

2025 Rail+ Carbon and Alloy — Gen 5

SERVICE MANUAL

Contents

Safety



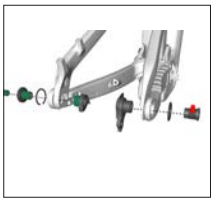
Safety

Headset



Adjustable headset

Linkage



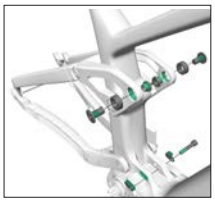
Active Braking Pivot



Main pivot and chainstay



Rocker pivot and seatstay



Rear shock hardware



Torque order

Routing



Brake and shift routing — carbon frame



Brake and shift routing — alloy frame



Seatpost dropper routing

Guards and Fender



Guards

E-system



Speed sensor routing



System controller

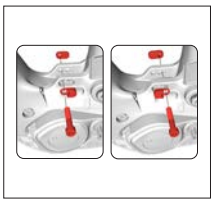


Charge port



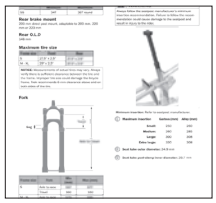
Motor connection, bolts, and cover

Adjust the progression



Adjust the progression

Specs



Specifications

Copyright 2024 Trek Bicycle Corporation All Rights Reserved

Safety

WARNING

Properly tighten hardware

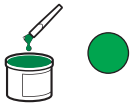
Always tighten hardware to the specified torque. Over-tightening hardware could deform or break the hardware or components. Under-tightening hardware could cause hardware or components to become loose. Either situation could damage the bicycle and result in injury to the rider.

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 grease


Do not apply grease


Apply threadlocker

Nm
Torque

Zip tie

Scope

This manual contains parts diagrams, specifications (such as grease and torque values), instructions, and helpful tips. It does not contain instructions for all components (such as brake calipers). Refer to the original manufacturer for more information.

Additional resources

Trek Resources on *trekbikes.com/manuals*

- Trek Bicycle Owner's Manual
- The Quick Start Guide for the Bosch e-system used on this bicycle
- The Bosch E-bike Comprehensive Owner's Manual
- The RIB 2.0 battery and battery dock instructions
- The PowerMore 250 range extender installation instructions

Trek's YouTube channel: *youtube.com/trekbikes*

Bosch resources

- The Bosch Dealer manual found on the Bosch Dealer Portal
- The Bosch website: *bosch-ebike.com*

Adjustable headset

Optional: For instructions on switching to the angle adjustable cups, see the Adjustable Headset Instructions on the 2025 Gen 5 Rail pages on trekbikes.com.



1. Upper bearing cover — W5275173
2. Compression ring — W532842
3. Upper bearing — W531676
4. Upper cup, 0° angle — 5304949
5. Lower cup, 0° angle — 5304949
6. Lower bearing — W532843
7. Crown race — W532844

— W5285212

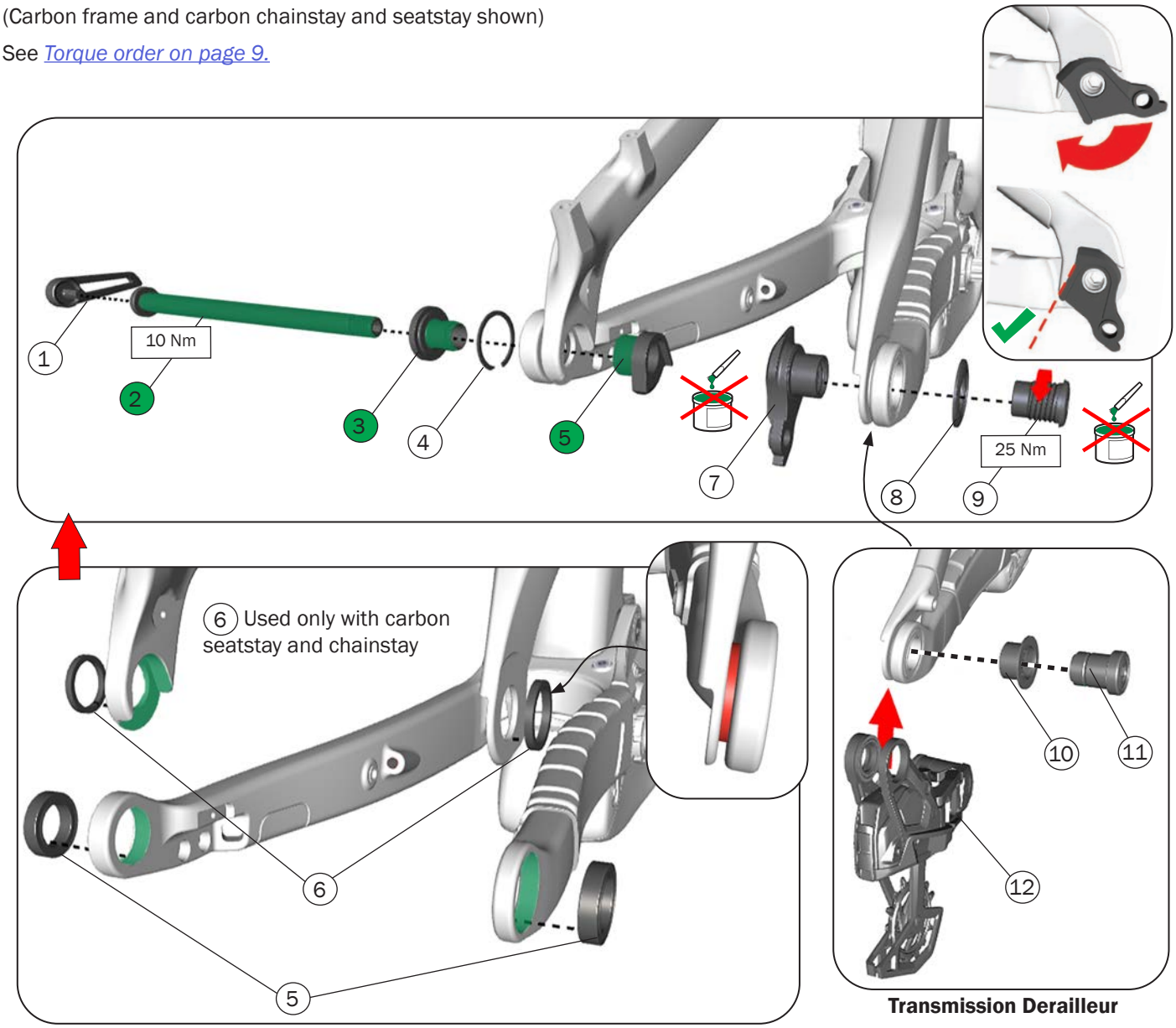
Angle adjustable cups

8. Shorter upper cup, S – M frames — W5295319
   Taller upper cup L – XL frames — W5295274
9. Lower cup, all frame sizes — W5294449

Active Braking Pivot

(Carbon frame and carbon chainstay and seatstay shown)

See *Torque order on page 9.*



Transmission Derailleur

1. Thru axle, M12 x 184.5 mm — W583469
2. Non-driveside ABP bolt — W5251141
3. Non-driveside ABP dropout nut — W5269707
4. Retaining ring — W5251279
5. Bearings, 20 x 30 x 7 mm — W5256340
6. Spacers, 25 x 20 x 3 mm (carbon frames only) — W583422

— W5272776

7. Derailleur hanger
   NOTICE: Do not apply grease.
8. Washer, 30 mm
   Important: Use the washer supplied with the hanger.
9. Bolt
   NOTICE: Do not apply grease. Do not overtighten. Overtightening may damage the hanger.

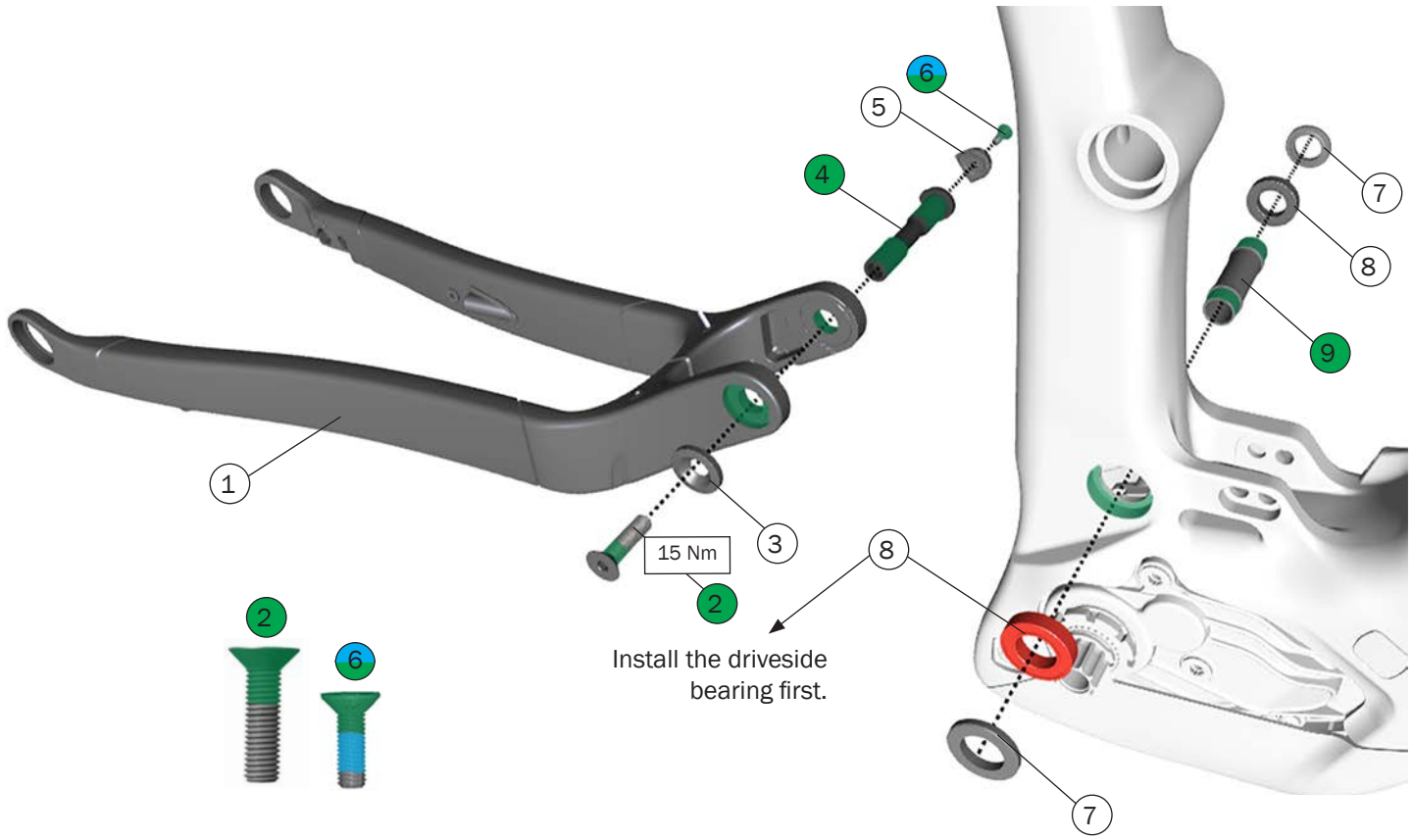
— W5271425

10. Bushing
11. Mounting bolt
12. SRAM Transmission Derailleur

Refer to installation manual on *sram.com*.

Main pivot and chainstay

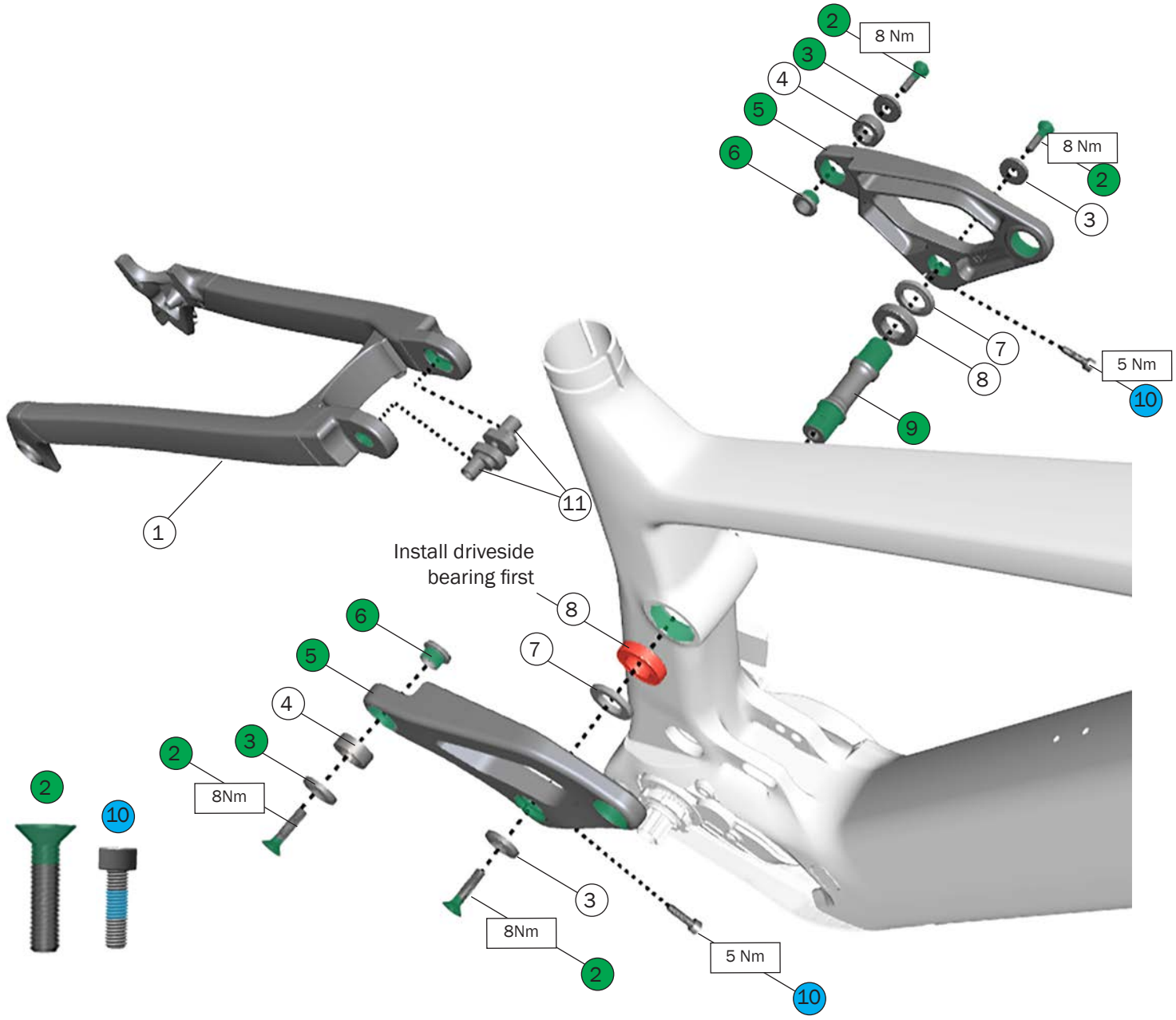
See *Torque order on page 9.*



1. **Chainstay**, alloy — 49711*
   Chainstay, carbon — 49445*
   *Paint matched part. See trekbikes.com to find the color-matched part for your bike.
2. Fastener, M8 x 30 mm — W5330289
3. Concave washer — W5330379
4. Thru axle, 14 x 78 mm — W5330256
5. Double cable guide — See *Brake and shift routing — carbon frame on page 10.*
6. Fastener, M5 x 16 mm — See *Brake and shift routing — carbon frame on page 10.*
7. Spacers, 4 mm width — W5305806
8. Bearings, 17 x 30 x 7 mm — 5290435
9. Flanged main pivot axle — W5330255

Rocker pivot and seatstay

See *Torque order on page 9.*

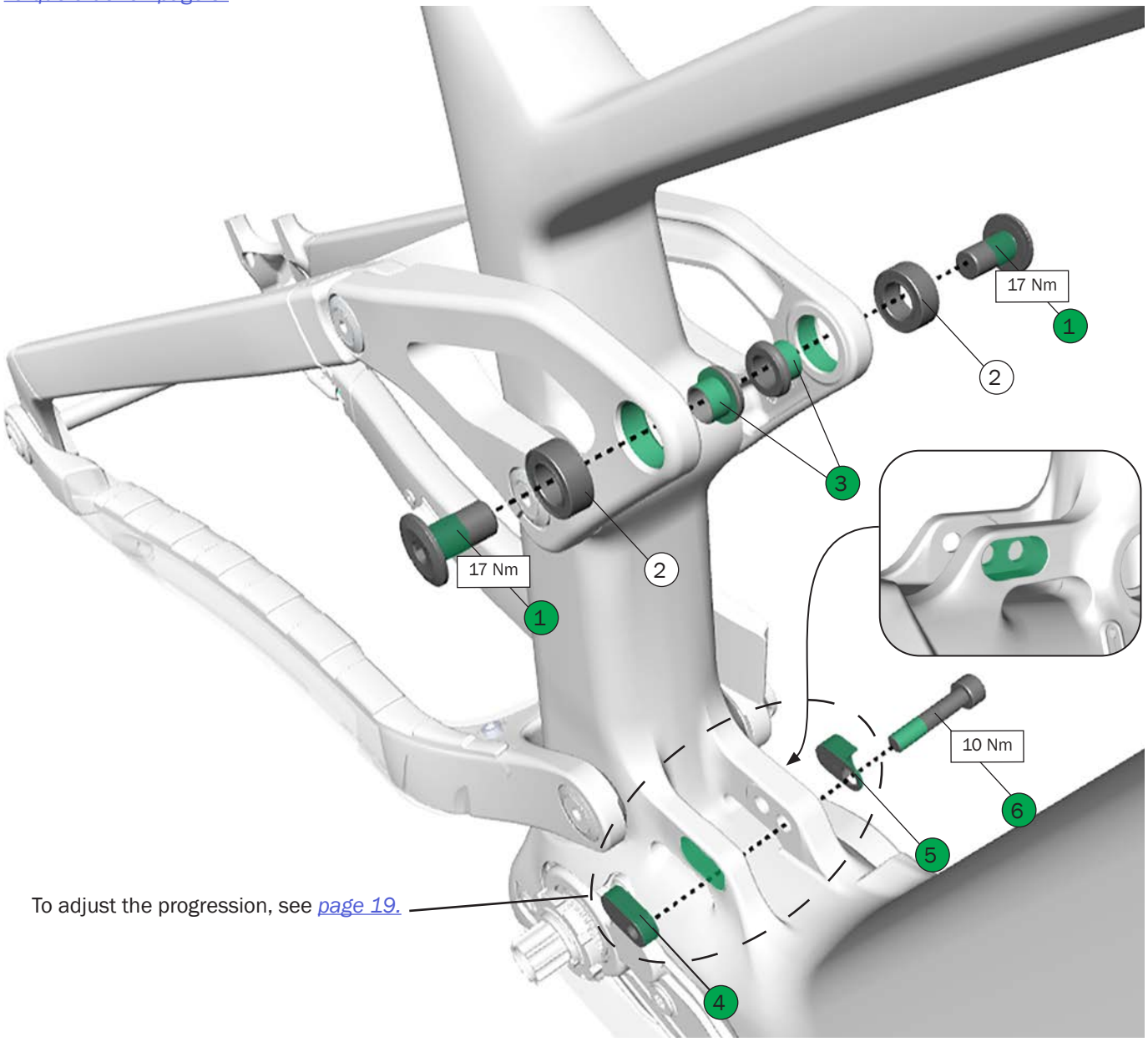


1. Seatstay*
   Carbon — 49446
   Alloy — 49712
2. Fasteners, M6 x 25 mm — W5270150
3. Concave washers — W5270027
4. Bearings, 12 x 21 x 8 mm — W5256341
5. Two-piece rocker link*
   Carbon — 49444
   Alloy — 49713
6. Washers, hat style — W5270030
7. Spacers, 4 mm — W5305806
8. Bearings, 17 x 30 x 7 mm — 5290435
9. Axle — W5305805
10. Fasteners, M5 x 18 mm — W5256244
11. Mino nuts — W5270028

*Paint matched part. See *trekbikes.com* to find the color-matched part for your bike.

Rear shock hardware

See *Torque order on page 9.*



To adjust the progression, see *page 19.*

1. Fasteners, M10 x 19 mm — W5270031
2. Bearings, 12 x 21 x 8 mm — W5256341
3. Washers, hat style — W5270030
4. Mino link nut
5. Mino link washer

— 5303333

6. Fastener, M8 x 40 mm — W5305730



Shock Dimensions

Eye-to-Eye-length: 205 mm

Stroke length: 65 mm

Shock air can mount/bolt: 54 mm x 10 mm

Shock shaft mount/bolt: 25 mm x 8 mm

For a list of compatible shocks, refer to the FAQ on the Rail product pages on *trekbikes.com*.

Torque order

Important: Remove the bike from the bike stand and set it on the ground before torquing all fasteners to spec.

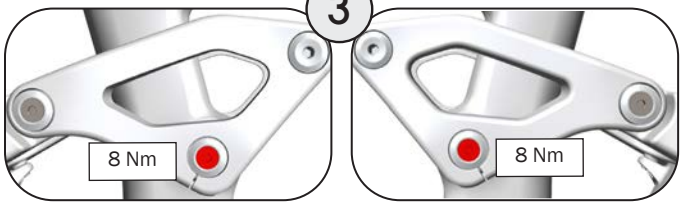
1



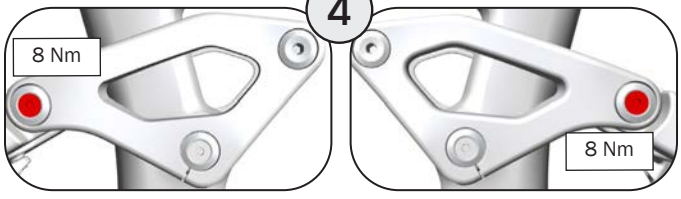
2



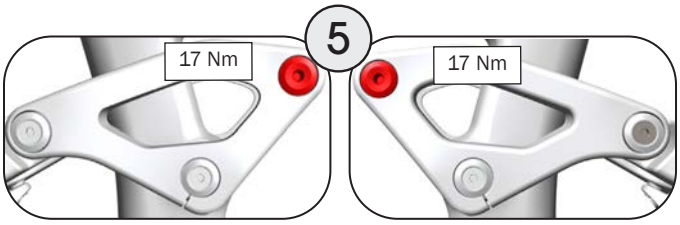
3



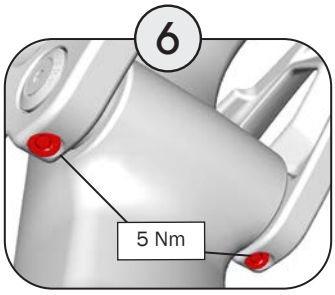
4



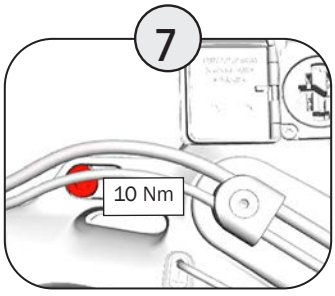
5



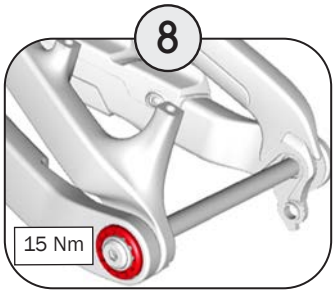
6



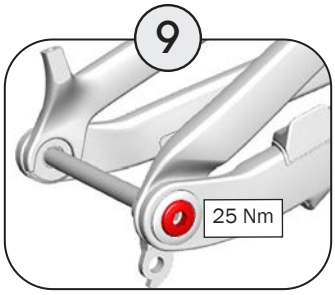
7



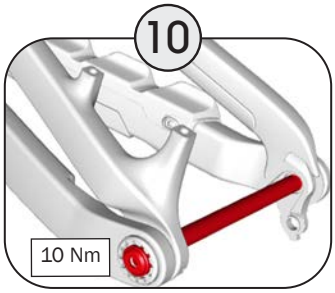
8



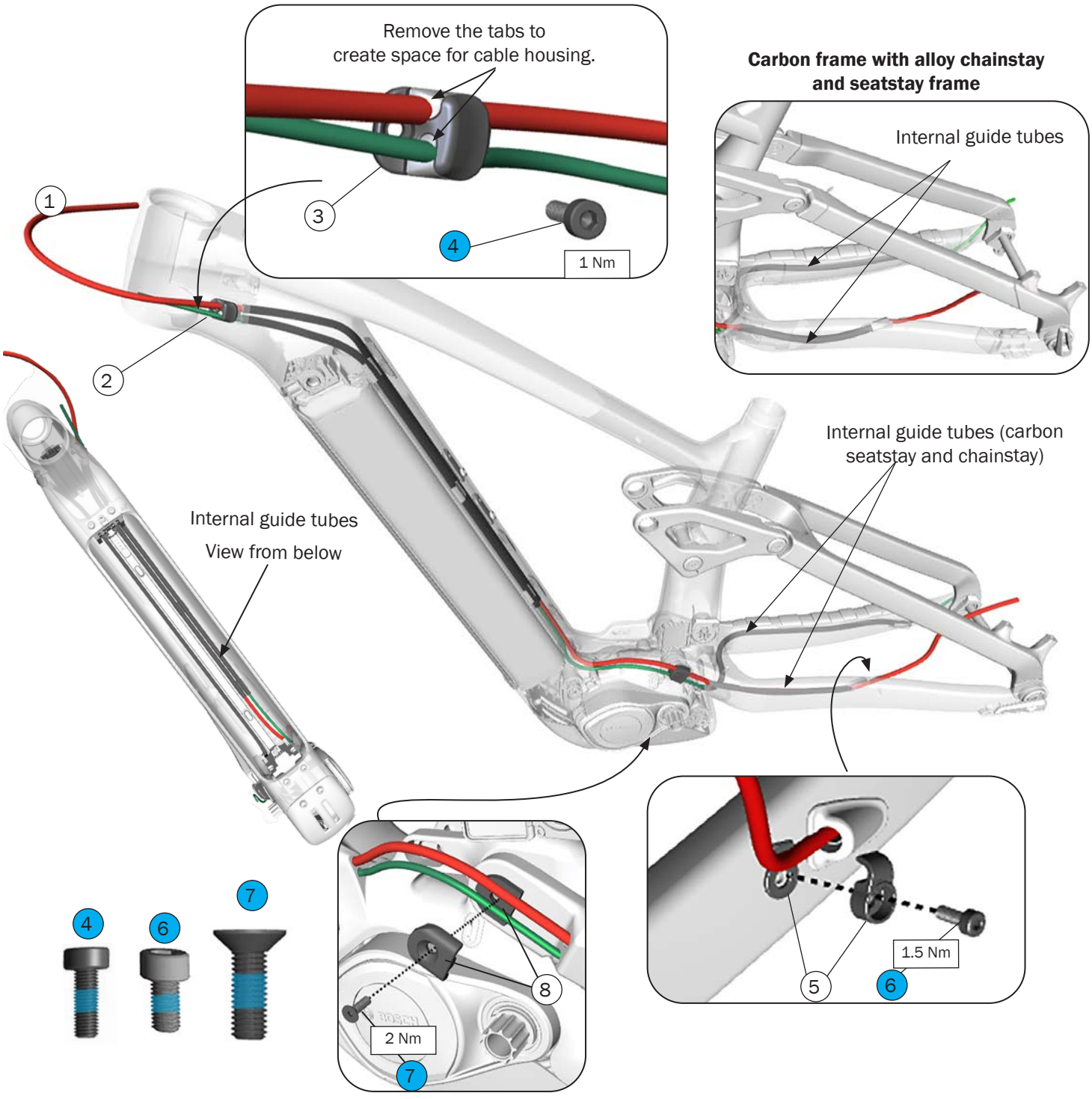
9



10



Brake and shift routing — carbon frame



1 Rear brake hose

2 Rear derailleur cable housing

3 Cable entry guide

4 Fastener, M3 x 10 mm

— W5317471

5 Bolt-on cable guide, single

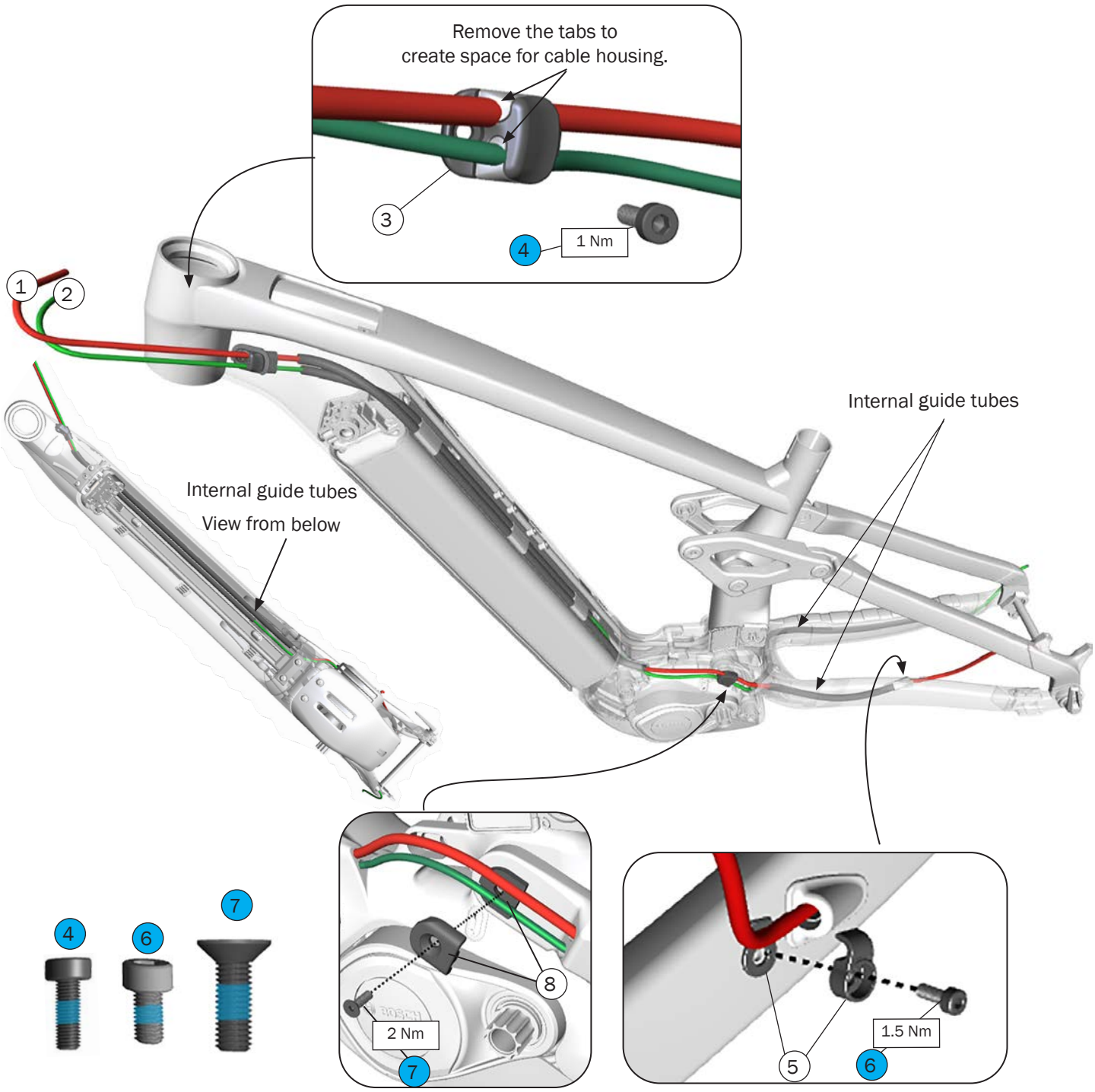
6 Fastener, M5 x 10 mm

— W5329704

7 Fastener, M5 x 16 mm, flathead — source locally

8 Bolt on cable guide, double — W5317866

Brake and shift routing — alloy frame



1 Rear brake hose

2 Rear derailleur cable housing

3 Cable entry guide

4 Fastener, M3 x 10 mm

— W5317471

5 Bolt-on cable guide, single

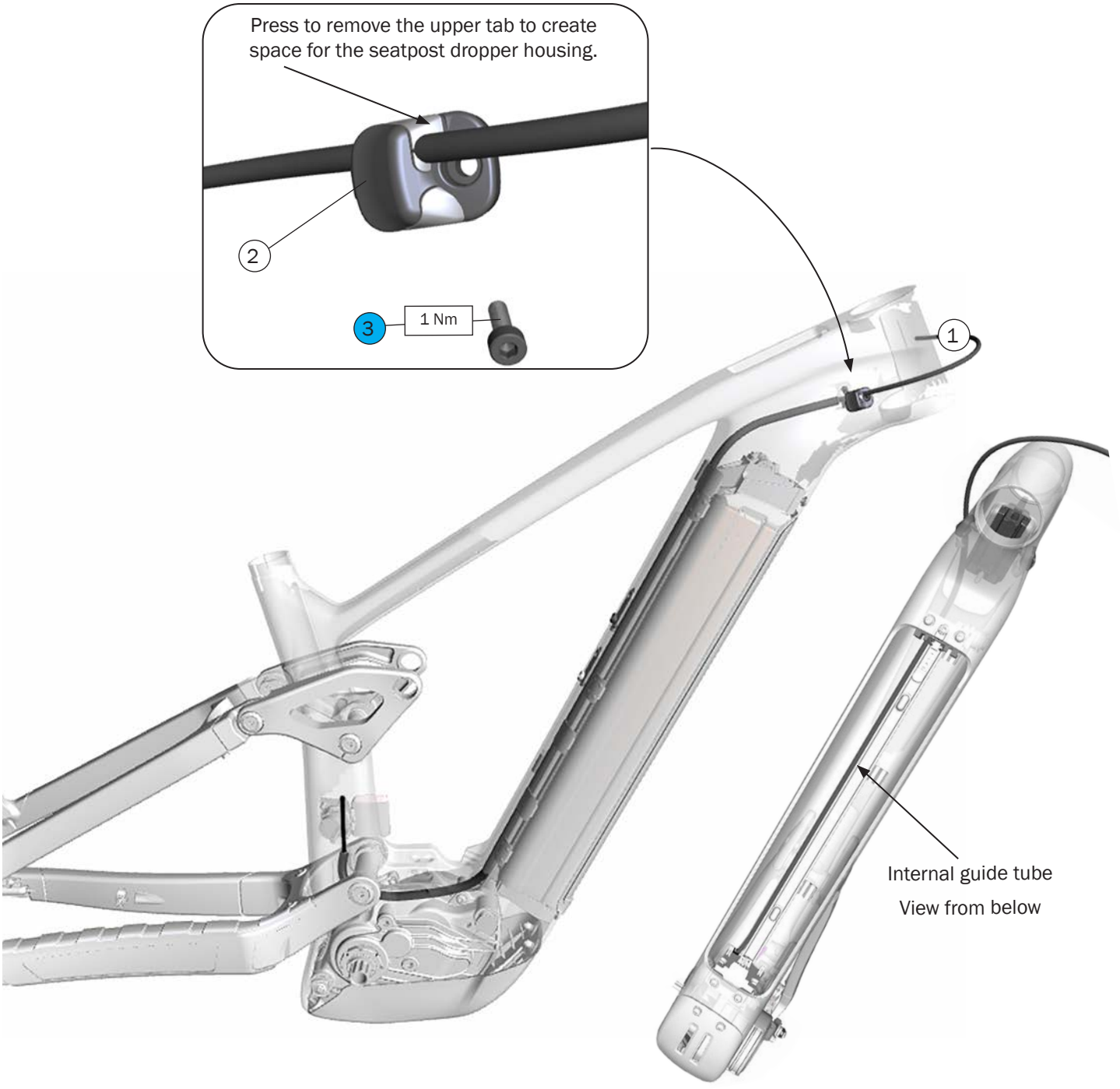
6 Fastener, M5 x 10 mm

— W5329704

7 Fastener, M5 x 16 mm, flathead — source locally

8 Bolt on cable guide, double — W5317866

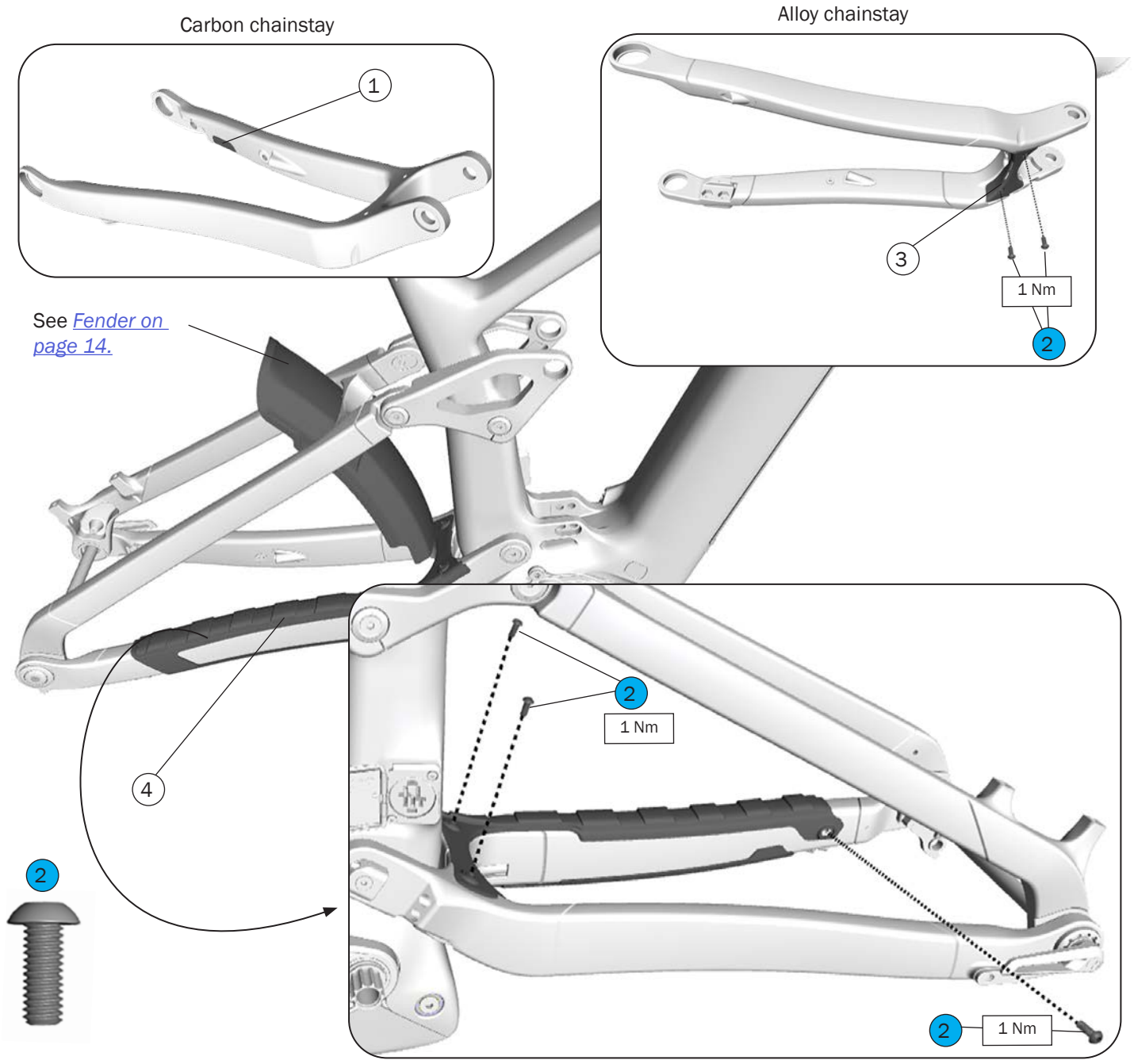
Seatpost dropper routing



1. Seatpost dropper housing
2. Cable exit guide
3. Fastener, M3 x 10 mm

W5317471

Guards



1 Rotor guard, bonded — W5319596

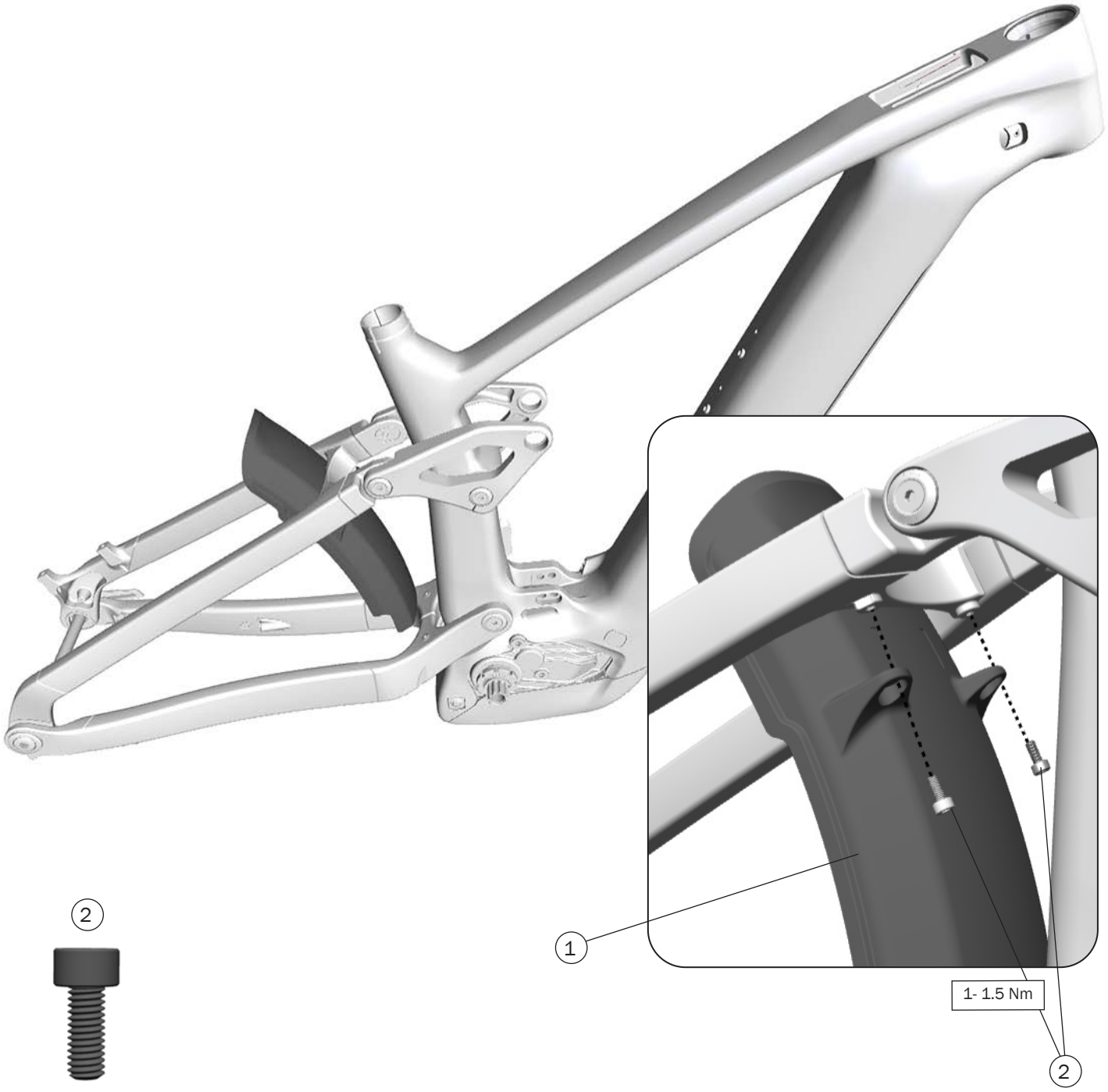
1. To improve adhesion, use sandpaper to roughen the backside of the guards and/or remove remnants of the old guard from the areas of the frame where epoxy will be applied.
2. Attach the guards with a two-part epoxy — 600808.
3. Allow the guards and epoxy to cure for 24 hours.

2 Fasteners, M4 x 10 mm (6 pack) — 5317308

3 Yoke cover (alloy chainstay only) — W5325628

4 Chainstay guard — W5317574

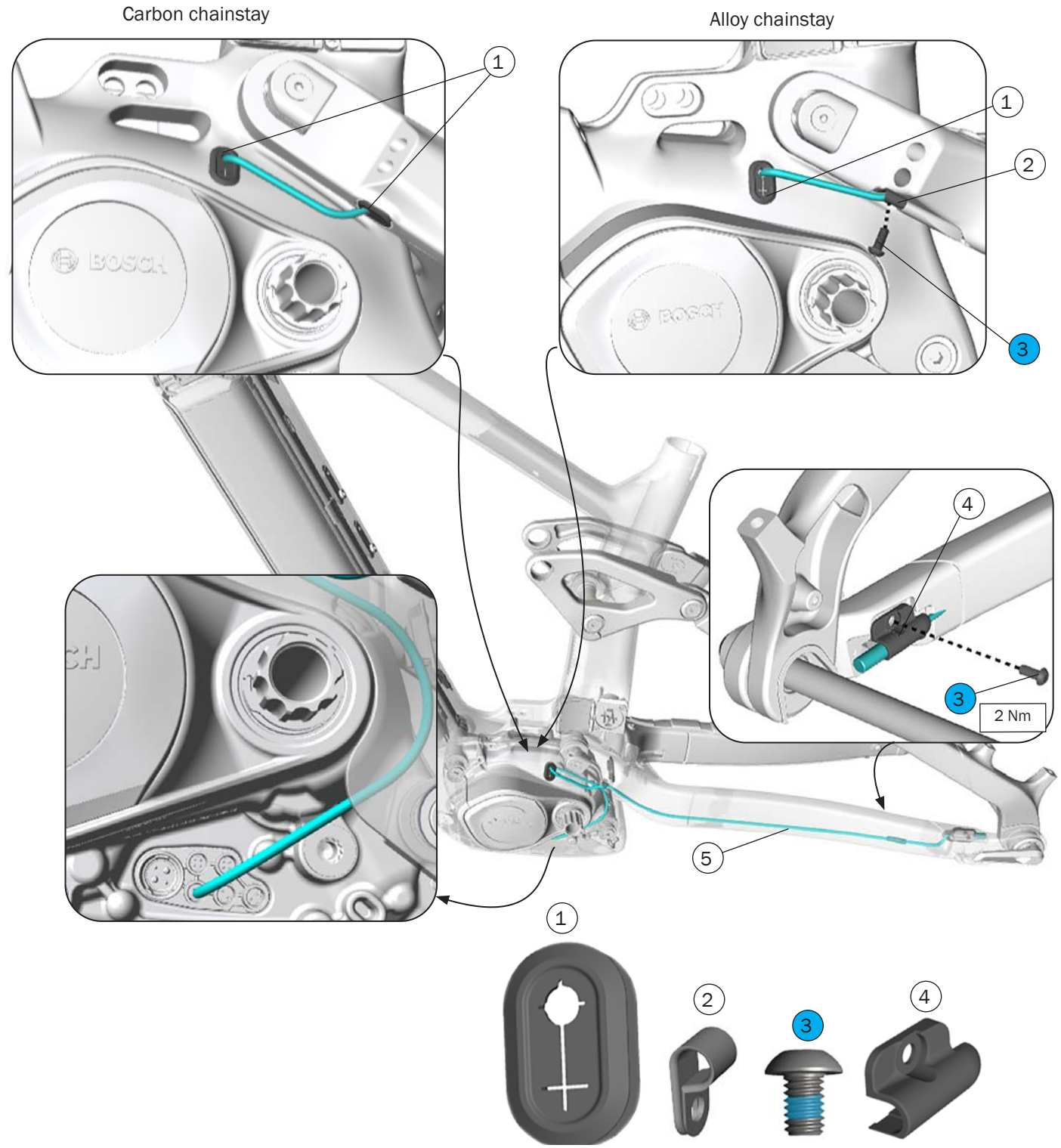
Fender



1. Fender
2. Fasteners, M4 x 10 mm

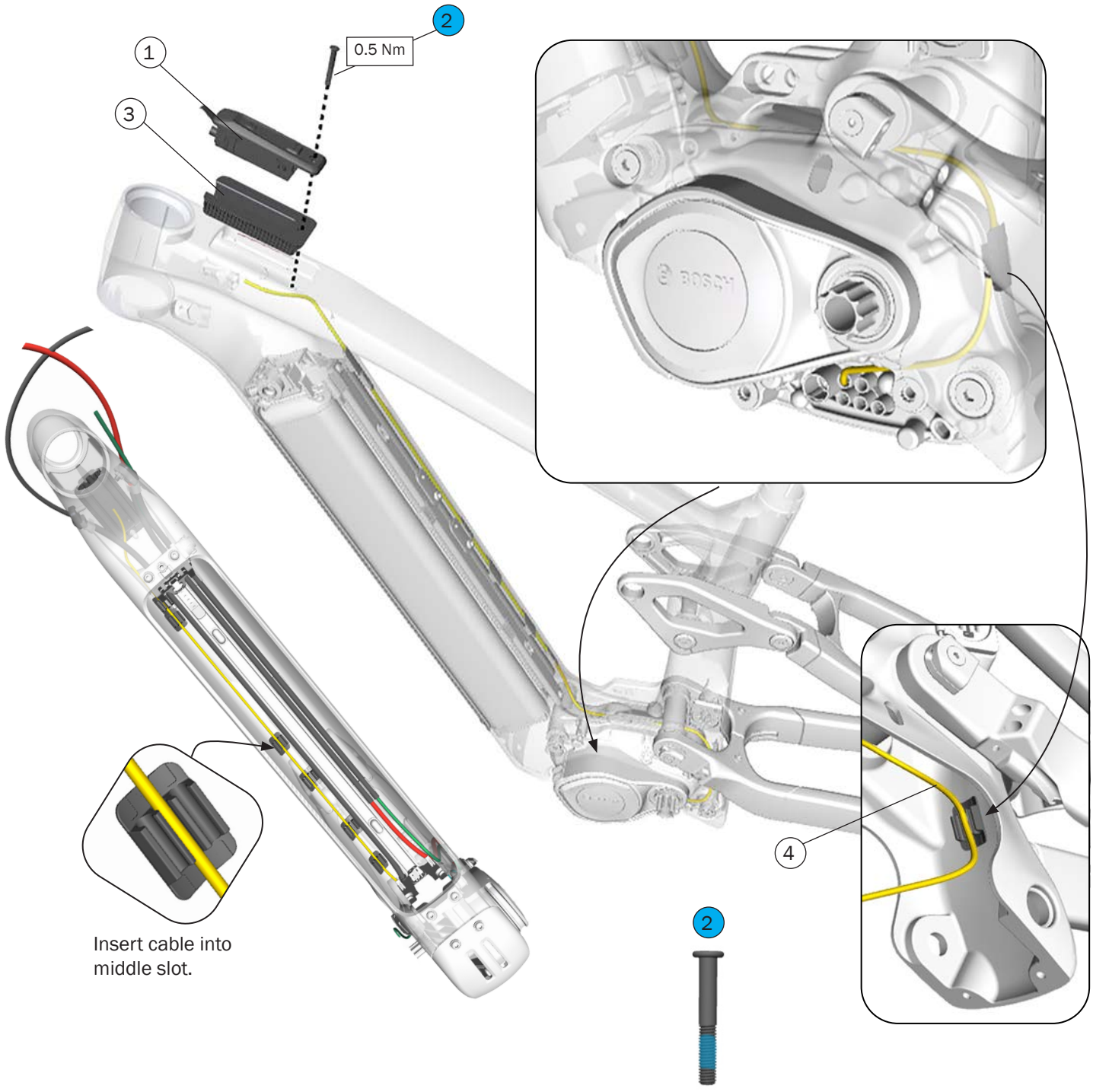
W5318773

Speed sensor routing



1. Cable guides — W5318735
2. Speed sensor clip — W5319086
3. Fastener, M4 x 10 mm — W1052364
4. Integrated speed sensor clamp — W5319005
5. Speed sensor cable, 815 mm, Bosch part number — EB11.200.012
6. Magnet (not pictured) — W5252927

System controller

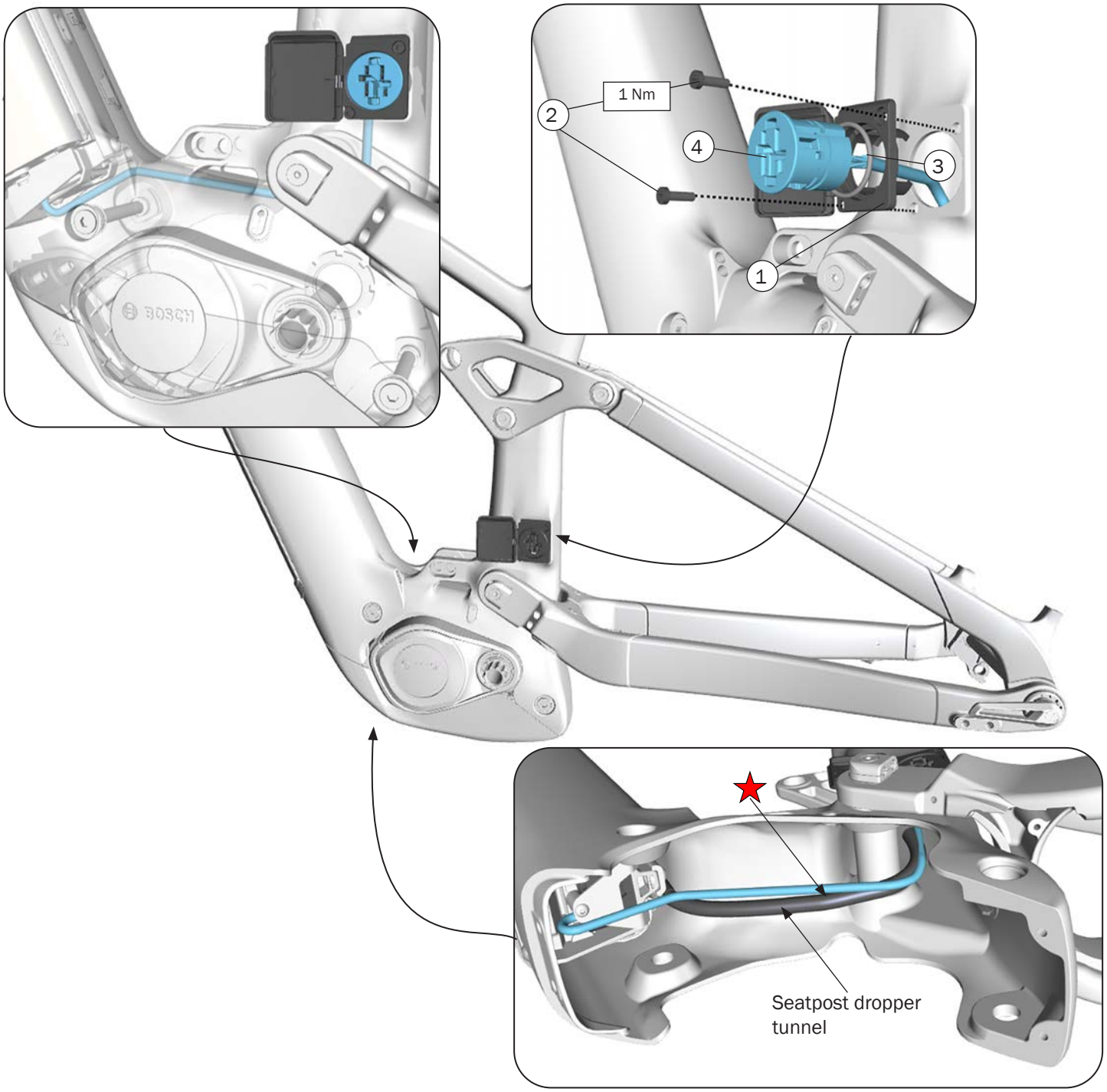


1. System controller
2. Fastener, M4 x 28.5 mm

— Bosch p/n EB13.100.000

3. Display adapter — W5318892
4. System controller cable, 1300 mm Bosch p/n — EB12.120.006

Charge port



(1) Charge port door

(2) Fasteners, M3 x 10 mm

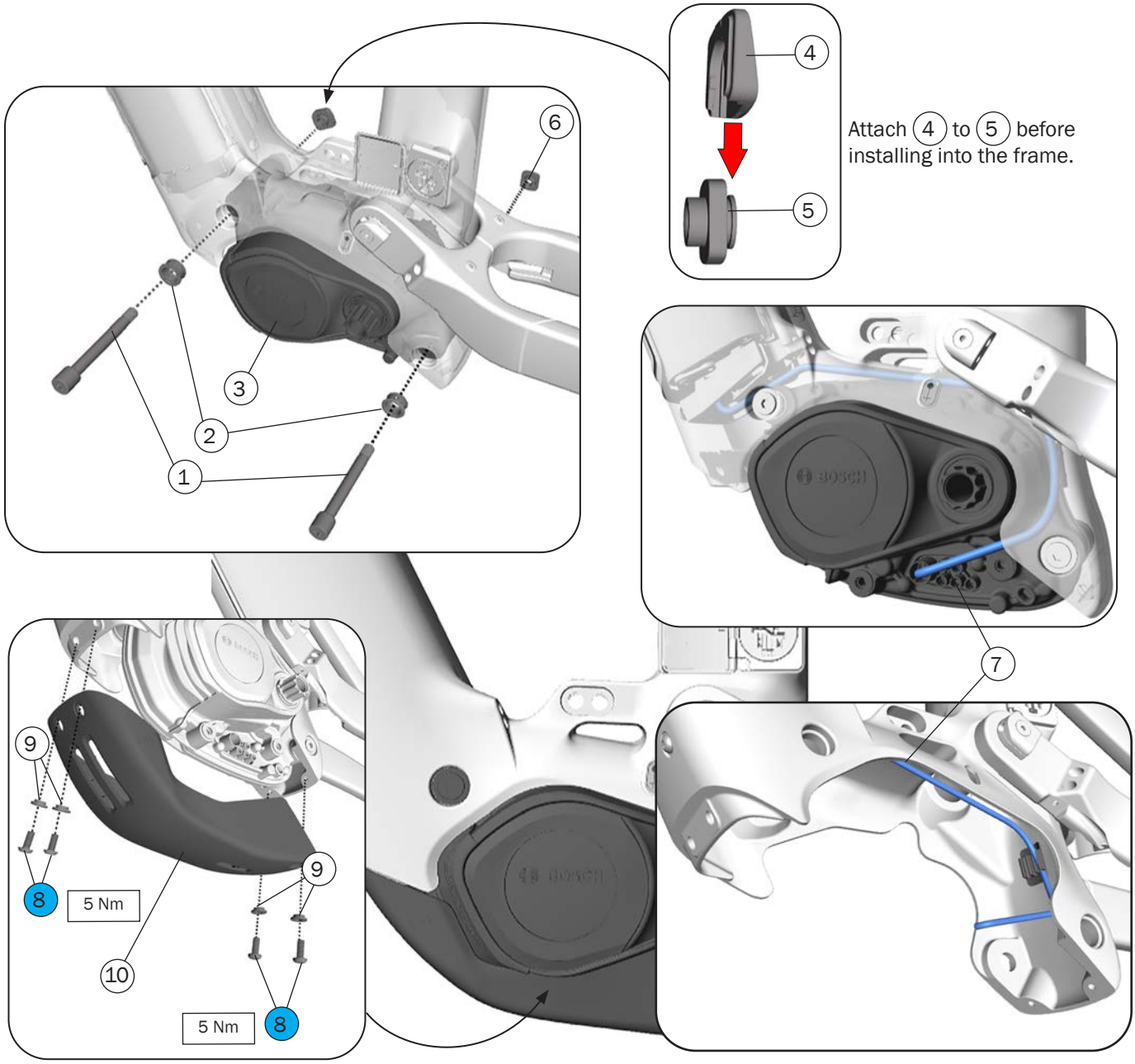
— 5333674

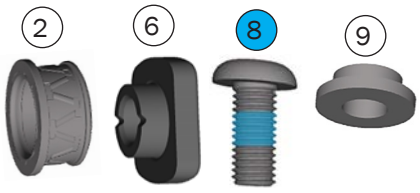
(3) O-ring, Bosch p/n — EB12.120.019

(4) Charge port cable, 350 mm Bosch p/n — EB12.120.04A

★ Zip tie the charge port cable to the seatpost dropper tunnel.

Motor connection, bolts, and cover





Refer to the Bosch Dealer Manual, located on the Bosch dealer portal, for motor installation instructions and torque specs.

1. Short motor bolts, M8 x 68.7 mm, Bosch p/n — EB11.200.0N9
2. Motor sleeves, Bosch p/n — EB11.200.0GK
3. CX motor, Bosch p/n — EB11.100.00E
4. Nut cover
5. Nut, M8 x 1 mm

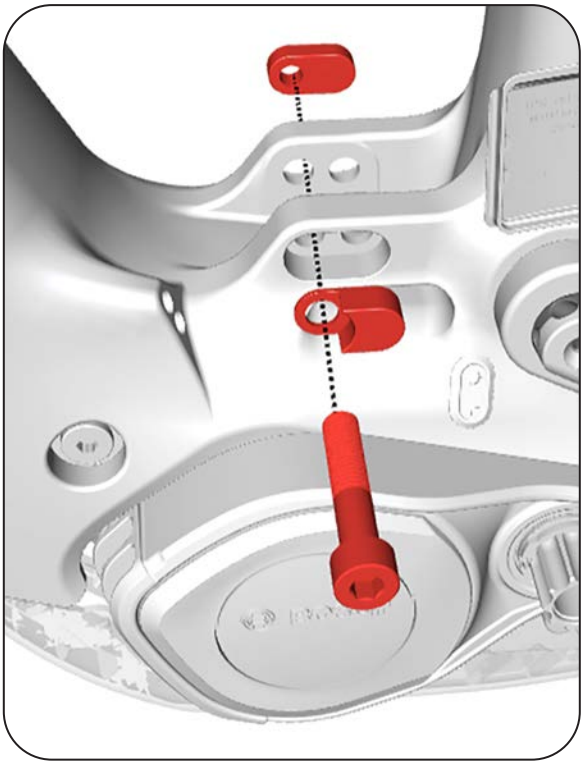
— W5317916

6. Nut, Bosch p/n — EB11.200.03C
7. Battery cable, 500 mm, Bosh p/n — EB12.120.02V
8. Fasteners, M5 x 12 mm, button head — source locally
9. Tophat spacers — W5272256
10. Motor cover — W5317575

Adjust the progression

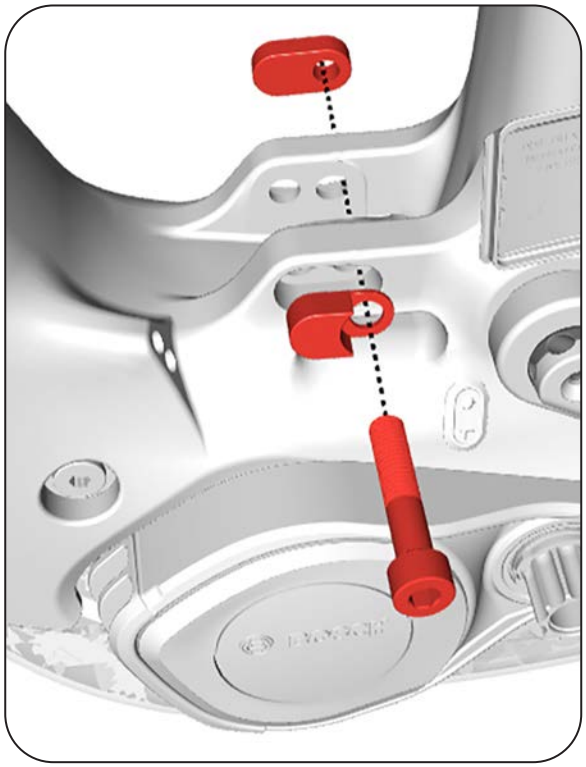
The shock progression chip can be flipped to fine tune the shock performance for the terrain or rider preference. See *Torque order on page 9* for torque specification.

20% Progression Softer



More reactive to repeated fast
mid-size bumps and square-edge hits

25% Progression Firmer



More bottom-out resistance over
big hits and drops

Specifications

Chainline/Chainring

Chainline	Chainring	
	Minimum	Maximum
55	34T	36T round

Rear brake mount

200 mm direct post mount, adaptable to 203 mm.
220 mm or 223 mm

Rear O.L.D

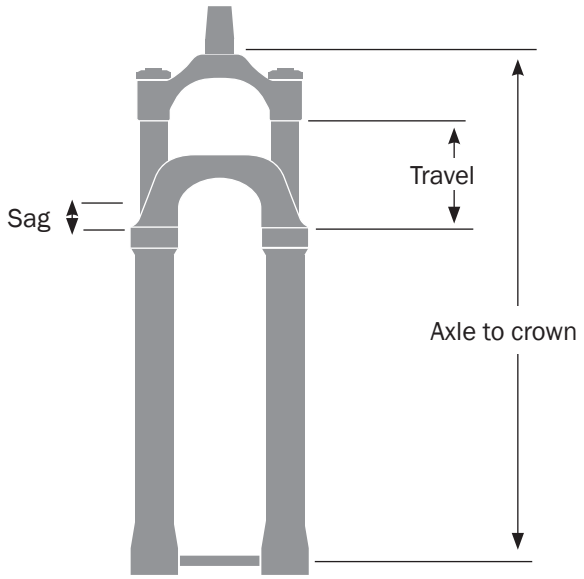
148 mm

Maximum tire size

Frame size	Front	Rear
S	27.5" x 2.5"	27.5" x 2.5"
M - XL	29" x 2.5"	27.5" x 2.5"

NOTICE: Measurements of actual tires may vary. Always verify there is sufficient clearance between the tire and the frame. Improper tire size could damage the bicycle frame. Trek recommends 6 mm clearance above and on both sides of the tire.

Fork



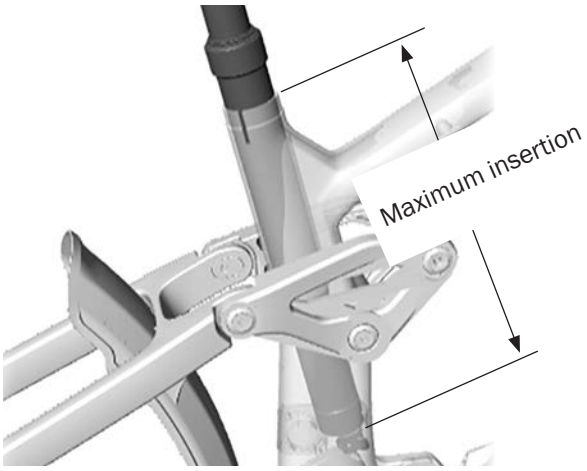
Frame size	Fork	Min (mm)	Max (mm)
S	Axle to crown	557	577
	Travel	160	180
M - XL	Axle to crown	575	595
	Travel	160	180

Recommended sag: Refer to the suspension calculator at *Trekbikes.com/suspension-calculator*.

Seatpost

WARNING

Always follow the seatpost manufacturer's minimum insertion recommendation. Failure to follow the recommendation could cause damage to the seatpost and result in injury to the rider.



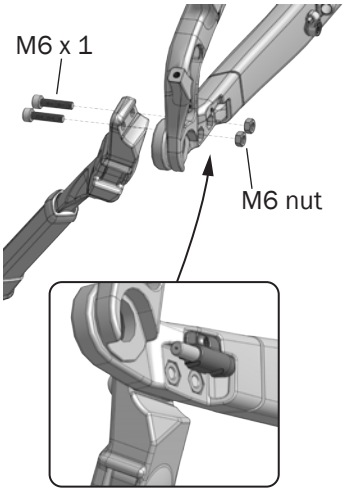
Maximum insertion	Carbon (mm)	Alloy (mm)
Small:	250	260
Medium:	260	285
Large:	300	308
Extra large:	330	308

Seat tube outer diameter: 34.9 mm

Seat tube post-clamp inner diameter: 39.7 mm

Kickstand

Alloy



Carbon



Fasteners must be M6 x 1 and long enough to engage with the bracket.