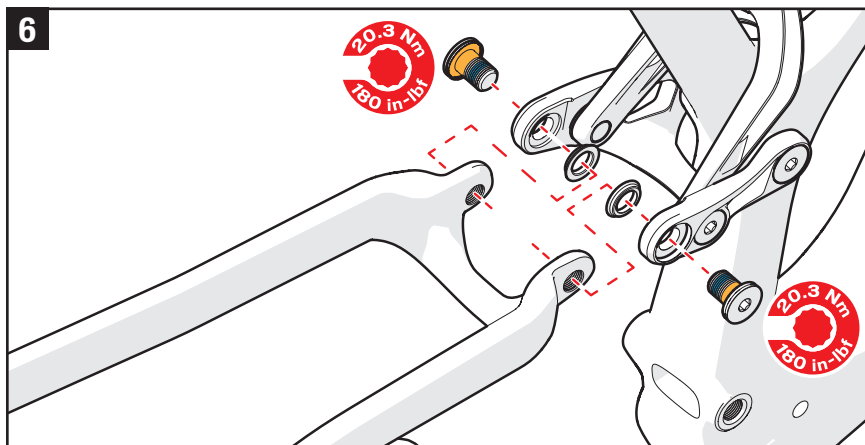
5. HORST LINK (DROPOUT)



CARBON FRAME: Ensure the housing guide tubes are installed in the chainstay before assembling the rear triangle to the frame. Refer to section 5.2, [page 13](#) for internal cable routing instructions.

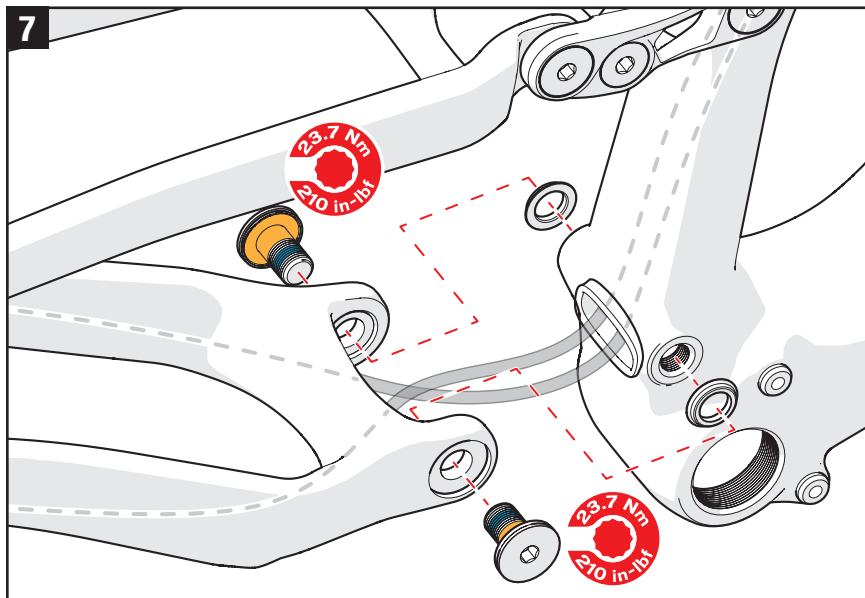
- Grease, then place all the outer Horst spacers against the Horst bearings (tapered surface against bearing).
- Align the drive-side and non-drive side Horst pivot assemblies, then insert the pivot bolts.

6. SEATSTAY @ LINK

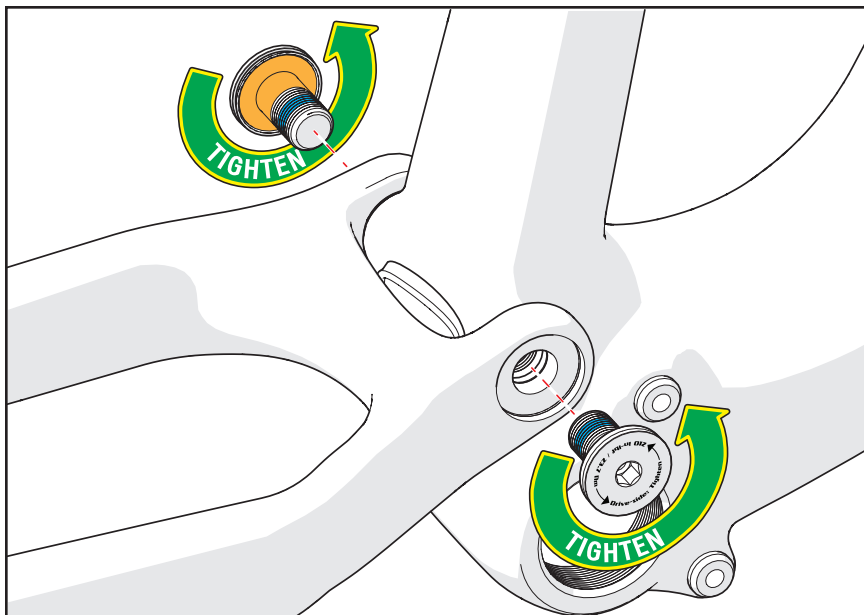


- Grease, then place the two outer dropout spacers against the link bearings (tapered surface against bearing).
- Align the seatstay tabs with the link pivot bearings and spacers, then insert the pivot bolts.

7. MAIN (BOTTOM BRACKET)

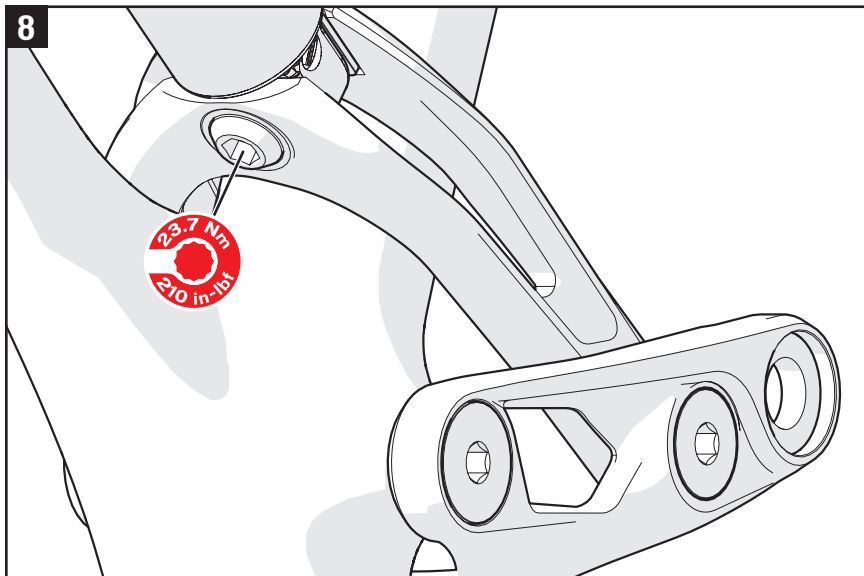


- Guide the housing tubes through the rubber boot and routing port behind the main pivot according to the internal cable routing instructions (section 5.2, [page 13](#)).
- Grease, then place the main pivot spacers against the main pivot bearings (tapered surface against bearing).



- Insert the drive side and non-drive side bolts into their respective sides (drive side bolt tightens counter-clockwise).

8. LOWER SHOCK EYE BOLT



- Once all pivot locations are assembled and torqued to specification, torque the lower shock eye bolt.



TECH TIP: For easy lower shock eye bolt access, use the Carbon Crank 6mm Allen w/Socket, part #9891-3010.

5. INTERNAL ROUTING (CARBON FRAME)

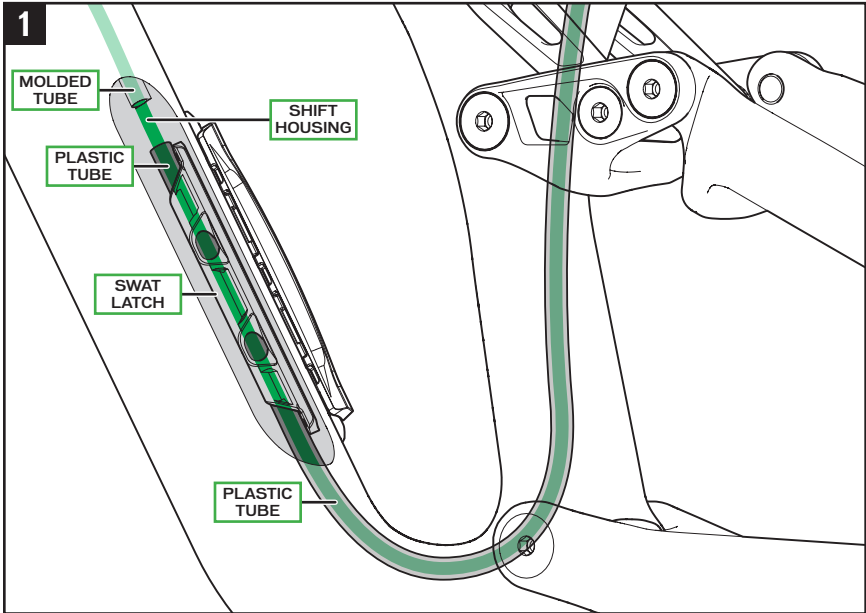
5.1. DROPPER SEATPOST



To simplify assembly, always install the seatpost housing before the shift and brake housings.

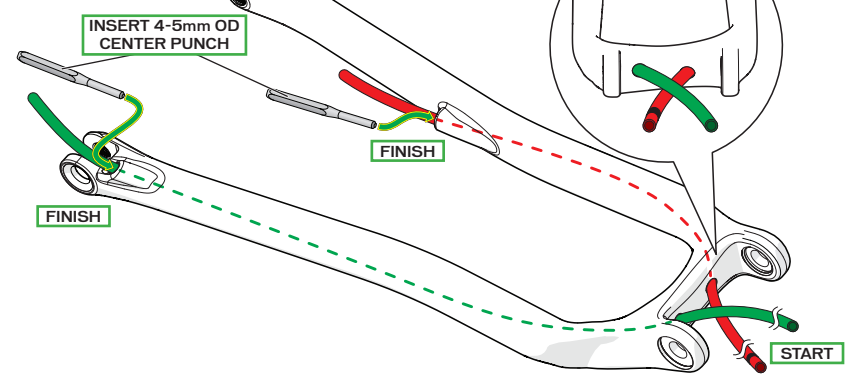


Make sure the SWAT latch and dropper post plastic tube are installed in the frame before routing the dropper housing.



- Route the seatpost housing into the drive side exit port near the head tube. As it exits the molded tube in the down tube near the top of the SWAT hole, it may be necessary to guide the housing into the plastic tube (held in place by the SWAT Latch) going from the SWAT hole to the bottom bracket area and up the seat tube.
- Once the housing is going up the seat tube, it may want to go up the side-arm instead of up the seat tube. If this happens, cut a long, narrow strip of card stock paper or use a long, thin ruler to slide down the seat tube and block access to the side-arm.
- Once the housing exits the top of the seat tube, install the seatpost according to the manufacturer's instructions.

1



- Before starting this process, the link and shock should be assembled to the frame (see section 4.4).
- Route the rear brake internal routing tube through the chainstay, starting at the non-drive side main pivot hole.
- When the tube gets close to the non-drive side exit port, use a 4-5mm OD center-punch to help guide the tube out of the hole.
- Guide the tube out the exit port until about 50mm of tube is exposed.
- Mark the brake tube at the end that will exit the head tube (see fig.3).
- Repeat the process for the shift tube on the drive side (the shift tube goes above the brake tube when passing through the main pivot area).

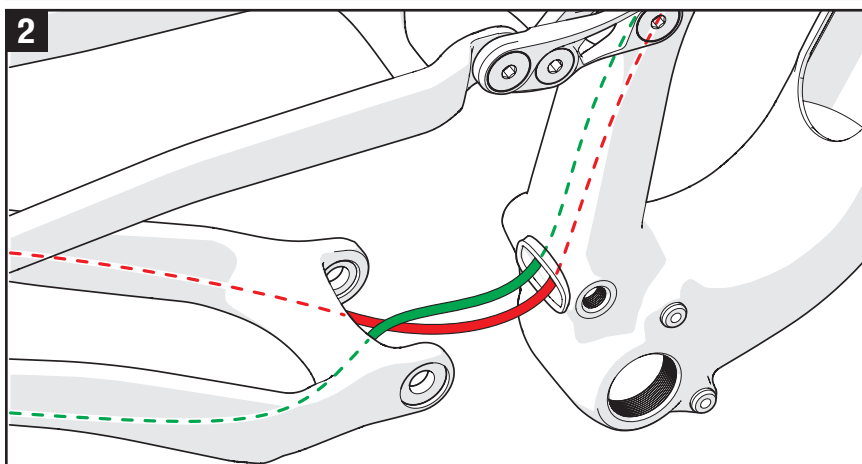


Be careful not to kink the guide tubes when routing. Installing brake or shift housing through guide tubes before routing (with a few inches extending out of the tubes) will prevent kinking and can be used to guide the tubes through the frame. Curve the housings downward as they enter the front triangle to help the routing process.

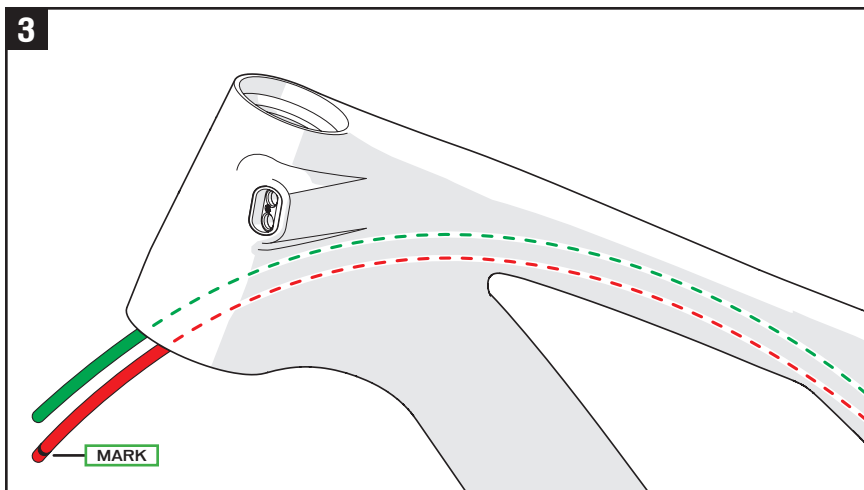


If the chainstays need to be removed and re-installed after the guide tubes are cut, it is recommended to **ONLY** remove the tubes from the head tube while keeping them attached in the chainstays. Remove the set screw in the head tube and gently push the tubes from the port using a sharp screwdriver or narrow chisel. Re-install in the same manner.

2



3

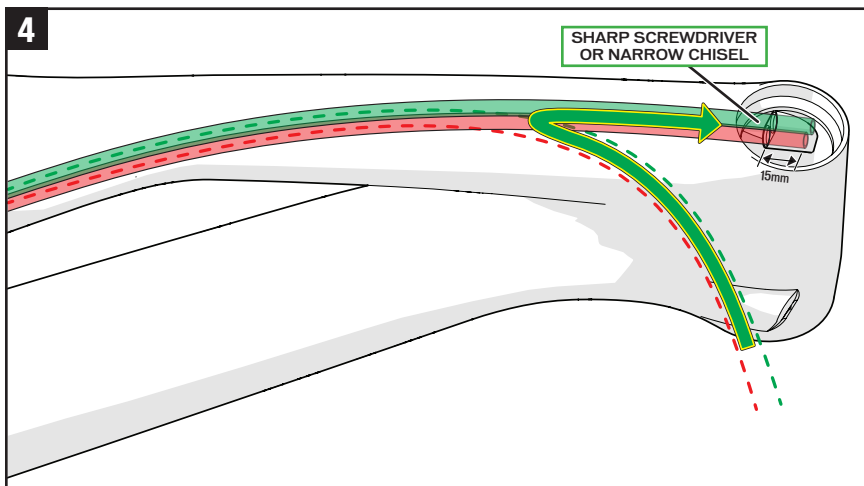


- Install the rubber boot into the routing port behind the main pivot.
- Guide the tubes up through the side-arm, top tube, then out the bottom of the head tube.
- Align the chainstay bearings and spacers with the main pivot location of the frame, then loosely install the bolts.
- At this point, all remaining pivots should be assembled. Torque the bolts according to the order described in section 4.4, [page 6](#).



Make sure the tubes aren't wound around each other.

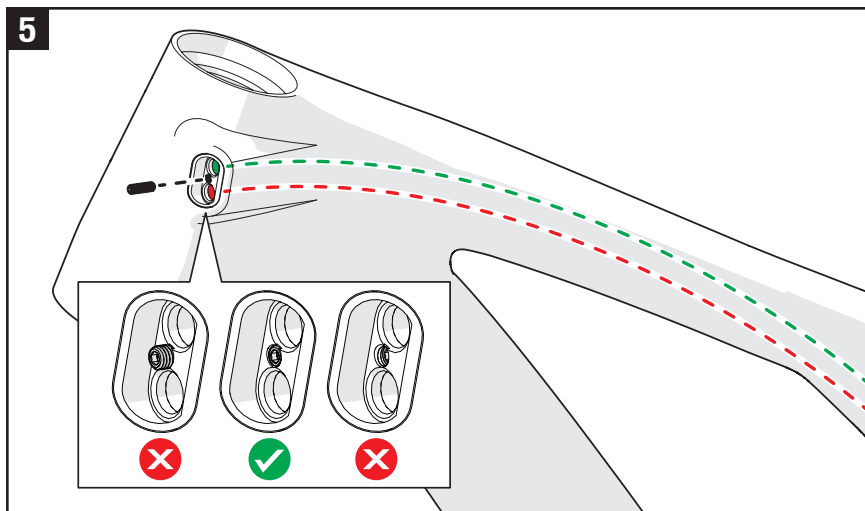
4



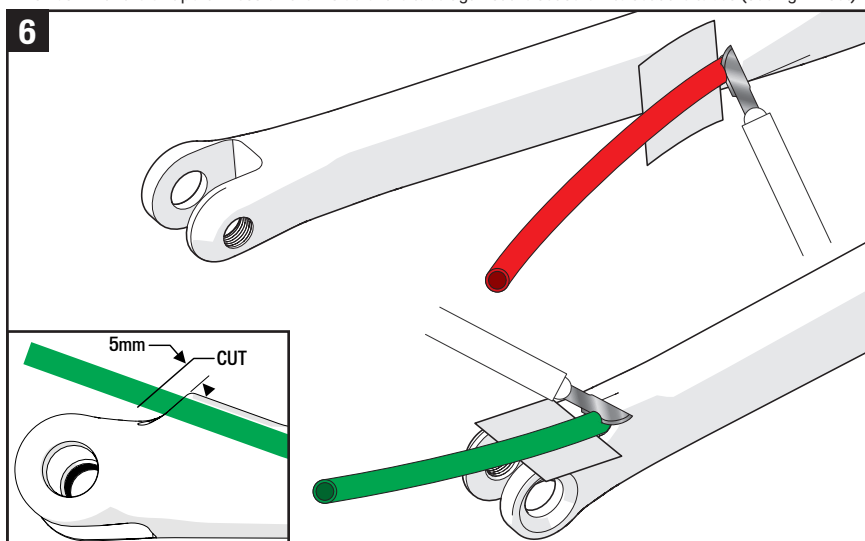
- Slide the brake guide tube back into the frame by gently pulling from the chainstay end until the tube is about 15mm past the rearward edge of the head tube port.
- Use a 4-5mm OD center-punch to guide the brake guide tube into the lower head tube port until it bottoms out (15mm insertion).
- Repeat the process for the shift tube through the upper exit port.



You can gently push the guide tubes into the head tube ports from behind the port assembly using a sharp screwdriver or narrow chisel.



- Once both tubes are bottomed out against the lip of the exit port holes, install a set screw and thread it in until it is flush with the exit port. Press on the inside of the tube against the set screw to seat the tubes (see fig.7 inset).



- Gently pull any excess tube out of frame from the chainstay ports.

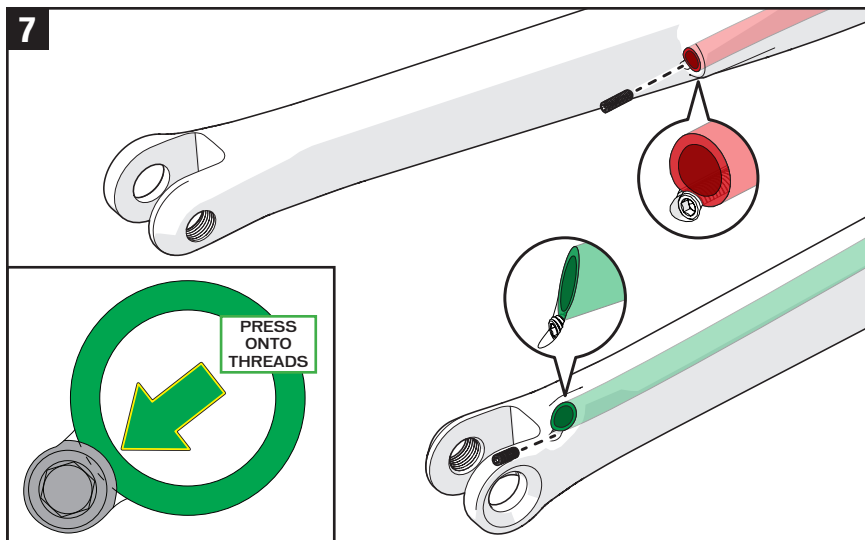


When gently pulling the tubes out from the chainstay ports, be sure to not pull the tubes from the head tube port. Only pull enough to find its natural curvature position within the frame.

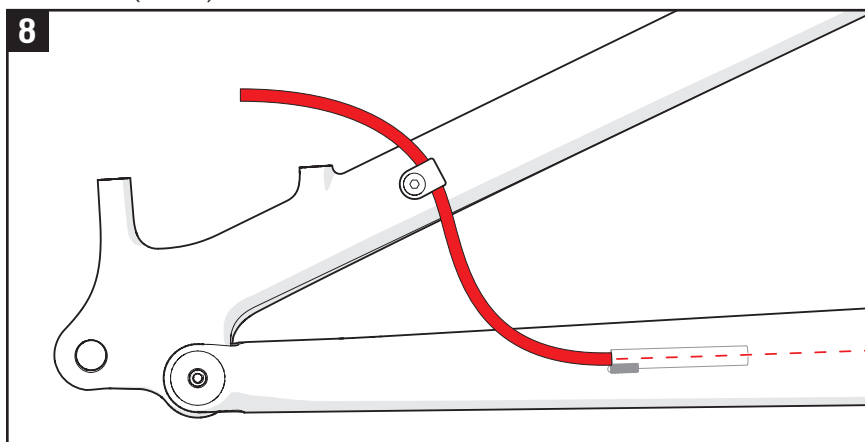
- Use a new/sharp heavy duty cutting blade to trim the guide tubes about 5mm past the edge of the exit port (see inset). Match the cut angle with the guide port exit angles.



Place a protective strip between the chainstay and the tube, so the razor blade doesn't damage the finish of the frame.



- Push the tube back in until it is flush with the exit port, then install a set screw until it is also flush with the exit port.
- Repeat the process for the shift tube.
- After the set screws are installed, place the punch inside each tube and use the punch to press the tube down on the set screw (see inset).



- Install the brake and shift housings according to the brake and shift manufacturer's instructions.
- Position the seatstay brake housing clip so that it is perpendicular to the tube and the housing is above/in front of the bolt. Ensure that the housing has a natural loop (curvature) between the seatstay and chainstay.

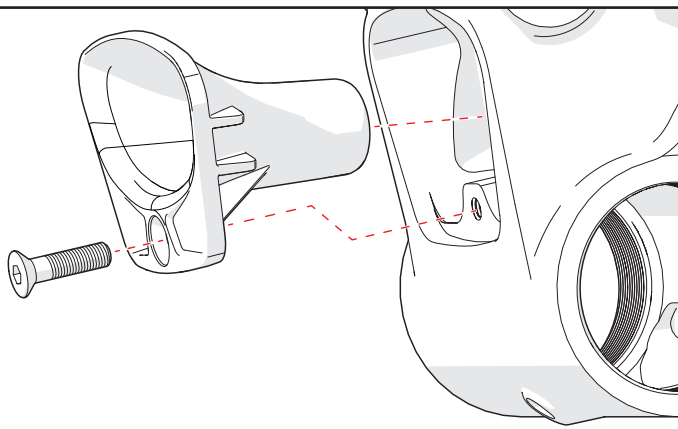
6. INTERNAL ROUTING (ALLOY FRAME)

6.1. DROPPER SEATPOST



To simplify assembly, always install the seatpost housing before the shift and brake housings.

1

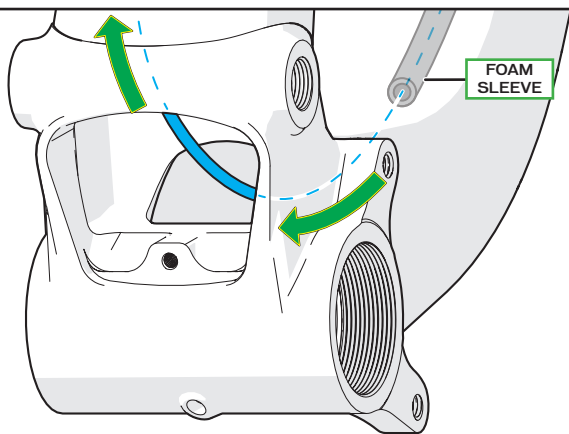


- Remove the plastic shift/brake port behind the bottom bracket before routing the seatpost housing through the frame.



Before removing the shift/brake port from behind the bottom bracket, the chainstay must be removed from the front triangle. Be sure to follow the pivot assembly instructions (section 4.5) about cleaning and applying threadlocker to the threads.

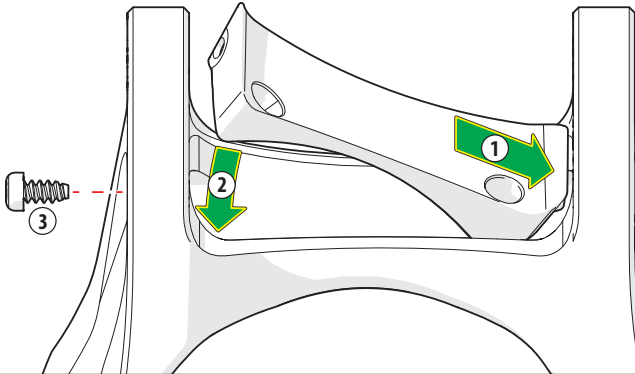
2



- Install a section of shift housing starting at the head tube, then route it into the down tube until it exits slightly out the port behind the bottom bracket.
- With the end of the housing protruding around the edge of the bottom bracket port, install a “Churro” foam sleeve over the housing and guide it up into the down tube, while curving the housing up and into the seat tube until it exits the top of the seat tube.
- Once the housing exits the top of the seat tube, install the seatpost according to the manufacturer’s instructions.
- Install the port cover, then assemble the rear triangle to the front triangle and torque the bolts to specifications. Follow the assembly order and torque specs as shown in section 4.4 (page 6) and 4.5 (page 7).

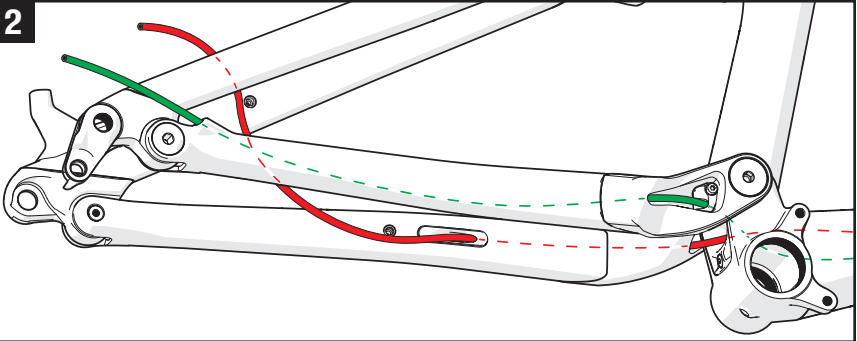
6.2. SHIFT/BRAKE

1



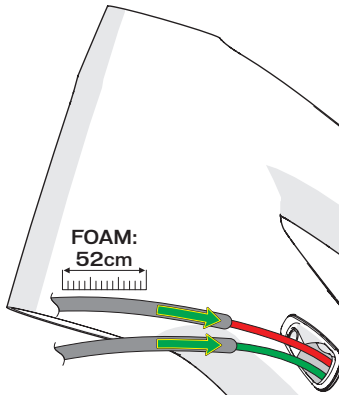
- To install the chainstay housing guide, insert the locating tab into the non-drive side of the chainstay bridge cavity, then pop it down so that it is flush with the bridge. Next, install the locator bolt until it bottoms out. Do not overtighten.
- Make sure your brake and shift housings are long enough to reach all the way to the handlebar controls.

2



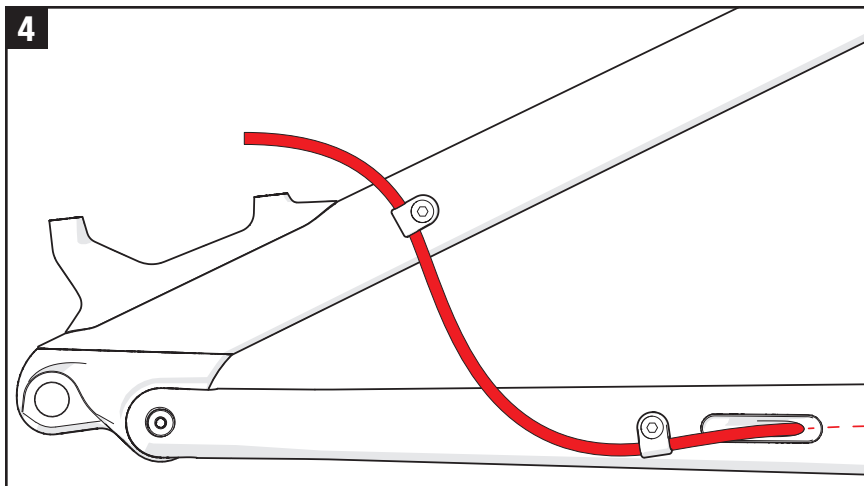
- Route the brake and shift housings through the chainstays, starting at the dropout (shift) and middle of the chainstay (brake), through the chainstay bridge clip, and exiting at the main pivot.

3



- Continue routing the housings up the down tube, then guide them out the exit port at the head tube.
- Install a "Churro" foam sleeve on each housing through the exit ports and into the down tube.

4



- Install the brake and shift mechanisms according to the manufacturer's instructions.
- Position the seatstay brake housing clip so that it is perpendicular to the tube and the housing is below/behind the bolt. Position the chainstay clip so the housing is below the bolt and positioned horizontally. Ensure that the housing has a natural loop (curvature) between the seatstay and chainstay.

7. SWAT BIKE EQUIPMENT

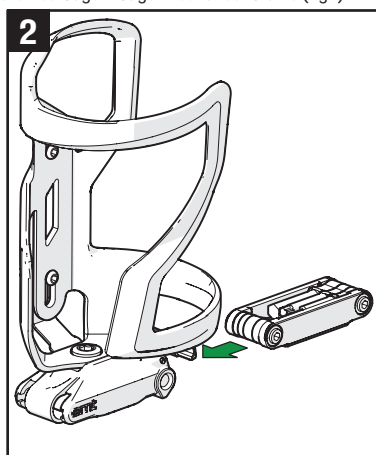
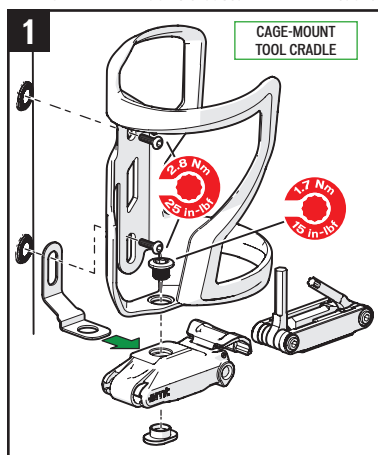
Stumpjumper FSR frames are compatible with certain SWAT (Storage, Water, Air, Tools) components. SWAT components are listed below:

7.1. SWAT CC

- The **SWAT CC (Conceal Carry)** tool includes the top cap, chain tool and custom EMT mini tool that fits inside the steerer tube. Refer to the SWAT CC User Manual for assembly instructions.

7.2. EMT TOOL

- The EMT Mini Tool is a custom EMT mini tool that fits in the Zee Cage II Cage-Mount Tool Cradle (fig.1).



- 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.



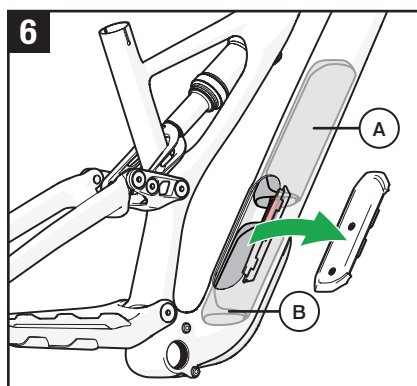
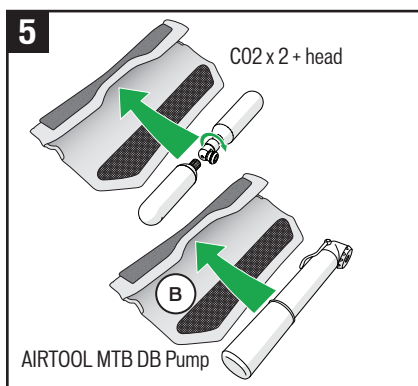
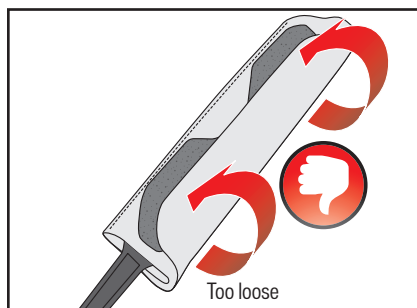
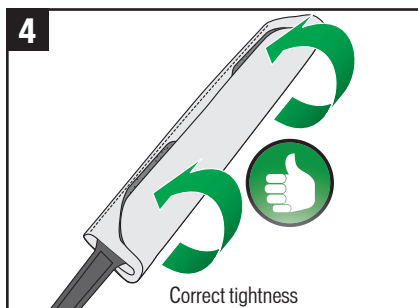
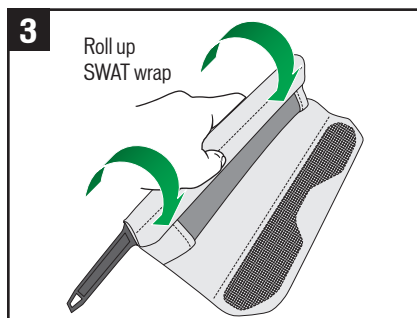
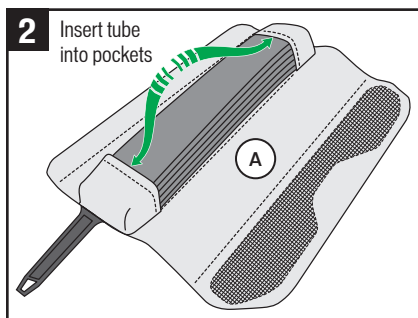
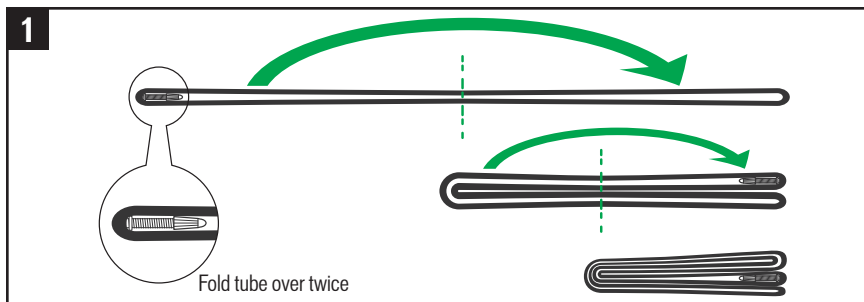
The EMT Tool with Cage-Mount Tool cradle and Z Cage II can be installed on many bike models. Some frames are not compatible due to interference between the frame and the Cage-Mount Tool cradle. Verify proper fit before installation.



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

7.3. SWAT DOWN TUBE STORAGE

- The SWAT Down Tube Storage is a pair of soft wraps designed to contain a tube, pump and two CO2 cartridges. The wraps fit inside the down tube, through an access port at the base of the down tube to store essentials (Carbon models only).



8. AIR SHOCK SETUP



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



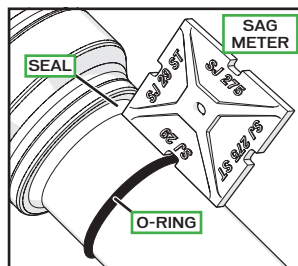
Make sure you're wearing all gear that would normally be worn on a ride (shoes, helmet, hydration pack if used, etc.).



Sag is measured as the distance between the o-ring and the shock body's seal, after the rider's weight has been applied to the bike, with no bounce. When the pressure is correctly set, sag should measure approximately 25-30% of stroke, depending on rider experience/preference and terrain conditions. If the rider is approaching 300lbs, sag may exceed the bike's prescribed amount.

8.1. SETTING AIR PRESSURE

1. Set the shock compression lever or knob (blue) to the full open or off position, and set the rebound knob to the middle of the click range.
2. Attach a high-pressure shock pump to the air valve and increase the air pressure.
3. Push the o-ring against the seal, then mount the bicycle while propped up against a wall and sit in the saddle in a normal riding position, without bouncing the suspension. Do not set sag while riding!
4. Check the sag by placing the Sag Meter against the rear shock shaft. Once the sag is close to the desired setting, increase or decrease the pressure as needed in 5psi increments until the desired sag is achieved.



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



CAUTION: Do not exceed the shock manufacturer's maximum pressure (FOX: 350psi, RockShox: 325psi, X-Fusion: 250psi).



Please visit the suspension setup tool at www.specialized.com for personalized recommendations for a baseline suspension setup based upon your specific height and weight.

8.2. ADJUSTING REBOUND

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

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



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

8.3. ADJUSTING COMPRESSION

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

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

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

9. 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) | | | | | | |

10. SMALL PARTS

| ITEM | DESCRIPTION |
|------------|--|
| S184200064 | INTERNAL ROUTING KIT - CARBON FRAME |
| S180600003 | BEARING KIT |
| S184200067 | BOLT KIT |
| S186500015 | CABLE GUIDE KIT - ALLOY FRAME |
| S181200001 | CHAIN GUIDE ASSY - ISCG 28T - 36T |
| S189900087 | DOWNTUBE PROTECTOR MYLAR 470MM |
| S184200063 | DOWNTUBE PROTECTOR CO-MOLDED W/BOLT - CARBON FRAME |
| S186900001 | CHAINSTAY PROTECTOR FOAM - ALLOY FRAME |
| S186900002 | CHAINSTAY PROTECTOR FOAM - CARBON FRAME |
| S186900003 | CHAINSTAY PROTECTOR - CO-MOLDED W/BOLT |
| S182500005 | HEADSET ASSEMBLY - 11/8" / 1.5" |
| S184200065 | SWAT DOOR KIT- CARBON FRAME |
| S184200066 | SWAT LATCH / PIPELINE KIT - CARBON FRAME |
| S184200068 | HARDWARE KIT - REAR SHOCK |
| S184200069 | REMOTE DROPPER POST SPL/SRL LEVER |
| S186300001 | EXTENSION - 95/98MM LENGTH |
| S186300002 | EXTENSION - 115/118MM LENGTH |
| S184300005 | REAR SUSPENSION LINK |
| S189900088 | THROUGH AXLE 148MM SPACING, 172MM LENGTH, 12MM |
| S184700004 | SEATPOST CLAMP - 38.6MM FOR 34.9MM SEATPOSTS |
| S172600001 | THRU AXLE DER HANGER |



SPECIALIZED BICYCLE COMPONENTS

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