

2023 Powerfly HT

Sport EQ 4 and Sport EQ 7 Gen 3

4, 5 and 7 Gen 4

SERVICE MANUAL

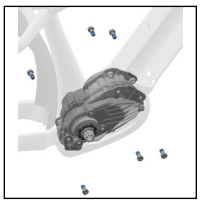
Rev 1 October 2023

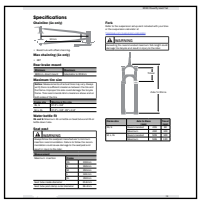
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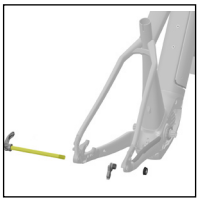

Safety


Rear mudguard and rack — 29" wheel


RIB — battery assembly

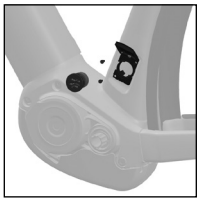

Drive unit and mounting bolts


Specifications


Thru axle and derailleur hanger


Rear mudguard and rack — 27.5" wheel


RIB — docking assembly

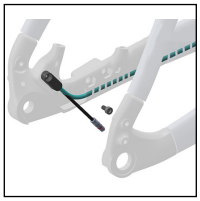

Battery: charge port cover


Cable routing


Front mudguard



Remote and displays


Speed sensor

Safety

WARNING

Tighten hardware properly

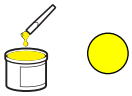
Always tighten hardware to the specified torque. Over-tightening hardware could deform or break the hardware or components. Under-tightening hardware could cause hardware or components to become loose. Either situation could damage the bicycle and result in injury to the rider.

WARNING

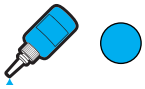
Re-apply threadlocker

All reused-fasteners with a pre-applied threadlocker must be cleaned with isopropyl alcohol and have new threadlocker applied before re-assembly. If a 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

Hex tool size

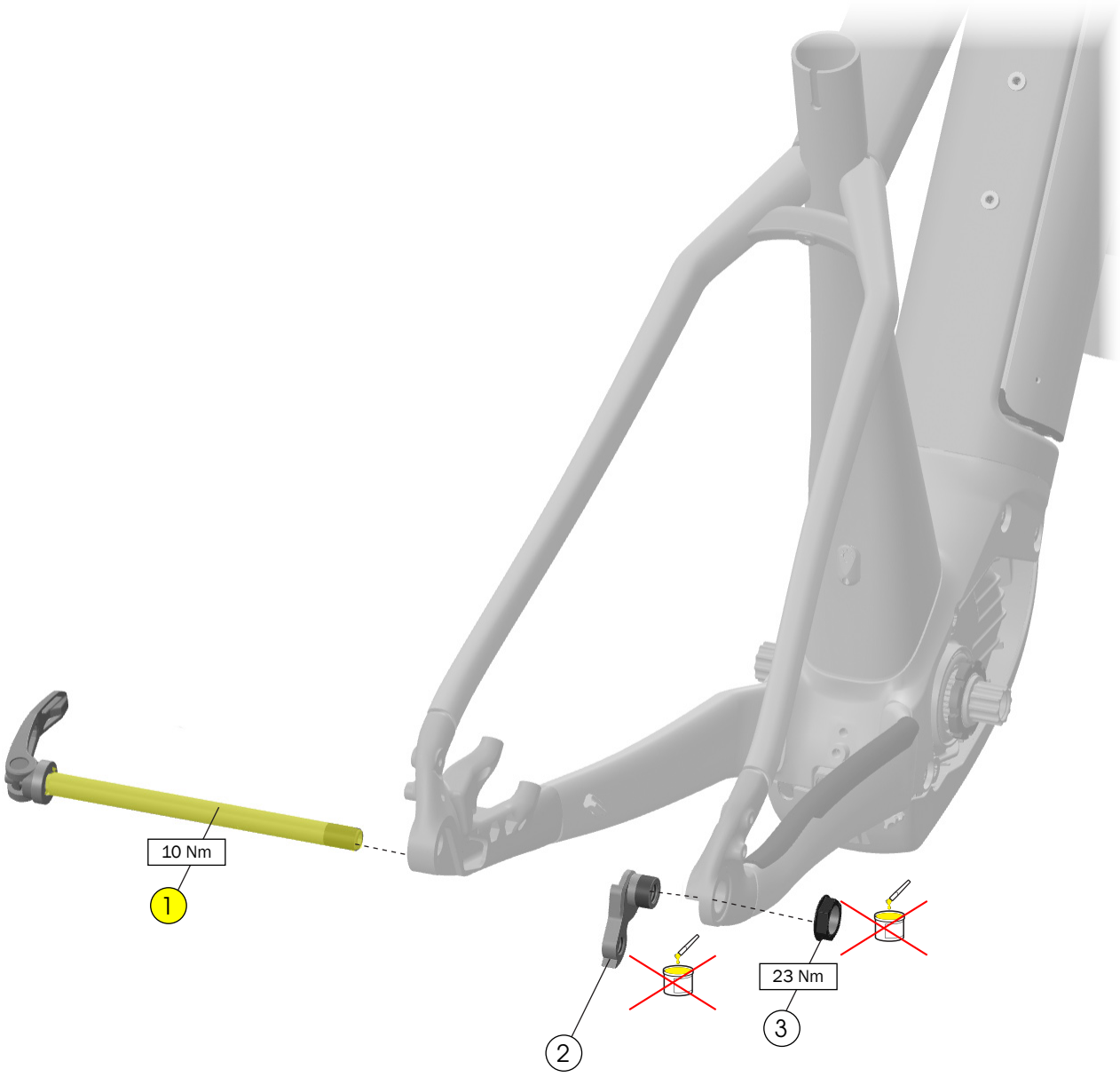
Torx tool

Drift size

Zip tie

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Thru axle and derailleur hanger

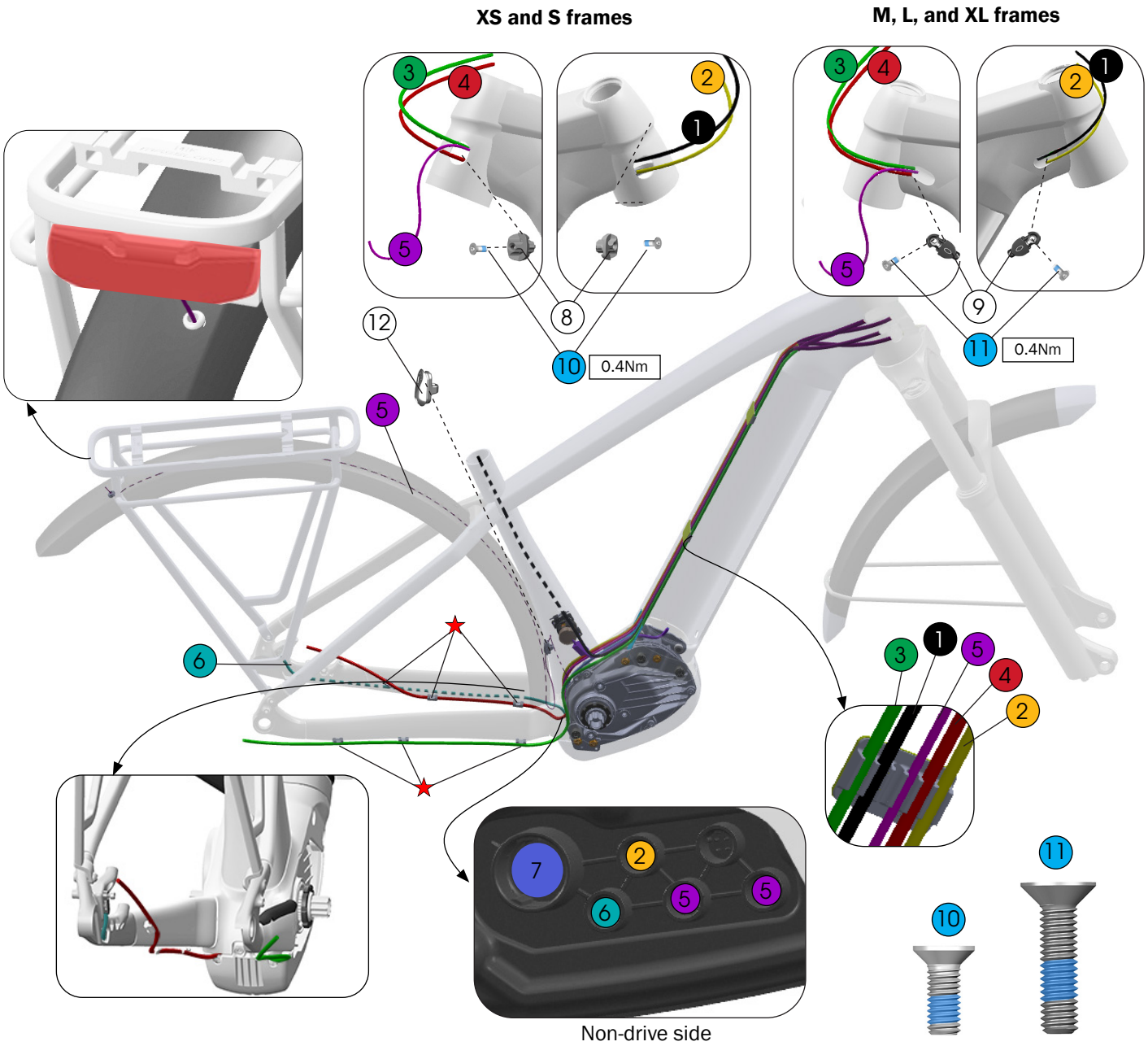


1. Thru axle, 174 x 12 mm — W518983
2. Derailleur hanger — W572370
3. Closed convert hardtail and horizontal sliding drop-out hardware, M12 x 1 mm — W318004

Tools

- Grease
- Torque spanner with 20 mm socket

Cable routing



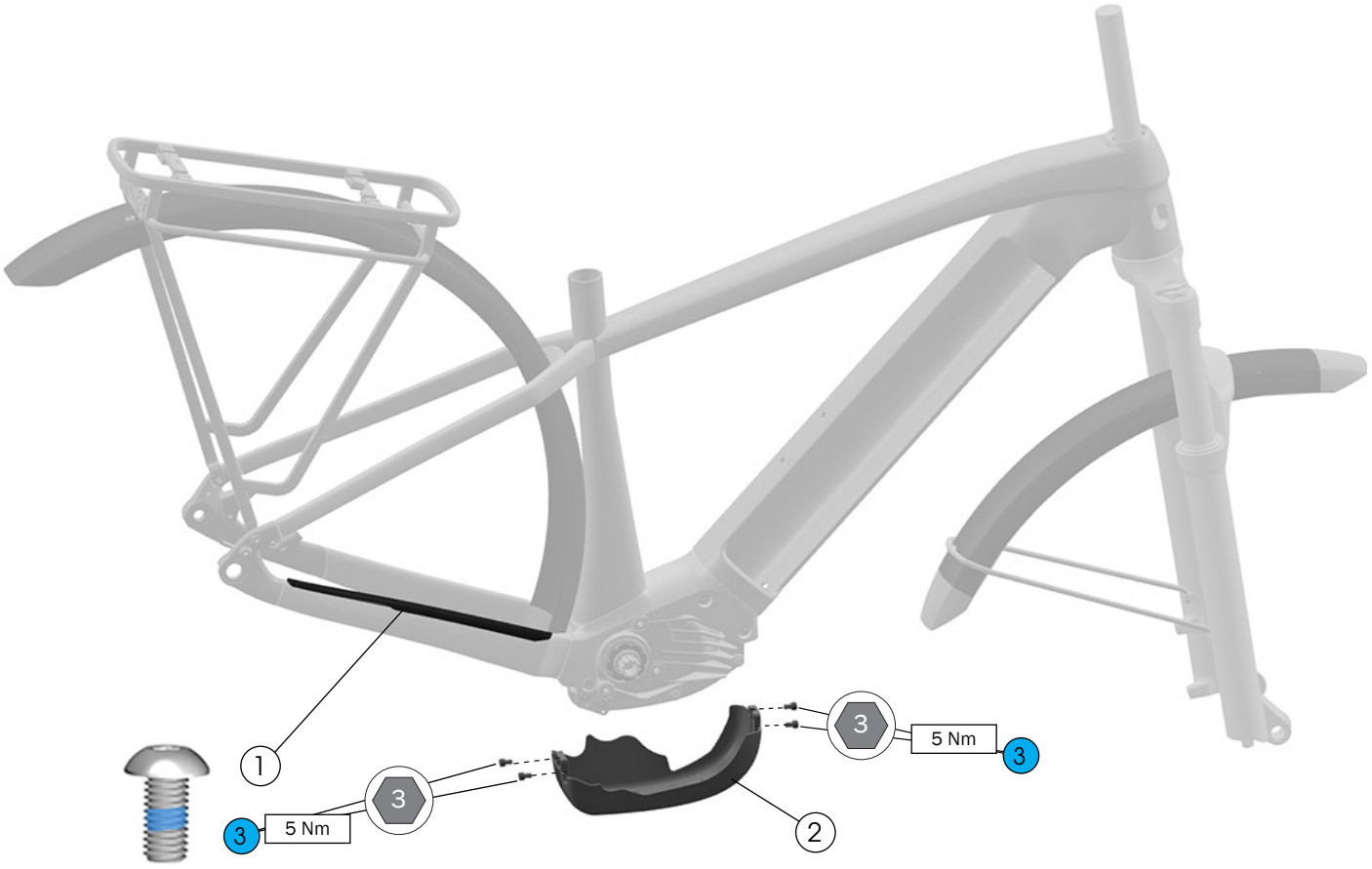
1. Dropper post cable
2. Display cable — EB12.120.005*
3. Derailleur housing
4. Rear brake hose
5. Light cables (lights included only on Powerfly Equipped models)
6. Speed sensor cable
7. Battery power cable — EB12.120.00T*

*Bosch part number. Not available on trekbikes.com.

8. Housing guides, XS and S frames — W594006
9. Housing guides, M, L, XL frames — W519232
10. Bolts, M3 x 10 mm — W285213
11. Bolts, M4 x 16 mm — W532763
12. Frame plug for Bosch light cable — W334049

★ Zip ties

Frame guards



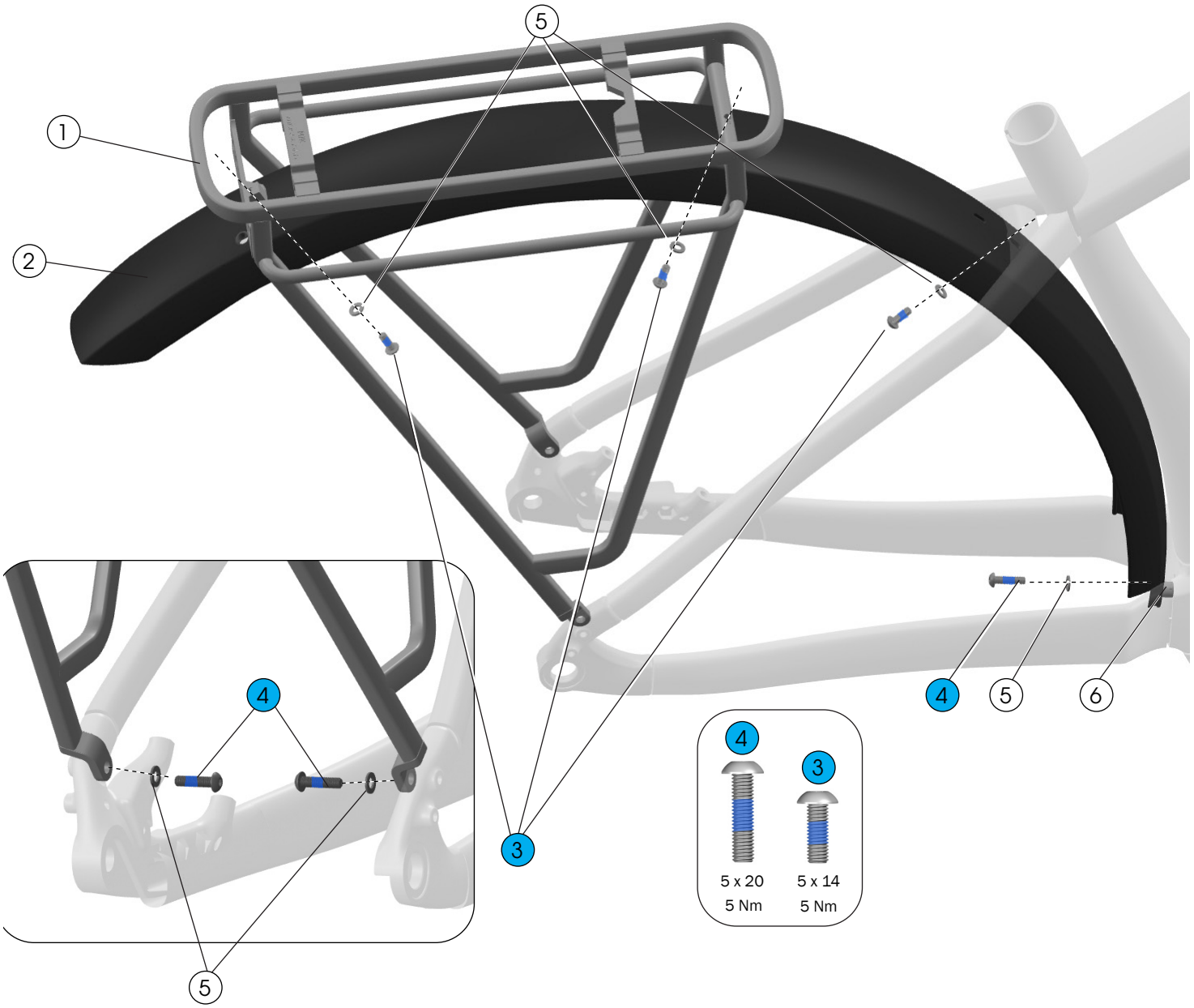
1. Chainstay guard — W591958
2. Drive unit guard — W5272058
3. Screws, stainless steel, M5 x 10 mm — W549305

Adhesive guard (1)

Use isopropyl alcohol to clean the frame surface where the guard is attached. Wait for the alcohol to dry before applying the guard.

Notice: Do not clean the entire frame with isopropyl alcohol. Isopropyl alcohol could damage the paint.

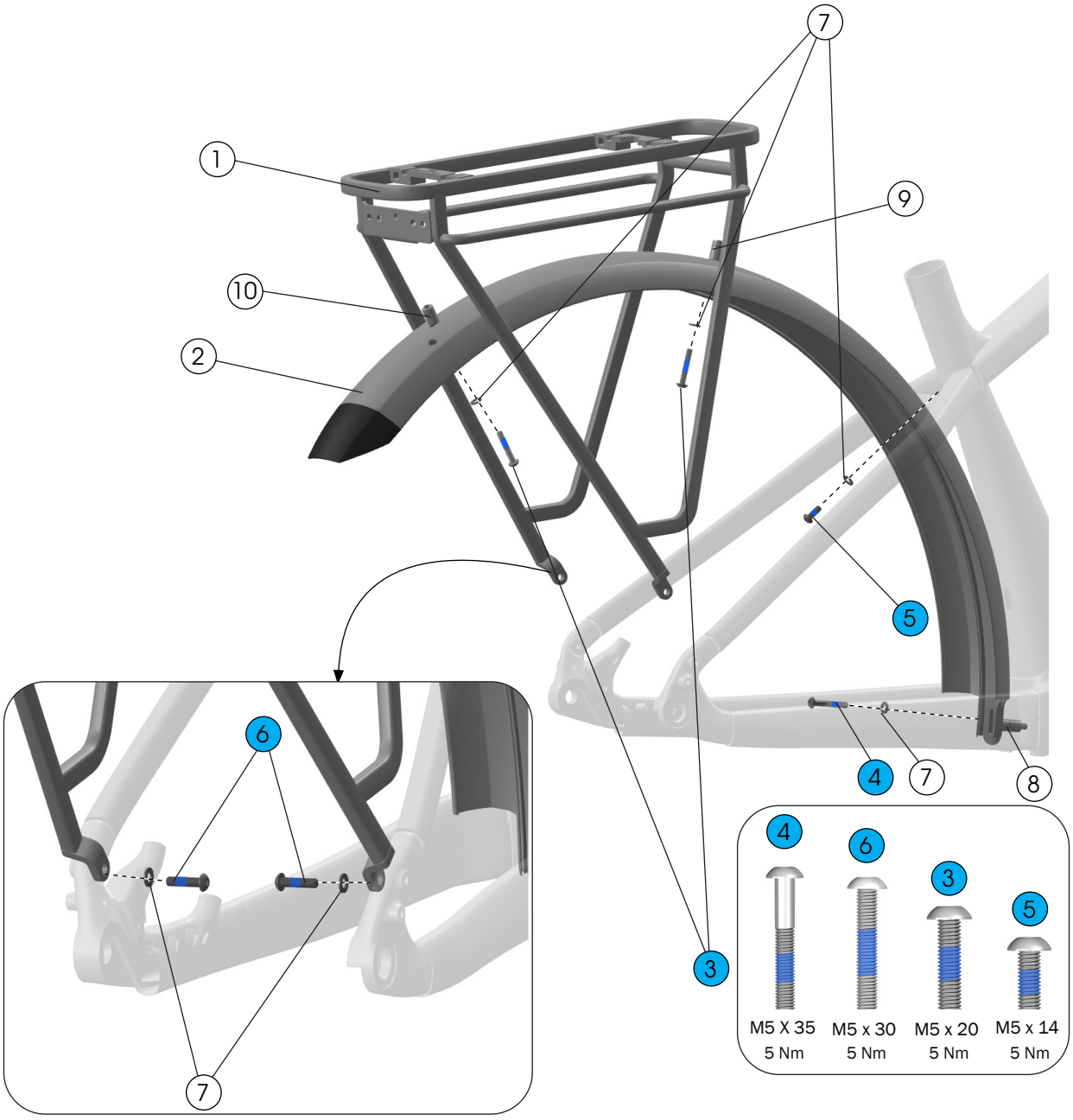
Rear mudguard and rack — 29" wheel



1. Rear rack — W5289961
2. Rear mudguard, 29" wheel — W583413
3. Bolts, stainless steel, M5 x 14 mm
4. Bolts, stainless steel, M5 x 20 mm
5. Washers, stainless steel, M5 x 1 mm
6. Spacer, aluminium, 7.5 mm

— 601265

Rear mudguard and rack — 27.5" wheel

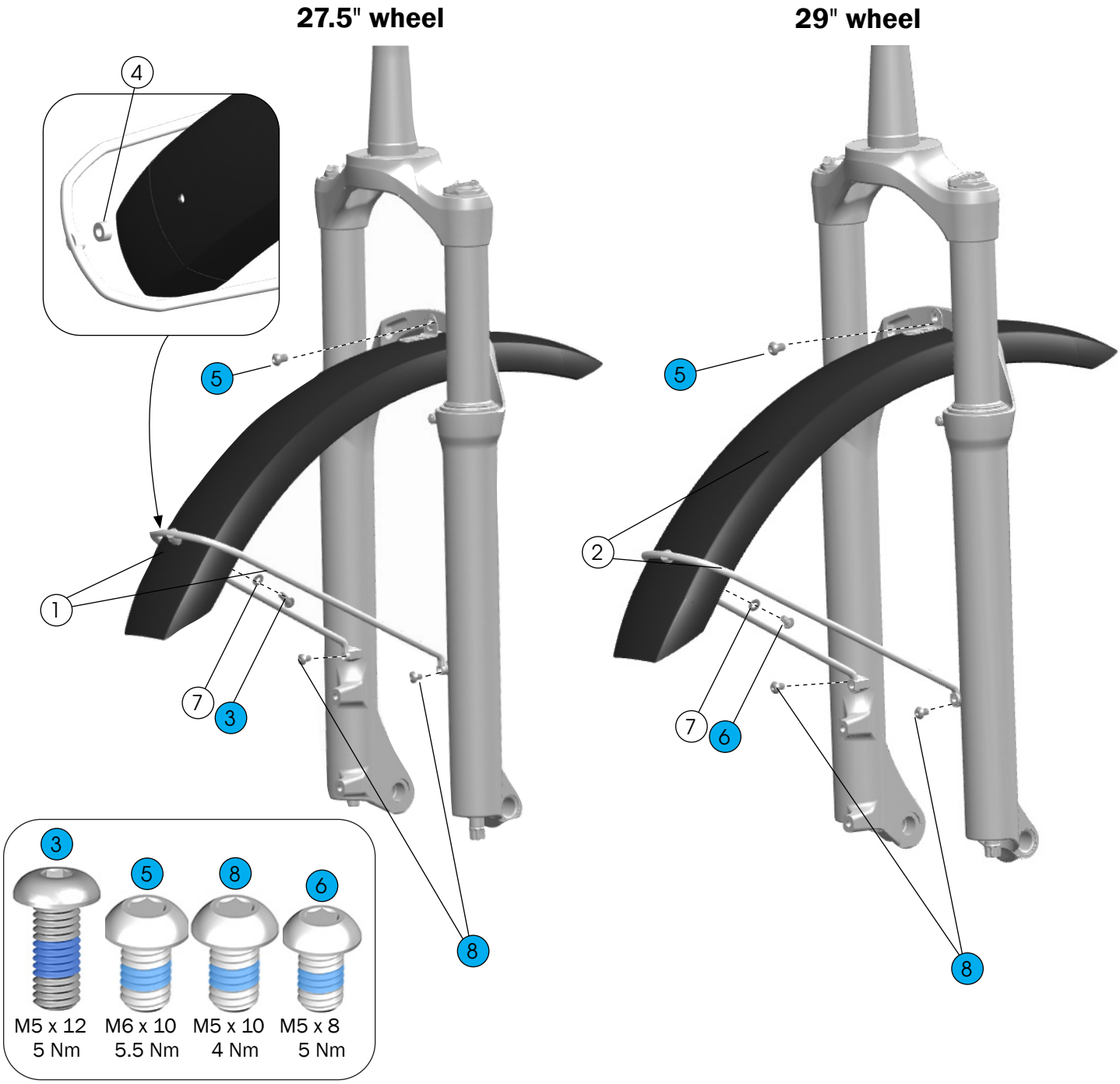


1. Rear rack — W5289961
2. Rear mudguard, 27.5" wheel — W585734

3. Bolts, stainless steel, M5 x 20 mm
4. Bolt, stainless steel, M5 X 35 mm
5. Bolt, stainless steel, M5 x 14 mm
6. Bolts, stainless steel, M5 x 30 mm
7. Washers, stainless steel, M5 x 1 mm
8. Spacer, aluminium, 24.5 mm
9. Spacer, aluminium, 16 mm
10. Spacer, aluminium, 13.8 mm

— 601266

Front mudguard

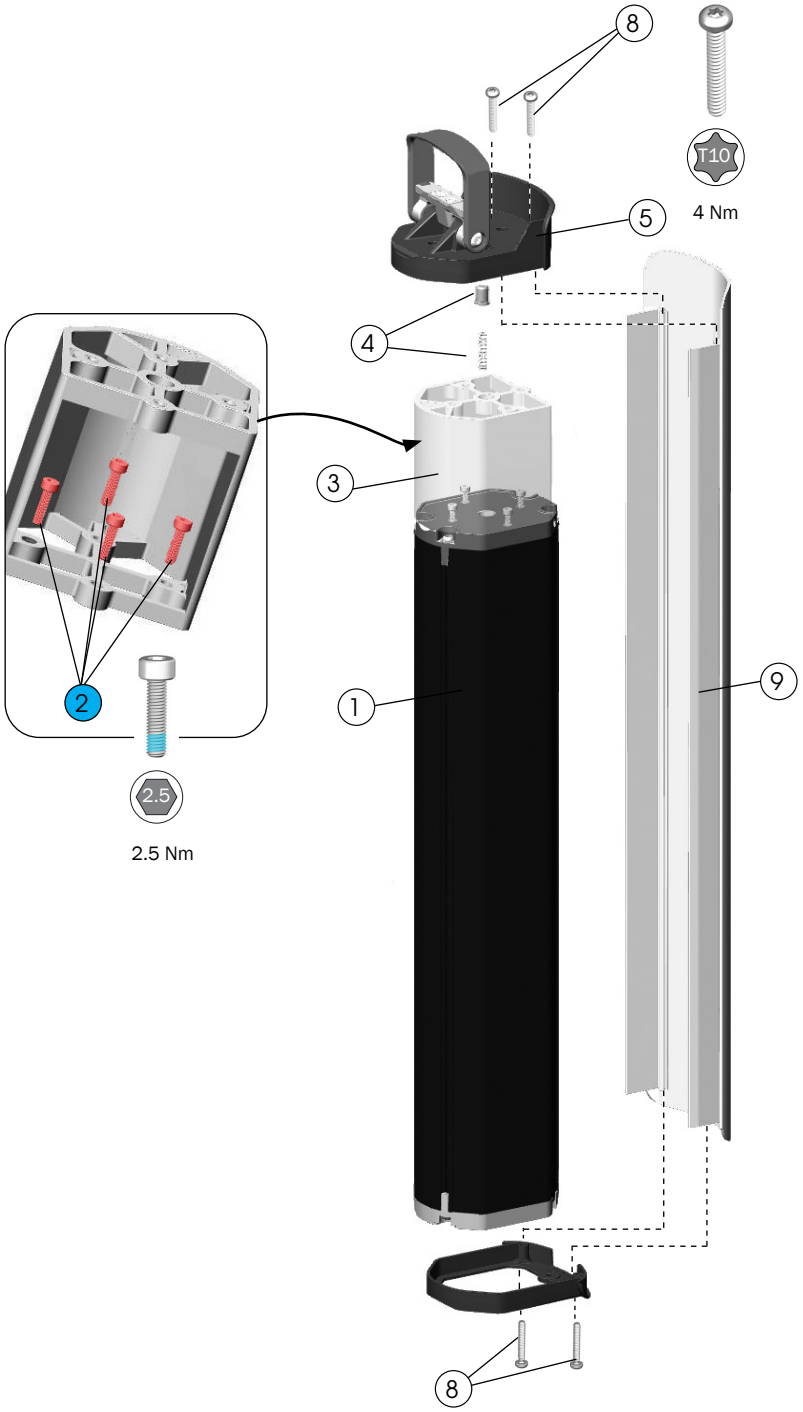


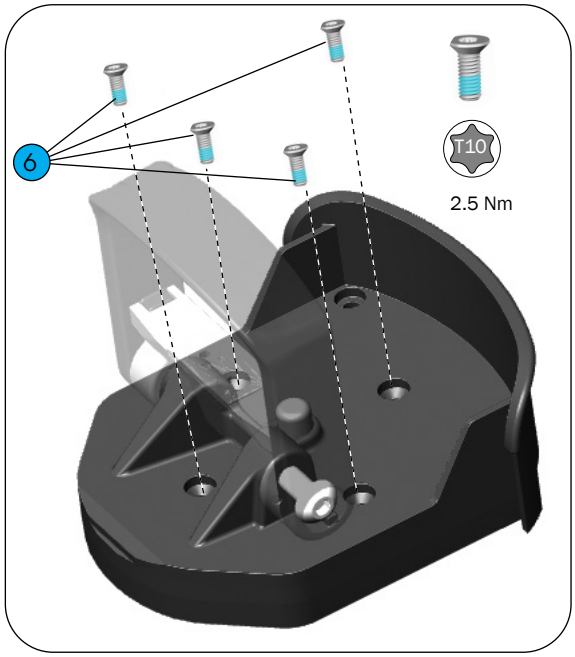
1. Front mudguard and strut, 27.5” — 601256
2. Front mudguard and strut, 29” — 601257
3. Screw, M5 x 12mm, stainless steel — W584855
4. Washer — 5319894
5. Bolt, M6 x 10 mm, stainless steel (a longer bolt may be required if using a light mounting bracket)
6. Bolt, M5 x 8 mm, stainless steel
7. Washer, M5 x 1 mm, stainless steel

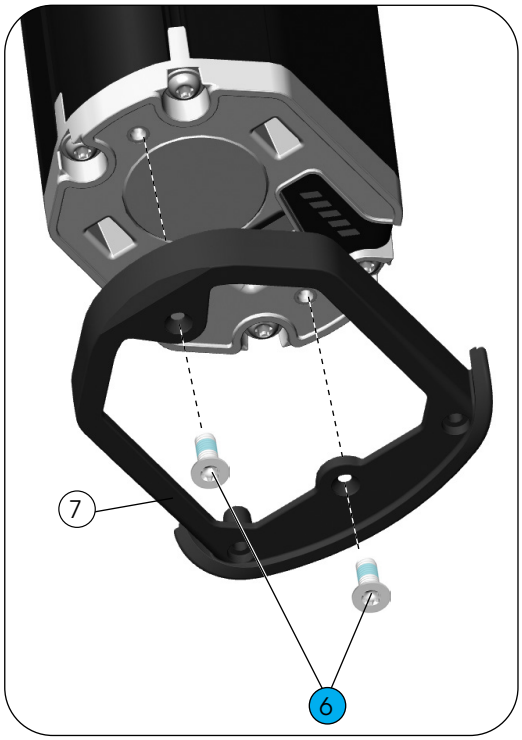
— 601267

8. Bolts, M5 x 10 mm, stainless steel — W549305

RIB — battery assembly







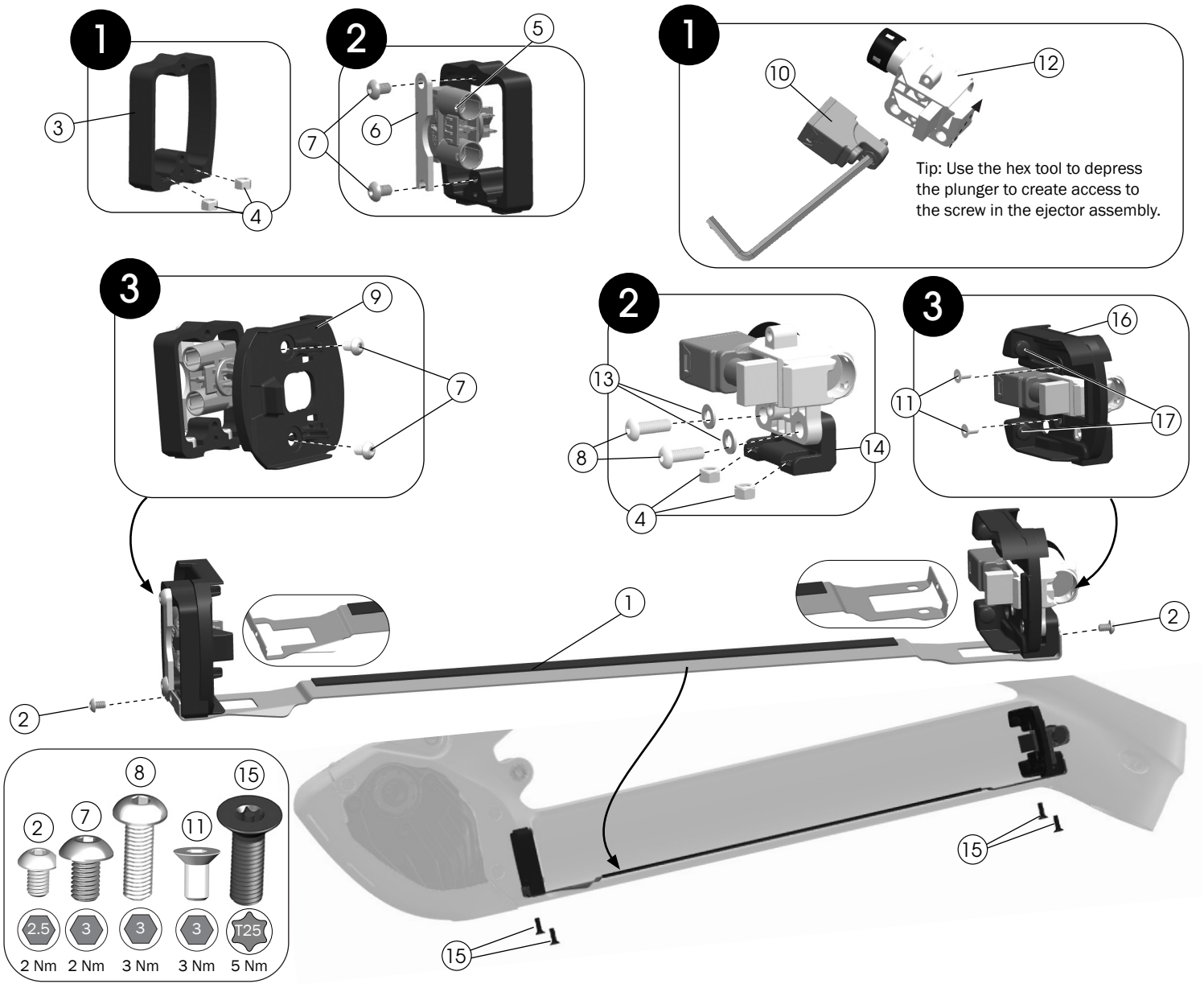
1. Battery, Vertical, Smart System
   500 Wh — EB12.100.018*
   625 Wh — EB12.100.012*
2. Socket head screws, M3 x 12 mm — W5257054
3. Spacer (for use with 500 Wh battery) — W5252256
4. Push pin and spring — 5312675
5. Battery handle assembly — W5252236
6. Bolts, M3 x 8 mm — W5269016
7. Docking bracket — W5252240
8. Bolts, M3 x 20 mm — W5254060
9. Battery cover — 44370
   Search trekbikes.com to find the colour-matched part for your bike.

*Bosch part number. Not available on trekbikes.com.

RIB — docking assembly

Lower assembly

Upper assembly



1. Alignment plate — W5252805
2. Screws
4. Locknuts
8. Screws
11. Countersunk bolts
15. T25 security screws
13. Washers

— 5257257

3. Lower docking bracket
14. Upper docking bracket

— 5277571

5. Battery connection plug — EB12.100.015*
6. Power connection retention bracket
7. Screws — W549307

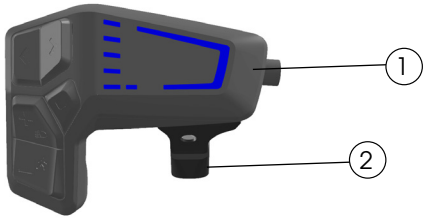
— 5312122

9. Lower battery mounting plug — W5252293
16. Upper lock cover — W5252292
17. Bumpers — 579326
10. Ejector assembly — 579324
12. Lock assembly — W562311

*Bosch part number. Not available on trekbikes.com.

Remote and displays

LED remote



1 LED remote — 5288736

2 LED remote universal clamp — 5288743

Kiox 300



Kiox 300 — 5288735

Intuvia 100

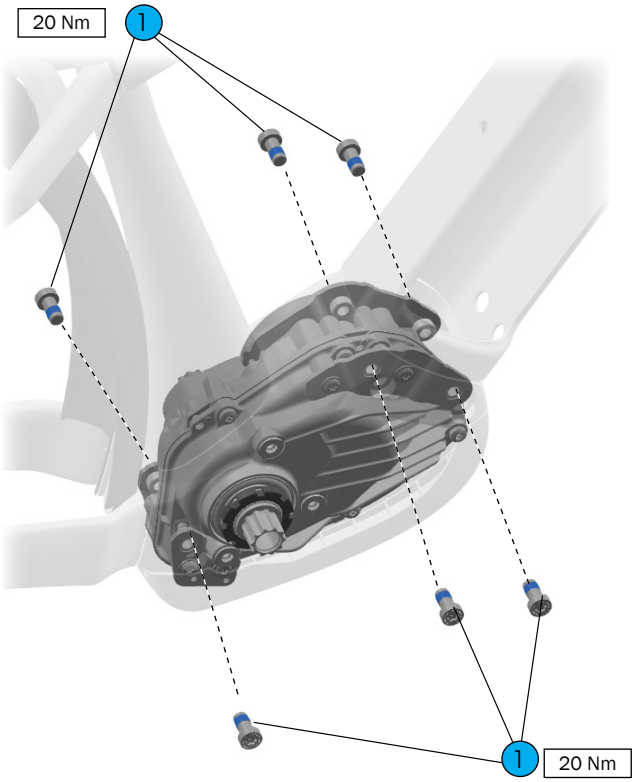


Intuvia 100 — EB13.100.00F

*Bosch part number. Not available on trekbikes.com.

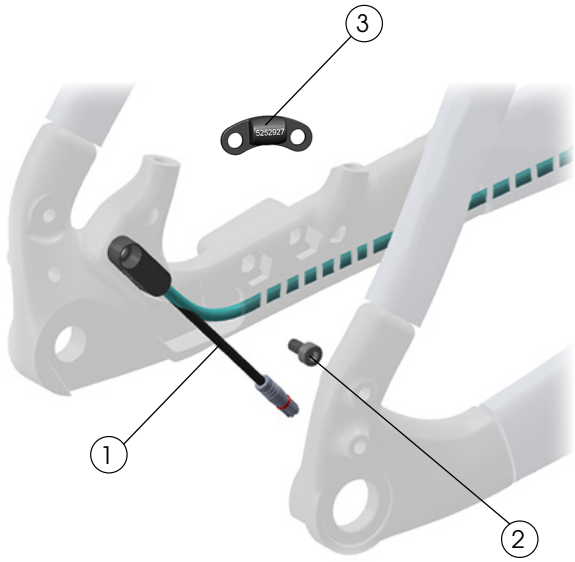
Drive system components

Drive unit and mounting bolts



1 Mounting bolts, TP40 — 5265419
(Bosch 1270.016.470)

Speed sensor

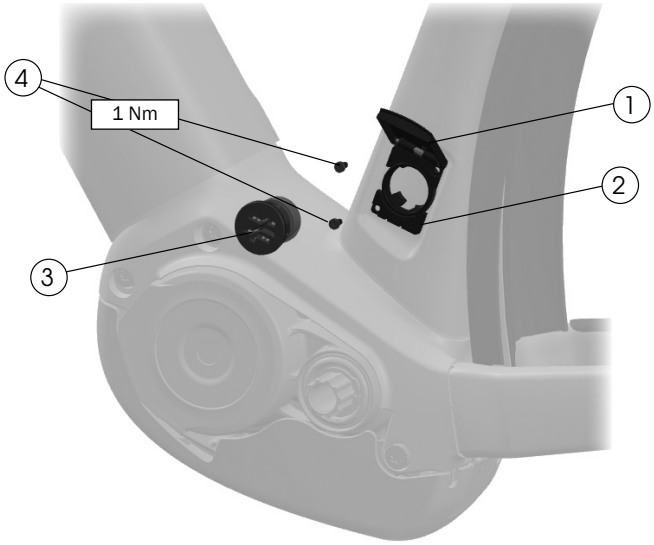


1 Speed sensor — 5284750

2 Bolt, stainless steel, M4 x 8 mm — W562831

3 Rotor mount speed sensor magnet — W5252927

Battery: charge port cover



1 Charge port cover — 44372
Search trekbikes.com to find the colour-matched part for your bike.

2 Base — W5251862

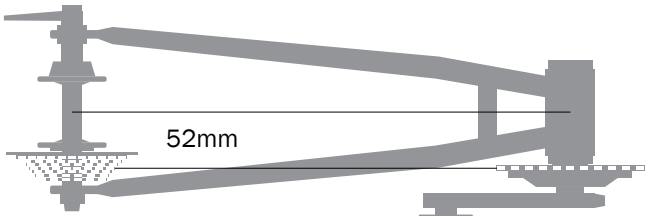
3 Charge socket — EB12.120.04A*

4 Bolts, M3 x 6 mm — 5284849

*Bosch part number. Not available on trekbikes.com.

Specifications

Chain line (1x only)



- Boost hub with offset chain ring.

Max chain ring (1x only)

- 38T

Rear brake mount

Minimum	Maximum
180 mm, direct mount	Adaptable to 203 mm

Maximum tyre size

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

Frame size	Maximum tyre size
XS, S	27.5″ x 2.6”
M, L, XL	27.5” x 2.8”, 29” x 2.6”

Water bottle fit

XS and S: Maximum 444 ml (15 oz) bottle on seat tube and 621 ml (21 oz) bottle down tube.

Seat post

WARNING

Always follow the seat post manufacturer’s minimum insertion recommendation. Failure to follow the recommendation could cause damage to the seat post and result in injury to the rider.

Measurement		
Maximum insertion	Frame	
	XS	232mm
	S	265mm
	M	291mm
	L	341mm
	XL	392mm
Seat tube inside diameter		31.6 mm
Seat tube post clamp outer diameter		36.4mm

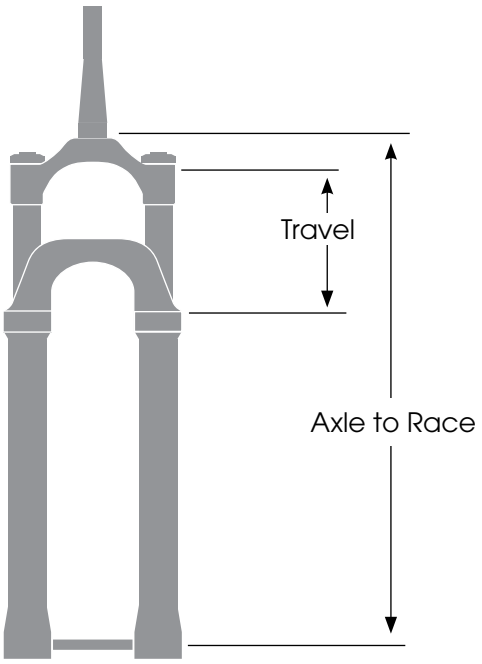
Fork

Refer to the suspension setup card included with your bike or the suspension calculator at

Trekbikes.com/suspension-calculator.

WARNING

Exceeding the recommended maximum fork length could damage the bicycle and result in injury to the rider.



Frame size	Axle to Race (mm)		Travel (mm)
XS, S	Recommended	455	80
	Maximum	492	100
M, L, XL	Recommended	509	100
	Maximum	526	120