English

USER MANUAL

DIVERGE 4 CARBON

Gravel Bicycle

LANGUAGE VERSIONS

EN: This document is available for download in additional languages at www.specialized.com.
CNS: 本文档的其他语言版本可从 www.specialized.com 下载。
CNT: 本文件有其他語言版本，請至 www.specialized.com 下載。
CZ: Tento dokument je k dispozici ke stažení v dalších jazycích na adrese www.specialized.com.
DA: Dette dokument kan downloades på flere sprog, på www.specialized.com.
DE: Dieses Dokument steht in weiteren Sprachen zum Download unter www.specialized.com zur Verfügung.
ES: Este documento está disponible para su descarga en más idiomas en www.specialized.com.
FI: Tämä asiakirja on ladattavissa muunkielisenä osoitteessa www.specialized.com.
FR: Ce document peut être téléchargé dans d'autres langues sur le site www.specialized.com.
HR: Ovaj dokument na dodatnim jezicima možete preuzeti na stranici www.specialized.com.
HU: Ez a dokumentum a www.specialized.com weboldalról további nyelveken is letölthető.
IT: Questo documento può essere scaricato in altre lingue all'indirizzo www.specialized.com.
JP: 本文書の他の言語によるバージョンは、www.specialized.com からダウンロードできます。
KR: 이 문서를 기타 언어로 다운로드: www.specialized.com.
NL: Dit document kan worden gedownload in andere talen via www.specialized.com.
NO: Dette dokumentet er tilgjengelig for nedlasting på flere språk på www.specialized.com.
PL: Niniejszy dokument można pobrać w innych wersjach językowych ze strony www.specialized.com.
PT: Este documento está disponível para download em outros idiomas em www.specialized.com.
SK: Tento dokument je k dispozícii na stiahnutie v ďalších jazykoch na lokalite www.specialized.com.
SL: Ta dokument je na voljo za prenos v dodatnih jezikih na spletni strani www.specialized.com.
SV: Detta dokument kan laddas ned i andra språkversioner från www.specialized.com.

SPECIALIZED BICYCLE COMPONENTS | 15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-6229
0000215917_UM_R2 04/25
We may occasionally issue updates and addenda to this document. Please periodically check www.specialized.com or contact Rider Care to make sure you have the latest information. 877-808-8154

CONTENTS

1. INTRODUCTION

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

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

This User Manual is specific to your Diverge 4 Carbon, hereinafter referred to as "the bicycle," and should be read in addition to the Specialized Bicycle Owner's Manual ("Owner's Manual"). It contains important safety, performance, and technical information, which you should read before your first ride and keep for reference.

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.

Please note that all instructions and notices are subject to change and updates without notice. Please visit www.specialized.com for periodic updates.

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

1.1. 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.

1.2. SYMBOLS LEGEND

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 that, if not avoided, could result in serious injury or death. Many of the Warnings say "you may lose control and fall." Because any fall can result in serious injury or even death, we do not always repeat the warning of possible injury or death.
	**CAUTION:** The combination of the safety alert symbol and the word CAUTION indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury, or is an alert against unsafe practices.
	The word **CAUTION** used without the safety alert symbol indicates a situation that, if not avoided, could result in serious damage to the bicycle or the voiding of your warranty.
	This symbol alerts the reader to information that is particularly important.
	Tech tips are useful tips and tricks regarding installation and use.
	This symbol means that high-quality grease should be applied.
	This symbol means that NO grease should be applied.
	This symbol means that high-quality carbon assembly paste should be applied.
	This symbol means that high-quality anti-seize compound should be applied.
	This symbol means blue Loctite should be applied.

2. GENERAL INFORMATION

2.1. INTENDED USE

CONDITION 2

General Purpose Riding

Bikes designed for riding Condition 1, plus smooth gravel roads and improved trails with moderate grades where the tires do not lose ground contact.

INTENDED For paved roads, gravel or dirt roads that are in good condition, and bike paths.

NOT INTENDED For off-road or mountain bike use, or for any kind of jumping. Some of these bikes have suspension features, but these features are designed to add comfort, not off-road capability. Some come with relatively wide tires that are well suited to gravel or dirt paths. Some come with relatively narrow tires that are best suited to faster riding on pavement. If you ride on gravel or dirt paths, carry heavier loads, or want more tire durability, talk to your dealer about wider tires.

2.2. WEIGHT LIMITS

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

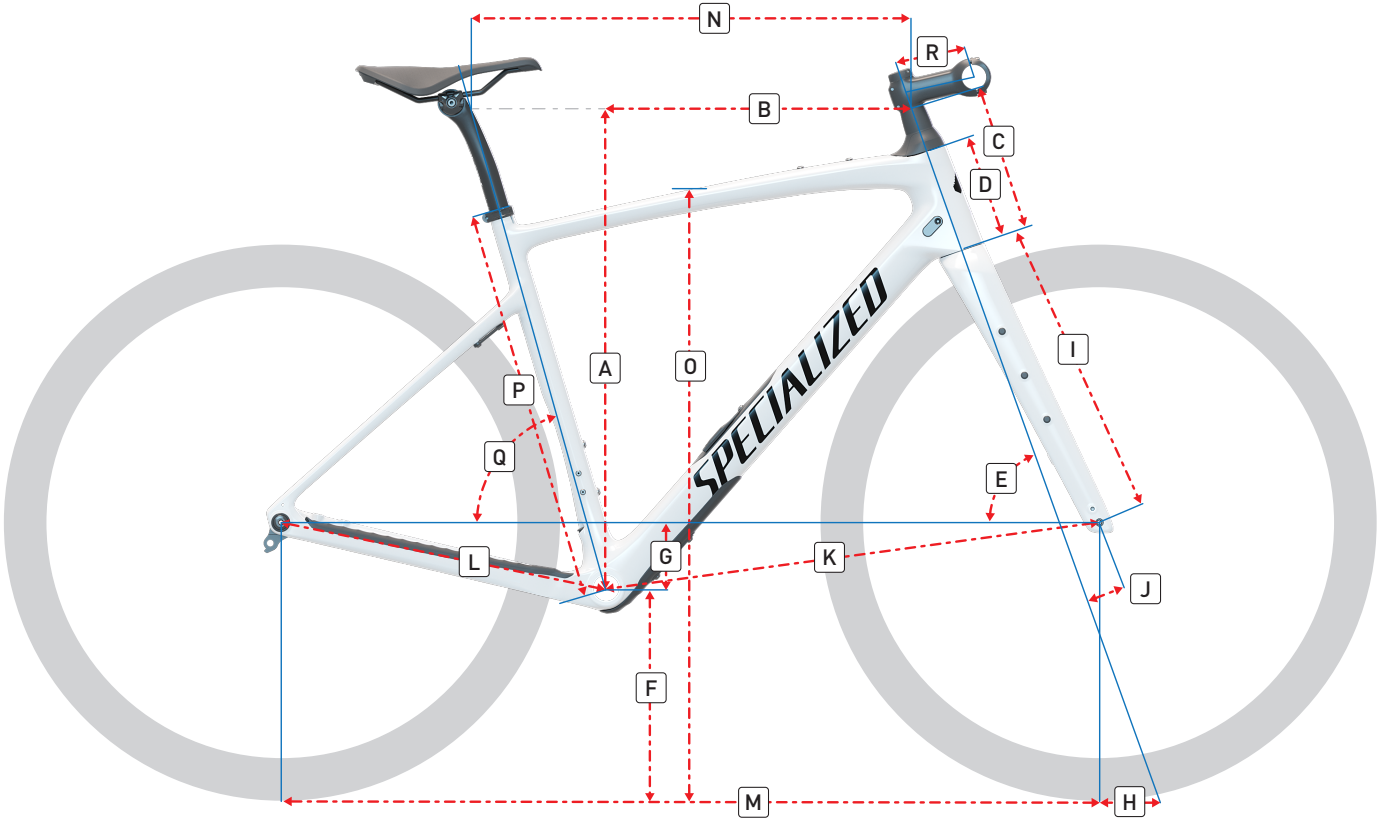
STRUCTURAL WEIGHT LIMIT: The maximum total weight (rider and cargo) a bicycle is designed and tested to support structurally.

MODEL	CARGO WEIGHT LIMIT (kg / lb)			STRUCTURAL WEIGHT LIMIT (kg / lb)
	FRONT	REAR	TOW	
ALL MODELS	14 / 30	14 / 30	0 / 0	125 / 275

WARNING! Never exceed the maximum specified cargo or structural weight limit for your bicycle/fork or the rack's maximum allowed cargo weight limit. When loading cargo, only do so through the use of compatible racks or other accessories, which may have different cargo weight limits applied to them, as indicated. In case the specified cargo weight limit for the bicycle differs from the cargo weight limit specified by the rack or accessory manufacturer, always use the lowest limit. If you add any load-bearing accessories not approved by Specialized, including baskets or child carriers, you do so at your own risk because these accessories have not been tested for compatibility, reliability, or safety on your bicycle. Failure to follow this warning may result in serious personal injury or death.

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

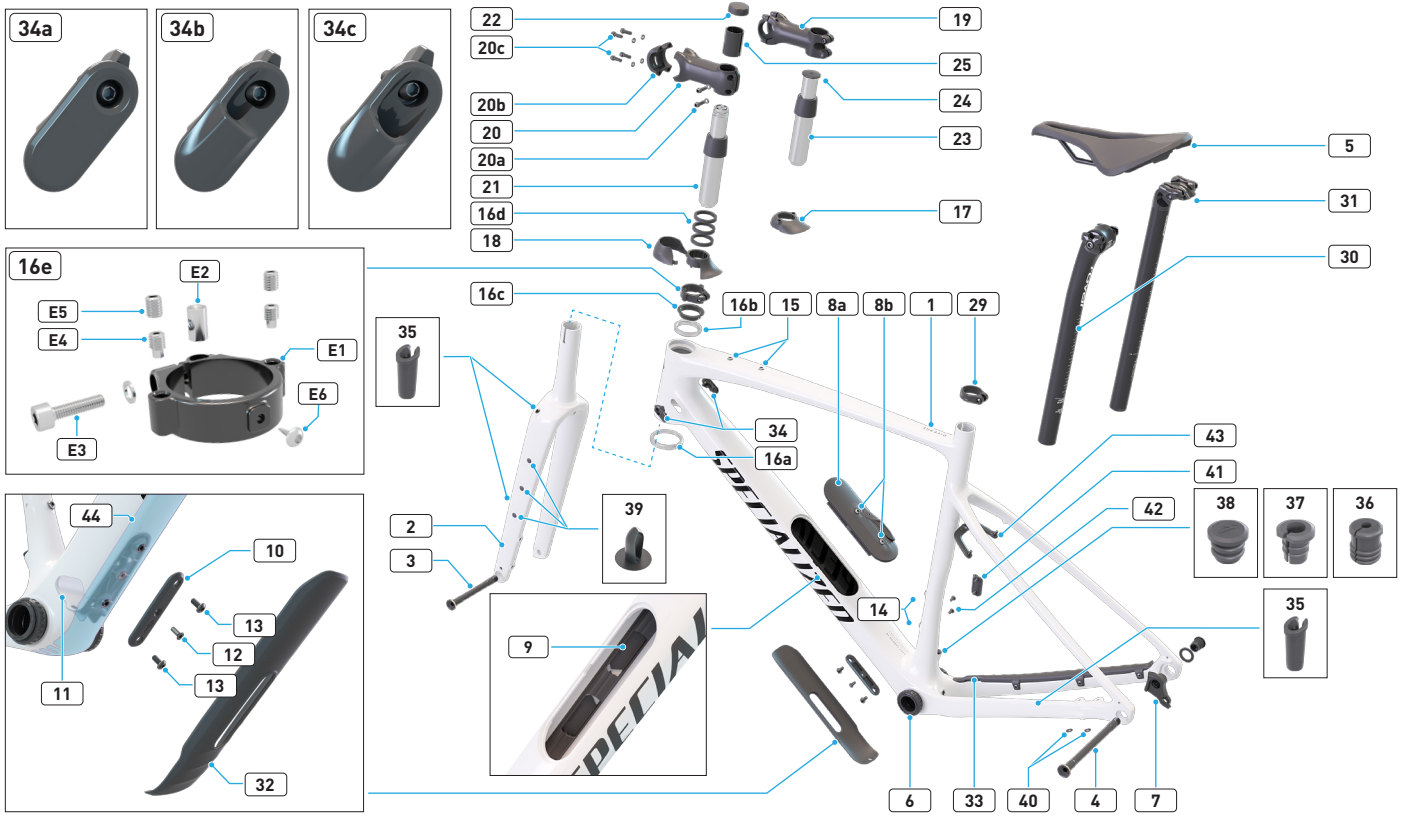
3. GEOMETRY



	FRAME SIZE	49	52	54	56	58	61
A	Stack with Future Shock (mm)*	563	579	592	610	635	659
B	Reach (mm)*	365	374	387	400	412	425
C	Head Tube Length with Future Shock (mm)*	138	152	164	183	209	235
D	Head Tube Length (mm)	90	104	116	135	161	187
E	Head Tube Angle (°)	70	70.5	71			
F	Bottom Bracket Height (mm)	272.5					
G	Bottom Bracket Drop (mm)	85					
H	Trail (mm)	72	68	65			
I	Fork Length (Full) (mm)	391					
J	Fork Rake/Offset (mm)	55					
K	Front Center (mm)	604	613	626	645	665	686
L	Chainstay Length (mm)	430					
M	Wheelbase (mm)	1019	1029	1041	1060	1081	1102
N	Top Tube Length Horizontal (mm)*	521	537	557	575	594	614
O	Standover Height (mm)	706	733	761	786	813	839
P	Seat Tube Length (mm)	400	430	470	500	530	560
Q	Seat Tube Angle (°)	74.5	74				
R	Stem Length (mm)	60	70	80	90	100	
	Handlebar Width (mm)	380	400	420		440	
	Crank Length (mm)	165	170	172.5		175	
	Saddle Width (mm)	155		143			

The above table shows the standard geometry for the bicycles as shipped. Visit www.specialized.com for all possible geometry configurations.
*(**A**), (**B**), (**C**) and (**N**) are measured to the bottom of the stem when using a 0 mm headset cover.

4. SPECIFICATIONS



	DESCRIPTION			SPECIFICATIONS	THREAD/ PREP	TOOL SIZE	TORQUE	
							Nm	in-lbf
1	Frame							
2	Fork							
3	Front Axle			12 mm x 100 mm		6 mm hex	15	133
4	Rear Axle			12 mm x 142 mm		6 mm hex	15	133
5	Saddle							
6	Bottom Bracket			68 mm (BSA Threaded)		BB tool		
7	Rear Derailleur Hanger			SRAM UDH (Universal Derailleur Hanger)		8 mm hex	25	221
8	SWAT 4.0 Door	A	SWAT 4.0 Door					
		B	SWAT Door Cage Bolts	M5 x 0.8 mm P x 10 mm		3 mm hex	2.8	25
9	Self Adhesive ICR Channel			3 Cables, Double Sided Tape				
10	Down Tube Mount - Outer Bracket							
11	Down Tube Mount - Bulkhead							
12	Down Tube Mount - Bolt			M4 x 0.7 mm P x 12 mm		2.5 mm hex	0.8	7
13	Down Tube Mount - Accessory Bolts			M5 x 0.8 mm P x 11.5 mm		3 mm hex	2.8	25
14	Seat Tube Cage Bolts			M5 x 0.8 mm P x 10 mm		3 mm hex	2.8	25
15	Top Tube Accessory Bolts			M5 x 0.8 mm P x 16 mm		3 mm hex	2.8	25
16	Headset	A	Lower Bearing	1.8" (56.8 mm OD x 47.8 mm ID x 6.5 mm x 45°)				
		B	Upper Bearing	1.5" (45.8 mm OD x 36.8 mm ID x 6.5 mm x 45°)				
		C	Compression Ring	44.8 mm OD x 34.4 mm ID x 8.5 mm				
		D	Spacer	37 mm OD x 30.5 mm ID x 5 mm				
		E	1: Future Shock Collar					
			2: Collar Barrel Nut					
			3: Collar Pinch Bolt	M5 x 0.8 mm P x 18 mm		4 mm hex	4	35
			4: Collar Preload Screw	M5 x 0.8 mm P x 4.45 mm		2 mm hex		
			5: Collar Locking Screw	M5 x 0.8 mm P x 18 mm		2.5 mm hex	1	9
			6: Collar Locator Bolt	M3 x 0.5 mm P x 4.5 mm		2.5 mm hex	1	9
17	Headset Cover 0 mm			0 mm Offset 1 Piece				
18	Headset Cover 15 mm			15 mm Offset 2 Piece				

19	Roval Alpinist Stem*	A	Steerer Bolts			4 mm hex	5	44
		B	Faceplate					
		C	Faceplate Bolts			4 mm hex	5	44
20	Future Stem*	A	Steerer Bolts			4 mm hex	5	44
		B	Faceplate					
		C	Faceplate Bolts			4 mm hex	5	44
21	Future Shock 3.3*							
22	Future Shock 3.3 Adjuster Knob*					2 mm hex	2.5	22
23	Future Shock 3.2*							
24	Future Shock 3.2 Top Cap and Bolt*					2 mm hex	1	9
25	Future Shock Stem Shim			24.5 mm ID / 28.6 mm OD, For 1-1/8" Stem				
26	Future Shock Preload Spacers (Not Shown)			See Future Shock Section				
27	Future Shock Spring Kit (Not Shown)			See Future Shock Section				
28	Handlebar (Not Shown)			S49: 380 mm | S52: 400 mm | S54-56: 420 mm | S58-61: 440 mm				
29	Seatpost Clamp			30.8 mm Diameter		4 mm hex	6.2	55
30	Roval Terra Seatpost*			27.2 mm | S 49-52, 330 mm | S 54-61, 380 mm		5 mm hex	13.5	120
31	OE Spec 27.2 Seatpost*			27.2 mm | S 49-52, 350 mm | S 54-61, 400 mm		5 mm hex	12.5	110
32	Down Tube Protector			Self Adhesive Backing				
33	Chainstay Protector			M4 x 0.7 mm x 9 mm		2 mm hex	0.8	7
34	ICR Port*	A	0 Hole (Cover)	M3 x 0.5 mm P x 12 mm		2 mm hex	0.8	7
		B	1 Hole	M3 x 0.5 mm P x 12 mm		2 mm hex	0.8	7
		C	2 Hole	M3 x 0.5 mm P x 12 mm		2 mm hex	0.8	7
35	ICR Grommet (Hose and Housing)			Angled Top, 7.5 mm				
36	ICR Grommet (Di2)*			ICR Grommet for Shimano Di2				
37	ICR Grommet (Mechanical Shifting)*			ICR Grommet for Mechanical Shifting				
38	ICR Plug (SRAM AXS and 1x Setup)*			ICR Hole Blocker - Fits 5-6 mm Hole				
39	Threaded Insert Plug			Used on All Open Threaded Inserts				
40	Rear Brake Mounting Washer			10 mm OD x 5.5 mm ID x 1 mm				
41	Front Derailleur Hanger and Bolts (2x Setup)			M4 x 0.7 mm P x 10 mm		2.5 mm hex	2.9	26
42	Front Derailleur Blocking Bolts (1x Setup)			M4 x 0.7 mm P x 10 mm		2.5 mm hex	2.9	26

43	Seatstay Bridge**	M4 x 0.7 mm P x 12 mm (fender mount M6 thread)		2.5 mm hex	2.8	25
44	Down Tube Pre-Applied Mylar Protector	Self Adhesive Backing				

*Not all models are equipped with all the above components.

**Size 49 bicycles do not require a seatstay bridge as a mounting point is integrated into the frame.

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

The components as summarized in this manual are current as of the date this manual was written and is subject to change. Specialized reserves the right to change the components at any time and without notice, including modifying, reducing, and/or adding features.

4.1. TORQUE SPECIFICATIONS

WARNING! Correct tightening force on fasteners (nuts, bolts, screws) on your bicycle is important for your safety. If too little force is applied, the fastener may not hold securely. If too much force is applied, the fastener can strip threads, stretch, deform or break. Either way, an incorrect tightening force can result in component failure, which can cause you to lose control and fall. Where indicated, ensure that each bolt is torqued to specification. After your first ride, and consistently thereafter, recheck the tightness of each bolt to ensure secure attachment of the components.

CAUTION: Ensure that all contact surfaces are clean and bolt threads are greased and thread locker is applied, as per instruction, prior to installation.

For all non-Specialized components, please refer to the manufacturer's manuals for tools and torque settings.

Many bolts have a blue thread preparation patch on the threads to help secure the bolt under torque. Repeated installation and removal of a bolt may reduce the effectiveness of the patch. However, it can be replaced with the application of a liquid blue threadlocker.

4.2. COMPONENT COMPATIBILITY

COMPONENT	COMPATIBLE SIZES/SPECS
Upper Headset Bearing	1.5" (45.8 mm OD x 36.8 mm ID x 6.5 mm x 45°)
Lower Headset Bearing	1.8" (56.8 mm OD x 47.8 mm ID x 6.5 mm x 45°)
Bottom Bracket Shell	68 mm (BSA threaded)
Front Thru-axle	12 mm x 100 mm
Rear Thru-axle	12 mm x 142 mm
Min/Max Chainring (1x drivetrain)	Shimano: 31t / 48t SRAM: 32t / 46t
Min/Max Chainring (2x drivetrain)	Shimano: 30t - 46t / 31t - 48t SRAM: 30t - 43t (only)
Min/Max Front Chainline	44.5 mm / 49 mm
Min/Max Front Rotor	160 mm / 180 mm
Min/Max Rear Rotor	160 mm / 180 mm
Chainstay Thickness at Rear Brake Caliper	30 mm
Min/Max Rear Tire	700 x 45c / 700 x 50c (with fender)
Min/Max Front Tire	700 x 45c / 700 x 50c (with fender)
Tubeless Compatible	Yes (all carbon models)
Seatpost Clamp Diameter	30.8 mm
Seatpost Diameter	27.2 mm
Roval Terra Seatpost	(Length: S 49-52, 330 mm | S 54-61, 380 mm) (Setback: 20 mm)
OE Spec 27.2 Seatpost	(Length: S 49-52, 350 mm | S 54-61, 400 mm) (Setback: 21 mm)
Dropper Seatpost Compatible	Wireless: Yes Mechanical: Yes
Rack	Front: Low-rider or cage-style Rear: Seatpost clamp-style
Bag Mount	Yes, top tube **(Do not strap around Future Shock boot)**
Fender	Front: Yes Rear: Yes (frame sizes 52-61 use seatstay bridge)
Bottle Clearance	3 bottles
Front Susupension	Future Shock 3.0
Stem Length	S49: 60 mm | S52: 70 mm | S54: 80 mm | S56: 90 mm | S58-61: 100 mm
Stem Steerer Diameter	Future Shock, 1 1/8" with shim
Stem Handlebar Diameter	31.8 mm
Handlebar Width	S49: 380 mm | S52: 400 mm | S54-56: 420 mm | S58-61: 440 mm
Light Compatibility	Stix lights
Button (Coin Cell) Batteries	SRAM derailleur shifters: CR2032 Shimano derailleur shifters: CR1632

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

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

4.3. BUTTON (COIN) BATTERIES

WARNING! This bicycle may be equipped with components such as derailleurs, shifters, and displays that may contain button batteries (coin batteries).

⚠WARNING

- **INGESTION HAZARD:** This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns** in as little as **2 hours**.
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN**
- **Seek immediate medical attention** if a battery is suspected to be swallowed or inserted inside any part of the body.

- Remove and immediately recycle or dispose of used batteries according to local regulations and keep away from children. Do NOT dispose of batteries in household trash or incinerate.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat above (manufacturer's specified temperature rating) or incinerate. Doing so may result in injury due to venting, leakage or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Do not mix old and new batteries, different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

Please see the COMPONENT COMPATIBILITY section for more information on the button (coin) batteries used in components.

4.4. RECOMMENDED TIRE PRESSURES

Tires must be inflated and periodically checked and re-inflated using a pump with an accurate pressure gauge.

Pump the tires up to your desired pressure. Refer to the tires' sidewall for pressure range. Check your wheel manual or decal on the rim itself to see if your wheels have a maximum pressure limit. Do not exceed it.

Please refer to the Tires and Tubes section of your Specialized Bicycle Owner's Manual for additional information.

WARNING! Never inflate a tire beyond the maximum pressure marked on the tire's sidewall or the maximum pressure limit specified by the wheel manufacturer, whichever is lower. Failure to follow this warning may cause the tire to blow off the rim and may result in serious personal injury.

5. 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.

The bicycle is equipped with a Future Shock front suspension. Refer to the Future Shock section in this manual for additional information.

CAUTION: Top tube accessory bags that strap around the steerer tube below the stem are not compatible with a Future Shock damper, which is equipped on all bicycle models. The use of a strap around the boot of the Future Shock damper may damage the boot, which will impair the waterproofness of the Future Shock.

WARNING! Many components on this bicycle are proprietary. Use of other components or hardware can compromise the integrity and strength of the assembly. Diverge 4 Carbon-specific components should only be used on the Diverge 4 Carbon and not on other bicycles, even if they fit. Failure to follow this warning could result in serious injury or death.

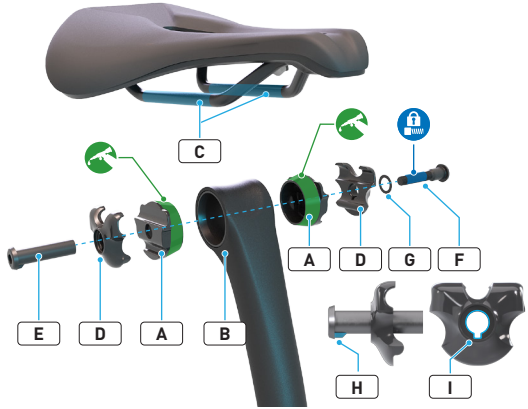
WARNING! Never modify your frame or components in any way. Do not sand, drill, file, or remove parts. Do not install incompatible forks or components. An improperly modified frame, fork, or component can cause you to lose control and fall.

WARNING! 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.

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

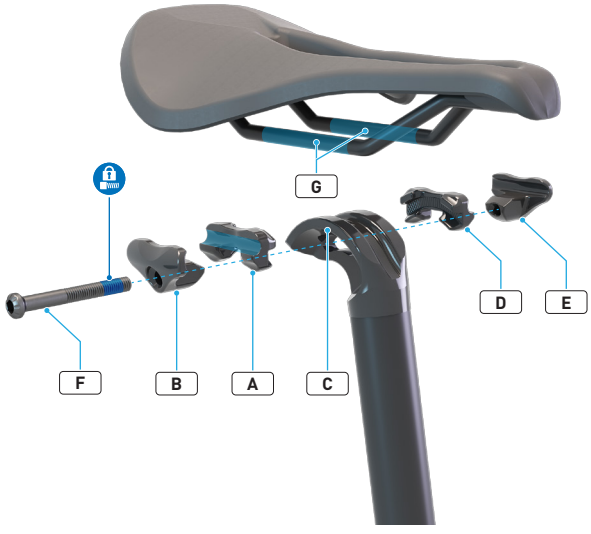
5.1. SADDLE

5.1.1 ROVAL TERRA SEATPOST SADDLE CLAMP



- Grease the inboard rail clamp contact surfaces (**A**), then install them in the seatpost head (**B**).
- Position the saddle rails (**C**) on the inboard rail clamps.
- Position the outboard rail clamps (**D**) over the saddle rails. Use 7 x 7 mm clamps for alloy rails or 7 x 9 mm clamps for carbon rails.
- Insert the female bolt (**E**) through one of the outboard rail clamps and key the bolt tab (**H**) in the outboard rail clamp groove (**I**).
- Apply Loctite to the male bolt threads (**F**), grease the washer (**G**), and then place the washer on the male bolt.
- Install the bolt (**F**) in the opposing outboard rail clamp, then thread it into the female bolt (**E**).
- Using a torque wrench and 5 mm hex bit, torque the bolt to 13.5 Nm / 120 in-lbf.

5.1.2 OE SPEC 27.2 SEATPOST SADDLE CLAMP



- Place the drive side inboard (**A**) and outboard (**B**) rail clamps against the seatpost head (**C**).
- Place the non-drive-side inboard (**D**) and outboard (**E**) rail clamps against the seatpost head.
- Insert the bolt (**F**) through the rail clamp assembly and loosely thread it into the outer rail clamp threaded hole.
- Insert the saddle rails (**G**) into the corresponding rail clamps, then align the saddle in the correct position.
- Using a torque wrench and 5 mm hex bit, torque the bolt to 12.5 Nm / 110 in-lbf.

5.2. SEATPOST CLAMP

- Insert and align the seatpost clamp bolt (**A**) with washer (**B**) into the clamp body (**C**).
- Slide the assembled seatpost clamp, with the bolt side facing toward the back of the bicycle, onto the seat tube.
- Apply high-quality carbon assembly paste to the inside of the seat tube, then insert the seatpost into the seat tube.
- Adjust the seatpost to the desired height, then using a torque wrench and 4 mm hex bit, torque the bolt to 6.2 Nm / 55 in-lbf.

The seatpost clamp is compatible with seatpost clamp-style rear racks.

5.3. SEATPOST

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:

- (**A**) The seatpost must be inserted into the frame deep enough so that the minimum insertion/maximum extension (min/max) mark on the seatpost is not visible.
- (**B**) The seatpost must also be inserted into the frame deep enough to meet or exceed the minimum measured insertion depth 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 100 mm, but the seatpost requires 90 mm, then 100 mm is the minimum insertion required.

Maximum insertion:

- The frame has a maximum insertion depth for each frame size. This depth limits the insertion depth of the seatpost. Please refer to the table below. If the desired seat height cannot be achieved within the minimum and maximum insertion requirements, the seatpost should be replaced with a shorter or longer one.
- Once the saddle height is determined, using a torque wrench and 4 mm hex bit, torque the seatpost clamp bolt to 6.2 Nm / 55 in-lbf.

FRAME	49	52	54	56	58	61
Minimum insertion (mm)	75					
Maximum insertion (mm)	175	180	200	240	270	300

CARBON FRAMES: Do not apply grease to the contact surfaces between the seatpost, and the seat tube. Grease reduces 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 Authorized Specialized Retailer for additional information.

WARNING! Failure to follow the seatpost and frame 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 and seatpost to slide down, which can damage the frame and cause you to lose control and fall.

Refer to the manufacturer's instructions for mechanical and wireless dropper post installation and setup.

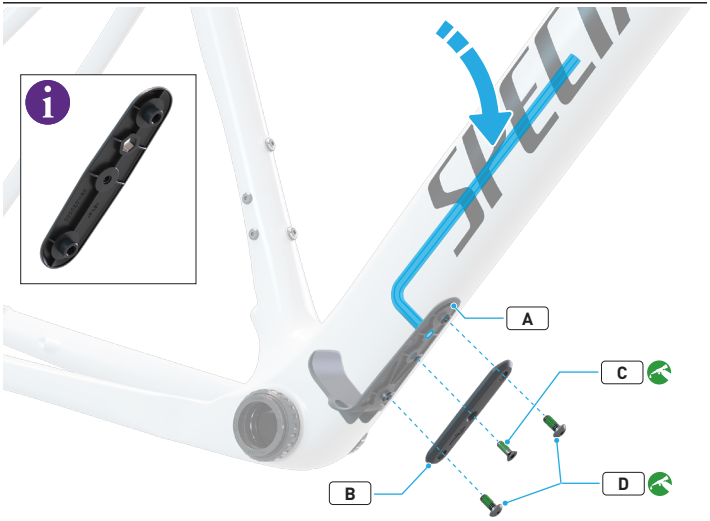
5.4. BOTTOM BRACKET

The bicycle uses a 68 mm standard BSA threaded design. Grease the threads, then install and torque the bottom bracket according to the manufacturer's instructions. Before installing the bottom bracket and crank, make sure all housings and wires are routed through the frame.

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

CAUTION: Always use a bottom bracket equipped with a sleeve between the two cups. Running a bottom bracket without the sleeve can result in housings and/or wires contacting the bottom bracket spindle, which can result in wear.

5.5. DOWN TUBE MOUNTING BRACKET



- Using a 6 mm L-shaped hex key, guide the bulkhead (**A**) through the SWAT door opening and down the down tube. Align the bulkhead holes with the down tube holes, then install the outer bracket (**B**).
- Apply grease to the mounting bracket bolt (**C**), then using a torque wrench and a 2.5 mm hex bit, torque the bolt to 0.8 Nm / 7 in-lbf.
- The outer bracket has two additional mounting points (**D**) that can be used to mount accessories.

All models ship with the bulkhead; however, a lightweight inner bracket is available as a replacement part (S259900002). The lightweight bracket is not compatible with a down tube mounted Di2 battery.

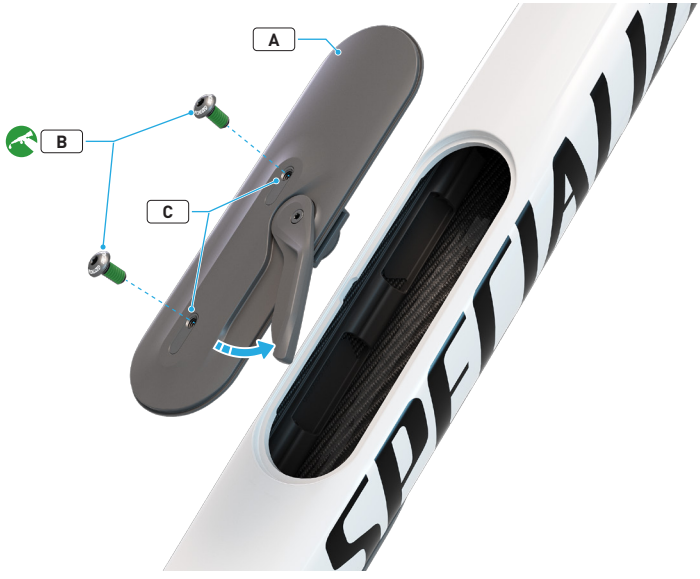
5.6. DOWN TUBE PROTECTOR

For additional protection, a down tube protector (**A**) is supplied in the small parts box and can be installed.

- Clean the downtube area making sure it's free from dirt.
- Remove the adhesive backing on the down tube protector, then apply the down tube protector (**A**) to the down tube using the mounting bracket (**B**) as a guide.

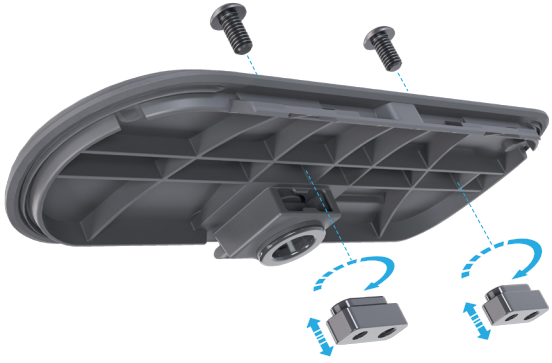
Should the pre-applied mylar protector (C) need to be replaced, the down tube protector must be replaced at the same time.

5.7. SWAT 4.0



INSTALL THE SWAT DOOR AND WATER BOTTLE BOLTS

- With the latch fully open, insert the SWAT door (**A**) into the SWAT opening on the down tube. Make sure the left edge of the door sits fully inside the lip on the non-drive side of the down tube, then press down on the drive side and fully close the latch.
- Thread the water bottle cage bolts (**B**) through the bottle cage (if using) and into the threaded bottle inserts (**C**). Then, using a torque wrench and 3 mm hex bit, torque the bolts to 2.8 Nm / 25 in-lbf.



SWAT 4.0 threaded bottle inserts can be switched between low or high positions for more or less top tube clearance when fitting water bottles or accessories. Remove the water bottle cage bolts, remove the threaded bottle insert, rotate it 180 degrees, and reinsert it.

SWAT 4.0 threaded bottle inserts should be placed in the high position on size 49 and 52 bicycles when two water bottles are installed.

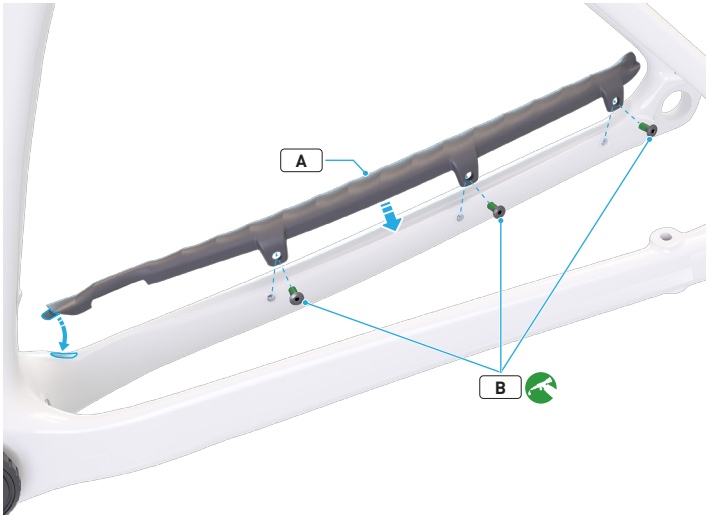
CAUTION: Dirt and debris may collect between the SWAT door and the frame which may cause damage to the paint. Thoroughly clean the SWAT door, latch, and frame interface before reinstalling the SWAT door.

5.8. SWAT PODS

Your bicycle comes with a SWAT pod, which is stored in the down tube cavity. The bicycle has space for one large and one small pod. All SWAT pods are available after-market.

- Open the SWAT door to insert the SWAT pod.
- Slide the pod into the lower portion of the down tube.
- To insert a second pod, insert the smaller pod into the upper portion of the down tube, followed by the larger pod in the lower portion of the down tube.

5.9. CHAINSTAY PROTECTOR

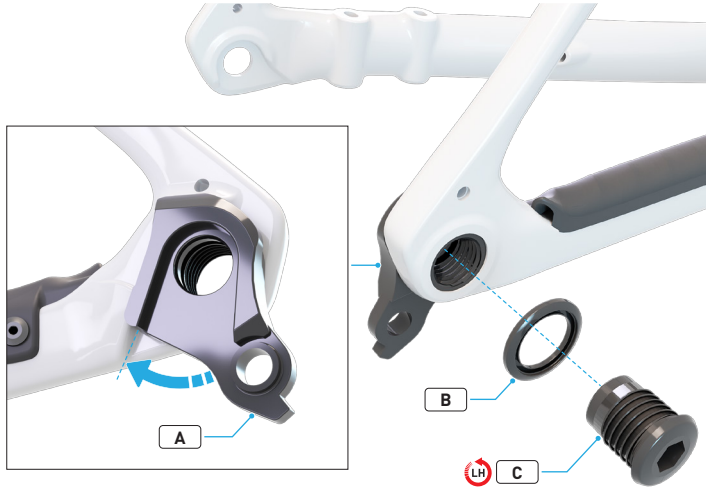


INSTALL THE CHAINSTAY PROTECTOR

- Align and place the chainstay protector (**A**) against the drive side chainstay, then insert the bolts (**B**) through the protector into the chainstay.
- Using a torque wrench and 2 mm hex bit, torque the bolt to 0.8 Nm / 7 in-lbf.

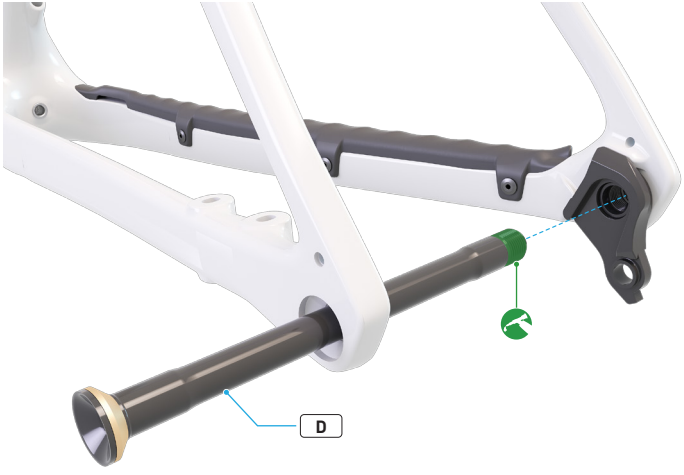
5.10. REAR DERAILLEUR HANGER

All bicycle models are UDH (universal derailleur hanger) compatible, when installing direct mount derailleur types, refer to the manufacturer's instructions for installation.



- Install the UDH hanger (**A**) into the frame dropout rotating it forward until it's completely seated in the hanger pocket and contacts the rotational stop tab.
- Install the UDH washer (**B**), then thread the UDH bolt (**C**) through the washer and into the hanger.
- Using a reverse torque wrench and 8 mm hex bit, torque the bolt to 25 Nm / 221 in-lbf. The UDH bolt is left-hand threaded.

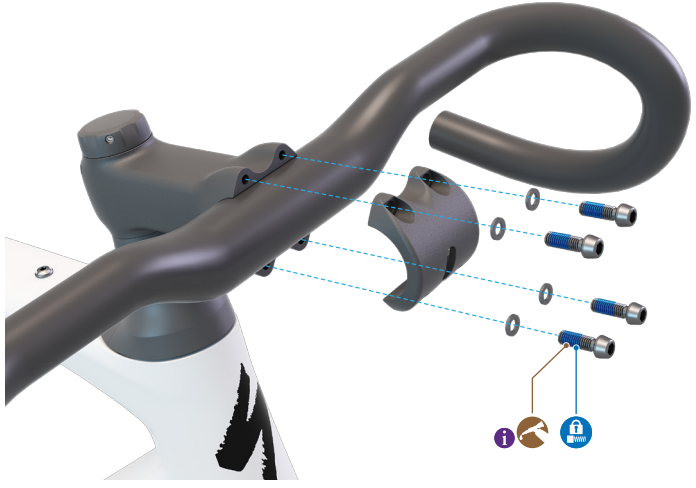
The hanger must be completely seated in the hanger pocket and against the frame stop tab when tightened to the specified torque.



- Apply grease to the rear thru-axle (**D**) threads, then install the wheel, thru-axle, and conical washer. Using a torque wrench and 6 mm hex bit, torque the thru-axle to 15 Nm / 133 in-lbf.

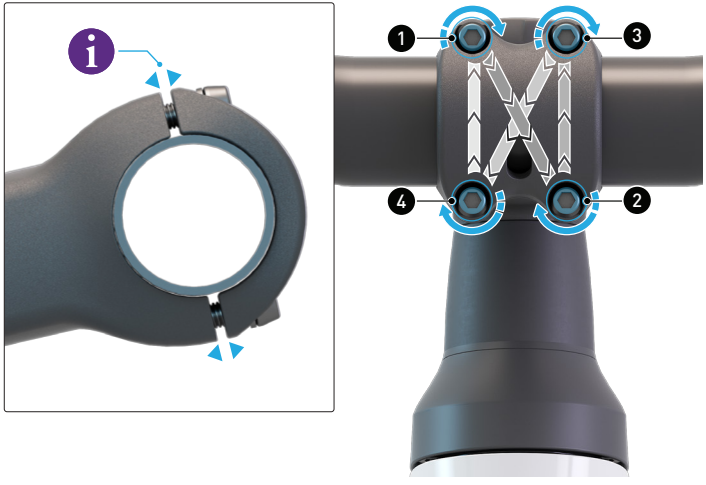
WARNING! Before your first ride and regularly thereafter, ensure the thru-axle and UDH is torqued to specification, and that the UDH has not moved. Thru-axles and the UDH can loosen over time depending on the type and frequency of use. This is especially true if they were not installed properly. Riding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

5.11. HANDLEBAR



- Place the handlebar against the stem body, then place the stem faceplate over the handlebar.
- Apply Loctite to the stem faceplate bolts and loosely thread them through each of the stem faceplate holes into the stem body.
- Adjust the handlebar to the desired position and make sure that it's centered.

S-Works models are fitted with titanium stem bolts. Before inserting the bolts, apply a high-quality anti-seize compound to the bolt threads.



- Using a torque wrench and 4 mm hex bit, torque the stem faceplate bolts approximately a half turn at a time in an alternating (cross) pattern to 5 Nm / 44 in-lbf.

When torquing the stem bolts, the gap between the stem body and the faceplate should be equal on the top and the bottom.

5.12. SEATSTAY BRIDGE

The seatstay bridge is used to mount rear fenders and can be found in the small parts box or purchased from your Authorized Specialized Retailer.

- Insert the bolts through the seatstay bridge and into the seatstay, then using a torque wrench and a 2.5 mm hex bit, torque the bolts to 2.8 Nm / 25 in-lbf.
- Mount a fender to the seatstay bridge according to the manufacturer's instructions.

Size 49 bicycles do not require a seatstay bridge as a mounting point is integrated into the frame.

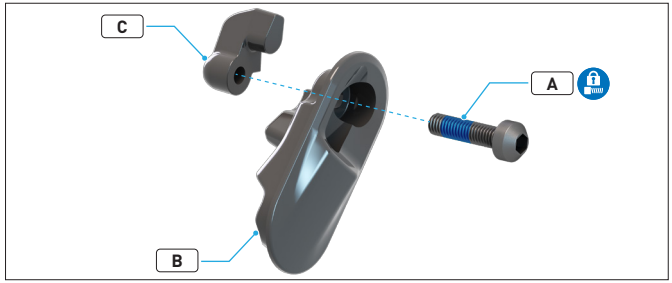
5.13. FRAME MOUNTING POINTS

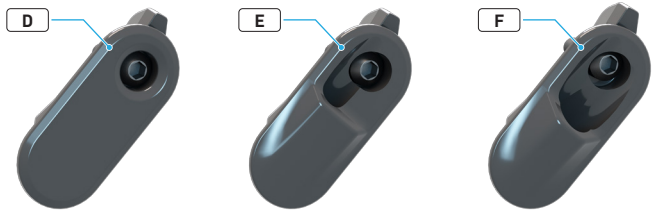
	DESCRIPTION	ACCESSORY / DETAILS	SPECIFICATION
1	SWAT Door Bottle Cage Bolts	Bottle cage std, accessories	M5
2	Seat Tube Bottle Cage Bolts	Bottle cage std, accessories	M5
3	Top Tube Accessory Bolts	Bottle cage std, accessories	M5
4	Down Tube Mount Accessory Bolts	Bottle cage std, accessories	M5
5	Fork Crown Mount	Fender crown mount	M5
6	Fork Blade Mount	Fender strut, pannier rack, bottle cage std, accessories	M5
7	Seatstay Bridge Mount	Seatstay Bridge	M4
8	Seatstay Bridge Fender Mount	Rear Fender	M6
9	Dropout Rear Rack Mount	Rear Rack	M5
10	Seatpost Clamp Rack Mount	Rear Rack	M5
11	Front Derailleur Mount	Front Derailleur	M4
12	Bottom Bracket Fender Mount	Rear Fender	M5
13	Front Brake Mount	Front Brake	M5, Depth: 11 mm
14	Rear Brake Mount	Rear Brake	5.2 mm bore, Thickness: 30 mm

WARNING! The threaded insert in the fork crown is intended for use with fenders only and is not intended or tested for mounting racks, including crown-mounted cargo racks (e.g. Specialized Pizza Rack), or other weight bearing applications. Failure to follow this warning may cause the fork, rack, and/or other accessories to break, all of which may result in serious injury.

CAUTION: Top tube accessory bags that strap around the steerer tube below the stem are not compatible with a Future Shock damper, which is equipped on all bicycle models. Use of a strap around the boot of the Future Shock damper may damage the boot, which will impair the waterproofness of the Future Shock.

5.14. ICR PORTS





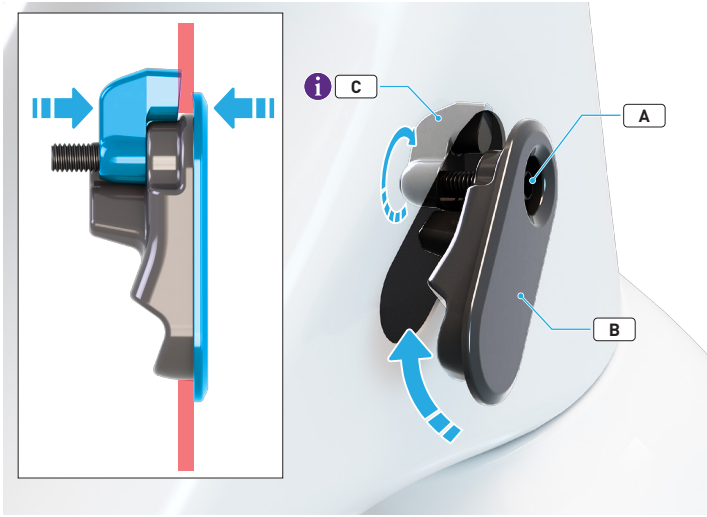
0 HOLE 1 HOLE 2 HOLE

The ICR ports consist of a bolt (**A**), guide (**B**), and locking tab (**C**). There are three types of ICR ports, a zero (**D**), one (**E**), or two (**F**) hole. Determine if you have two, one or no housings coming out of the left or right ICR port holes and use the corresponding ICR ports.

- For example, if you're running a rear brake and Di2 with a dropper post, you'd use a 2-hole on the non-drive side and a 1-hole on the drive side. But if you're running wireless shifting, then you'd run a 1-hole on the non-drive side.

The ICR ports are compatible with either the drive or non-drive side ICR port holes.

Bicycles ship with the correct ICR ports installed per model. Extra ICR ports are not supplied in the small parts box; however, for non-standard setups, they are available as replacement parts.

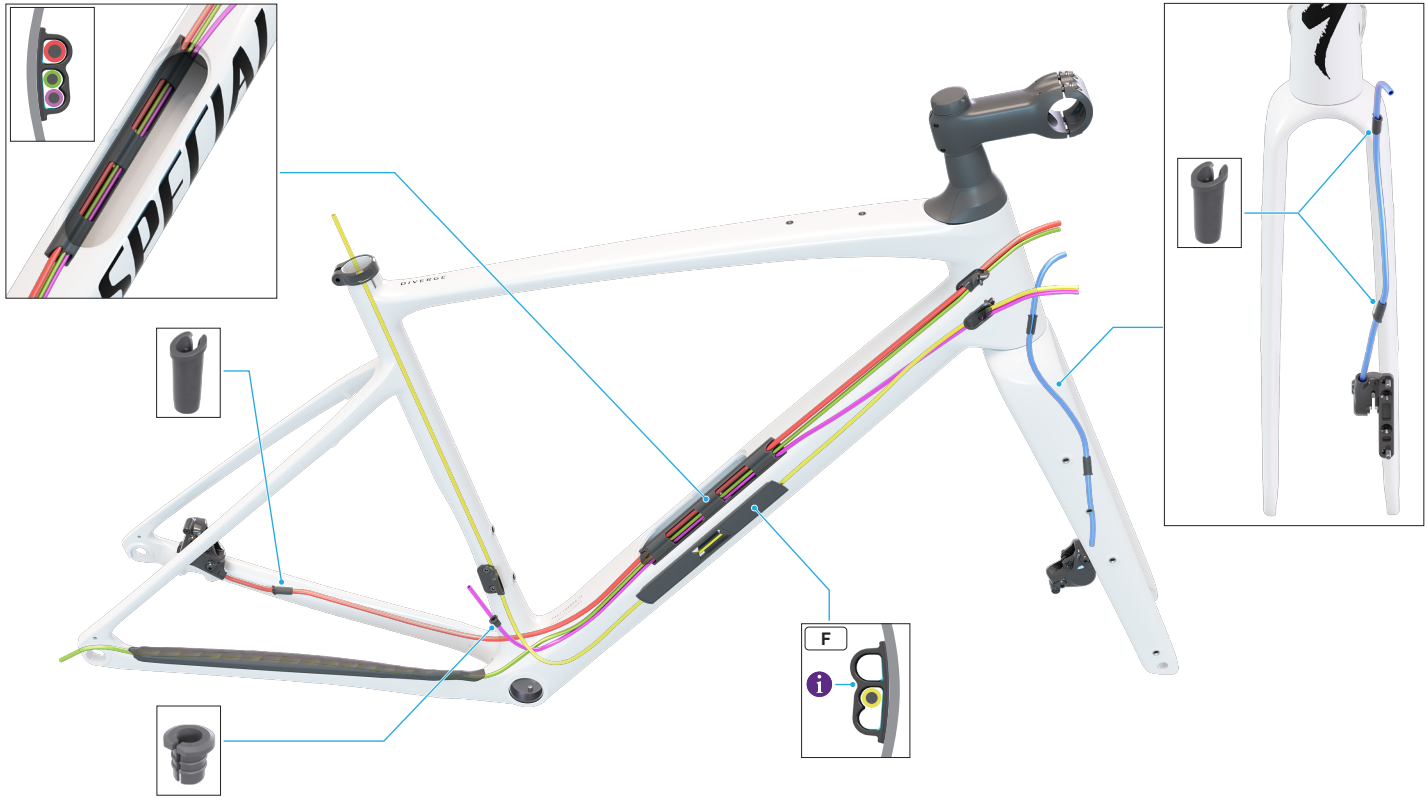


INSTALL THE ICR PORTS

- Insert and align the loosely assembled ICR port into the ICR port hole. The frame must be wedged between the guide (**B**) and the locking tab (**C**).
- Using a torque wrench and a 2 mm hex bit, torque the bolt (**A**) to 0.8 Nm / 7 in-lbf to lock the ICR port in place.

When tightening each bolt, ensure the locking tab rotates with the bolt into the open position, pinching the ICR port against the frame.

5.15. MECHANICAL CABLE ROUTING



5.15.1 BRAKES

Refer to the manufacturers' manuals supplied with your bicycle for more information on assembly and adjustments.

REAR BRAKE HOSE (RED)

- Starting at the chainstay ICR hole, guide the hose through the chainstay and over the bottom bracket.
- Guide the hose into the ICR channel under the SWAT door, then route the hose up the down tube exiting the ICR port near the head tube on the non-drive side.
- Install the grommet over the hose, then press it into the chainstay ICR hole.
- Install the rear brake according to the component manufacturer's instructions.

FRONT BRAKE HOSE (BLUE)

- Route the front brake hose through the lower ICR hole on the fork and guide it up the fork leg until it exits at the upper ICR hole.
- Install the grommets over the hose and press them into the fork lower and upper ICR holes.
- Install the front brake according to the component manufacturer's instructions.

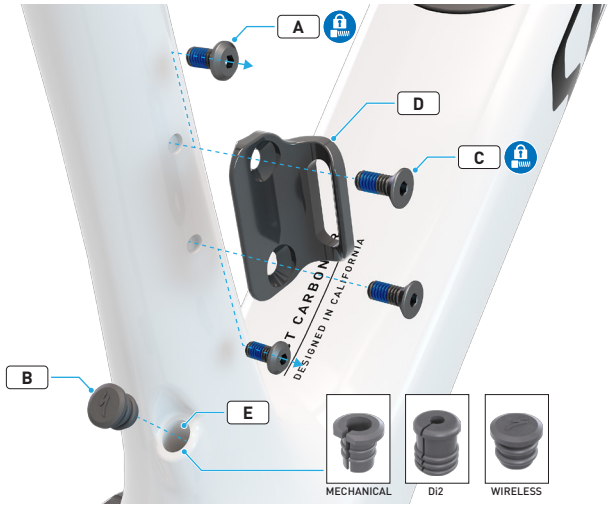
5.15.2 SHIFTING

The bicycle comes standard with a wireless shifting system. For more information on this system, see the manufacturer's instructions.

REAR DERAILLEUR HOUSING (GREEN)

- Starting at the chainstay protector hole close to the dropout, guide the housing through the chainstay protector, into the chainstay, and over the bottom bracket.
- Guide the housing into the ICR channel under the SWAT door, then route the housing up the down tube exiting the ICR port near the head tube on the non-drive side.
- Install the derailleur according to the manufacturer's instructions.

FRONT DERAILLEUR HOUSING (PINK)



When installing a 2x drivetrain, you will need to assemble the front derailleur hanger to the seat tube.

- Remove the 1x drivetrain blocking bolts (**A**) using a 2.5 mm hex key, then remove the wireless ICR hole plug (**B**).
- Thread the mounting bolts (**C**) through the front derailleur hanger (**D**) and into the seat tube, then using a torque wrench and 2.5 mm hex bit, torque the bolts to 2.9 Nm / 26 in-lbf.

- Starting at the ICR hole above the bottom bracket (**E**), route the front derailleur housing into the down tube, then guide the housing into the ICR channel under the SWAT door. Continue up the down tube, exiting the ICR port near the head tube on the drive side.
- Install the mechanical shifting grommet over the housing and press it into the ICR hole.
- Complete the front derailleur installation according to the manufacturer's instructions.

Refer to the manufacturers' manuals supplied with your bicycle for more information on assembly and adjustments.

5.15.3 MECHANICAL DROPPER POST COMPATIBILITY

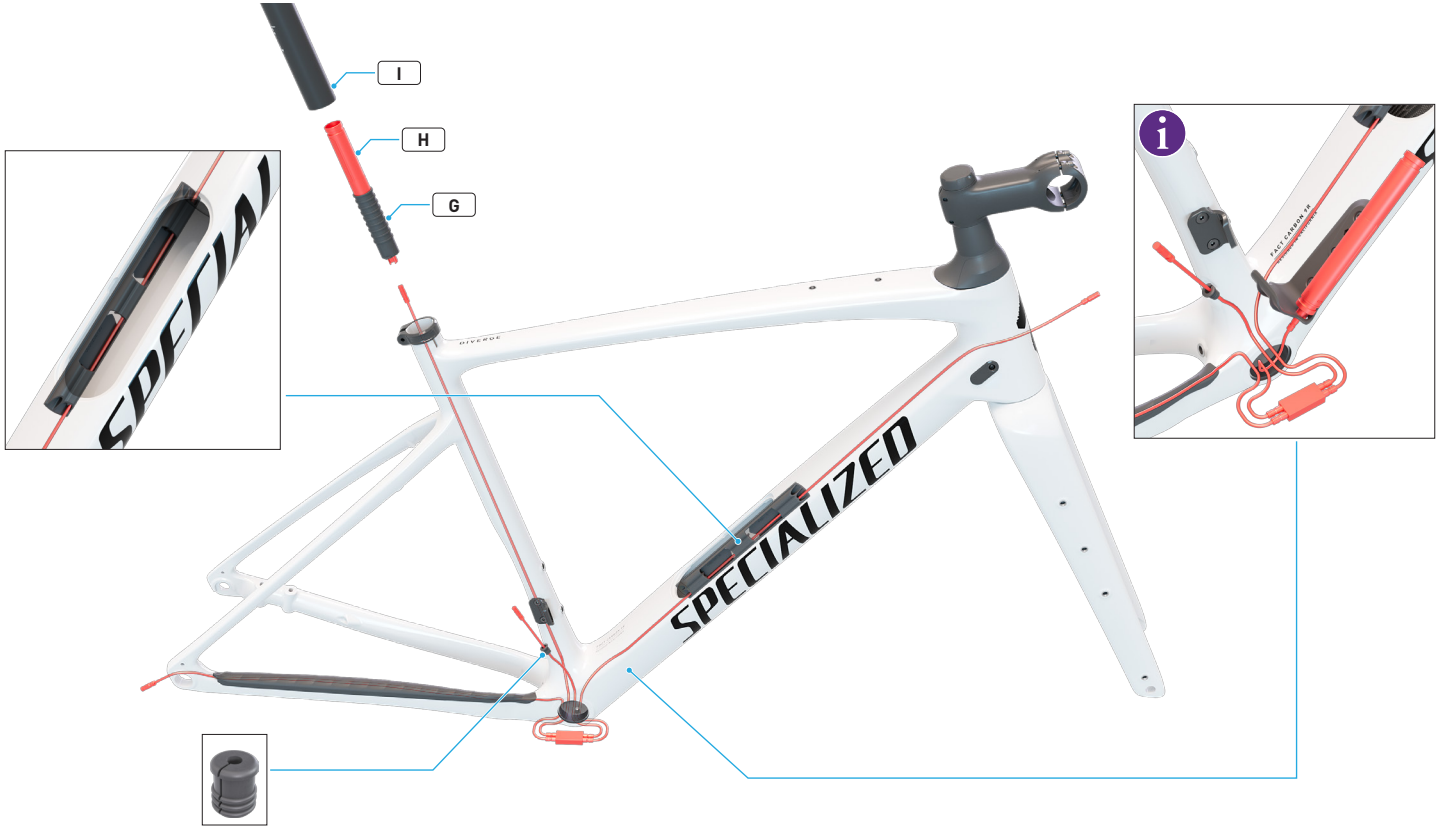
The bicycle does not ship with a dropper seatpost, but is compatible.

DROPPER POST HOUSING (YELLOW)

- Starting at the drive side ICR port near the head tube, route the dropper post housing into the down tube and through the ICR channel under the SWAT door. Then, continue down the down tube, exiting out the top of the seat tube.
- Complete the dropper post installation according to the manufacturer's instructions.

When running a mechanical dropper post and a mechanical front derailleur setup, an additional self adhesive ICR channel (F) will need to be added to the down tube drive side.

5.16. ELECTRONIC CABLE ROUTING (DI2)



ROUTE THE DI2

- Route a 1400 mm wire starting from the down tube ICR port and out the bottom bracket hole on the drive side.
- Route a 750 mm wire starting from the chainstay hole and out the bottom bracket hole on the drive side.
- Route a 1000 mm wire down from the top of the seat tube and out the bottom bracket hole on the drive side.
- Route a 200 mm wire starting from the seat tube ICR hole and out the bottom bracket hole on the drive side, then place a Di2 cable grommet over the wire and push it into the ICR hole.
- Place the Di2 battery sleeve (**G**) around the battery (**H**), then insert the assembly into the seatpost (**I**).
- Using the Di2 connector tool, insert the seatpost wire into the battery connector.
- Install the seatpost into the seat tube.
- Plug the four wires into a Junction B box, then insert the Junction B box and the wires into the down tube above the bottom bracket shell.

LOCATION	QTY	LENGTH
JCT B box to the cockpit (shifter)*	1	1400 mm
JCT B box to the rear derailleur	1	750 mm
JCT B box to the front derailleur	1	200 mm
JCT B box to the battery (seatpost)	1	1000 mm
JCT B box to the battery (bulkhead)**	1	300 mm
Battery to the rear derailleur***	1	1200 mm

*If running a JC200 junction box in front of the stem, then the wire from the JCT box to the JC200 junction box is 1200 mm.

**When running a dropper post in combination with a Shimano Di2 system, it will be necessary to mount the Di2 battery on the down tube bulkhead inside the down tube.

***When running a 1x setup, the Di2 rear derailleur cable can be run directly from the battery to the rear derailleur.

6. FUTURE SHOCK

6.1. INSTALLING THE FORK AND FUTURE SHOCK (FS)

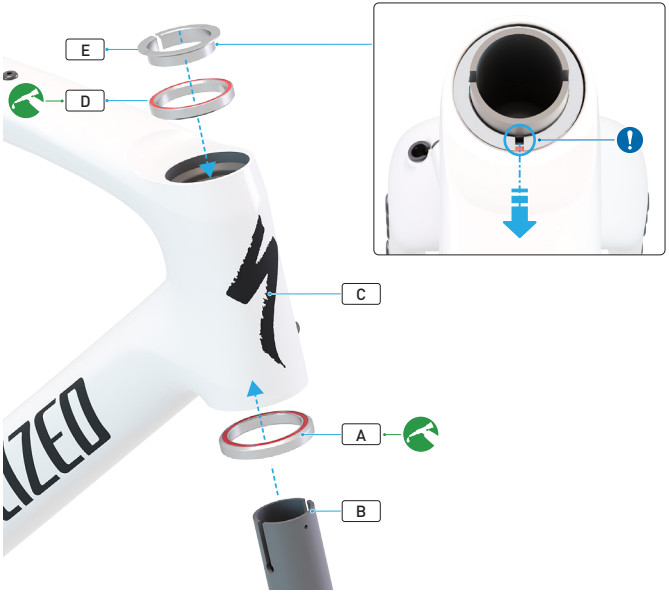
WARNING! The Specialized Future Shock should only be used as shown in the user manual. DO NOT use aftermarket extensions or exceed the maximum stack height of 30 mm. Riding with stem modifications may damage the Future Shock and fork. Failure to follow this warning could result in serious injury or death.

WARNING! The fork steerer tube is pre-cut to the size of the frame. Do not cut the fork, use a fork that is too short, or use a fork that has a different steerer tube length than the original. Ensure that the size matches the size of the frame.

Some bolts are factory treated with a threadlocker patch. When reinstalling bolts, be sure to follow thread-prep guidelines for Loctite and grease application noted in the instructions.

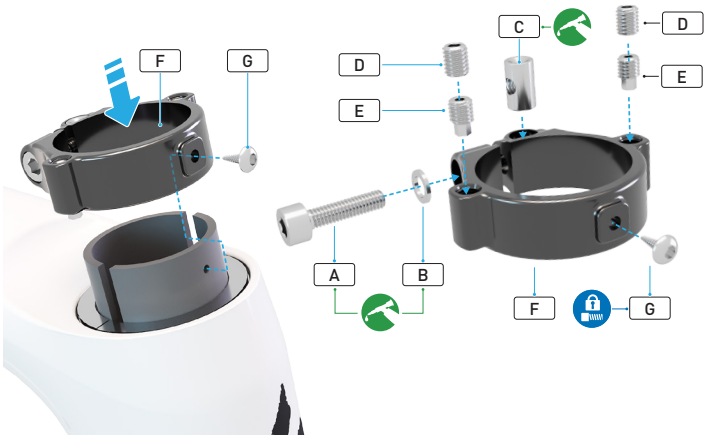
The Specialized Future Shock cartridge and headset are designed as an integrated unit and are only intended for use with compatible frames and forks. Only use the specified parts when assembling the front end of a Future Shock equipped bicycle.

CAUTION: Top tube accessory bags that strap around the steerer tube below the stem are not compatible with a Future Shock damper, which is equipped on all models. Use of a strap around the boot of the Future Shock damper may damage the boot, which will impair the waterproofness of the Future Shock.



- Grease, then install the lower bearing (**A**) on the fork steerer tube (**B**). Insert the steerer tube into the head tube (**C**), then grease and install the upper bearing (**D**) and compression ring (**E**) on the steerer tube.

CAUTION: Ensure the compression ring slot is facing toward the rear of the bicycle. Do not place the slot near the headset preload screws.



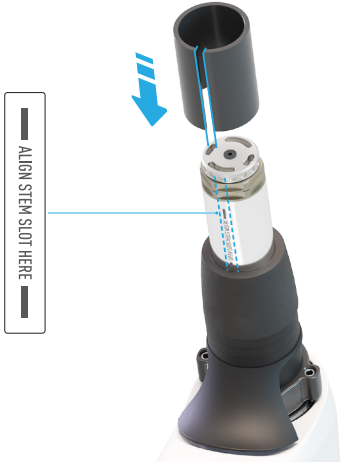
- Grease the headset collar pinch bolt (**A**), then install the bolt, washer (**B**), and barrel nut (**C**). Do not tighten the bolt yet.
- Insert the preload screws (**E**) and then the locking screws (**D**). Do not tighten them yet.
- Install the headset collar assembly (**F**) onto the steerer tube with the pinch bolt head facing the drive-side of the bicycle as shown.
- Apply a small amount of blue Loctite to the threads of the headset collar locator bolt (**G**), then thread it through the collar into the steerer tube. Using a torque wrench and 2.5 mm hex bit, torque the bolt to 1 Nm / 9 in-lbf.

WARNING! To ensure the collar and steerer tube bolt holes are aligned, place a 2 mm hex key through the holes before installing the locator bolt. Misalignment can damage the steerer tube. Additionally, ensure that the headset locking screws are backed out before installing the collar.

- Install 0-15 mm of steerer tube spacers (**A**) on the cartridge assembly (**B**).
- Install the short headset cover (**D**) or the rear half of the tall headset cover (**C**), whichever one you're using.
- Apply a thin layer of carbon assembly paste around the entire surface of the bottom half of the chassis, then insert the cartridge assembly into the steerer tube. Do not use grease.

WARNING! Do not exceed the 30 mm max stack above the headset collar/fork steerer tube. This includes spacers (e.g., 15 mm tall headset cover plus three 5 mm headset spacers).

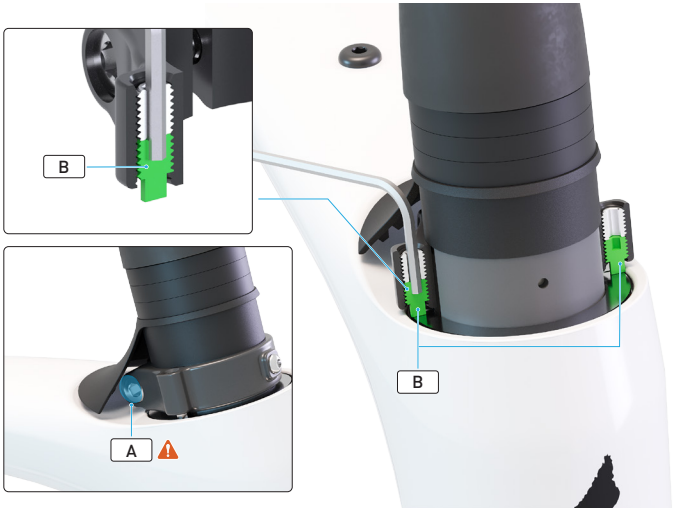
WARNING! Ensure there is no grease between the steerer tube and the cartridge. Grease can cause the cartridge to slip, which can result in a loss of control.



- **For non-Future Stems**: Install a stem shim on the cartridge for all standard 1-1/8" stems. The shim slot needs to align with the mark on the Future Shock toward the back of the bicycle. You should be able to read the text through the shim slot.

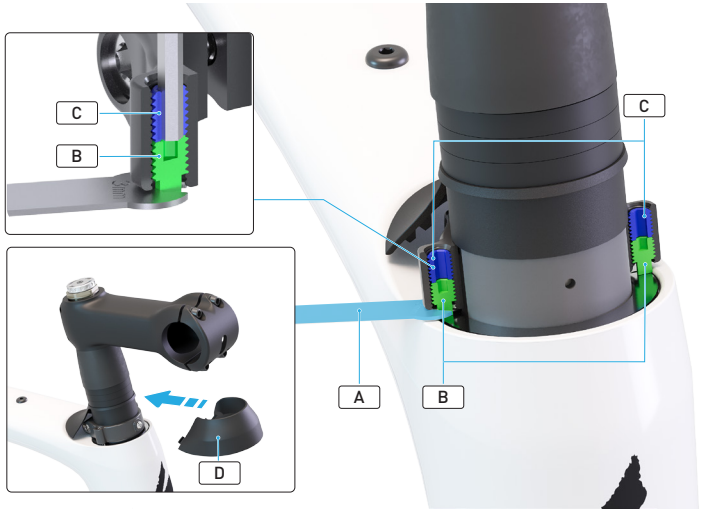
The Future Stem is compatible with both the previous generation of Future Shocks (with the shim) and the new generation of Future Shocks 3.0 (no shim).

- Install the stem on the cartridge, then align the stem slot with the alignment graphic on the Future Shock.
- Align the stem and Future Shock with the front wheel, rotating it slightly in the steerer if necessary.
- Torque the stem steerer bolts (**A**) to the manufacturer's specification (5 Nm / 44 in-lbf for Future Stems).

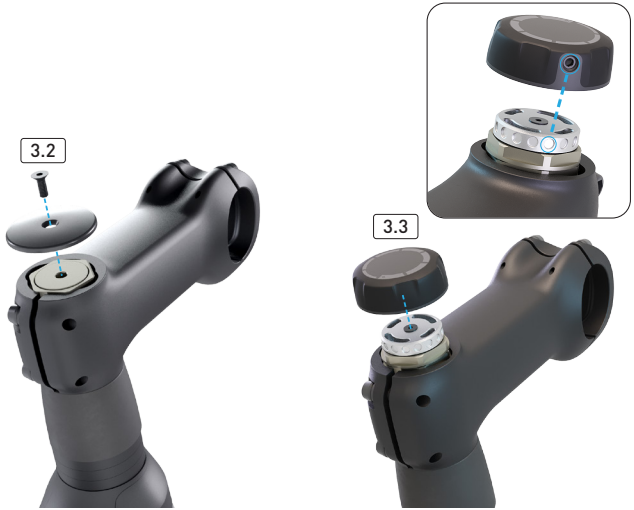


- While pressing the stem downward, use a torque wrench and 4 mm hex bit to torque the headset collar pinch bolt (**A**) to 4 Nm / 35 in-lbf.
- Using a 2 mm hex key, adjust the lower headset collar preload screws (**B**). Gradually and evenly alternate between the two screws while engaging the front brake and rocking the bicycle back and forth until any movement/looseness is eliminated and the headset rotates freely.

WARNING! Do not tighten the headset collar pinch bolt without the cartridge installed. An improperly installed and/or tightened collar may cause you to lose control and fall.



- Place the provided 3 mm open-ended wrench (**A**) on one of the bottom of the lower preload screws (**B**). Using a torque wrench and 2.5 mm hex bit, torque the upper locking screw (**C**) to 1.0 Nm / 9 in-lbf to lock it in place. Repeat the process on the other side.
  DO NOT GREASE THE LOCKING SCREWS!
- Install the front half of the headset cover (**D**) if using the tall, 2-piece cover.



- FS 3.2: Install the top cap. Using a torque wrench and 2 mm hex bit, torque the bolt to 1 Nm / 9 in-lbf.
- FS 3.3: To install the adjuster knob, align the screw hole in the knob with your desired counterbore on the adjuster assembly. Using a torque wrench and 2 mm hex bit, torque the adjuster knob screw to 2.5 Nm / 22 in-lbf.

The adjuster knob must be removed before a stem is installed.

6.2. SPRING AND PRELOAD SPACER REPLACEMENT

You can change the springs and/or preload spacers to tune the Future Shock to your weight and dynamics preference.

Using spacers to increase preload reduces sag, while increasing the spring rate reduces how frequently you bottom out.

REQUIRED TOOLS	
Torque wrench with 22 mm socket bit or 22 mm cone wrench	Needle nose pliers or pick
2 mm and 4 mm hex keys	

SPRING	SPRING RATE	
	kg/mm	lb/in
Soft (blue)	2.3	129
Medium (black) (default)	2.6	146
Firm (yellow)	2.9	162

All of these adjustments can be made with the Future Shock installed on the bicycle and without need to adjust the headset.

The medium spring comes pre-installed on all Future Shock models.

Preload spacers can be found in the small parts box for your bicycle. No preload spacers come pre-installed on the Future Shock.

6.3. TUNING GUIDE

There are many variables that affect which spring and how many preload spacers a rider should use, including rider weight, terrain, and preferred stiffness levels. Use the table to help tune your Future Shock 3.0 to your preferred comfort level.

Additionally, Future Shock 3.3 has an adjuster knob you can use to control the damping. Turn the knob counterclockwise to the open position for a softer ride over rougher terrain. Turn the knob clockwise to the closed position for a firmer ride on smoother surfaces.

Find your weight on the table, then choose the spring that puts your weight in the first 1/3 to 2/3 of the bar associated with a spring. For example, if you weigh 70 kg / 154 lb, you should start with the medium black spring. If you weigh 90 kg / 198 lb, you should start with the yellow spring.

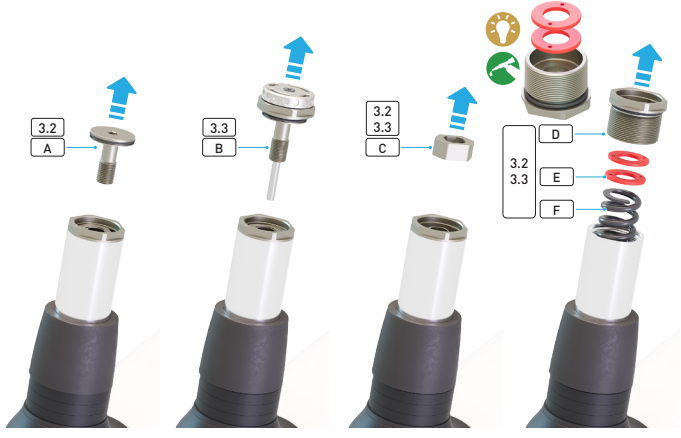
Rider Weight (kg)	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125
Rider Weight (lb)	110	121	132	143	154	165	176	187	198	209	220	231	243	254	265	275
FIRM 2.9 kg/mm					YELLOW SPRING RANGE											
MEDIUM 2.6 kg/mm			BLACK SPRING RANGE													
SOFT 2.3 kg/mm	BLUE SPRING RANGE															

The spring rates in the table reflect using 0 preload spacers on the low end of the weight range and up to 3 preload spacers on the high end of the weight range. Using 4-5 spacers provides extra stiffness; however, we do not recommend using that many preload spacers as a starting point.

Turning the knob to the closed position does not lock out the Future Shock.

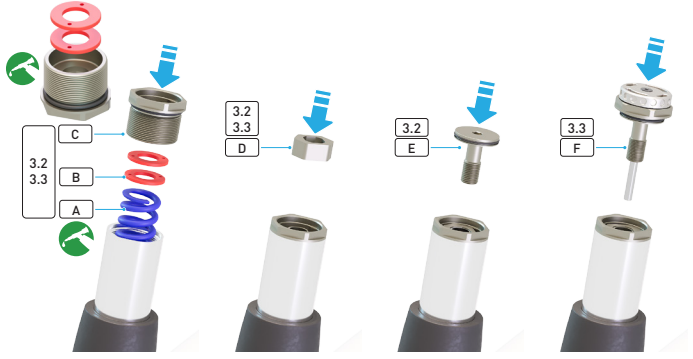
6.4. CHANGING SPRINGS AND/OR ADDING SPACERS

- **FS 3.2**: Using a 2 mm hex key, remove the top cap.
- **FS 3.3**: Using a 2 mm hex key, remove the adjuster knob.
- Using the 4 mm hex key, remove the stem. If your bicycle is equipped with a non-Future stem, remove the stem shim.



- **FS 3.2**: Using a 4 mm hex key, remove the damper bolt (**A**).
- **FS 3.3**: Using a 22 mm socket or cone wrench, remove the adjuster assembly (**B**).
- **FS 3.2 & 3.3**: Using a pair of needle-nose pliers, remove the key plate (**C**).
- **FS 3.2 & 3.3**: Using the 22 mm socket or cone wrench, remove the preload bulkhead (**D**).
- **FS 3.2 & 3.3**: Remove the preload spacers (**E**) (if previously installed) and spring (**F**).

If you previously installed spacers, make sure there are not any stuck in the preload bulkhead. If necessary, use a pick to get them out.



- Lightly grease the sides and faces/ends of your desired spring, then install the spring (**A**) and your preferred amount of preload spacers (**B**). The spacers can be installed directly onto the spring or in the bulkhead with grease. The minimum is zero preload spacers, which replicates the minimal preload on Future Shock 1.5 and 2.0. The maximum is five.
- Reinstall the preload bulkhead (**C**) over the spring and spacers. Using a torque wrench and 22 mm socket bit, torque the preload bulkhead to 6 Nm / 53 in-lbf.
- Reinstall the key plate (**D**) over the damper shaft, making sure it sits flat in the bore.
- **FS 3.2**: Reinstall the damper bolt (**E**). Using a torque wrench and 4 mm hex bit, torque the bolt to 5 Nm / 44 in-lbf.
- **FS 3.3**: Reinstall the adjuster assembly (**F**). Using a torque wrench and 22 mm socket bit, torque the assembly to 5 Nm / 44 in-lbf.

A loose fit is OK. If there's significant preload, push down on the Future Shock chassis to ensure the parts are correctly aligned.

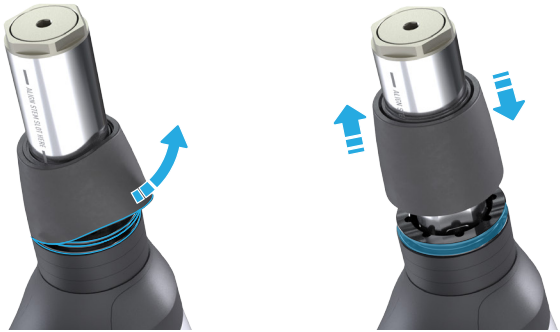
CAUTION: Do not exceed the maximum capacity of five preload spacers, as this could damage the system.

- Reinstall the stem. If using a non-Future Stem, reinstall the stem shim (**A**). Torque the bolts to the manufacturer's specifications.
- **FS 3.2**: Reinstall the top cap (**B**). Using a torque wrench and 2 mm hex bit, torque the top cap bolt to 1 Nm / 9 in-lbf.
- **FS 3.3**: Reinstall the adjuster knob (**C**). Using a torque wrench and a 2 mm hex bit, torque the set screw to 2.5 Nm / 22 in-lbf.

6.5. REPLACING THE BOOT

Damaged Future Shock boots must be replaced immediately to prevent water ingress, which can damage the Future Shock. The boot can be replaced without disassembling the Future Shock; however, if you don't feel comfortable completing this service, please see an Authorized Specialized Retailer.

REQUIRED TOOLS	
2 mm and 4 mm hex keys	2 mm and 4 mm hex bits
Torque wrench	Replacement boot (S223100001)



- Peel back the bottom of the boot from the seal cap (upper bulkhead of the outer tube) and slide the damaged boot up and off of the inner tube.
- Slide the new boot down over the inner tube until it's fully seated on the lip of the outer tube.
- Stretch the bottom of the boot into the gland on the seal cap (highlighted).
- Make sure the lip is properly seated in the seal cap gland and isn't twisted.

If there are any lumps in the boot, you can remove them by pulling up on the boot and re-seating it in the seal cap gland.

CAUTION: Top tube accessory bags that strap around the steerer tube are incompatible with bicycles equipped with a Future Shock damper below the stem. The use of a strap around the boot of the Future Shock damper may damage the boot, which impairs its waterproofness of the Future Shock.

7. SERVICE AND MAINTENANCE

This bicycle is a high-performance, precision-engineered machine that requires regular preventative maintenance to stay in peak condition.

While riders can perform regular preventative maintenance, complex procedures requiring specialist tools and training should only be carried out by an Authorized Specialized Retailer. For general information regarding the maintenance of your bicycle, please refer to the Owner's Manual. In addition, routine mechanical safety checks should be performed before each ride, as described in the Owner's Manual.

7.1. RECOMMENDED SERVICE INTERVALS

Your Authorized Specialized Retailer will recommend service intervals specific to your bicycle and riding style at the time of purchase, including when to bring your bicycle back to the store for the first inspection check.

To keep your bicycle functioning and performing at its best, it is important to schedule and follow the recommended services.

7.2. SETTING INTERVALS

Upon purchasing a new or used bicycle, your Authorized Specialized Retailer will arrange your next service appointment. Alternatively, you can contact your local Authorized Specialized Retailer to add new services or adjust upcoming service appointment dates.

7.3. RECOMMENDED MAINTENANCE SCHEDULE

The following maintenance schedule outlines the key steps required to maintain your bicycle's safety and performance.

RECOMMENDED MAINTENANCE SCHEDULE	RIDER		AUTHORIZED RETAILER OR MECHANIC	
	BEFORE YOU RIDE	AFTER YOU RIDE	HEALTH CHECK 3-6 MONTHS	ANNUAL SERVICE*
Check brakes, wheels and tires	O			
Inspect the boot at the Future Shock	O			
Clean and lubricate the drivetrain		O		
Clean bicycle and components		O		
Inspect and adjust the brakes, wheels, and tires			O	
Inspect and adjust the headset, pedals			O	
Inspect and adjust the drivetrain			O	
Inspect the frame, cockpit, seating area, and fork (incl hardware)			O	
Service the brakes, wheels, and headset				O
Service the drivetrain				O
Inspect the Future Shock and service if necessary				O
Service the cockpit, seating area and fork, incl. bearings and bolts				O
Professional bicycle wash				O

* The information above is a guide. Depending on your riding style and conditions, you may require more frequent service intervals.

8. GENERAL NOTES ABOUT MAINTENANCE

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

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

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

WARNING! Use a high-quality repair stand to support the bicycle during assembly or maintenance, and a high-quality bicycle rack for transportation.
When placing the frame and/or bicycle in a repair stand, clamp the stand to the seatpost and not the frame. Clamping the frame can cause damage to the frame that may or may not be visible, and can cause you to lose control and fall.

SPECIALIZED

SPECIALIZED BICYCLE COMPONENTS
15130 Concord Circle, Morgan Hill, CA 95037 (408) 779-6229