STUMPJUMPER
ALLOY

USER MANUAL

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SPECIALIZED BICYCLE COMPONENTS
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0000153165_UM_R2, 12/20
We may occasionally issue updates and addendums to this document. Please periodically check www.specialized.com or contact Rider Care to make sure you have the latest information.
Info: specialized.com / 877-808-8154

1. INTRODUCTION

This user manual is specific to your Specialized Stumpjumper 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 Stumpjumper bicycles are intended and tested for Mountain Bike (condition 4) use only.

For more information on the 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, 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, including, but not limited to the rear suspension, are proprietary to the Stumpjumper. 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 specific components should only be used on the Stumpjumper 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 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

- The headset uses a 1 1/8" (41.8 mm x 30.5 x 8 mm, 45 x 45°) Campagnolo Standard compatible upper bearing and a 1.5" (52 mm x 40 x 7 mm, 45 x 45°) 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.

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

2.2. SEATPOST

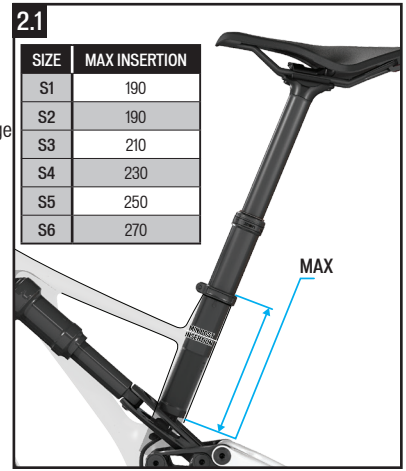
SEATPOST MINIMUM INSERTION:

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

- **MINIMUM INSERTION:** The seatpost must be inserted into the frame deep enough so the minimum insertion/maximum extension (min/max) mark on the seatpost is not visible. The frame requires a minimum of 100 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 table in **Fig.2.1.**

2.1

SIZE	MAX INSERTION
S1	190
S2	190
S3	210
S4	230
S5	250
S6	270



- 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.
- Once the saddle height is determined, torque the seatpost collar bolt to 55 in-lbf (6.2 Nm).

The specified ream depths are listed in the table in Fig. 2.1. The tolerance of the ream depth can vary from frame to frame. Install a regular 34.9 seatpost in the seat tube to verify the actual ream depth of the frame.

The seat tube is designed for a 34.9 post but a 30.9 seatpost can be used with a shim.

WARNING! Failure to follow the seatpost and frame insertion requirements (Fig. 2.1) may result in damage to the frame and/or seatpost, which could cause you to lose control and fall.

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

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

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

2.3. BOTTOM BRACKET

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

2.4. REAR AXLE

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

2.5. DERAILLEUR HANGER

The Stumpjumper frame uses the SRAM UDH (Universal Derailleur Hanger) at the rear dropout. This hanger must be installed following SRAM's installation instructions. Please refer to the installation steps in section 9, or refer to the SRAM UDH User Manual.

2.6. STEM

Some Stumpjumper models are equipped with an Alloy Trail Stem.

WARNING! The stem is designed with no gap between the stem body and the faceplate at the upper bolt area. The upper bolts must be tightened such that the faceplate bottoms out against the stem body before being torqued. Failure to bottom out the faceplate against the stem body can result in structural damage to the handlebar.

2.2

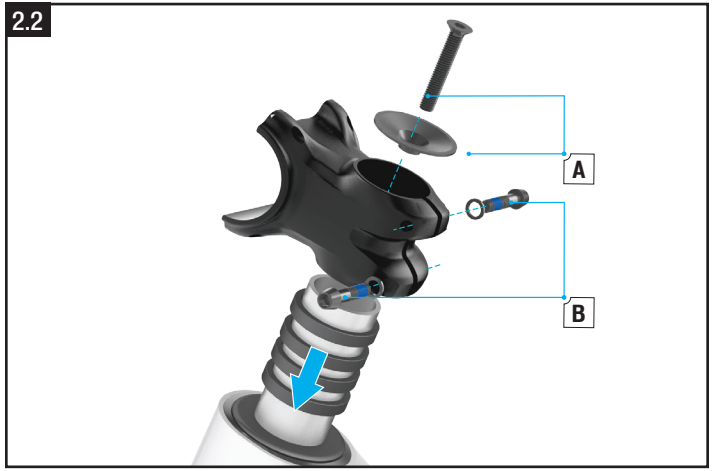
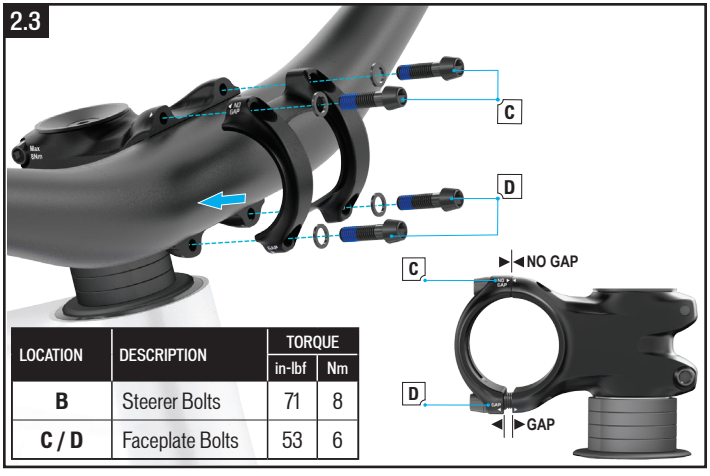


Fig. 2.2

- Install the stem on the steerer tube, followed by the top cap and bolt (A), then tighten the top cap bolt.
- Align the stem with the front wheel and torque the rear stem bolts (B) to specification.



LOCATION	DESCRIPTION	TORQUE	
		in-lbf	Nm
B	Steerer Bolts	71	8
C / D	Faceplate Bolts	53	6

Fig. 2.3

- Loosely thread the stem bolts through the faceplate and into the stem body.
- Position the handlebar to the desired position.
- Gradually torque the upper bolts to spec alternating from the left to right bolt to evenly increase the torque until the spec is reached (C).
- Gradually torque the lower bolts, alternating from the left to right bolt to evenly increase the torque until the spec is reached (D).
- Check the handlebar is installed correctly by rotating the handlebars up and down, then twisting the handlebars side to side while holding the front wheel. If there is any movement the stem is not sufficiently tightened and should be re-torqued.

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.

CAUTION: All edges of the stem in contact with the steerer tube should be rounded out to eliminate any stress points.

3. GENERAL NOTES ABOUT MAINTENANCE

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

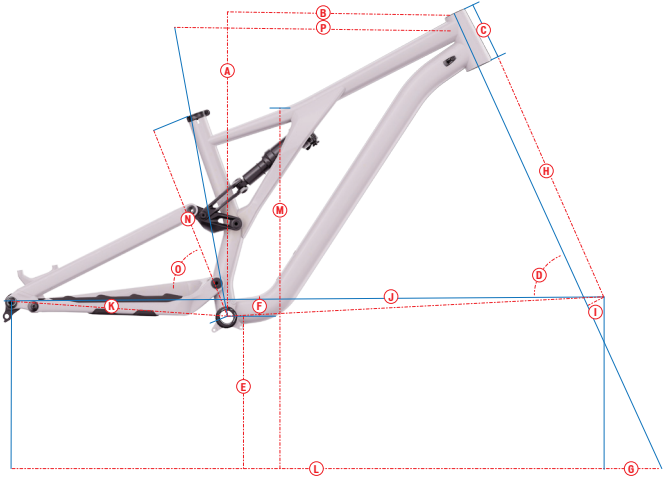
- Great care should be taken to not damage carbon fiber or composite material. Any damage may result in a loss of structural integrity, which may result in a catastrophic failure. This damage may or may not be visible in inspection. Before each ride, and after any crash, you should carefully inspect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

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

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

4. SPECIFICATIONS

4.1. GEOMETRY



	FRAME SIZE	S1	S2	S3	S4	S5	S6
A	STACK (MM)	618	613	623	631	639	645
B	REACH (MM)	410	430	450	475	500	530
C	HEADTUBE LENGTH (MM)	100	100	110	120	130	140
D	HEADTUBE ANGLE (°)	65 °					
E	BB HEIGHT (MM)	327	332	332	332	332	332
F	BB DROP (MM)	47	42	42	42	42	42
G	TRAIL (MM)	126					
H	FORK LENGTH (FULL) (MM)	550					
I	FORK RAKE/OFFSET (°)	44					
J	FRONT CENTER (MM)	726	746	770	799	828	863
K	CHAINSTAY LENGTH (MM)	444	444	444	444	454	454
L	WHEELBASE (MM)	1168	1188	1212	1241	1280	1315
M	BIKE STAND-OVER HEIGHT (MM)	742	742	750	753	777	784
N	SEAT TUBE LENGTH (MM)	385	385	405	425	445	465
O	SEAT TUBE ANGLE (°)	77.7 °	77.7 °	77.5 °	77.2 °	77 °	76.9 °
P	TOP-TUBE LENGTH (HORIZONTAL) (MM)	545	563	586	615	643	676
	CRANK LENGTH (MM)	165	170	170	170	170	175
	HANDLEBAR WIDTH (MM)	780					
	STEM LENGTH (MM)	40	40	50	50	50	50
	SADDLE WIDTH (MM)	155	155	143	143	143	143
	SEATPOST MAX INSERTION (MM)	190	190	210	230	250	270
	SEATPOST MIN INSERTION (MM)	100					
	REAR WHEEL WIDTH (MM)	148					
	FORK SIZE (MM)	140					

The above table shows the standard geometry for the bikes as shipped. Visit www.specialized.com for all possible geometry configurations.

4.2. GENERAL SPECIFICATIONS

ITEM	PART #	SPECIFICATION
HEADSET	S182500005	HDS NO.42/ACB/S/F/N 46CONE SPACER,AL COMPRS RING,UP1.125/LOW1.5 CRMO 45,AL CROWN RACE,ANO MATT BLK
SEAT COLLAR	S184700004	STC KCNC, SPL-SC02-386, EXTRUDED, 7075-T6, 38.6MM, SCM435, NONE FINISH BOLT, BOLT CLAMP TYPE
SEAT COLLAR DIAMETER		38.6 MM
SEATPOST DIAMETER		34.9 MM
DERAILLEUR HANGER	S202600002	HGR SRAM AC UDH DERAILLEUR HANGER AL BLACK (00.7918.089.000)
BOTTOM BRACKET SHELL		BSA THREADED 73 MM
CHAINGUIDE TABS		ISCG-05
REAR HUB AXLE	S170200003	AXL THROUGH AXLE, JD JD-QR43, 7075-T73 AXLE W/C6801 WASHER, REAR, 148MM SPACING, 172MM LENGTH, 12MM
REAR TIRE MAX		29 X 2.5"
REAR WHEEL TRAVEL		130 MM
SHOCK LENGTH / STROKE		S1:190 MM / 42.5 MM; S2-S6: 190 MM / 45 MM
SHOCK SAG		13.5 MM (30%)
SHOCK EYELET		8 MM ID X 20 MM W
MAX FORK TRAVEL		150 MM
MIN / MAX CHAINRING		28 - 34T
MIN / MAX REAR BRAKE ROTOR		180 / 200 MM

WARNING! While the SJ frame is generally compatible with tires up to 29 x 2.5, tire dimensions can vary depending on the manufacturer, and not all forks are designed to accept a larger tire. Always check with the fork manufacturer regarding required clearances.

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

WARNING! Only single crown forks with a specified amount of travel or range of travel should be used . 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.

4.3. SHOCK CUSTOMIZATION

Specialized frames are generally designed and tested to work with the suspension components provided as original equipment. When changing out shocks, be aware certain models of shocks may not be compatible with the frame due to the position of the shock reservoir, size, and/or other compatibility factors, even if they fit. Always check with your Authorized Specialized Retailer or suspension

WARNING! Use of an incompatible shock may cause damage to the shock or the frame and can cause you to lose control and fall.

4.4. TOOLS REQUIRED

■ 2.5, 3, 4, 5, 6, 8 mm ALLEN (HEX) KEYS	■ BLUE THREAD-LOCKER (LOCTITE 243)
■ TORQUE WRENCH (reversible type, for SRAM UDH)	■ GREEN RETAINING COMPOUND (LOCTITE 603)
■ HIGH PRESSURE SHOCK PUMP	■ CABLE AND HOUSING CUTTERS
■ HIGH QUALITY GREASE	

4.5. BOLT SIZE / TOOLS / TO 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:

4.6. GENERAL TORQUE SPECIFICATIONS

LOCATION	TOOL	TORQUE (In-lbf)	TORQUE (Nm)
SEAT COLLAR	4 mm HEX	55	6.2
12 MM REAR AXLE	6 mm HEX	133	15.0
DERAILLEUR HANGER	8 mm HEX	221	25.0
WATER BOTTLE BOLT	3 mm HEX	25	2.8
ISCG TABS	BASED ON CHAIN GUIDE		
YOKE CABLE FUNNEL	3 mm HEX	7	0.8
MAIN PIVOT CABLE FUNNEL	2.5 mm HEX	13.2	1.5
HEAD-TUBE ICR GUIDE SCREW	2.5 mm HEX	13.2	1.5
SIDE ARM COVER	2 mm HEX	6.2	0.7
SEAT-STAY CABLE BAT SCREW	3 mm HEX	7	0.8

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

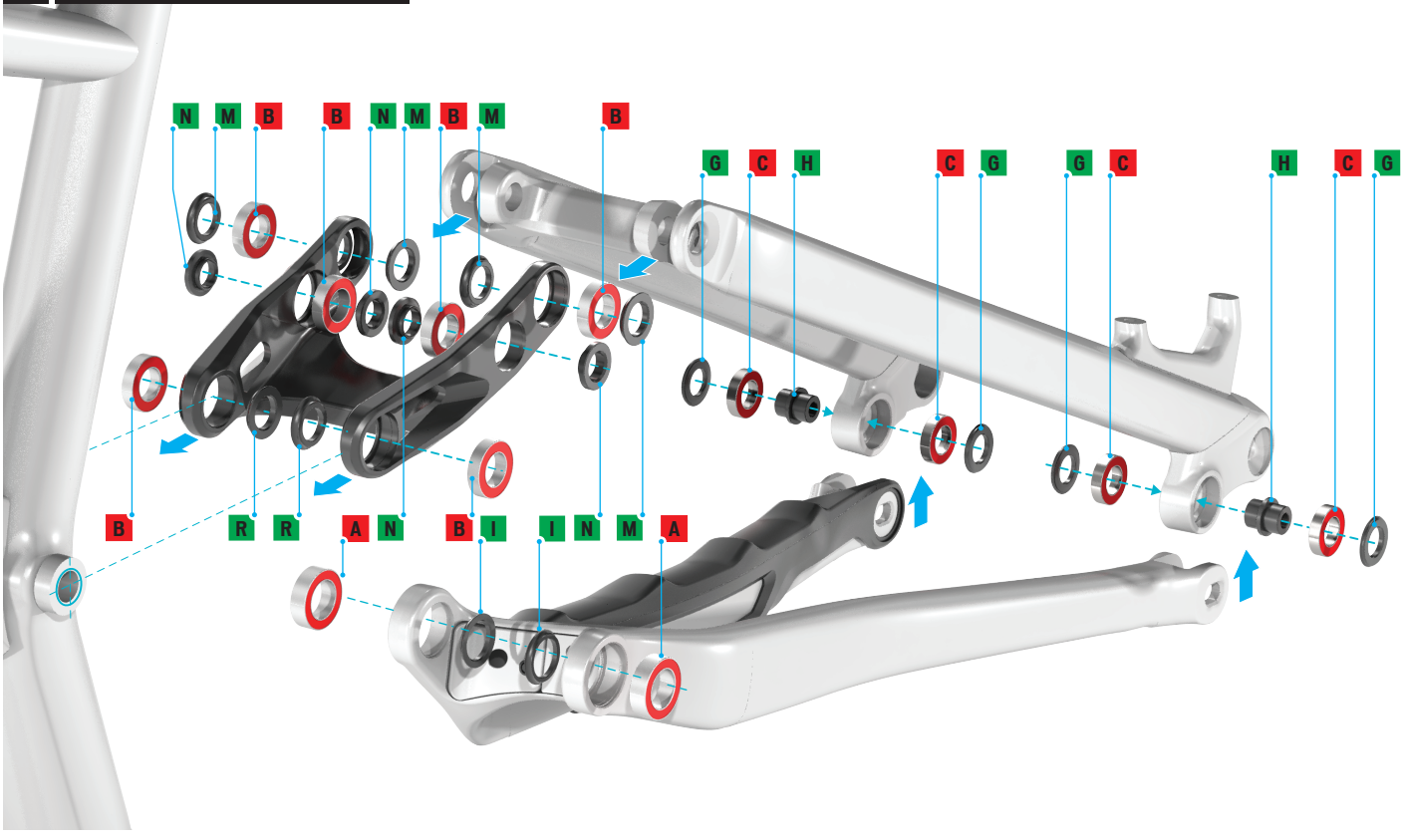
4.7. BEARING SPECIFICATIONS

	QTY	PIVOT LOCATION	DIMENSION	BEARING
A	2	MAIN PIVOT (CHAINSTAY)	15 ID X 24 OD X 7 W DOUBLE ROW	6901V-2RS
B	6	LINK	12 ID X 21 OD X 5 W	6800V-2RS
C	4	HORST		

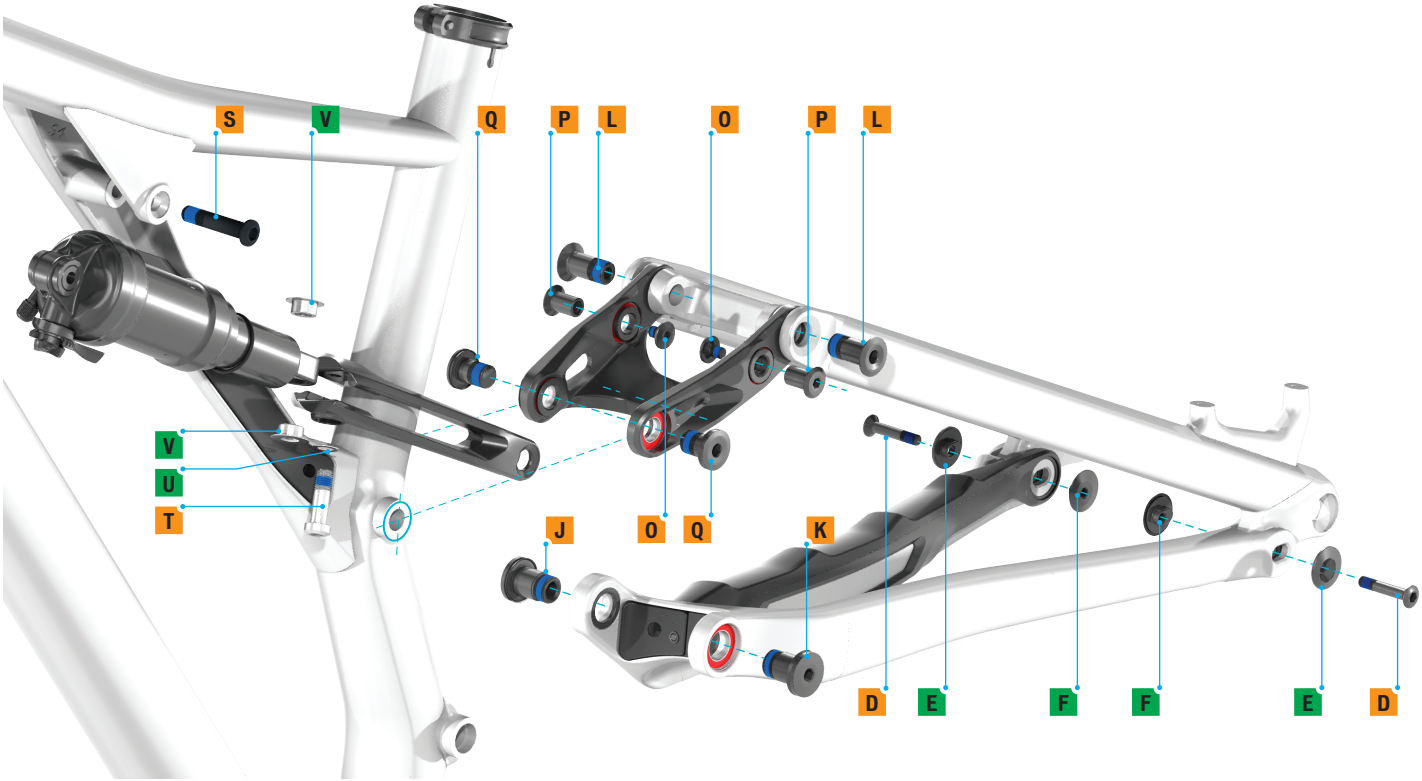
4.8. SPACER/AXLE/BOLT SPECIFICATIONS

	QTY	LOCATION / ITEM	DIMENSIONS	TOOL	TORQUE IN-LBF	TORQUE NM
D	2	HORST PIVOT BOLT	SCR,CUST,M6 X 1.0 X 32.5,STL,BLK	5 MM HEX	90	10
E	2	HORST PIVOT ADJUSTABLE SPACER OUTSIDE	DO PIVOT SPACER,GEO ADJ,6.0 ID, FLAT	-	-	-
F	2	HORST PIVOT ADJUSTABLE SPACER INSIDE	DO PIVOT SPACER,GEO ADJ,M6 X 1	-	-	-
G	4	HORST PIVOT OUTER SPACER	HORST PIVOT OUTER SPACER ASSY 12 X 21 X 2.5	-	-	-
H	2	HORST PIVOT CENTER SPACER	SPCR,STEP,6 MM ID X 16 MM OD X 16MM W,7075-T6	-	-	-
I	2	MAIN PIVOT SPACER	SPCR,15.1 ID X 21.5 OD X 2.5 W,FSR,AL7075	-	-	-
J	1	MAIN PIVOT BOLT DS (LEFT HAND THREAD)	SCR ASSY,CUST,OD 15 X ,M14 X 1,7075,LH,BLK	6 MM HEX	210	24
K	1	MAIN PIVOT BOLT NDS	SCR ASSY,CUST,OD 15 X ,M14 X 1,7075,BLK	6 MM HEX	210	24
L	2	LINK @ SEAT STAY BOLT	SCR,SHLDR, CUST, M12 X 1.0 Ø12 X 27,CHROMOLY	6 MM HEX	180	20
M	4	LINK @ SEAT STAY SPACER	SPCR,12.1 ID X 19.5 OD X 3 W,FSR,AL7075-T6	-	-	-
N	4	LINK @ EXTENSION SPACER	SPCR,CUST, 10 ID X 18.5 OD X 2.5 W,FSR,AL7075-T73	-	-	-
O	2	LINK @ EXTENSION BOLT	SCR,CUST,M6X1.0 X 8,SST 302	4 MM HEX	60	7
P	2	LINK @ EXTENSION AXLE	AXLE,SS PIVOT,MTB,TRAIL FSR L1	5 MM HEX	60	7
Q	2	LINK @ SEAT TUBE BOLT	SCR ASSY,M12 X 1.0 X 17,21MM HEAD,FSR	6 MM HEX	180	20
R	2	LINK @ SEAT TUBE SPACER	SPCR,12.1 ID X 19.5 OD X 3 W,FSR,AL7075-T6	-	-	-
S	1	FORWARD SHOCK EYE BOLT	SCR,CUST,M8X1.0 X 42,CHROMOLY	6 MM HEX	90	10
T	1	REAR SHOCK EYE BOLT	SCR,CUST,M8X1.25 X 27,CHOMOLY	6 MM LR HEX	180	20
U	1	REAR SHOCK EYE WASHER	WSHR,FLAT,M8,8.2 ID X 13 OD X 0.5 THK,304 SST	-	-	-
V	2	REAR SHOCK EYE TOP HAT SPACER	SPACER,SHOCK, 19 X 8.1 X 0.6, SST 304			

4.1 EXPLODED VIEW - BEARINGS/SPACERS



4.2 EXPLODED VIEW - BOLTS

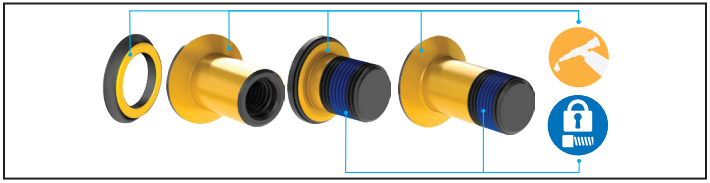


5. REAR TRIANGLE PIVOT ASSEMBLY

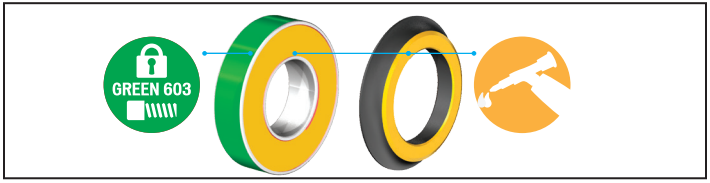
To successfully build the Stumpjumper rear triangle, it is very important to follow the order of operations as outlined in this manual. Modifying the order of assembly will result in a longer build process.

To properly assemble the Stumpjumper, 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.

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



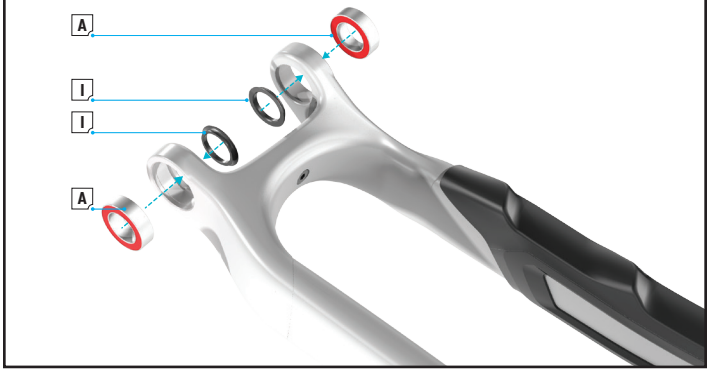
Apply green retaining compound (Loctite 603) to all the bearing/bore interface surfaces, then press all the bearings into their respective pivot locations.



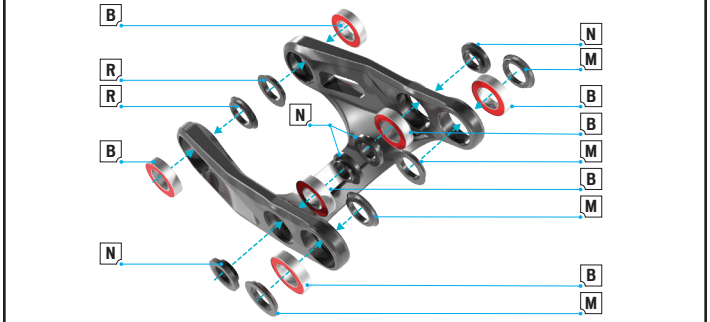
Install the bottom bracket after the rear triangle is assembled.

5.1. BEARING ASSEMBLY

5.1 MAIN PIVOT BEARINGS AND SPACERS



5.2 LINK BEARINGS AND SPACERS



5.3 HORST BEARINGS AND SPACERS

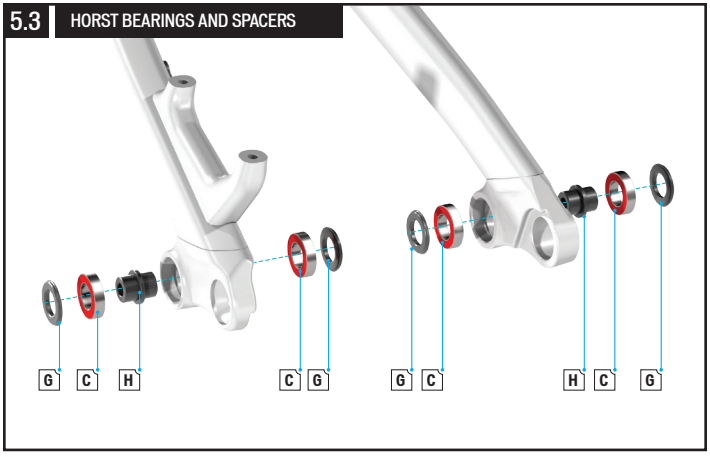


Fig. 5.3

- Place the spacer into the bearing hole from the outer side of the chainstays.
- Insert the bearings from both sides of the chainstay, sandwiching the spacer in the center.

5.2. PIVOT ASSEMBLY

EXTENSION @ SHOCK

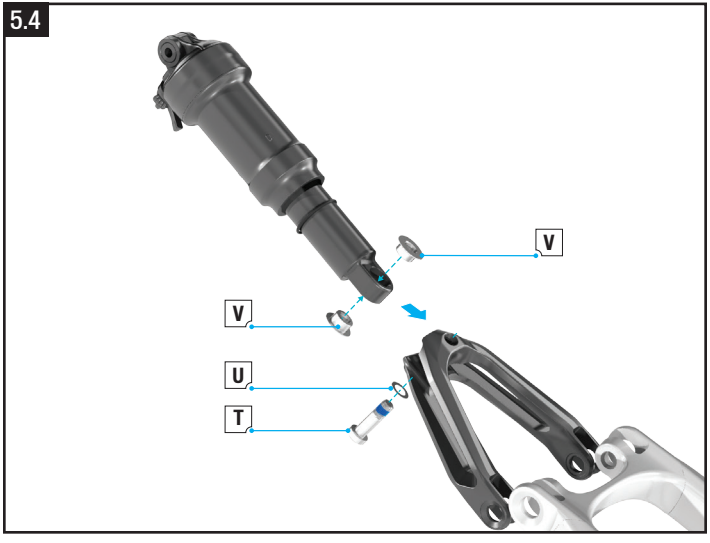


Fig. 5.4

- Locate the two parts of the sleeve into the lower shock eyelet.
- Align the shock eye with the extension hole, then install the bolt.
- Do not torque the lower shock eye-bolt until the last step!

LINK @ SEAT TUBE

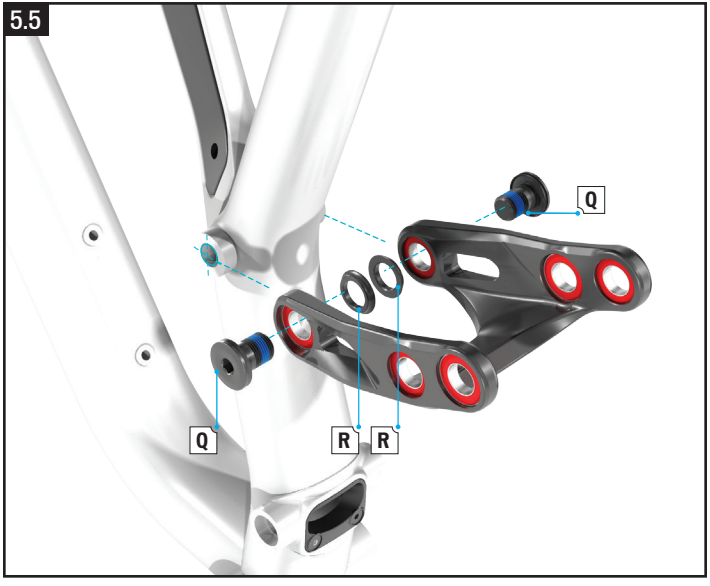


Fig. 5.5

- Grease, then place the link spacers against the link bearings. (tapered surface against the bearing).
- Grease, then thread the link bolts into the frame.
- Use a 6 mm hex key to torque the bolts to 180 in-lbf / 20 Nm.

FORWARD SHOCK EYELET BOLT

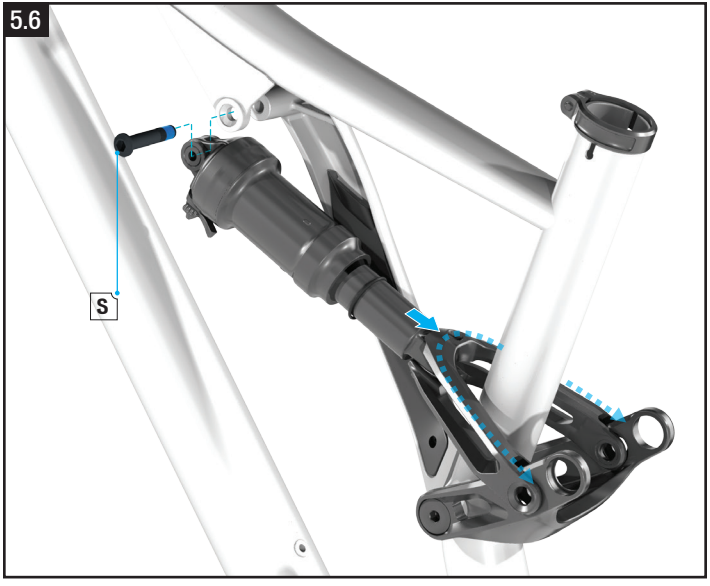


Fig. 5.6

- Place the extension around the seat tube, then align the forward shock-eye with the frame mount.
- Insert the forward shock-eye bolt.
- Use a 6 mm hex key to torque the bolts to 90 in-lbf / 10 Nm.

LINK @ EXTENSION

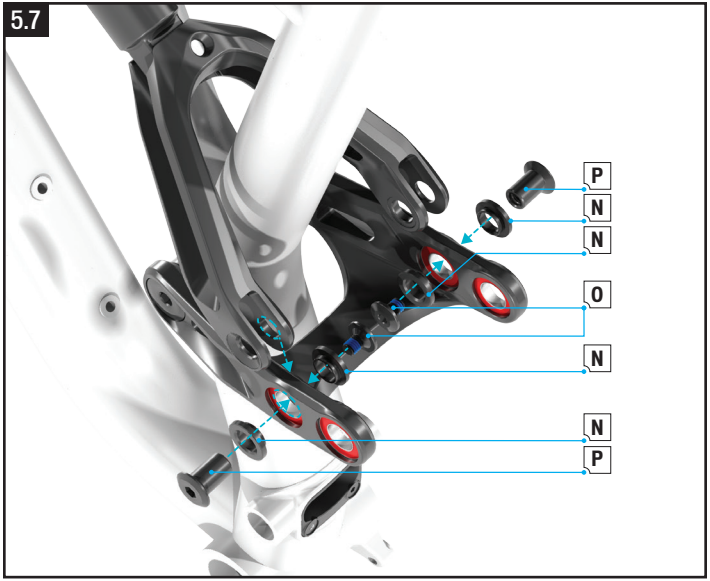


Fig.5.7

- Grease, then place the extension spacers into the link bearings.
- Align the extension with the extension bearings.
- Grease, then insert the extension axles into the pivot bore.
- Grease, then thread the extension bolts into the extension axles.
- Use a 5 mm and 4 mm hex key to torque the bolts and axles to 60 in-lbf / 7 Nm.

HORST LINK (DROPOUT)

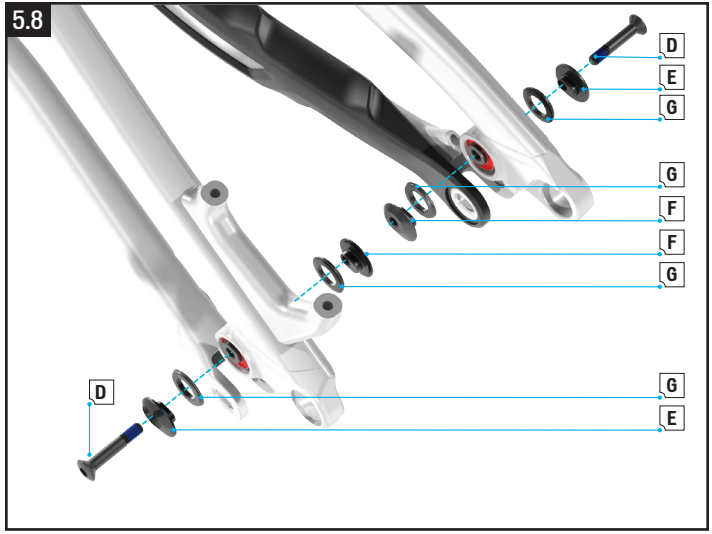


Fig. 5.8

- Grease, then place all the inner spacers (x4) against the Horst link bearings (tapered surface against the bearing).
- Align the flip-chip spacers in either "high" or "low" position and place them against the frame. The chainstay protector must be assembled prior to installation.
- With the flip-chips assembled, install the bolts. Make sure both drive-side and non-drive-side flip-chips are aligned in the same direction!
- Use a 5 mm hex key to torque the bolts to 90 in-lbf / 10 Nm.
- For instructions on adjusting the flip-chip please see section 7.

SEATSTAY @ LINK

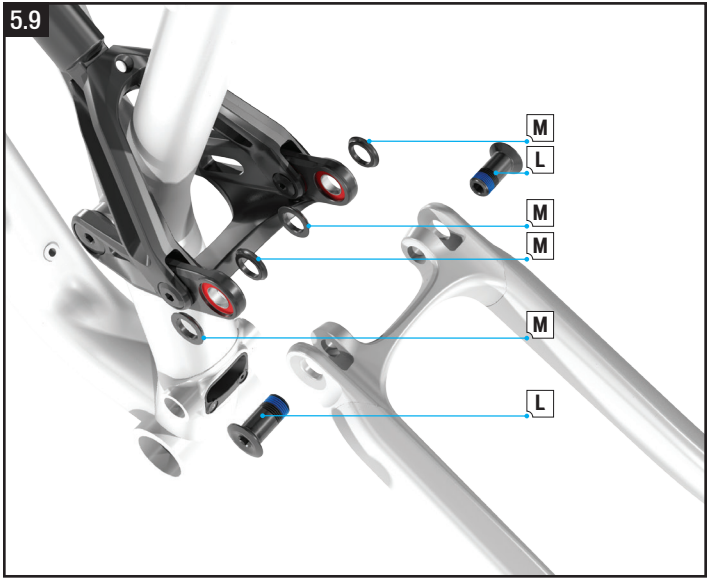


Fig. 5.9

- Grease, then place the seatstay spacers (x4) against the link bearings (tapered surface against the bearing).
- Align the seatstay with the link bearings.
- Grease, then thread the seatstay bolts (x2) into the seatstay bores.
- Use a 6 mm hex key to torque the bolts and axles to 180 in-lbf / 20 Nm.

MAIN PIVOT

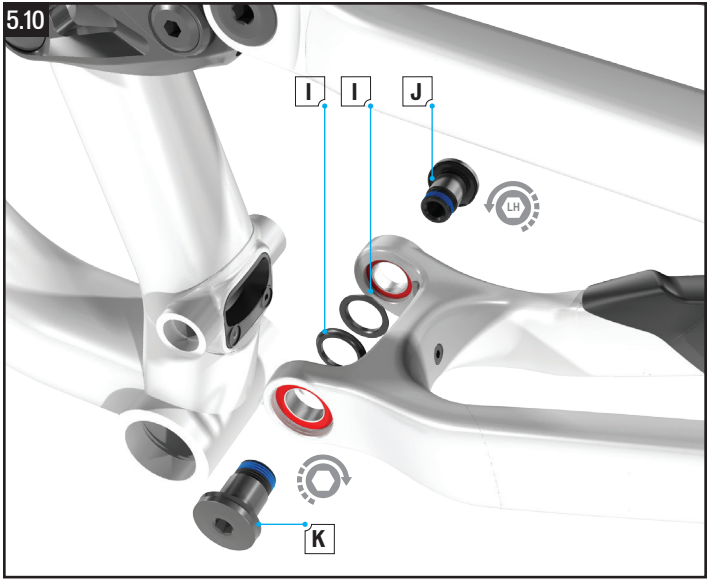


Fig. 5.10

- Grease, then place the main pivot spacers against the main pivot bearings (tapered surface against the bearing).
- Align the chainstay tabs with the main pivot bearings and spacers, then insert the pivot bolts.
- Use a 6 mm hex key to torque the bolts to 210 in-lbf / 24 Nm.

INFO: The drive side bolt is a left-hand thread.

LOWER SHOCK EYELET BOLT

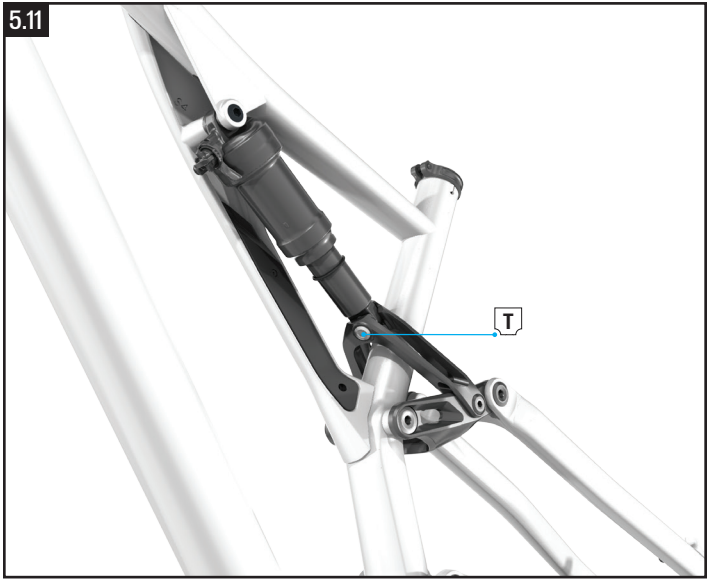
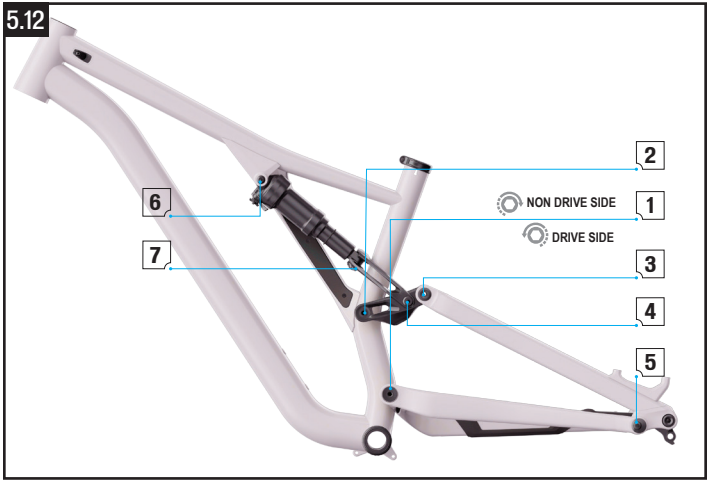


Fig. 5.11

- Once all pivot locations are assembled and torqued to specification, torque the lower shock eyelet bolt.
- Use a 6 mm hex key to torque the bolts to 180 in-lbf / 20 Nm.

INFO: When torquing the rear shock eye bolt use a long reach hex bit to avoid damaging the paintwork.

5.3. SUSPENSION TORQUE SPECIFICATIONS



#	PIVOT LOCATION	TOOL	in-lbf	Nm
1	MAIN PIVOT	6 mm HEX	210	24
2	LINK @ SEAT TUBE	6 mm HEX	180	20
3	LINK @ SEATSTAY	6 mm HEX	180	20
4	LINK @ EXTENSION	4 & 5 mm HEX	60	7
5	DROPOUT (HORST LINK)	5 mm HEX	90	10
6	FORWARD SHOCK EYE	6 mm HEX	90	10
7	REAR SHOCK EYE	6 mm HEX	180	20

Torque each pivot bolt according to the torque specification listed above.

6. INTERNAL ROUTING

For easier routing, the shock should be removed for side-arm cover access.

6.1. DROPPER SEATPOST

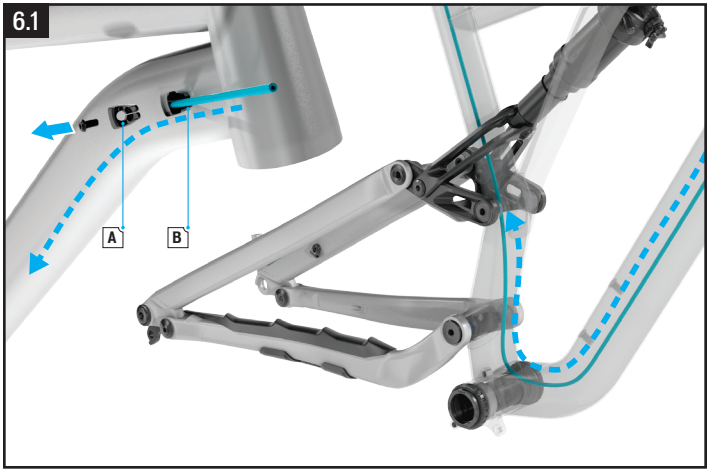


Fig. 6.1

- Remove the drive side ICR cable guide, with a 2.5 mm hey key, from the ICR port near the head-tube.
- Insert the seat post housing into the port (B) and route the housing down the down-tube until it reaches the bottom bracket shell.
- Guide the housing over/in front of the BB shell and up into the seat-tube.
- If necessary, use a flat ruler or a cable to help guide the housing out the top of the seat-tube.

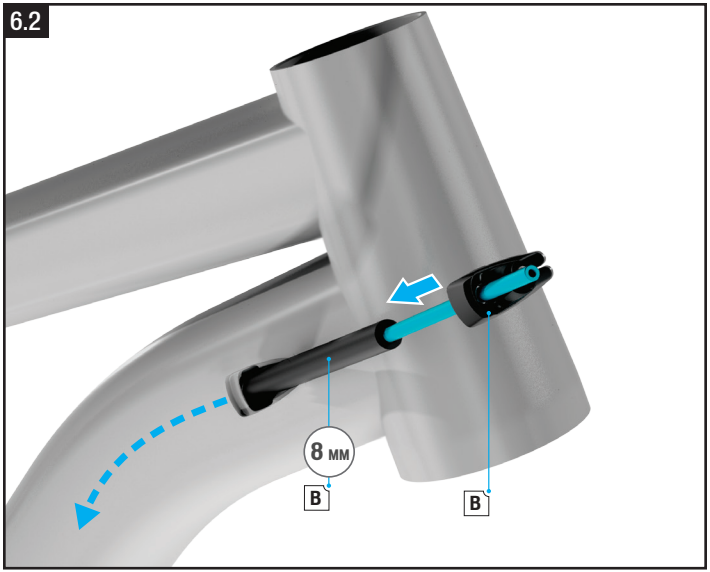


Fig. 6.2

- Slide an 8 mm foam rattle prevention tube (A) over the housing then slide it inside the frame completely.
- Slide the cable guide (B) over the housing and locate it in the headtube port.
- Insert the screw into the ICR guide and tighten using a 2.5 mm hex key to 13.2 in-lbf / 1.5 Nm.

6.2. REAR DERAILLEUR AND REAR BRAKE

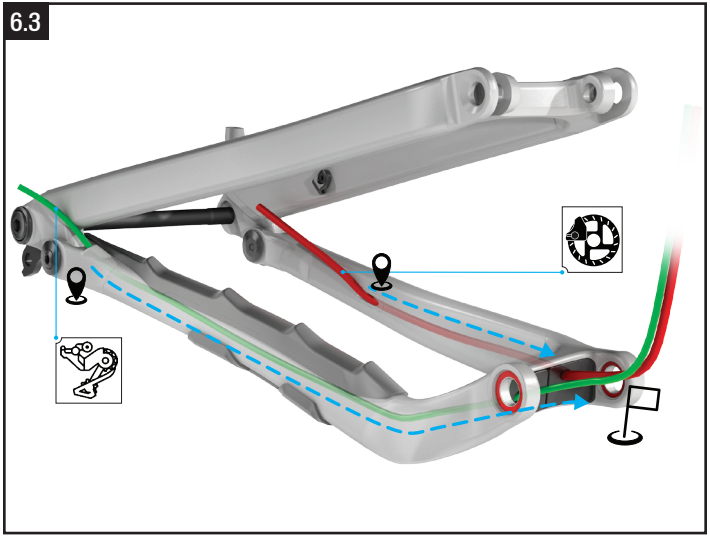


Fig. 6.3

- Insert the shift housing and brake hose into the chainstay.
- **Rear Shift:** Insert a cleanly cut piece of shift housing (no wires sticking past the plastic sheathing) into the rearward drive-side port on the chainstay.
- **Rear Brake:** Insert the brake hose into the rearward non-drive side port on the inside of the chainstay.
- Gently push and twist the housings until they exit the chainstay near the main pivot.

Wind the end of the housing not being inserted into the frame into a loop to help twist it through the chainstay.

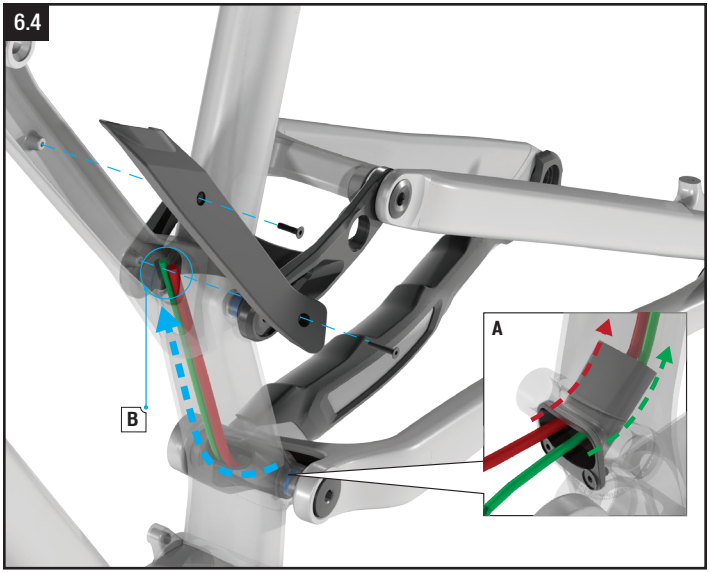


Fig. 6.4

- Remove the sidearm cable cover with a 2 mm hex key if it is installed.
- Guide the housing through the funnel at the main pivot (A). Use a pick or screwdriver to help direct the housing if needed.
- Push the housing until it reaches the hole in the seat-tube at the base of the side-arm (B) and guide it out with a hook or "L" pick through the hole in the base of the side arm.

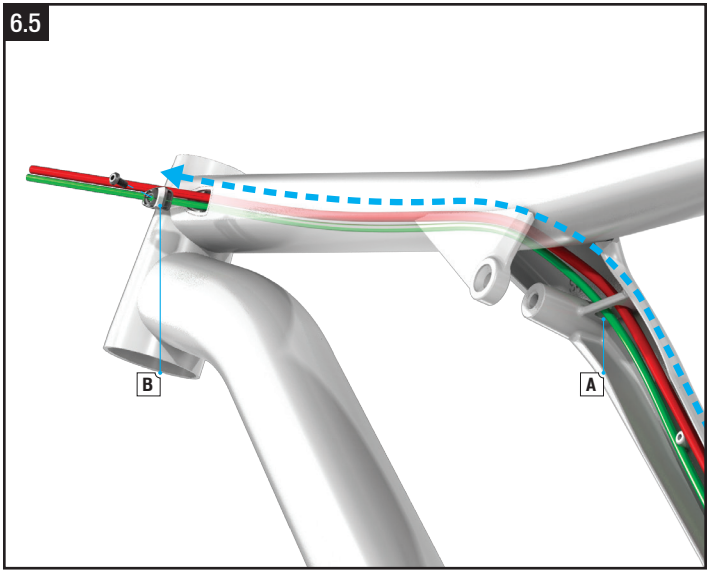


Fig. 6.5

- Guide the shift housing and brake hose up the side-arm through the sidearm loop (A) and into the top-tube.
- Remove the non-drive side ICR cable guide (B), with a 2.5 mm hey key, from the ICR port near the head-tube.
- Guide the housing out of the non-drive side ICR port near the head-tube. Use a pick to help guide the housing out.

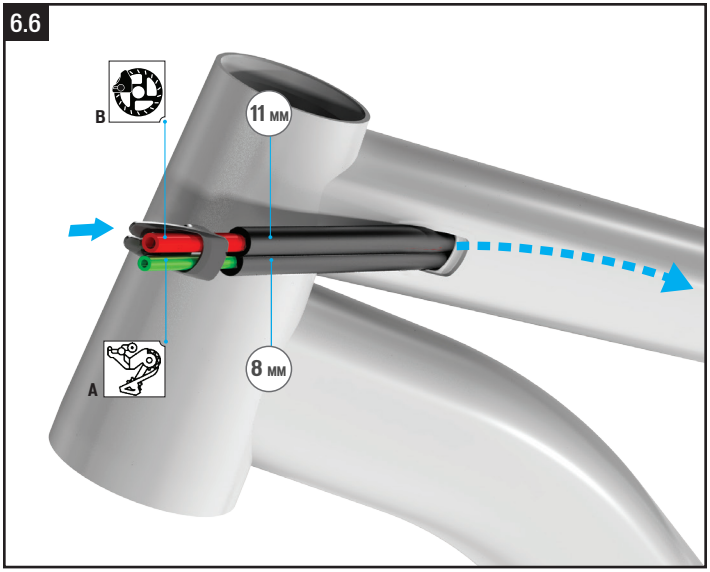


Fig. 6.6

- Slide an 8 mm foam rattle prevention tube onto the Shift housing (A) and an 11 mm foam rattle prevention tube onto the brake hose (B) then slide them individually into the frame.
- Slide the cable guide onto the shift housing and brake hose in any orientation you prefer.
- Locate the guide in the port and insert the screw into the ICR guide
- Using a 2.5 mm hex key torque the bolt to 13.2 in-lbf / 1.5 Nm.

Apply a small amount of talcum powder to the inside of the foam rattle prevention tube to make insertion easier.

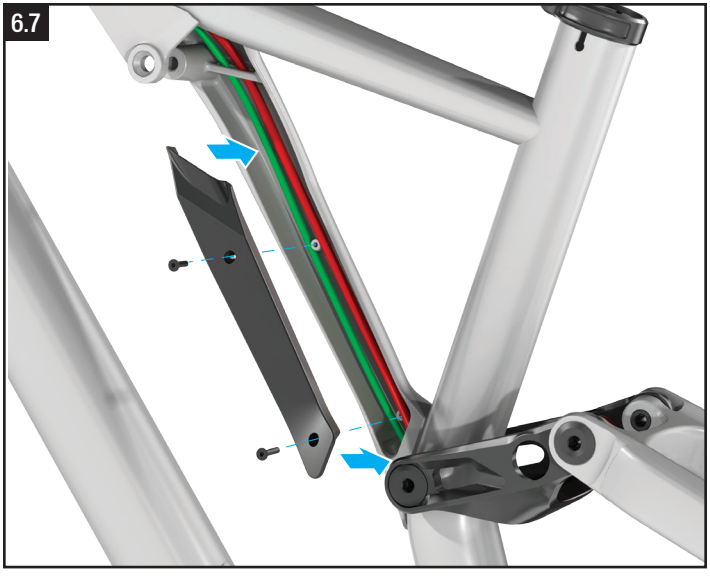


Fig. 6.7

- Re-install the sidearm cover over the shift housing and brake hose, the sidearm cover screw mounts should slide between the two housings.
- Insert and tighten the sidearm cover screws using a 2 mm hex key to 6.2 in-lbf / 0.7 Nm.
- Install the rear shock (See Section 5) for instructions.

6.3. REAR BRAKE CABLE BAT

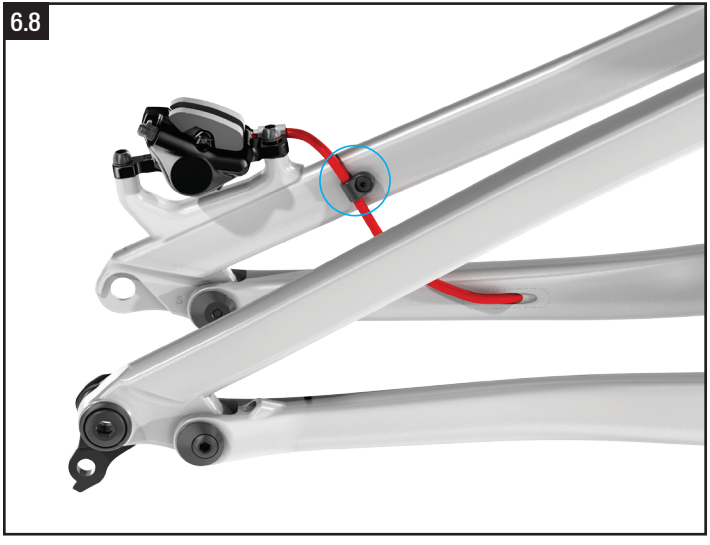


Fig. 6.8

- **OUTSIDE BANJO CALIPERS:** Position the seat-stay 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 seat-stay and chainstay.
- Finish the brake assembly installation according to the manufacturer's instructions.

INFO: Always make sure that there is enough slack in the brake line so that it does not pull tight during suspension actuation.

7. FLIP CHIPS

The geometry on the Stumpjumper can be modified with a flip-chip located near the Horst pivots

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

INFO: For information on the geometry when adjusting the flip chips visit www.specialized.com for more information

7.1. ADJUSTING THE HORST PIVOT FLIP CHIP

7.1

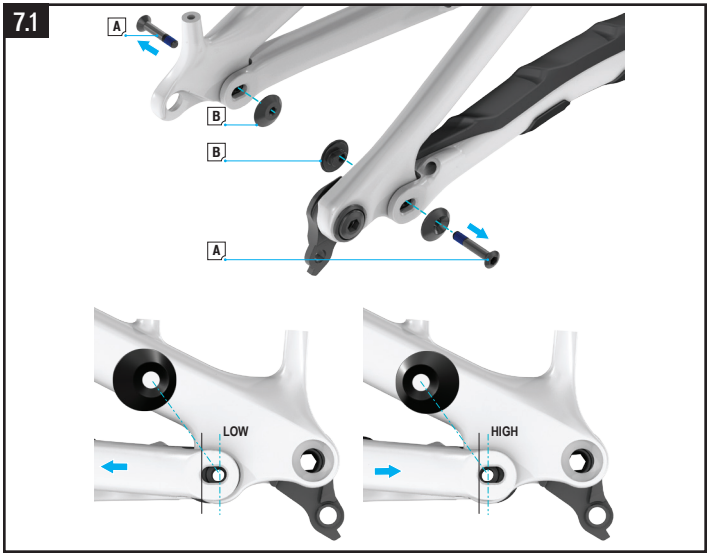


Fig. 7.1

- Remove the Horst pivot bolt from the frame (A).
- Remove all four flip-chips (B) and align the Horst Pivot spacer in the slot to either "high" or "low" position. When replacing the adjustable spacer make sure it is correctly located into the chainstay and that both parts of the flip-chip are aligned in the same direction.
- Reinstall the flip chips in the desired high or low position. Make sure they are fully seated and aligned with the chain-stay protector before tightening the bolt.
- Torque the Pivot bolt to 10 Nm / 90 in-lbf.

WARNING: The drive side and non-drive side Horst flip chips must both be aligned in the same high or low position. Improperly installed Horst flip chips can damage the frame and can also cause you to lose control and fall.

INFO: All models are assembled with the Flip Chip in the low position. Switching to the high position raises the bottom bracket height by approximately 7 mm and steepens the head tube angle by approximately 0.5 degrees.

ADJUSTMENT POINT	CHAINSTAY LENGTH	BOTTOM BRACKET HEIGHT	HEADTUBE ANGLE
HORST ADJUSTABLE PIVOT (LOW)	+ 0 mm	+ 0 mm	+ 0°
HORST ADJUSTABLE PIVOT (HIGH)	- 4 mm	+ 7 mm	+ 0.5°

8. AIR SHOCK SETUP

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

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

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

8.1. SETTING AIR PRESSURE

- 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.
- Attach a high-pressure shock pump to the air valve and set your shock pressure based on the personalized baseline suspension setup from the suspension calculator.

8.1

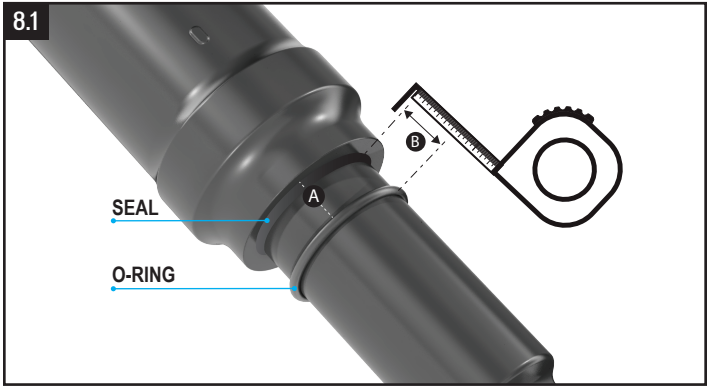


Fig 8.1

- To check the sag, push the o-ring against the seal (A), 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!
- Check the sag by measuring the distance between the shock seal and the o-ring (B). 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.

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 13.5 mm of stroke, depending on rider experience/preference and terrain conditions. If the rider is approaching 300lbs, sag may exceed the bike's prescribed amount.

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

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

8.2. ADJUSTING REBOUND

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

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

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

8.3. ADJUSTING COMPRESSION

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

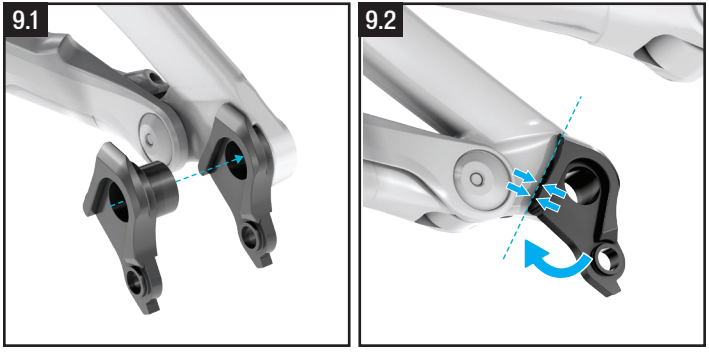
Please refer to the suspension manual for specifics about the compression options provided by your suspension. Typically, a suspension is equipped with some or all of the following settings:

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

9. DERAILLEUR HANGER

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

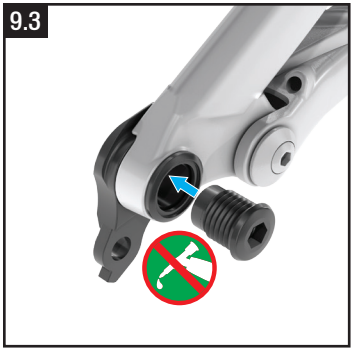
INSTALLATION PROCEDURE:



- **Fig. 9.1:** Install the UDH hanger assembly into the frame dropout.
- **Fig. 9.2:** Rotate the UDH hanger forward until it is completely seated in the hanger pocket or contacts the rotational stop tab.

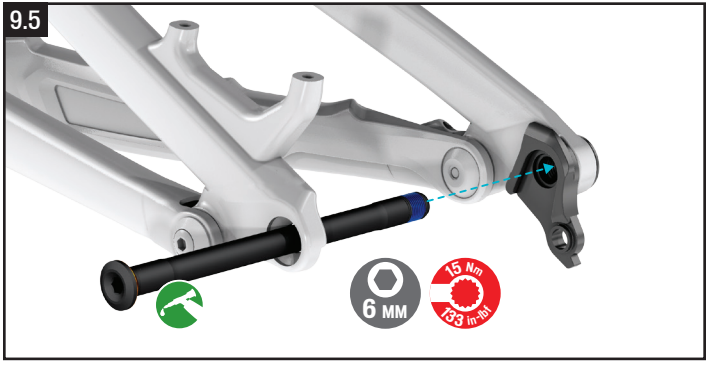
Apply grease ONLY to the thru-axle threads. Do NOT apply grease to the frame, UDH hanger or UDH bolt threads.

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



- **Fig. 9.3:** Install the UDH washer, then thread the UDH bolt through the washer and into the hanger.
- **Fig. 9.4:** Tighten the bolt to 221 in-lbf / 25 Nm. The UDH hanger bolt is left-hand threaded.

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



- **Fig. 9.5:** Apply grease to the thru-axle threads before axle installation.
- **Fig. 9.5:** Install the thru-axle and wheel, then torque the rear axle to 133 in-lbf / 15 Nm.

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

10. SMALL PARTS

PART NUMBER	DESCRIPTION
S184700004	STC KCNC, SPL-SC02-386, EXTRUDED, 7075-T6, 38.6MM, SCM435, NONE FINISH BOLT, BOLT CLAMP TYPE
S182500005	HDS NO.42/ACB/S/F/N 46CONE SPACER,AL COMPRS RING,UP1.125/LOW1.5 CRMO 45,AL CROWN RACE,ANO MATT BLK
S206900006	CSP MY21 SJ EVO CARBON AND SJ ALLOY CHAINSTAY PROTECTOR
S206500014	CBG MY21 SJ ALLOY SIDEARM WITH BOLTS
S206500012	CBG MY21 SJ ALLOY CABLE FUNNEL AT BB AREA AND CHAINSTAY WITH BOLTS
S206500013	CBG MY21 SJ ALLOY HEADTUBE ICR CLIP WITH BOLTS
S200600004	BRG MY21 SJ ALLOY BEARING KIT
S201500007	CHS MY21 SJ ALLOY CHAINSTAY SATIN BLACK / SMOKE
S205000004	STS MY21 SJ ALLOY SEATSTAY SHORT FOR S1-S4 SATIN BLACK / SMOKE
S205000003	STS MY21 SJ ALLOY SEATSTAY LONG FOR S5-S6 SATIN BLACK / SMOKE
S206500009	CBG AWOL CABLE BAT 5MM HOUSING WITH BOLT
S200500005	BLT MY21 SJ ALLOY BOLT KIT
S204200031	SUB MY21 SJ EVO CARBON AND SJ ALLOY DO PIVOT SPACER
S204300006	SHL MY21 SJ EVO CARBON AND SJ ALLOY SHOCKLINK
S206300005	SHK EXT MY21 SJ EVO CARBON AND SJ ALLOY ALLOY EXTENSION
S204200032	SUB MY21 SJ EVO CARBON AND SJ ALLOY SHOCK MOUNTING HARDWARE