



2022 BOONE

SERVICE MANUAL SUPPLEMENT

Contents



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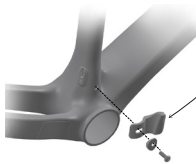
[T47 bottom bracket](#)



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	Measure
Rear rack O.D.	1.42mm
Seat post O.D.	30mm
Seat post clamp I.D.	30.35mm
Upper fork steer tube O.D.	28.6mm
Lower fork steer tube O.D.	28.5mm
Head tube O.D. top/bottom	42mm/40mm
BB type - width	68/73/86/92mm
Brake rotor diameter	160/180/203mm
Chainline (1x)	42.7mm
Chainline (2x)	43.5mm
Chainring max (1x)	Small 52T
Chainring max (2x)	Large 52T
Tire width, maximum max 700c	28mm/29.5mm
Dropper post compatibility	

[Specifications](#)

Safety



WARNING

Properly tighten hardware

Always tighten hardware to the specified torque. Over-tightening hardware could deform or break the hardware or components. Under-tightening hardware could cause hardware or components to become loose. Either situation could damage the bicycle and result in injury to the rider.



WARNING

Reapply threadlocker

All reused-fasteners with pre-applied threadlocker must be cleaned with isopropyl alcohol and have new threadlocker applied before re-assembly. If threadlocker is not applied, the fasteners may loosen which could damage the bicycle and result in injury to the rider.

Legend



Apply appropriate grease



Do not apply grease



Threadlocker

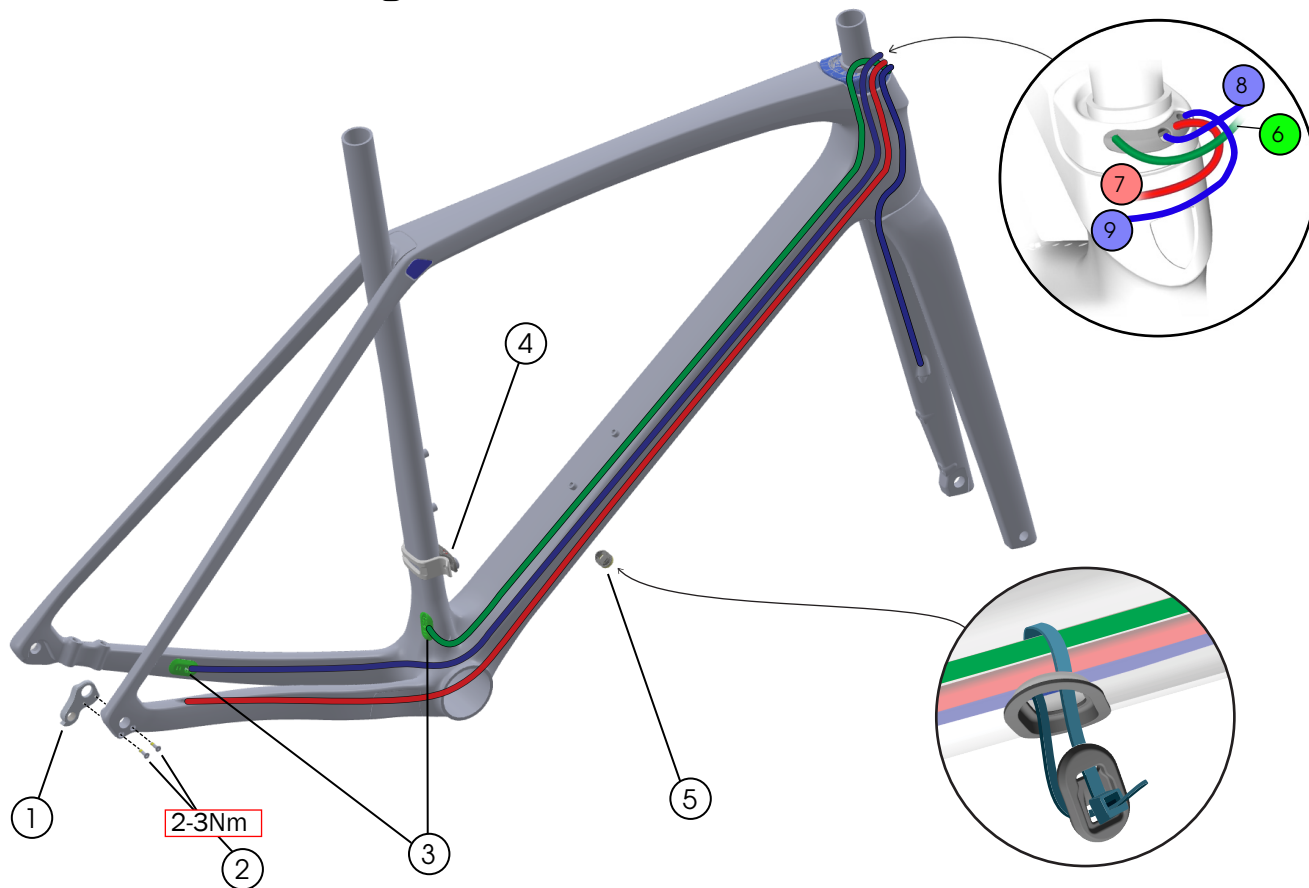


Torque



Cable (zip) tie

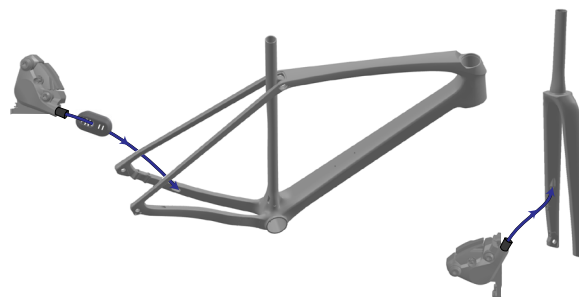
Brake/shift routing — mechanical



- ① Rear derailleur hanger — W524188
- ② Rear derailleur hanger bolts — W524884
- ③ Housing grommets — W330578
- ④ Front derailleur clamp — W5256886
- ⑤ Cable (zip) tie guide — W513977
- ⑥ Front derailleur cable
- ⑦ Rear derailleur cable
- ⑧ Front brake hose
- ⑨ Rear brake hose

Route the brake hoses

1. Connect the calipers to the brake hoses.
2. Route the rear brake hose through the grommet (3). Route both hoses as shown.



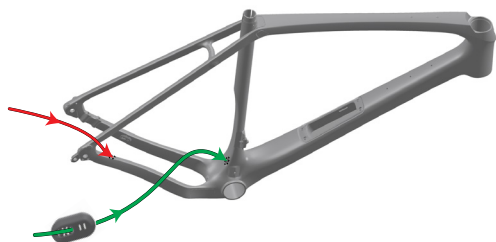
3. Attach the calipers to the chainstay and fork. Do not fully torque the mounting bolts until the calipers are aligned correctly.



Brake/shift routing — mechanical (continued)

Route the shift housings

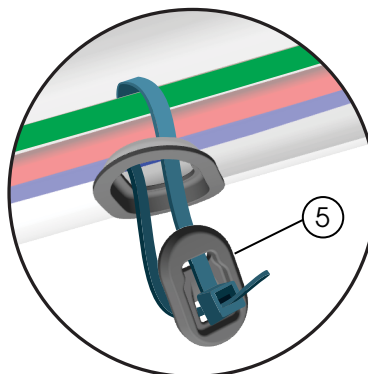
1. Label both shift housings. You will need to identify them when you assemble the headset.
2. Attach the derailleurs to the bicycle.
3. Route the front derailleur housing through the grommet (3). Route both shift housings through the frame as shown.



4. Connect the shift housings to the derailleurs. Insert the grommet (3) into the frame.
5. Install the [bottom bracket](#), [fork and headset](#), and handlebar.
6. Cut the shift and brake housings at the levers (make sure you have enough slack).
7. Route the shift cables through the housings in the frame — starting in the front — and attach them to the derailleurs.

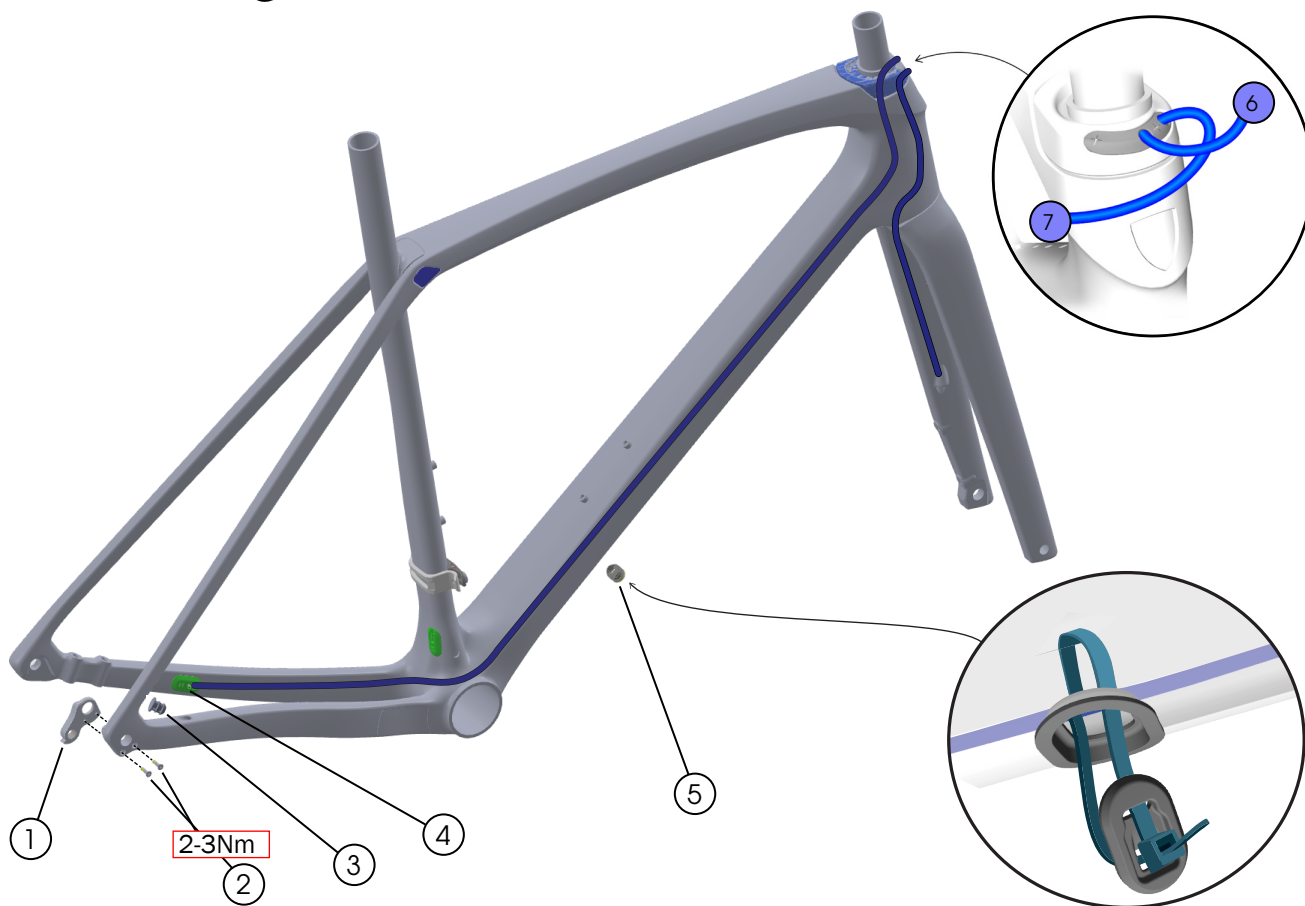
Cable (zip) tie the shift housings and rear brake hose

1. Bend the cable (zip) tie in half to create a crease. This will make it easier to wrap the cable (zip) tie around the cables and out through the hole.
2. Use a hook and a pick tool to hold the cables and guide the cable (zip) tie around them.
3. Route the cable (zip) tie through the cable (zip) tie guide (5) as shown below.



4. Insert the cable (zip) tie guide into the down tube and tighten the cable (zip) tie.

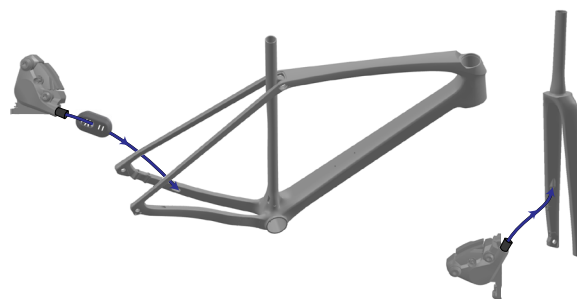
Brake routing — eTap



- ① Rear derailleur hanger — W524188
- ② Rear derailleur hanger bolts — W524884
- ③ eTap grommet plug — W600209
- ④ Housing grommet — W330578
- ⑤ Cable (zip) tie guide — W513977
- ⑥ Front brake hose
- ⑦ Rear brake hose

Route the brake hoses

1. Connect the calipers to the brake hoses.
2. Route the rear brake hose through the grommet (3). Route both hoses as shown.



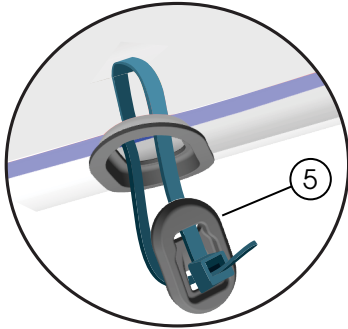
3. Attach the calipers to the chainstay and fork. Do not fully torque the mounting bolts until the calipers are aligned correctly.



Brake routing — eTap (continued)

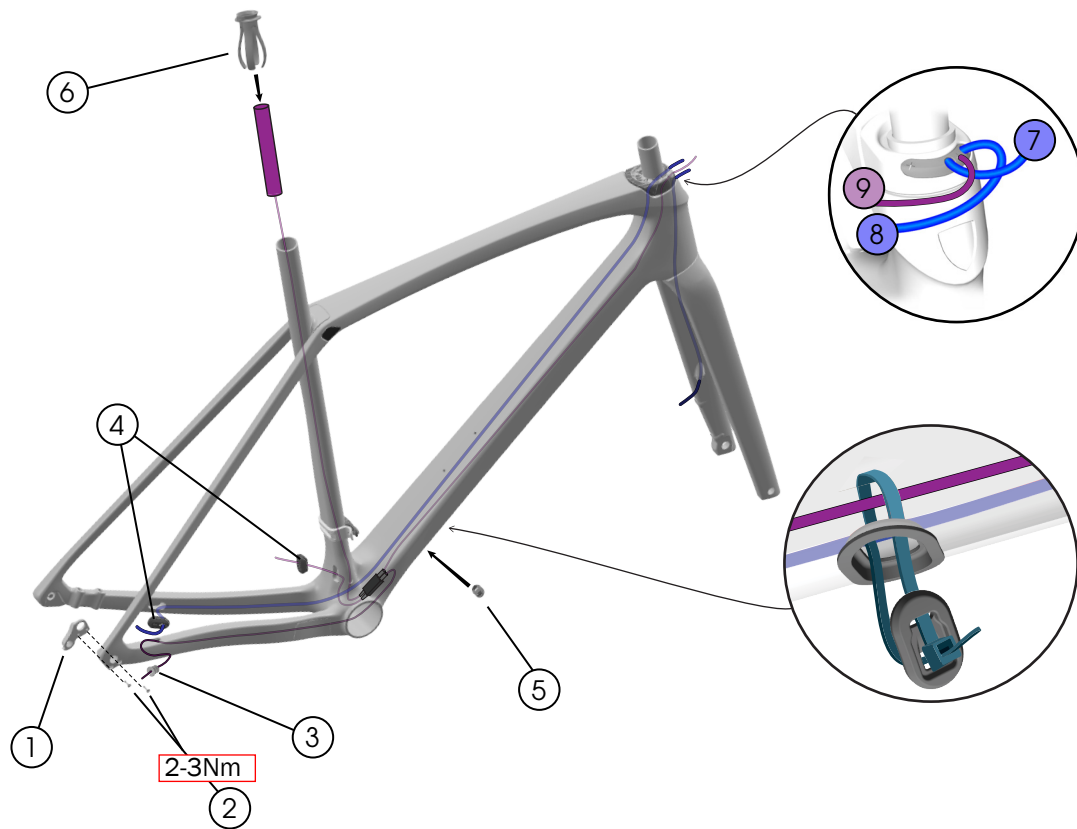
Cable (zip) tie the rear brake hose

1. Bend the cable (zip) tie in half to create a crease. This will make it easier to wrap the cable (zip) tie around the cables and out through the hole.
2. Use a hook and a pick tool to hold the cables and guide the cable (zip) tie around them.
3. Route the cable (zip) tie through the cable (zip) tie guide (5) as shown.



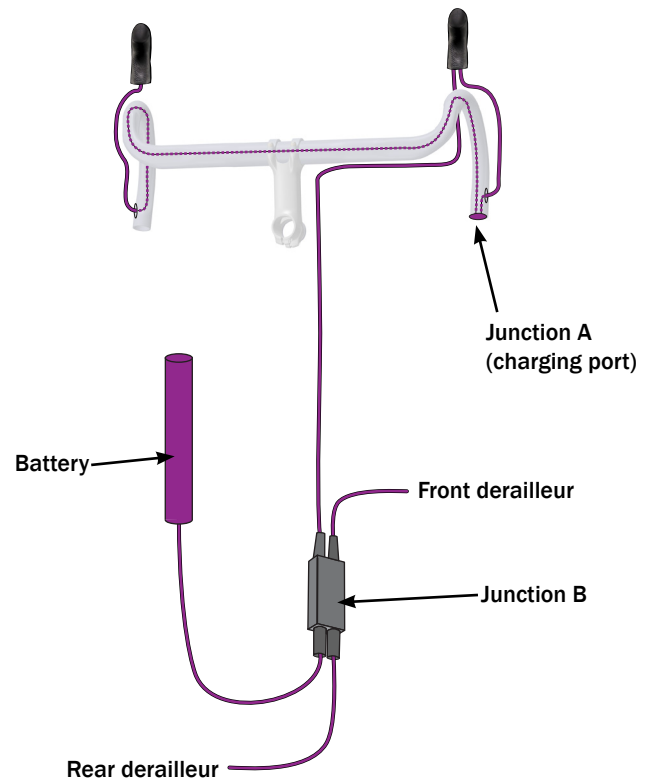
4. Insert the cable (zip) tie guide into the down tube and tighten the cable (zip) tie.

Brake/shift routing — Di2



- ① Rear derailleur hanger — W524188
- ② Rear derailleur hanger bolts — W524884
- ③ Di2 grommet plug — W600208
- ④ Housing grommet — W330578
- ⑤ Cable (zip) tie guide — W513977
- ⑥ Battery mount — W326749
- ⑦ Front brake hose
- ⑧ Rear brake hose
- ⑨ Di2 wire

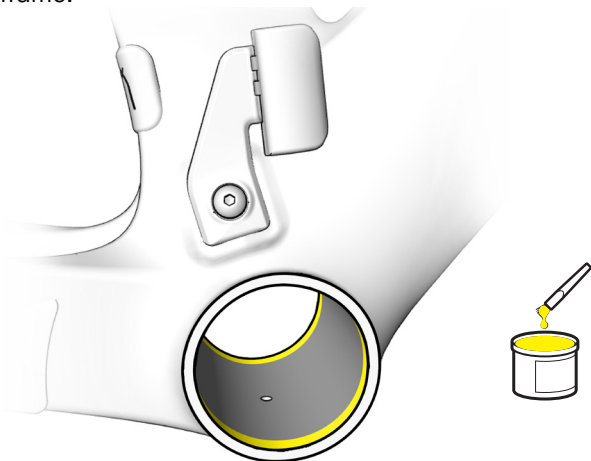
Di2 wiring diagram



T47 bottom bracket

Install the bottom bracket

1. Apply grease to the threads on both sides of the frame.



2. Using your hands, thread the bottom bracket onto the frame.

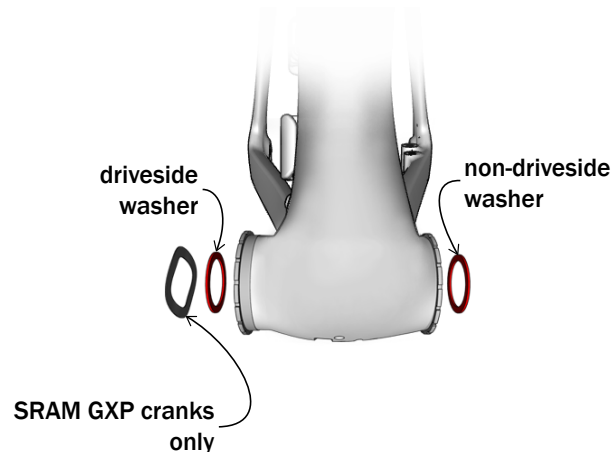
NOTICE: Do not start tightening the bottom bracket with a tool. Dirt and other contaminants can damage the threading.

3. Use the proper tool to torque both sides to specification (see the [Tool and spline compatibility](#) table below).
4. If necessary, add spacers before installing the cranks (see the [Spacers required](#) table at the top right).

Spacers required

The table below contains bottom bracket/crank combinations that require spacers. Your bicycle may have other combinations that do not require spacers.

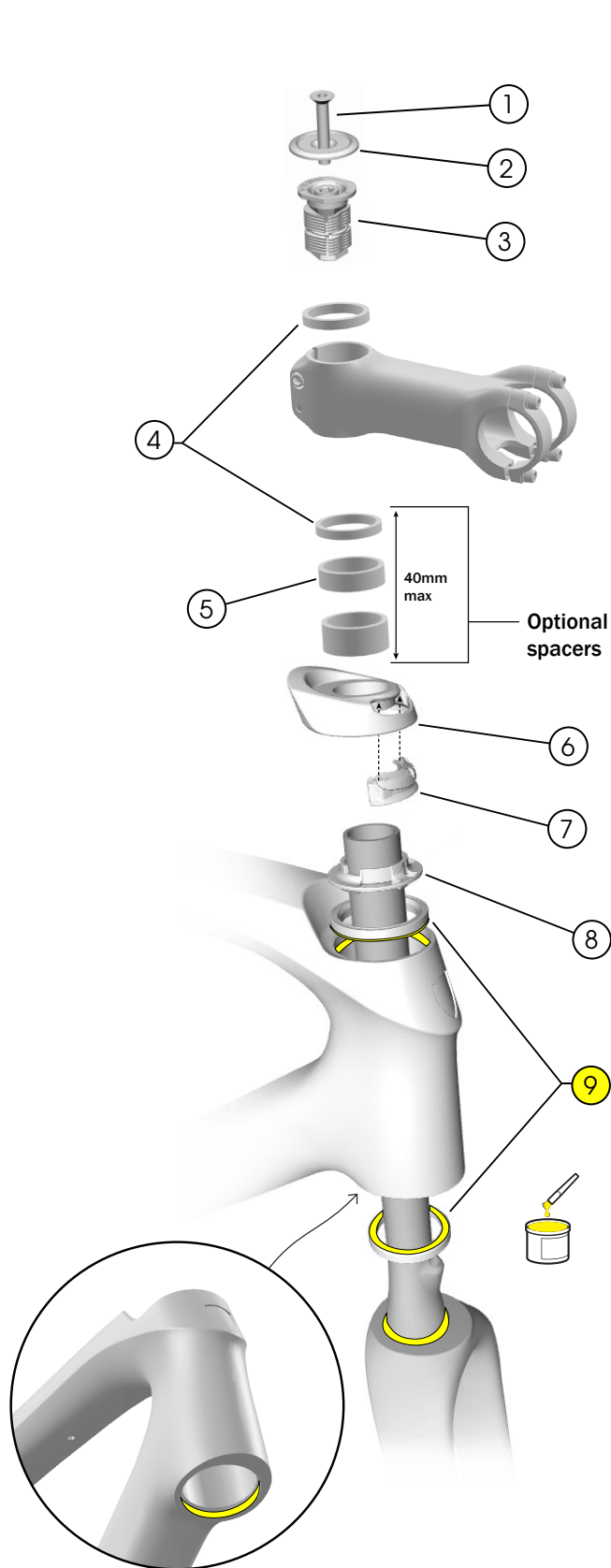
Crank	Bottom bracket	Spacers required	
		Drive side	Non-drive side
Shimano	CeramicSpeed 24mm	0.5mm	0.5mm
SRAM	DUB	2-3mm	—
	GXP	1.0mm	—



Tool and spline compatibility

Tool Model Part number			Praxis		Unior	Park Tool	Wheels Mfg	CeramicSpeed
			TP-2400 594148	TP-3028 594147	1671.T47 1043614	BBT-47 568922	BBTOOL-48-44 589307	—
Bottom bracket manufacturer	Praxis	24mm	X		X			
		30mm		X	X			
	Wheels MFG						X	
	SRAM DUB				X	X		
	Chris King				X	X		
	Ceramic-Speed	24mm			X	X		X
		GXP						X

Headset and fork



- ① Top cap bolt
- ② Compression plug cap
- ③ Compression plug
- ④ Spacers (5mm) – 5253930
- ⑤ Spacer, optional (10mm) – 5253931
- ⑥ Headset routing cap*
- ⑦ Headset routing cap grommet – W5253580
- ⑧ Headset split ring – W5266050
- ⑨ Headset bearings – W540243

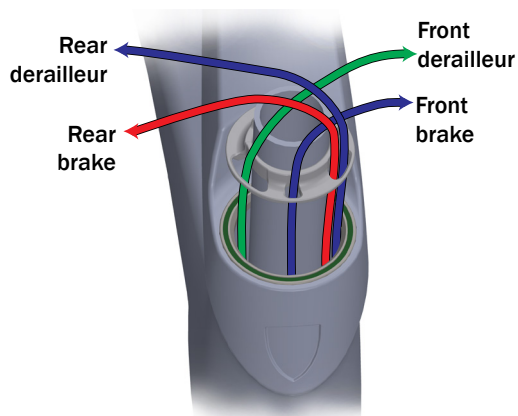
W547432

*This is a color-matched part — search trekbikes.com to find the right color for your bike.

Install the headset

1. Clean the steerer tube using isopropyl alcohol.
2. Grease both bearings (6), the fork crown race, and both head tube bearing bores (upper and lower) as shown to the left.
3. Insert the fork into the head tube.

TIP: Support the fork with a table during the assembly.
4. Route the shift housings and brake hoses through the split ring (5) as shown below (see pages 2-7 for different routing examples).



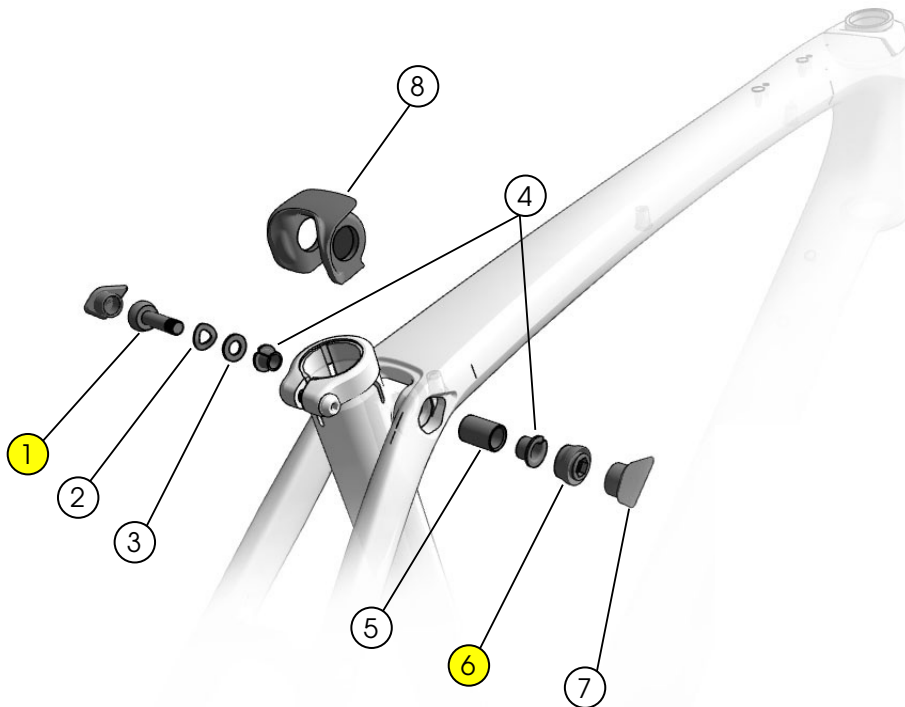
Mechanical routing example

5. Complete the headset assembly as shown to the left.



IsoSpeed (continued)

IsoSpeed

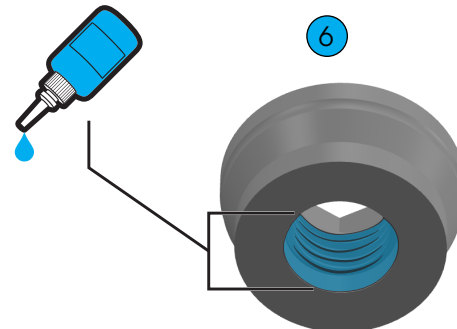


- ① Bolt
- ② Wave washer
- ③ Washer
- ④ Flanged bushings
- ⑤ Cylindrical bushing
- ⑥ Nut
- ⑦ IsoSpeed covers*
- ⑧ Grommet — W5256396

kit W569265

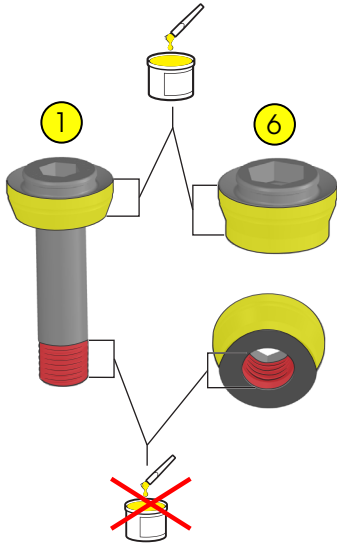
Servicing the IsoSpeed

1. Carefully remove the IsoSpeed covers (7) with a paint-safe plastic pry bar.
2. Remove the bolt (1), nut (6), and washers.
3. Use a 50/50 isopropyl alcohol/water mix to clean the nut threads (6), bolt threads (1), and the inside of the bushings (4, 5).
4. Apply threadlocker to the nut threads.

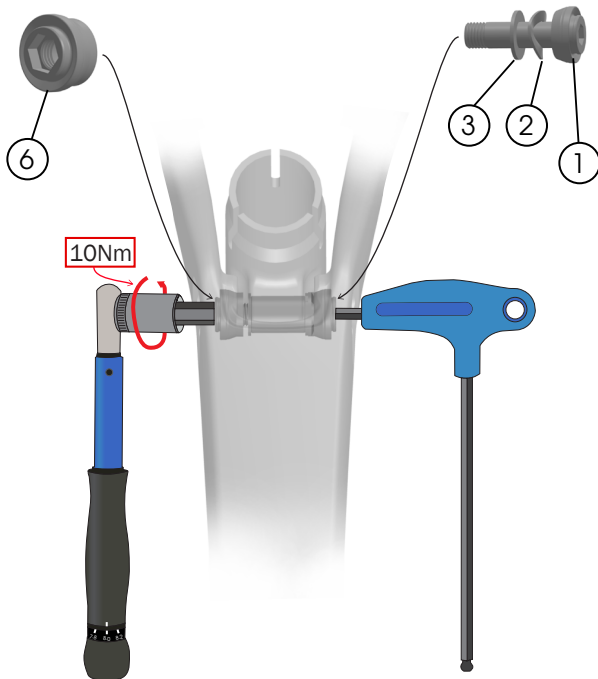


*This is a color-matched part — search trekbikes.com to find the right color for your bike.

5. Apply grease to the bolt and nut as shown below. Do not apply grease to the threads.



6. Place the washers on the bolt. Tighten the nut to 10Nm while securing the bolt with a wrench as shown below.



7. Reinstall the IsoSpeed covers.
8. Allow the assembly to cure for 24 hours at room temperature (72°F/22°C).

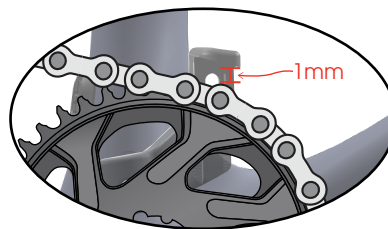
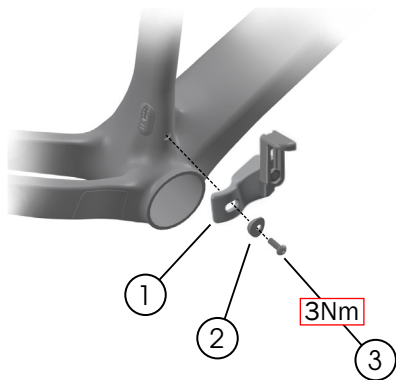
Chainkeeper

Adjust the chainkeeper — 1x chainring

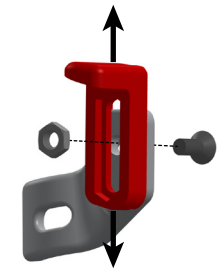
1. Shift to the lowest gear (largest rear cassette cog).
2. Loosen the screw on the back of the chainkeeper.
3. Move the loose piece up or down so there is 1mm of vertical clearance to the chain.
4. Tighten the screw on the back of the chainkeeper.

- ① Chainkeeper (38T-46T)
- ② Curved washer
- ③ Bolt (M5x16mm)

kit W541421



Clearance



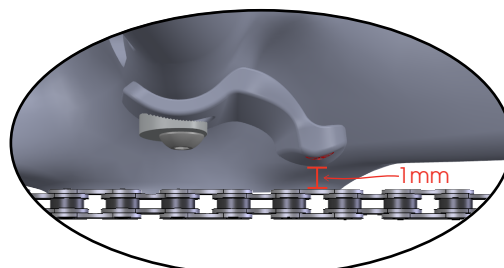
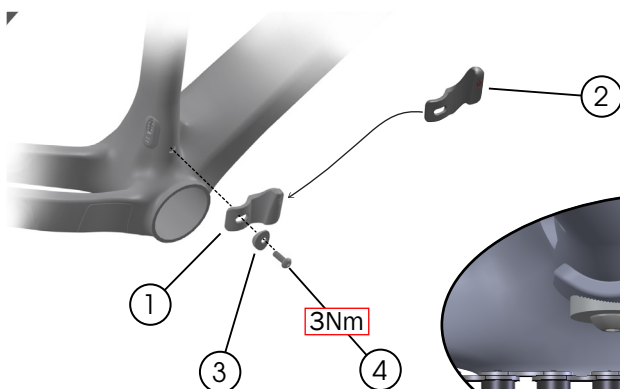
Adjust clearance

Adjust the chainkeeper — 2x chainrings

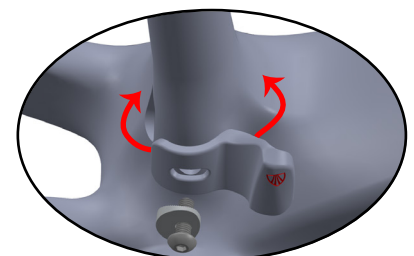
1. Shift to the lowest gear (largest rear cassette cog) and inner chainring.
2. Loosen the screw holding the chainkeeper in place.
3. Rotate the chainkeeper so there is 1mm of horizontal clearance to the chain.
4. Tighten the screw to 3Nm.

- ① Chainkeeper (30T-36T)
- ② Chainkeeper (36T-42T)
- ③ Curved washer
- ④ Bolt (M5x16mm)

kit 431223



Clearance



Adjust clearance

Specifications

	Boone
Rear hub OLD	142mm
Seatmast ID	30mm
Upper fork steerer tube OD	28.6mm
Bottom bracket type/width	T47/85.5mm
Brake rotor diameter	140/160mm
Tire width max 700c	38mm (1.5")
Fender mount – rear	No
Fender mount – front	No
Rack mount	No
Dropper post compatibility	No

	Chainline	Max chainring teeth (T)		
		Small	Large	Single (1x)
Shimano GRX	49.7mm	—	—	50T
	47mm	42T	52T	—
Shimano	43.5mm	36T	50T	—
SRAM	45mm	—	—	46T
	45mm	37T	50T	—
SRAM WIDE	47.5mm	—	—	48T
	47.5mm	44T	50T	—