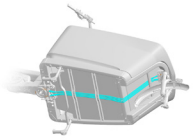


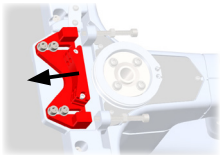
2023 FETCH+ 4

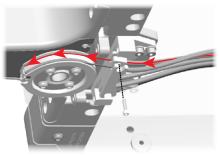
SERVICE MANUAL

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Cable system

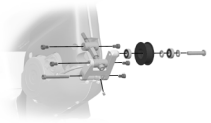

Adjust cable tension

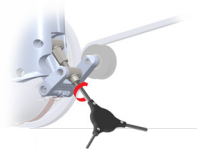

Replace steering cables

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Belt guard

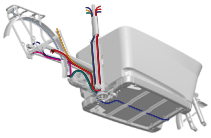

Drive unit cover

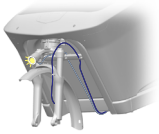

Belt tensionerr

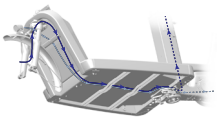

Adjust belt tension


Align belt

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Rear


Front


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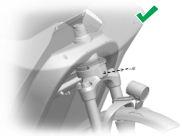

Install battery guide


Lock, cover, and charge port

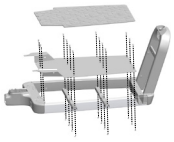
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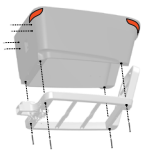

Rear assembly

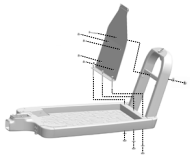

Front assembly

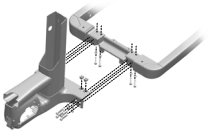

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Floor plate and mat


Cargo box

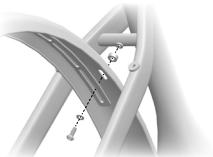

Front cover


Frame assembly

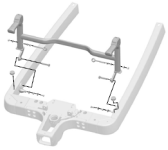

Frame tightening sequence

Accessories
pages 26-32


Front fender and light


Rear fender and light and light


Ring lock


Kickstand


Child seats

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About this manual

Scope

This manual contains parts diagrams, specifications (such as grease and torque values), instructions, and helpful tips (such as the easiest direction to route cables).

This manual does not contain instructions on all components (such as brake calipers). Refer to the original manufacturer for more information.

Working on a front cargo bike

The length, weight, and box size make working on this bicycle more difficult. Do not use a regular repair stand to lift the bicycle — use a ceiling-mounted hoist.

If you do not have a hoist, you can do many repairs by tipping the bicycle on it's side.

Interactive models

Additional info

There are additional manuals available at Trekbikes.com/manuals.

- E-Cargo Owner's Manual — comprehensive instructions that come with your bicycle
- Bosch BES3 E-bike Manual — detailed instructions on the e-system found under Electric bikes > 2023

Legend

Zip tie

Nm Torque value



Apply threadlocker



Apply appropriate grease

Warnings

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.

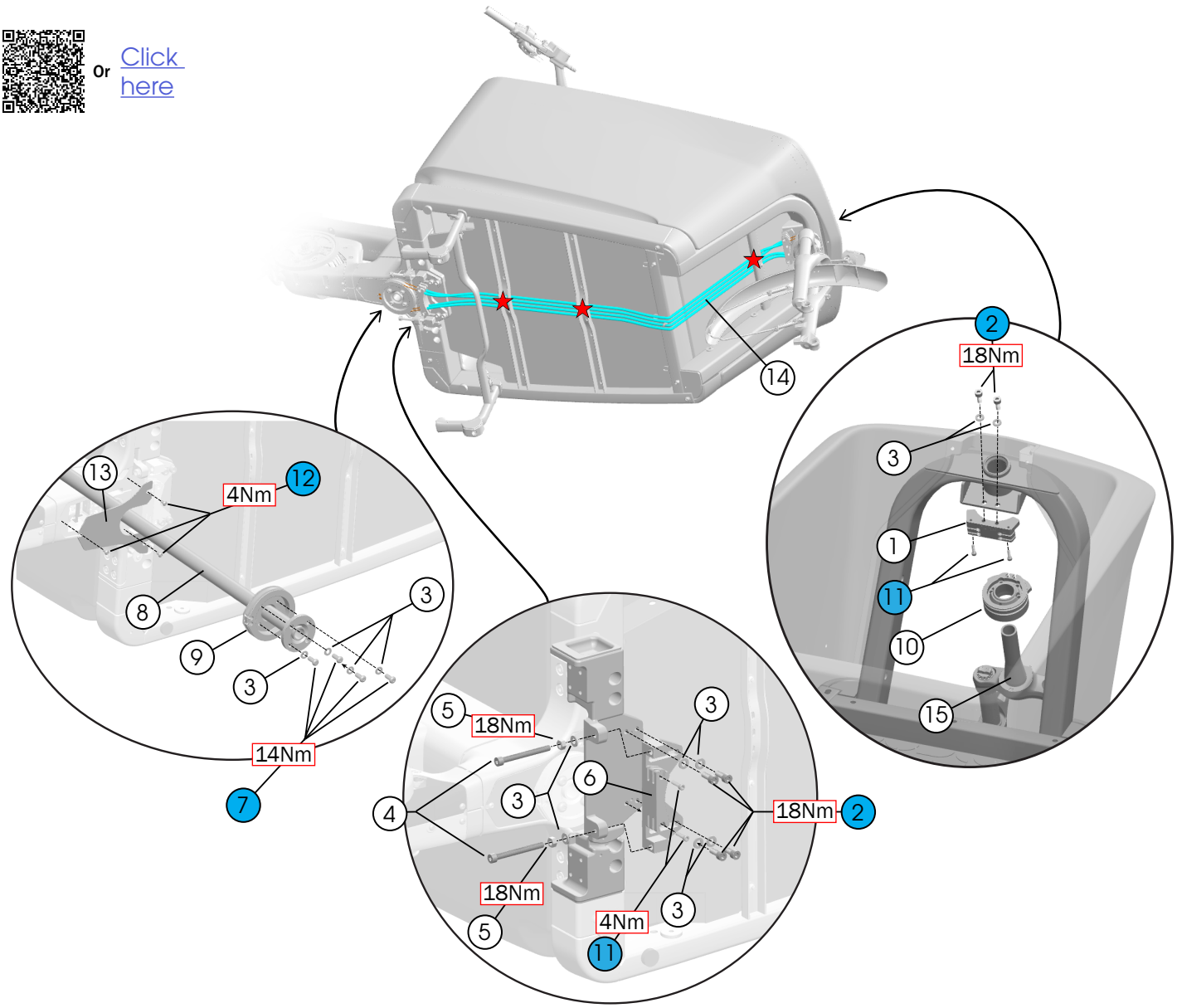
WARNING

Reapply threadlocker

All reused-fasteners with pre-applied threadlocker must be cleaned with isopropyl alcohol and have new thread-locker 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.

Steering: cable system

Or Click here



1 Cable mount (front) — W5257125

2 Bolts (M8x20mm)
3 Washers (M8)
4 Bolts (M8x80mm)
5 Nuts (M8)
— 5284657

6 Cable mount (rear) — W5257126

7 Bolts (M8x20mm) — 5284656

8 Steerer tube (rear)
9 Steering disc (rear)
— 5284549

10 Steering disc (front) — 5284720

11 Bolts (M5x20mm) — 5304417

12 Bolts, T25 drive (M5x10mm) — 5284857

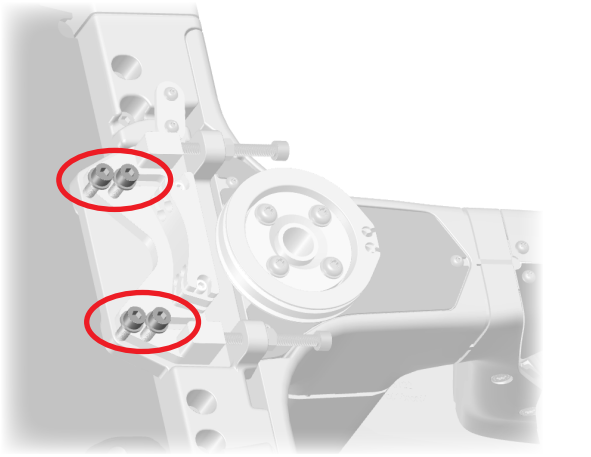
13 Steering column cover — W5268883

14 Steering cables — 5284692

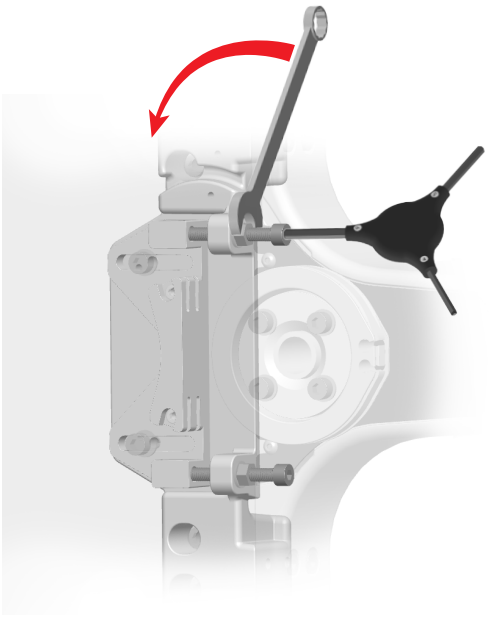
15 Fork — W5266799

Steering: adjust cable tension

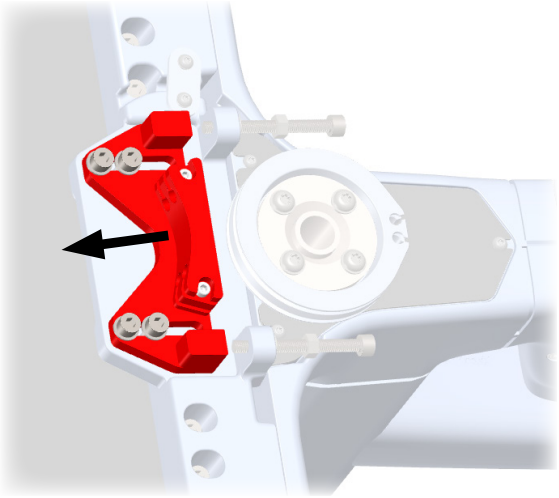
1. Loosen the four rear cable mount bolts (2) — do not remove them.



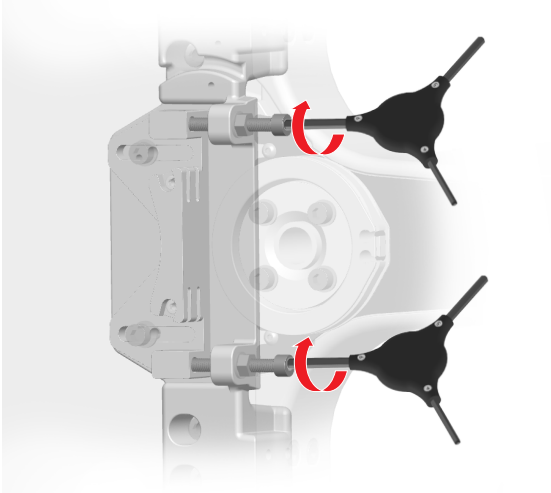
2. Hold the tensioning bolt (4) in place and use a 13mm wrench to loosen the tensioning nut (5). Then, loosen the tensioning bolt (4) to remove tension from the cables. Repeat for the other side.



3. Move the cable mount (6) to increase tension in the cables.



4. Tighten both tensioning bolts (4) — alternating between them to keep the cable mount parallel — until they are snug into the cable mount (6). Then, tighten both tensioning nuts (5) to 18Nm.



5. Test the front wheel steering and adjust the cable tension, if necessary. There should be no noticeable slack when steering quickly.
   - Too loose — the wheel will feel disconnected from the steering.
   - Too tight — the steering will feel heavy with a lot of friction.

   Notice: If the cables are too tight, the bearings will wear out much faster than if the cables are tensioned properly.

6. Tighten all four rear cable mount bolts (2) to 18Nm (see Step 1).
7. Tighten both tensioning nuts (5) to 18Nm.

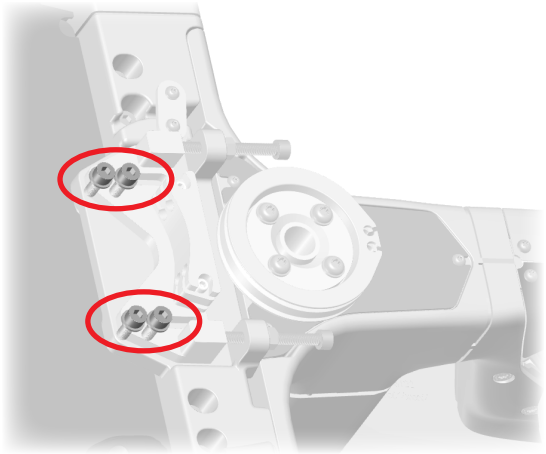
Steering: replace steering cables

Replace all four cables every two years or 10,000km/6,000mi.

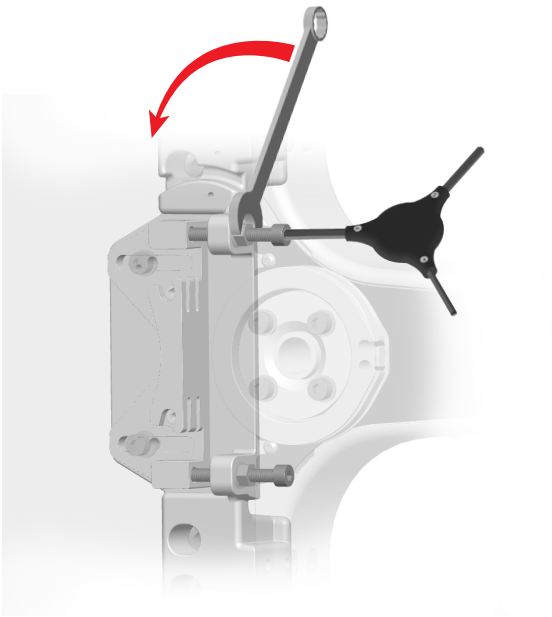
NOTE: If a cable is damaged and needs repair, replace all four cables — not just the damaged one.

Remove the cables from the rear disc

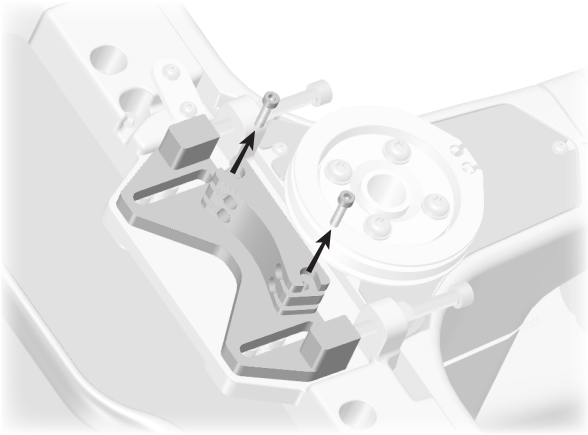
1. Cut the three zip ties connecting the steering cables to the frame (see the zip tie locations on page 1).
2. Loosen the four rear cable mount bolts (2) — do not remove them.



3. Hold the tensioning bolt (4) in place and use a 13mm wrench to loosen the tensioning nut (5). Then, loosen the tensioning bolt to remove tension from the cables. Repeat for the other side.



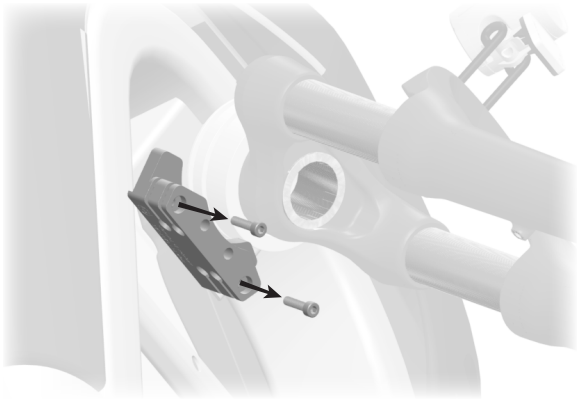
4. Remove the two bolts (11) securing the steering cables in the rear cable mount.



5. Slide the cable mount (6) towards the steering disc to relieve tension on the cables.
6. Remove the cables from the steering disc.

Remove the cables from the front disc

1. Loosen the two bolts (11) securing the steering cables in the front cable mount (1).



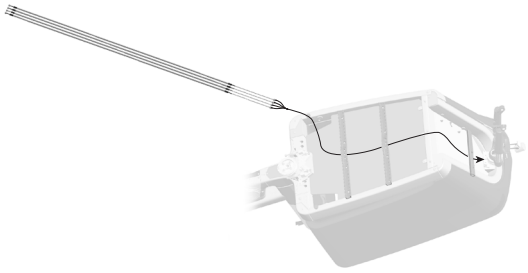
2. Remove the cables from the front steering disc.

Steering: replace the steering cables (continued)

Insert the cables into the front disc

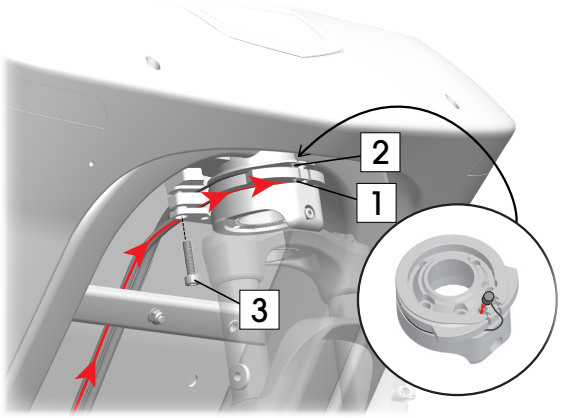
NOTE: The cables may be slightly different lengths — there is no certain order you need to install them. They will stretch and even out after use.

1. Route the four cables through the frame brackets.



2. Route one cable into the lower section of the front steering disc. Then, route another cable in the upper section. Install one bolt (12) into the cable mount and torque to 4Nm to secure the two cables.

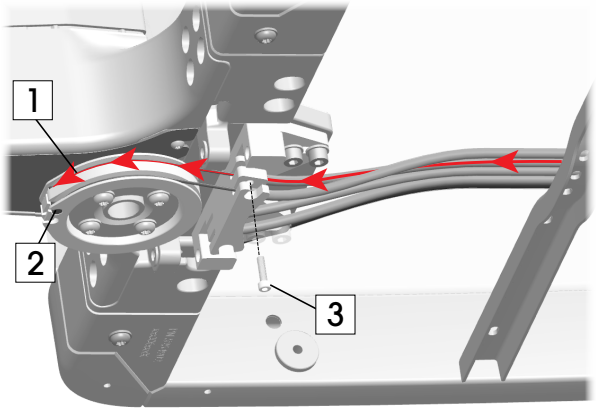
   IMPORTANT: Make sure the cable end stop is fully inserted into the cable mount or you will not have enough slack when you install the cables in the rear disc.



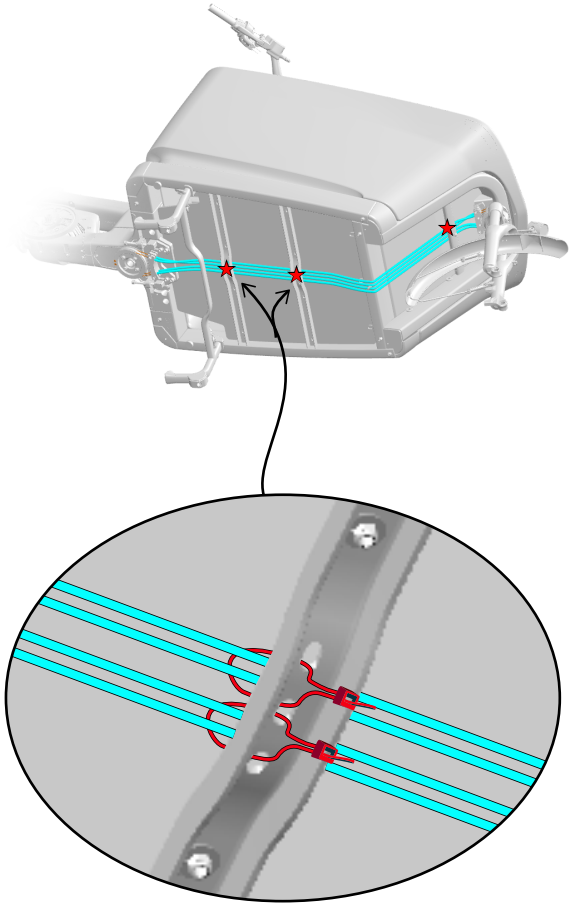
3. Repeat Step 2 for the other side.

Insert the cables into the rear disc

1. Route the rear cables as shown below.

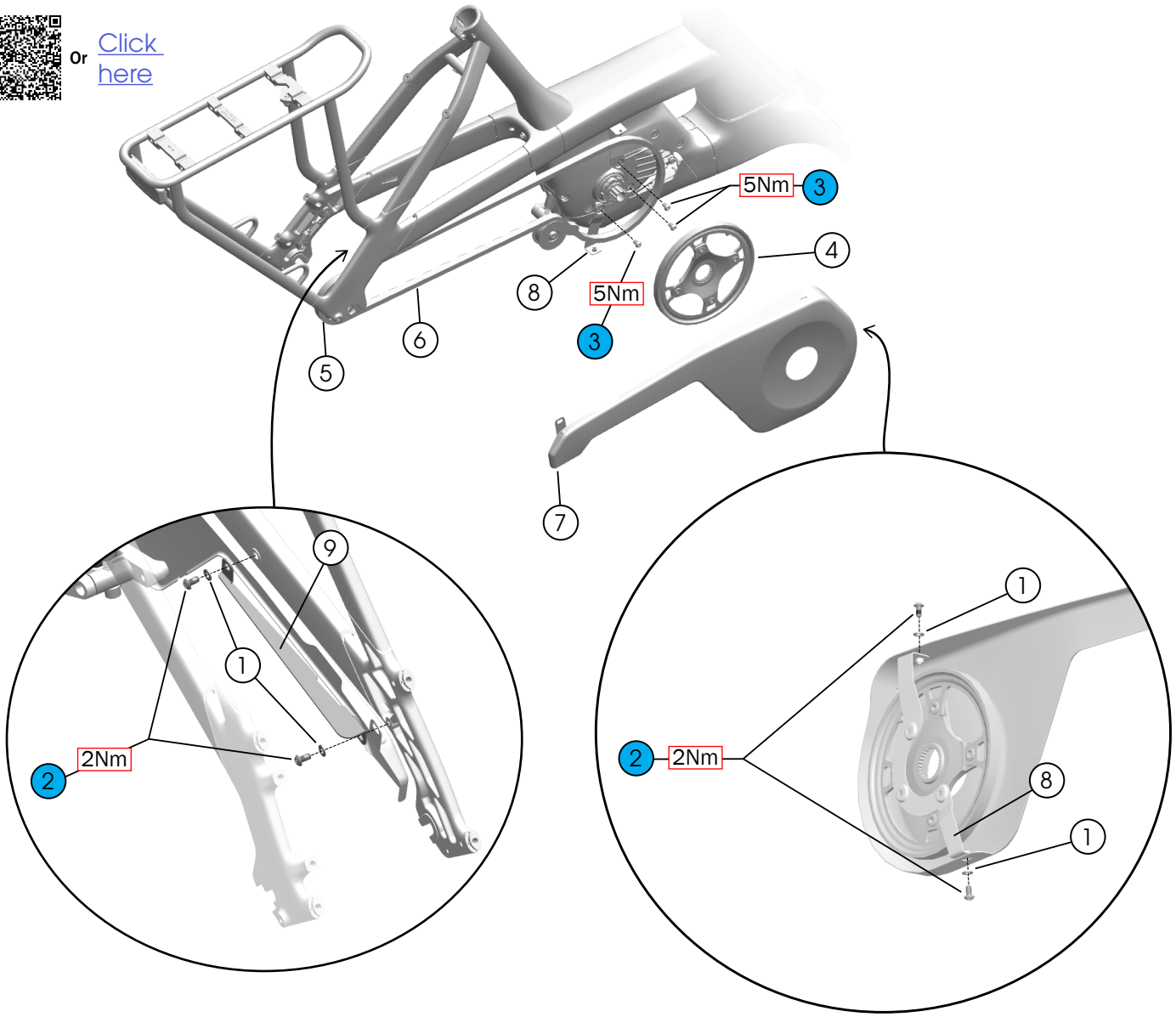


2. Tension the cables followings Steps 3-7 on page 2.
3. Use six zip ties to attach the cables to the frame as shown below.



Drivetrain: belt guard

Or Click here



1. Washers (M5)
2. Bolts, T25 drive (M5x10mm)
3. Bolts (M6x10mm)

— 5284857

4. Beltring (50T) — W5285189
5. Sprocket (22T) — W590978
6. Belt (128T) — W571473

7. Belt guard
8. Belt guard bracket
9. Belt guard bracket addition **North America only*

— 5280793

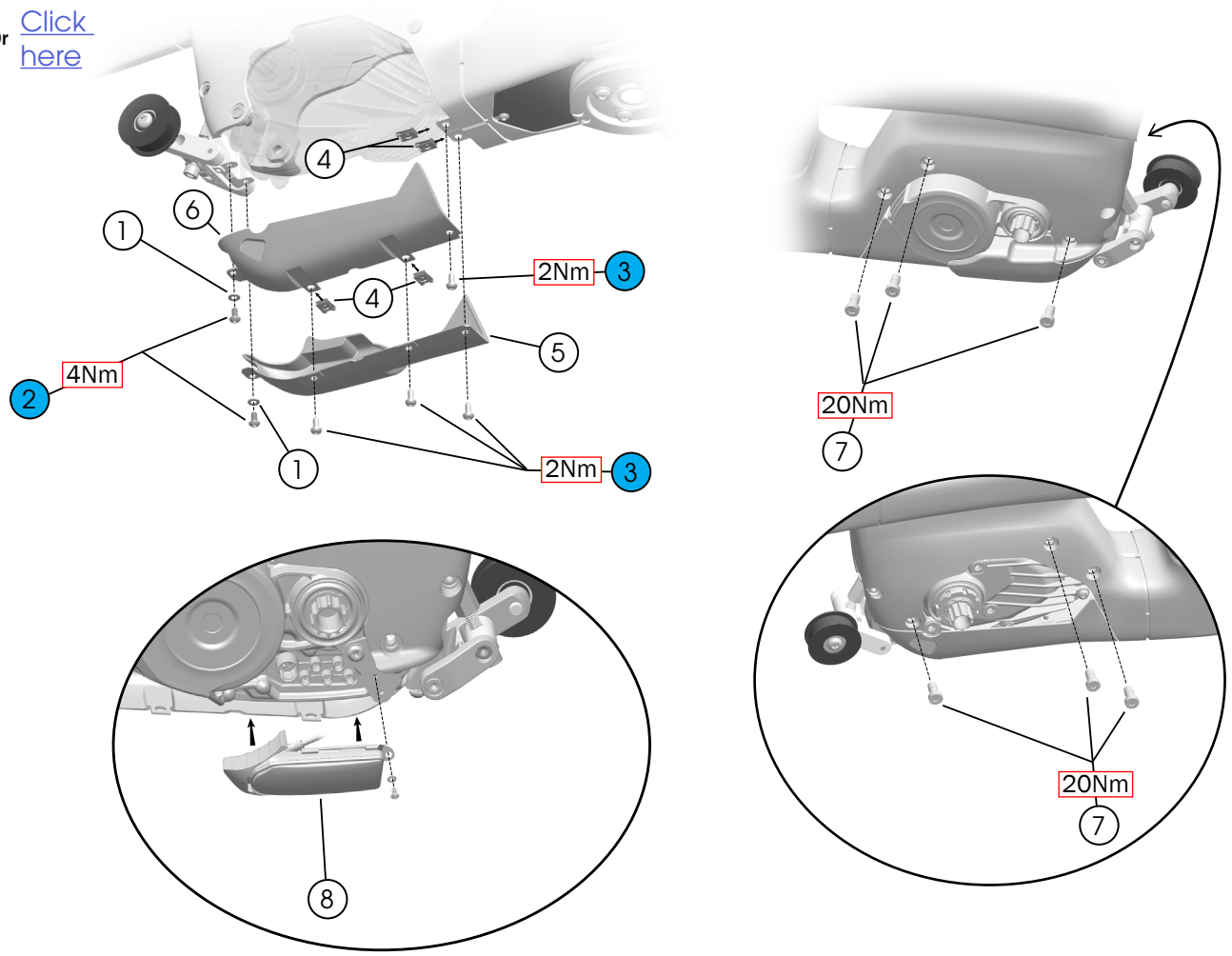
Before removing the belt

- Remove the belt guard
- Remove the rear wheel
- Remove the driveside crank arm
- Release tension in the belt (see page 8)

See the manufacturer's specifications for more info: GatesCarbonDrive.com.

Drivetrain: drive unit cover

Or Click here



1. Washers (M5)
2. Bolts, T25 drive (M5x10mm)
3. Bolts, T25 drive (M4.8x13mm)
4. Sheet nuts (M4.8)

— 5284548

5. Drive unit cover (non-drive side)
6. Drive unit cover (drive side)

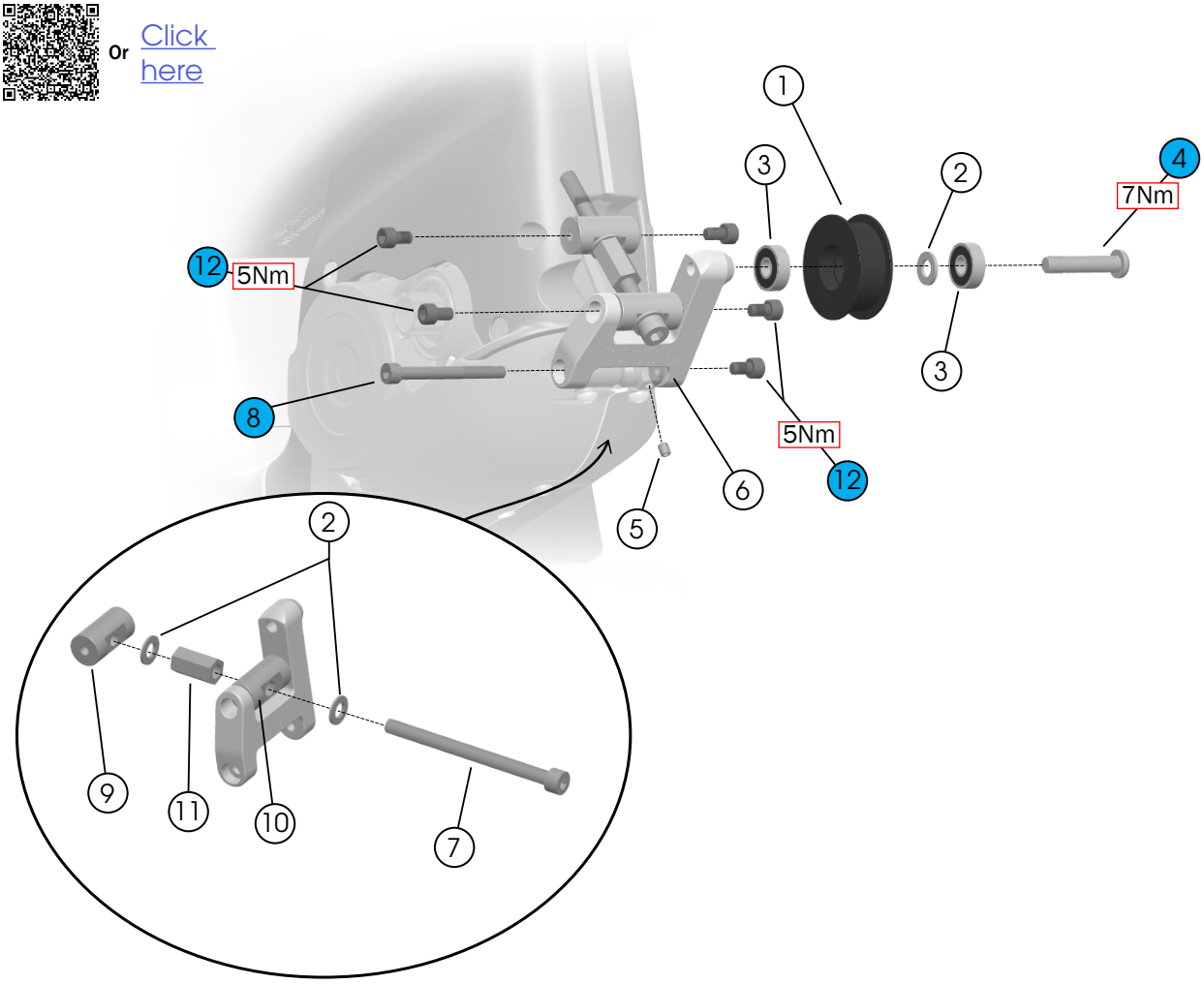
— 5280792

7. Mounting bolts, T40 drive (M8x16mm) — **1270.016.470*
8. Bosch connect module BCM3100 — **EB13.200.02L*

**Bosch part numbers are not available on Trekbikes.com.*

Drivetrain: belt tensioner

Or Click here



1. Belt roller
2. Washers (M8)
3. Bearings
4. Bolt (M8x40mm)

— 5291300

5. Bolt socket set screw — W5282014

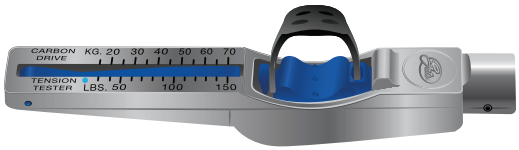
6. Tensioner arm
7. Tensioning bolt (M8x100mm)
8. Bolt (M6x60mm)
9. Tensioning nut (upper)
10. Tensioning nut (lower)
11. Coupling nut
12. Bolts (M6x10mm)

— 5280807

Drivetrain: adjust belt tension

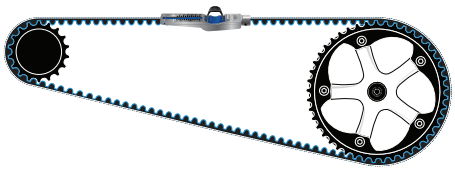
Measure the belt tension

DESIRED TENSION: 45-60 Hz (35-45 lbs)



Gates Krikit Tension Gauge

1. Measure the belt tension using a tension gauge (such as the Gates Krikit Tension Gauge). See the technical manual at GatesCarbonDrive.com.



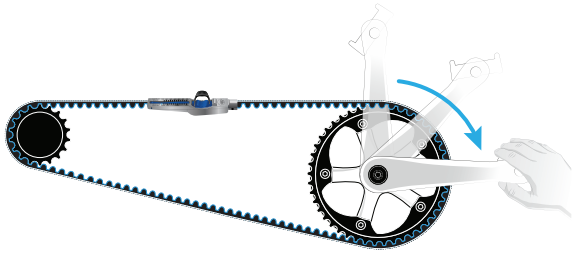
Source: Gates Corporation

TIP: You can also measure the tension using the methods listed below. Trek suggests using the Gates Krikit Tension Gauge for the most precise measurement.

- Your finger — push down in the middle of the belt. There should be 6-12mm of vertical movement.
- Gates Carbon Drive app on your phone — this app measures belt tension through sound. Use the desired tension listed above.

2. Rotate the cranks 1/4 turn and measure the tension again. Repeat this at four different positions and average the measurements. If there is not enough tension, tighten the belt following the procedure to the right.

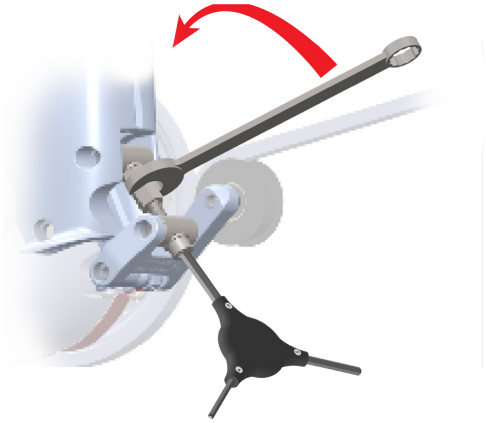
NOTE: If there is a large difference between measurements, the front beltring may be misaligned (see page 9).



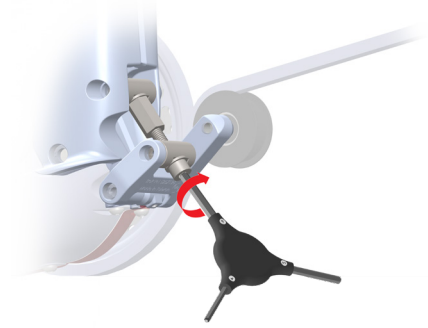
Source: Gates Corporation

Tension the belt

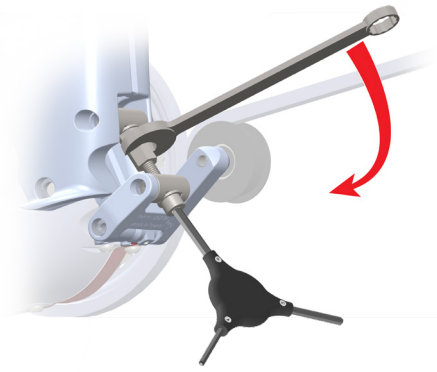
1. Hold the tensioning bolt (7) in place and use a 13mm wrench to loosen the coupling nut (11).



2. Tighten the tensioning bolt (7) until you reach proper belt tension.



3. Verify the belt tension at different crank positions and average the results. Tighten or loosen the tensioning bolt (7), if necessary.
4. Hold the tensioning bolt (7) in place and use a 13mm wrench to tighten the coupling nut (11).

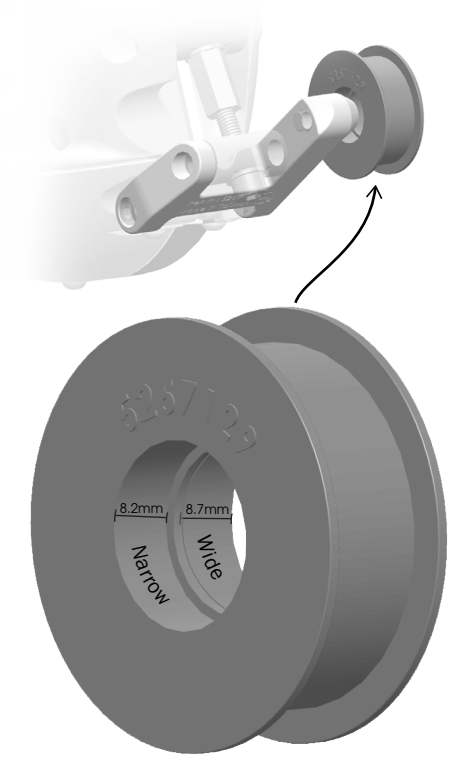


5. Rotate the cranks forward and backward to make sure the belt is centered on the belt roller (1).
6. Verify the tension and adjust, if necessary.

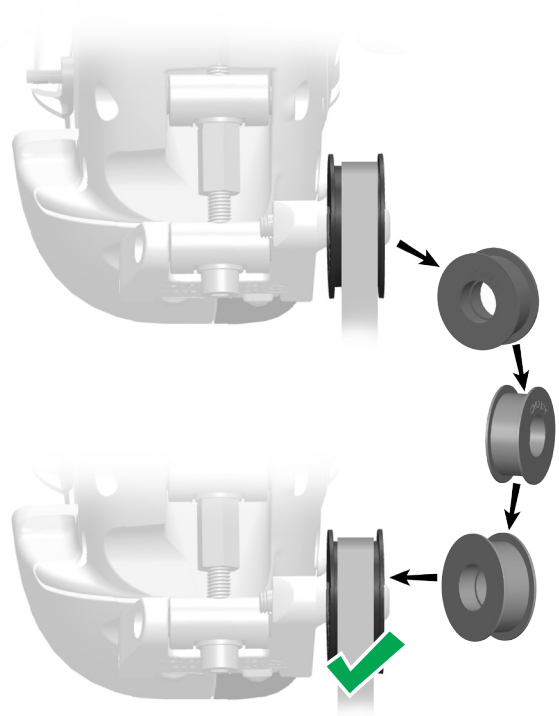
Drivetrain: align belt

Center the belt on the belt roller

The notch in the middle is slightly off-center.



The belt may become off-center in the belt roller over time. If the belt continually touches the outer belt roller edge while pedaling, flip the belt roller around 180°. This moves the belt roller 0.7mm outward.



Adjust the belt angle

The belt roller should be parallel to the belt. If the belt roller gets out of alignment, tighten or loosen the set screw (5). This adjusts the angle of the tensioner arm.



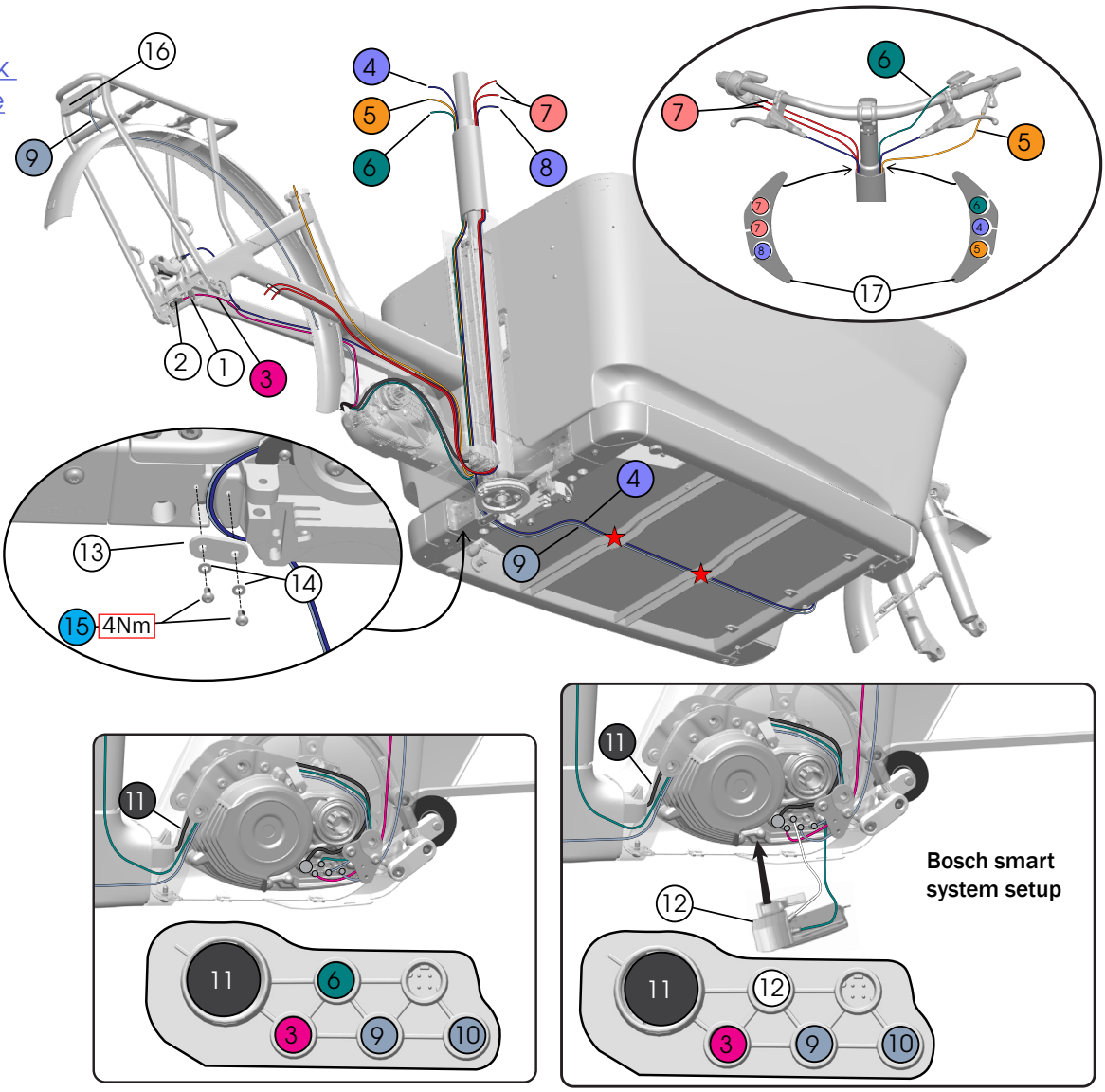
1. Tighten or loosen the set screw until the belt is parallel to the belt roller.



2. Verify the belt tension and adjust, if necessary (see page 8).

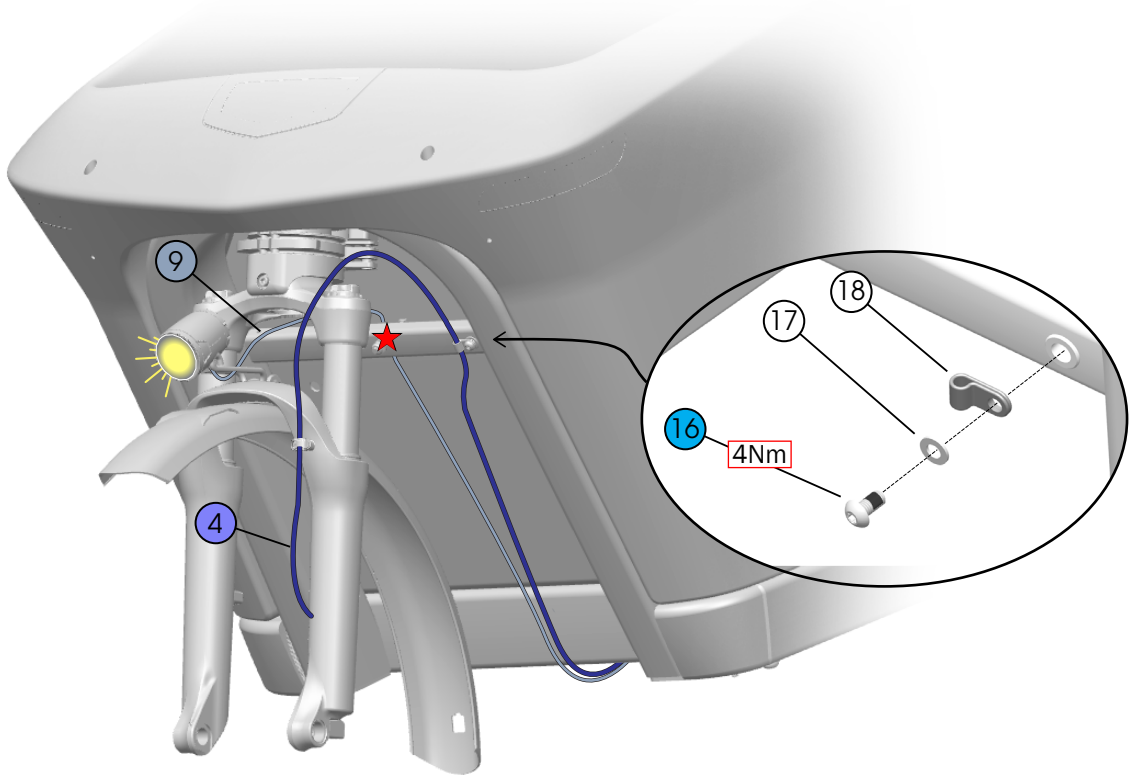
Routing: rear

Or Click here



1. Cable manager — W316706
2. Bolt (M4x6mm) — 5284750
3. Speed sensor and wire — 5284750
4. Front brake hose
5. Dropper post cable
6. Remote wire
7. Shift cables
8. Rear brake hose
9. Front light wire
10. Rear light wire
11. Drive unit cable
12. Bosch Connect Module — 5282027
    Europe and North America only
13. Cable bracket — W5290750
14. Washers (M5) — 5304416
15. Bolts (M5x10mm) — 5304416
16. Rear light — W504513
17. Cable guides — W5309355

Routing: front



4 Front brake hose

9 Front light wire

16 Bolt (M5x10mm), T25 drive

17 Washer (M5)

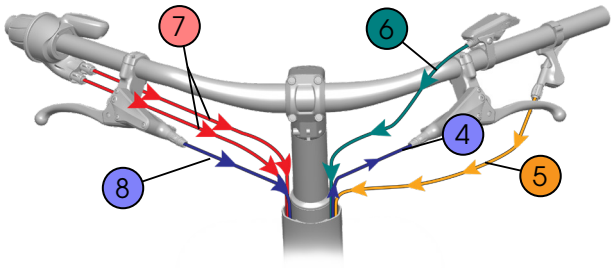
5304417

18 Cable clamp — *W2016621*

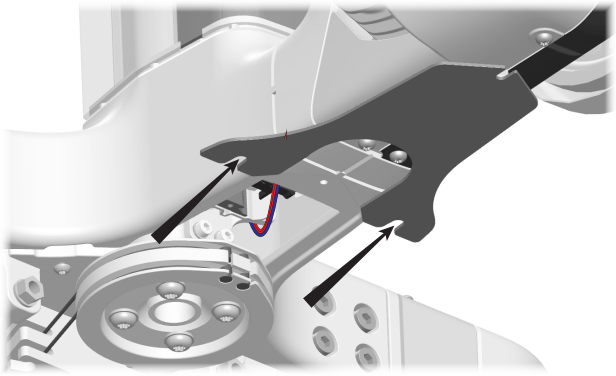
Routing: instructions

Rear headset

1. Route all handlebar cables/wires/hoses down through the frame — except the front brake. Use the current housing as a guide when pulling a new one through.

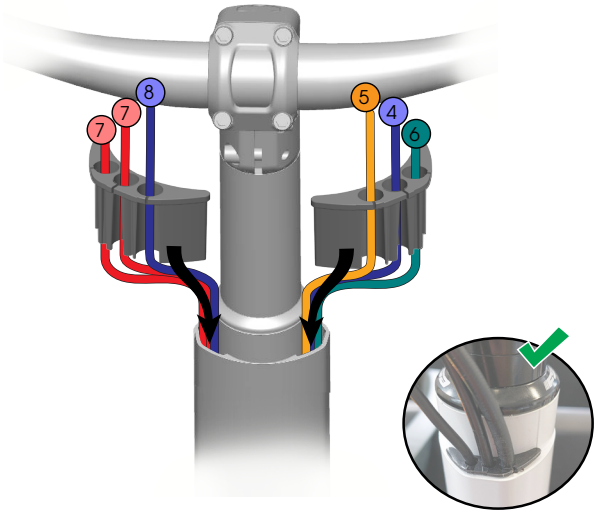


2. Route the cables through the frame. Remove the steering column cover (see page 1) and non-driveside motor cover (see page 6) to access the cables easier.



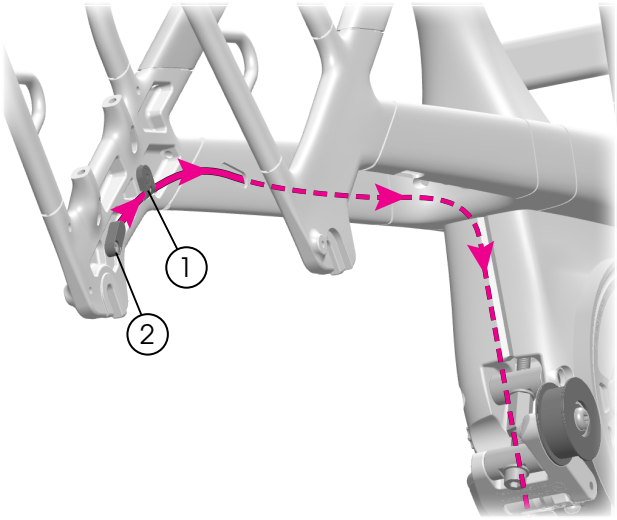
NOTE: Remove the motor to have additional access to the cables (see page 6).

3. Install the cable guides (17).



Speed sensor

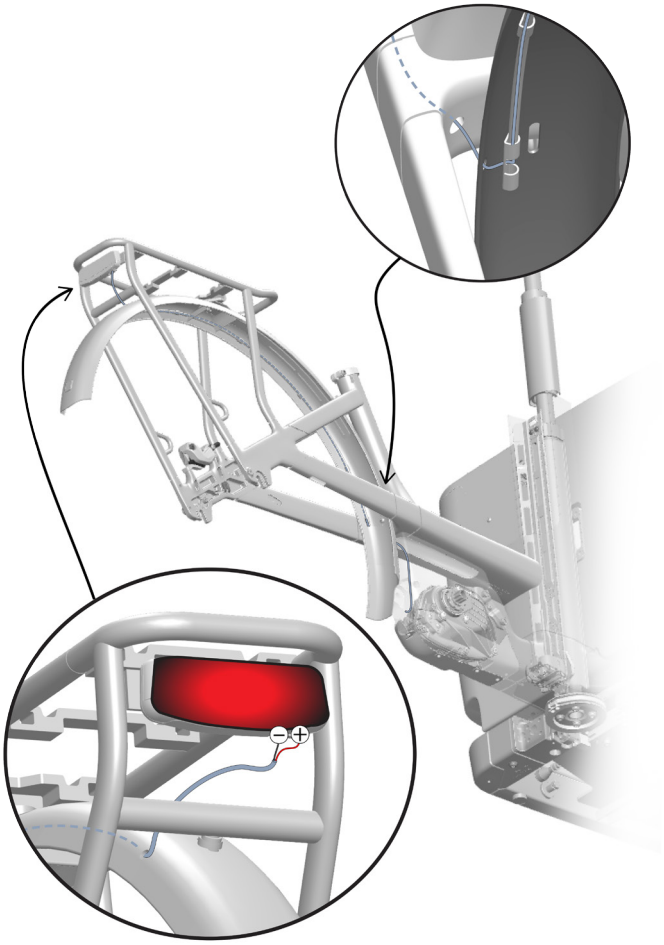
Route the wire from the back — through the chainstay — to the drive unit.



Routing: instructions (continued)

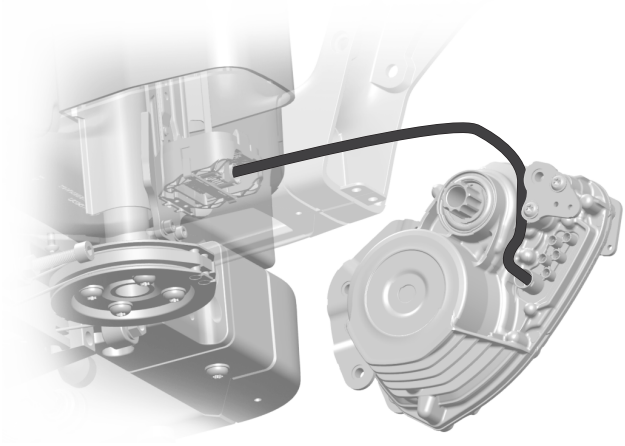
Rear light

You must remove the rear wheel to route the wire. Make sure there is no slack in the wire between the fender and the tire.



Drive unit cable

With the drive unit removed, connect the drive unit cable (11) at both ends before reinstalling the drive unit.

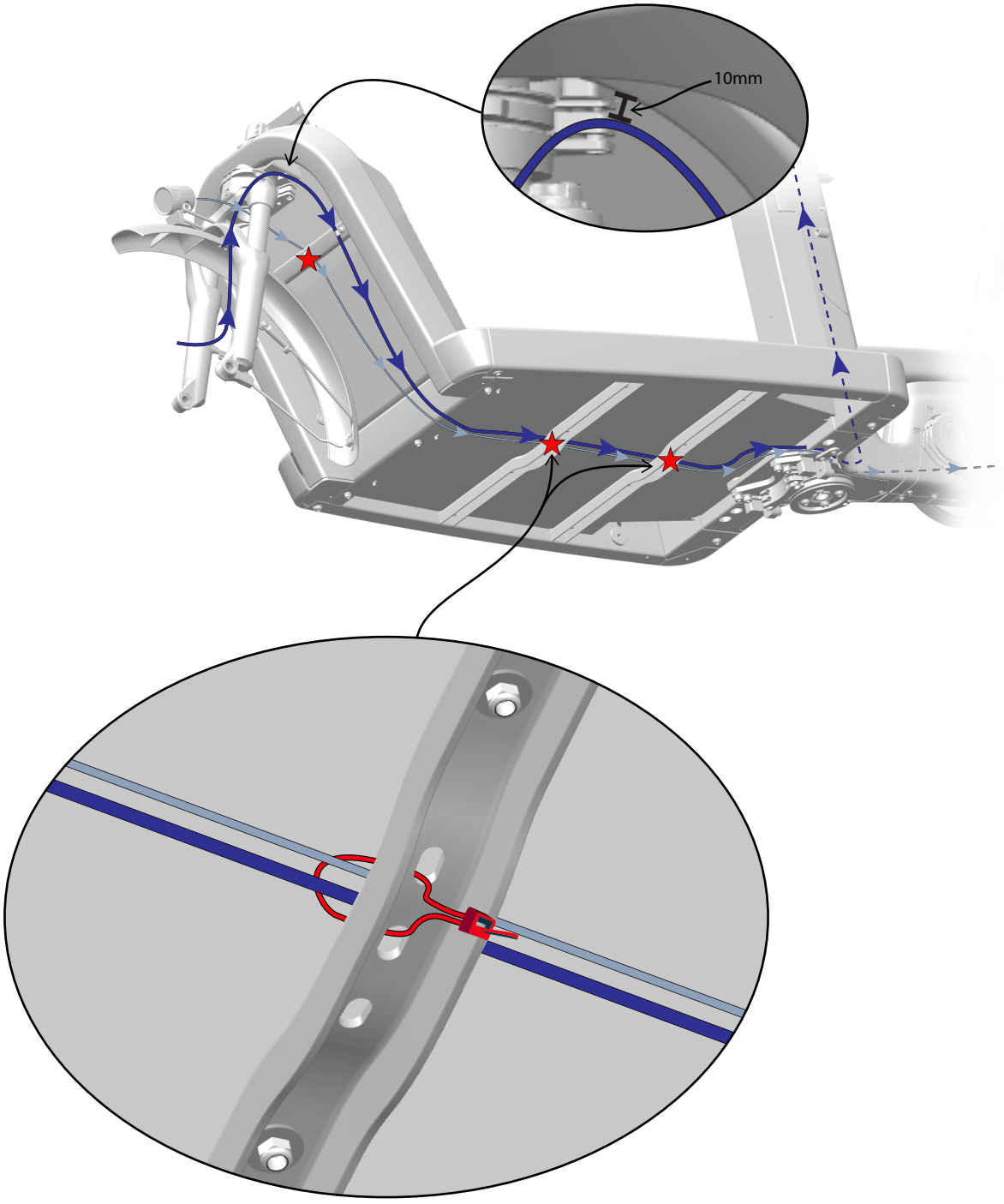


Routing: instructions (continued)

Front brake and front light

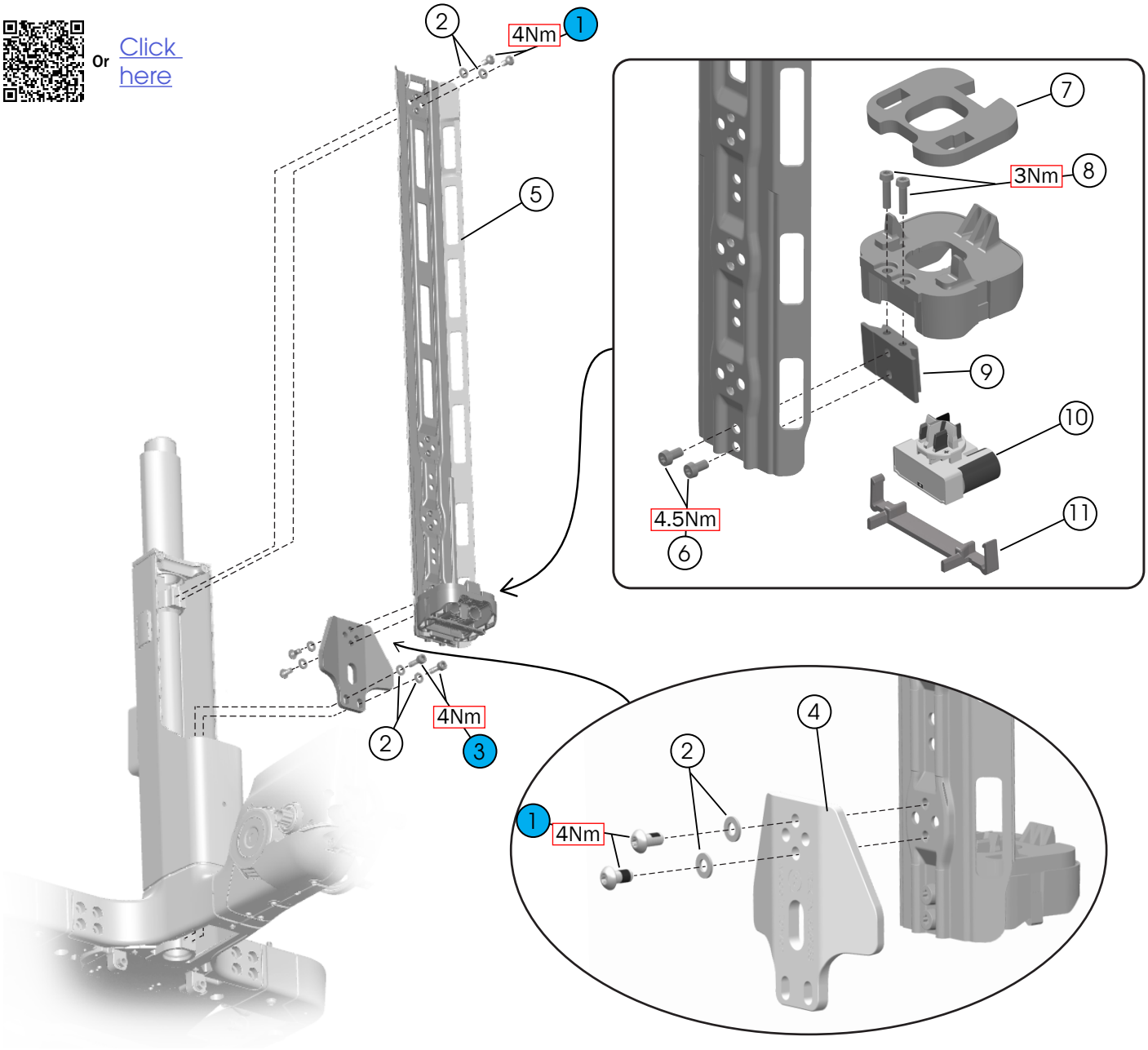
Route the front brake hose and front light wire — starting from the front — under the frame as shown below.

Note: The front brake hose must have enough slack to turn the front wheel back and forth fully — without interference. The brake hose must have a 10mm (3/8” in) gap to the cargo frame as shown below.



Battery: guide

Or Click here



1. Bolts, T25 (M5x10mm)
2. Washers (M5)
3. Bolts (M5x14mm)

— 5284856

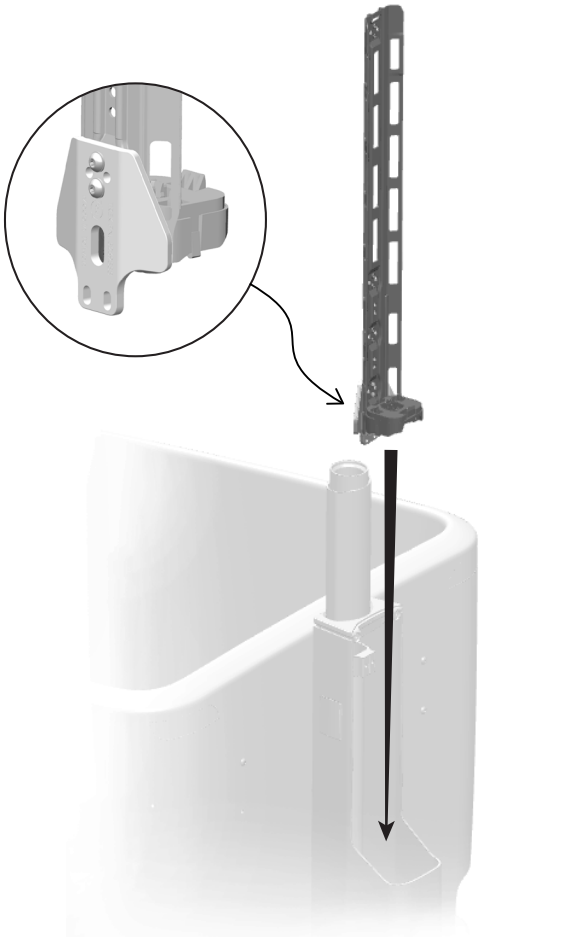
4. Mounting extension — W5269383
5. Guide rail — **EB12.100.01R*
6. Bolts, T20 (M5x9mm) — **EB12.100.01Y*
7. Damper foil plug — **EB12.100.01Z*
8. Bolts, T25 (M4x16mm) — **EB12.100.01X*
9. Cradle — **EB12.100.01B*
10. Battery adapter — **EB12.100.015*
11. Clamp ring — **EB12.100.02D*

**Bosch part numbers are not available on Trekbikes.com.*

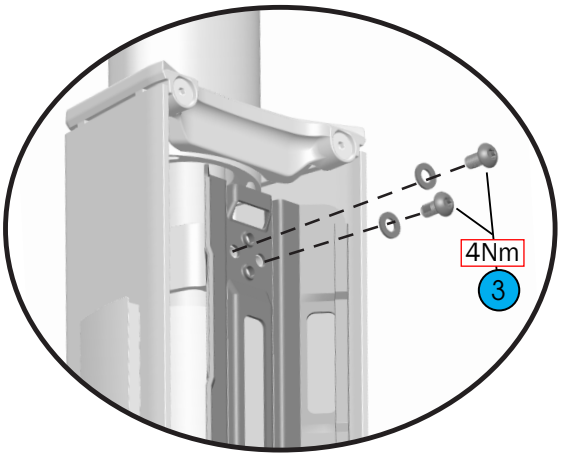
Battery: install battery guide

Make sure all cables are routed in front of the battery guide before installing it.

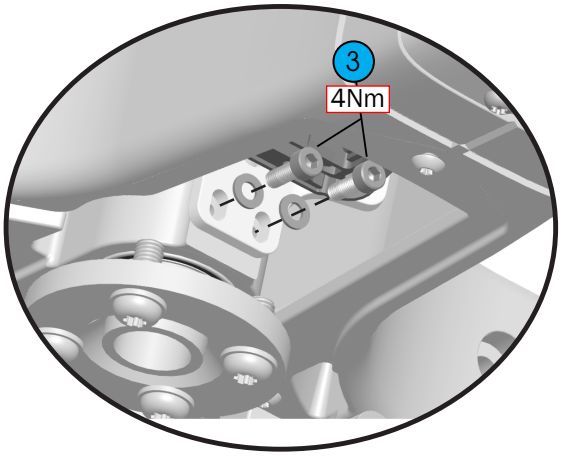
1. Insert the battery guide assembly into the frame.



2. Install the two upper (1) battery guide bolts. Torque to 4Nm.

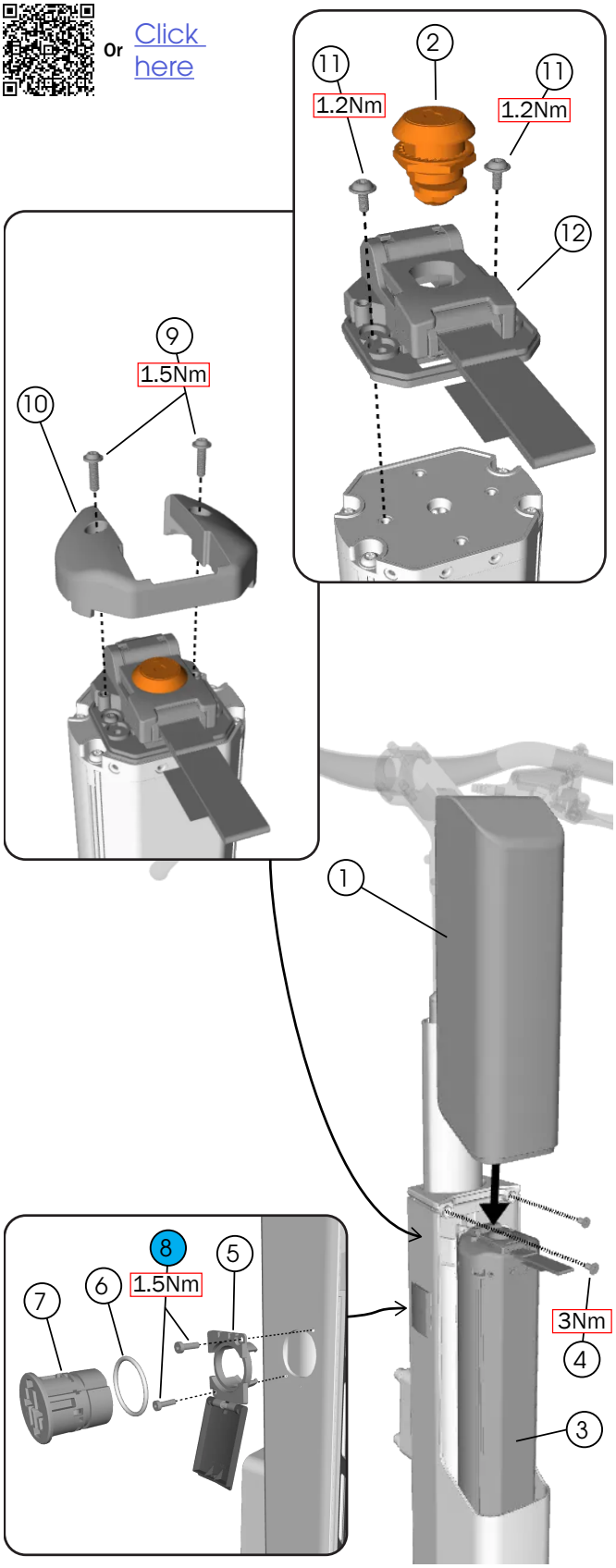


3. Install the two lower (3) battery guide bolts. Torque to 4Nm.



Battery: lock, cover, and charge port

Or Click here



1. Battery cover — W5257032
2. Battery lock — W5277876
3. PowerTube 750W battery — **EB12.100.00X*
4. Bolts (M5x10mm)
5. Charge port cover — W5251862
6. O-ring — **EB12.120.019*
7. Charge plug — **EB12.120.04B*
8. Bolts (M3x10mm) — 5284849
9. Bolts, T15 (M3.5 x 12mm) — **EB12.100.01G*
10. Cover — **EB12.100.01A*
11. Bolts, T15 (M3x7mm) — **EB12.100.01G*
12. Locking assembly — **EB12.100.01D*

**EB12.900.00F*

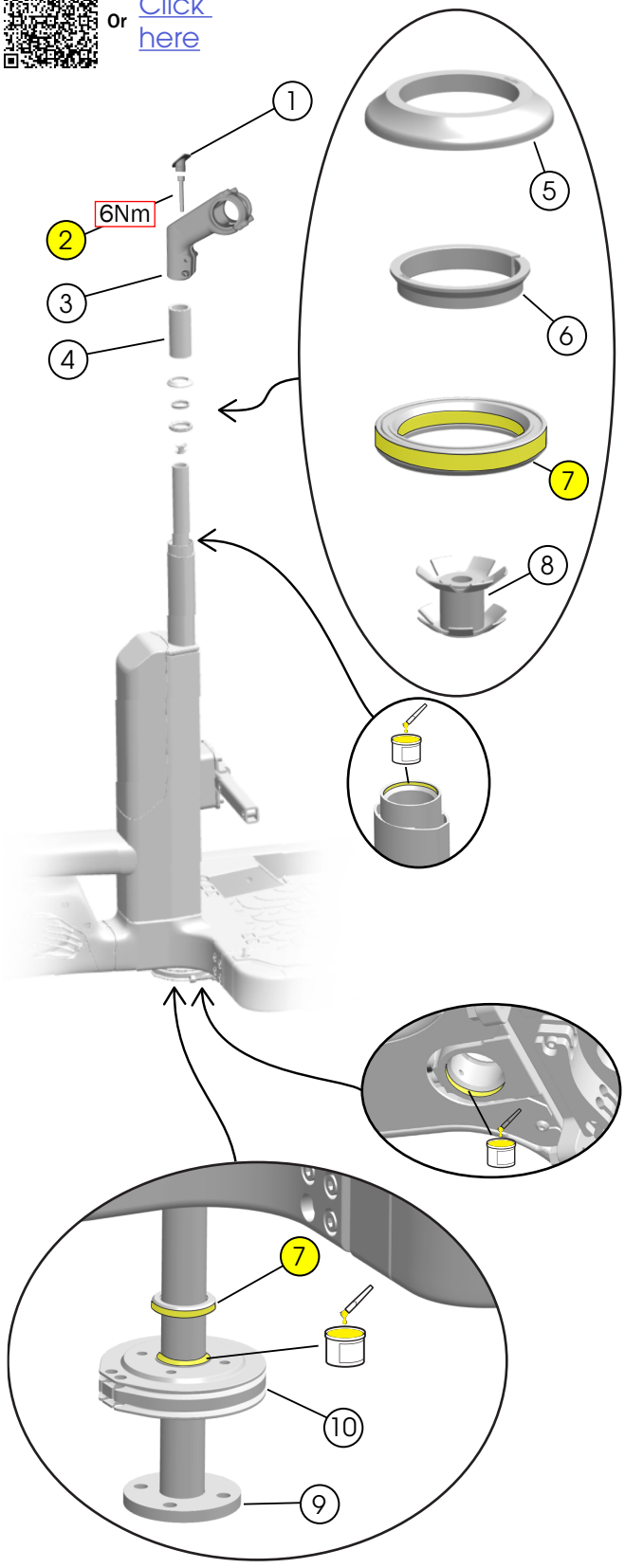
**Bosch part numbers are not available on Trekbikes.com.*

WARNINGS: BATTERY USE

- A short circuit in the electric system and/or damage to the battery might lead to over-heating. In an extremely rare case, a battery that has been severely impacted could potentially catch fire.
- Only charge the battery with a Bosch smart system charger. Using the wrong charger risks the life of the battery and presents a potential fire hazard.
- Only use the charger in dry, indoor areas.
- Do not leave a charging battery unattended.
- When the battery is fully charged, disconnect the charger from the battery and wall socket.

Headsets: rear assembly

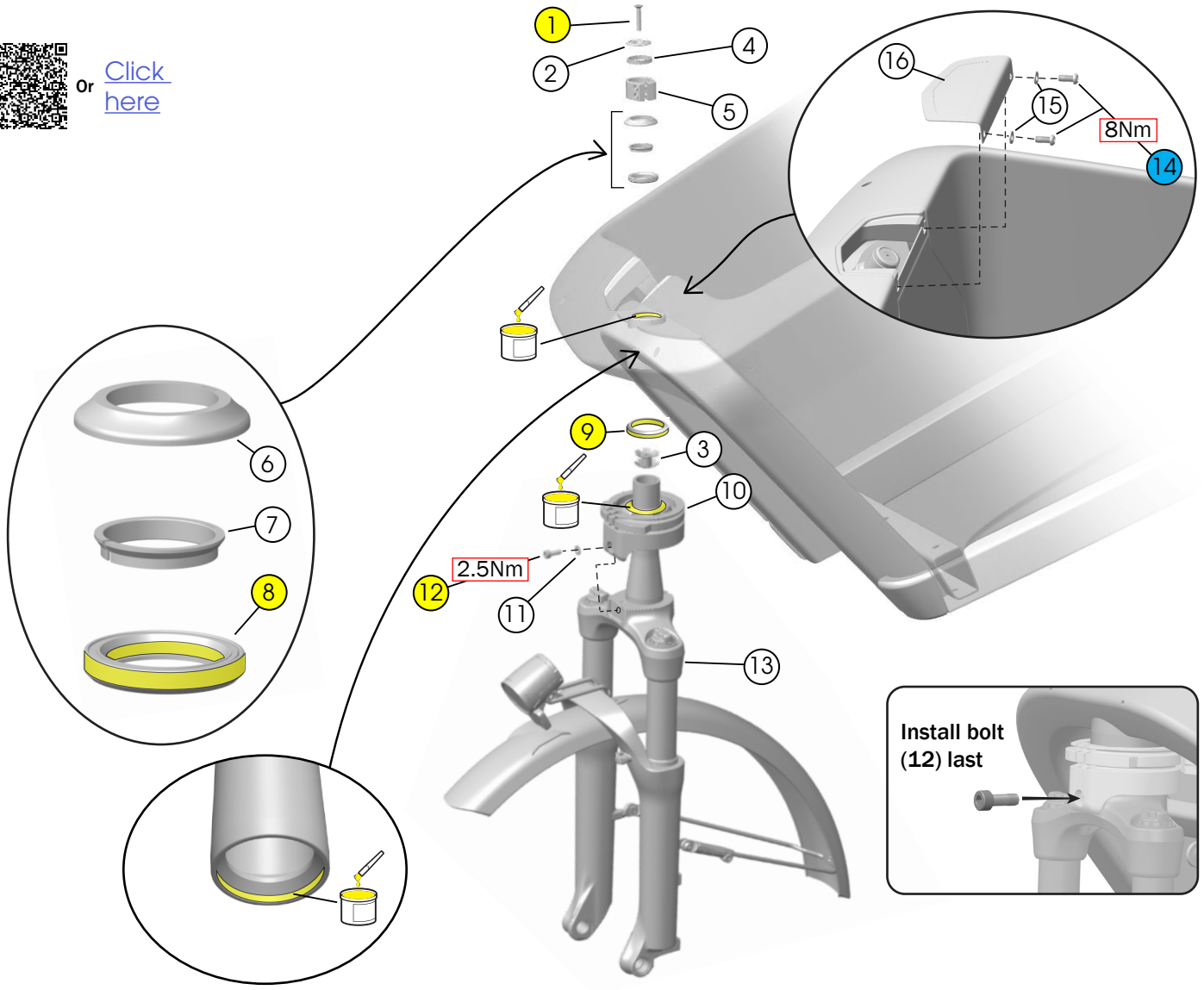
Or Click here



1. Stem cover — 5307966
2. Compression bolt — W5297608
3. Stem — W5297608
4. Stem spacer — W5295111
5. Bearing cover — W5283853
6. Compression ring — W532842
7. Headset bearings — W531676
8. Compression nut (1”) — 63374
9. Steerer tube — 5284549
10. Steerer disc — 5284549

Headsets: front assembly

Or Click here



1. Compression bolt (M6x35mm)
2. Top cap
3. Compression nut (1 1/8”)

W545877

4. Spacer (5mm) — 5253928
5. Headset collar — W5257186

6. Bearing cover
7. Compression ring
8. Headset bearing (upper)
9. Headset bearing (lower)

426180

10. Front steering disc — 5284720

11. Washer (M5)
12. Bolt (M5x14mm)

5305201

13. Suspension fork — W5266799

14. Bolts, T40 drive (M8x20mm)
15. Washers (M8)

5284749

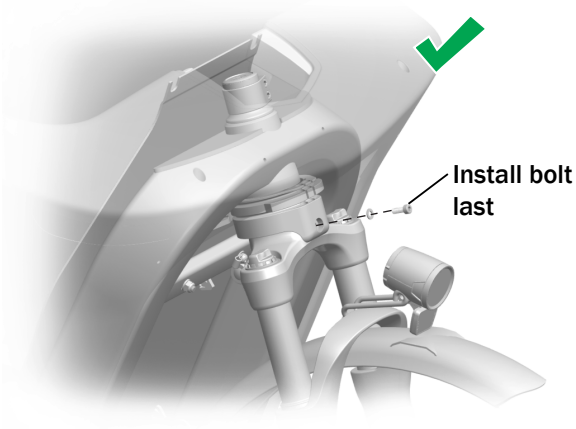
16. Headset lid — 5280797

Headsets: instructions

Install the front headset/fork

1. Assemble the headset/fork and tighten the compression bolt (1).
2. Install the bolt (12) and washer (11).

   NOTE: If you do this in the reverse order, the assembly can be misaligned.



Remove the steering cables before uninstalling either headset assembly

See pages 3-4 for instructions on how to remove them.

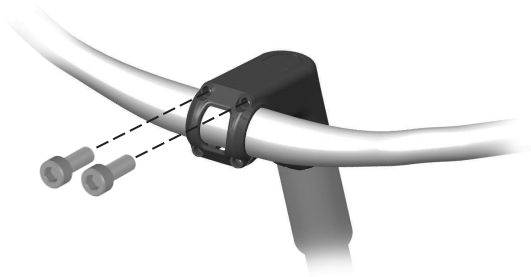
NOTICE: If you do not remove the steering cables before uninstalling the headset, they can get damaged by the weight of the steerer tube.

Verify rear headset tightness

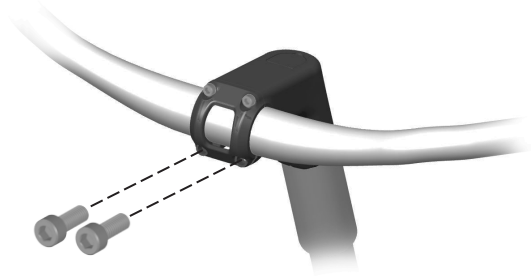
1. Hold the stem (3) and move it up/down and forward/backward to ensure the headset is assembled and tightened properly. The steering should be responsive, direct, and without play.
2. If there is play, reassemble and tighten the headset parts as necessary (see page 17).

Stem clamp bolts tightening order

1. Tighten the top two bolts to 10Nm.

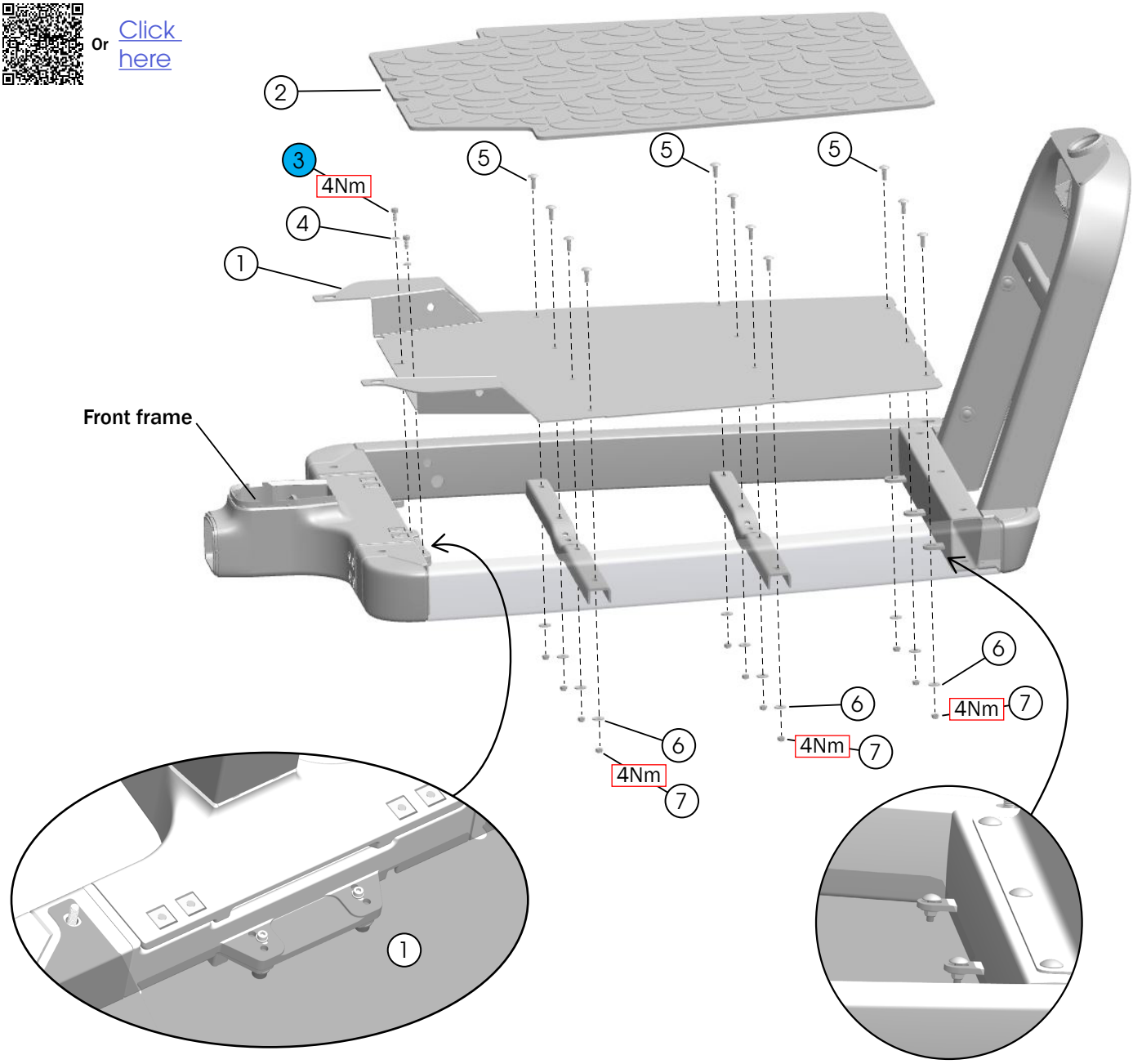


2. Tighten the lower two bolts to 10Nm.



Frame: floor plate and mat

Or Click here

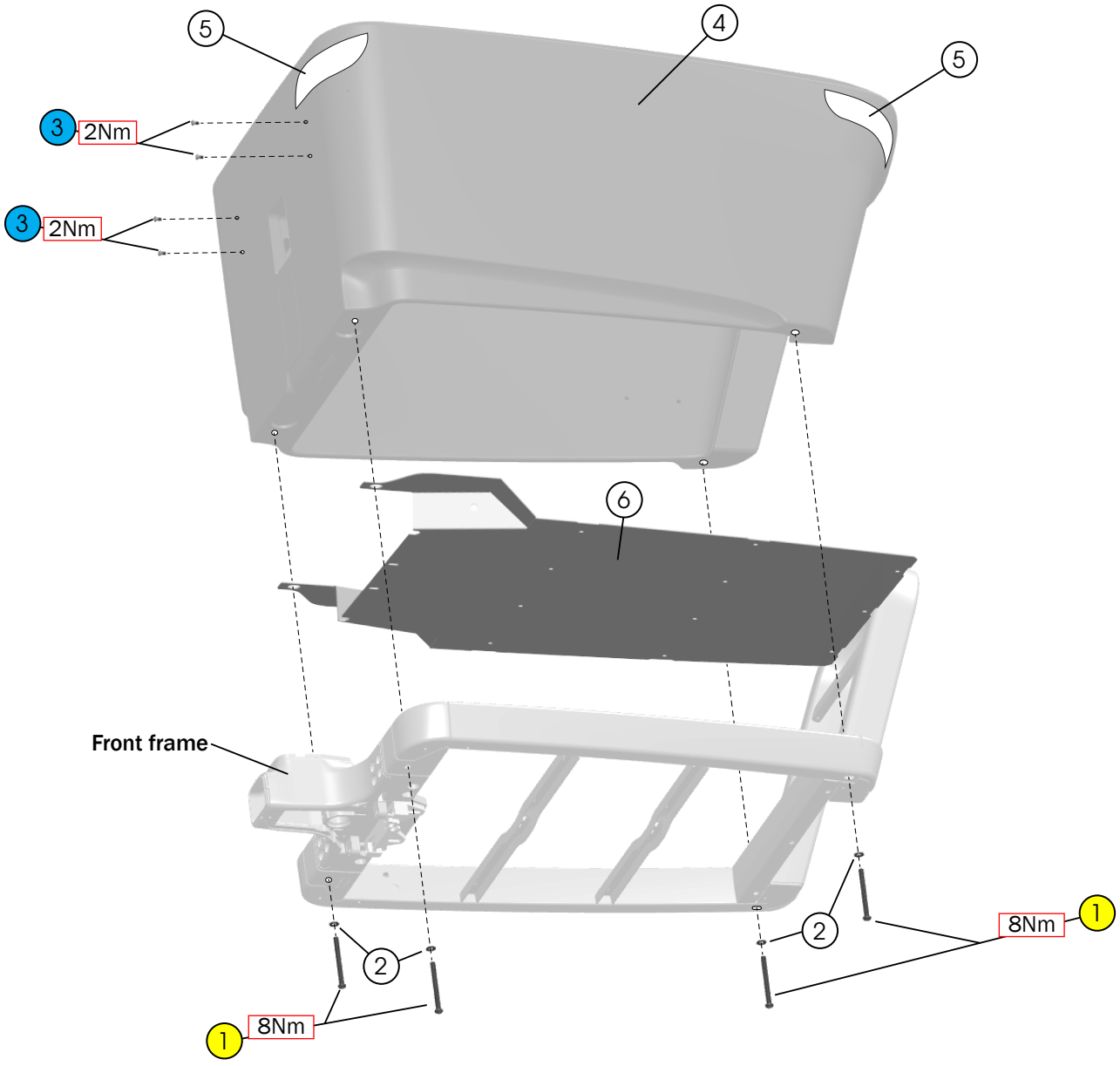


1. Floor plate — *W5267707*
2. Floor mat — *W5271011*

- 3. Bolts (M5x12mm)
- 4. Washers (M5)
- 5. Bolts (M5x16mm)
- 6. Washers, wide (M5)
- 7. Nuts (M5)

— *5286562*

Frame: cargo box

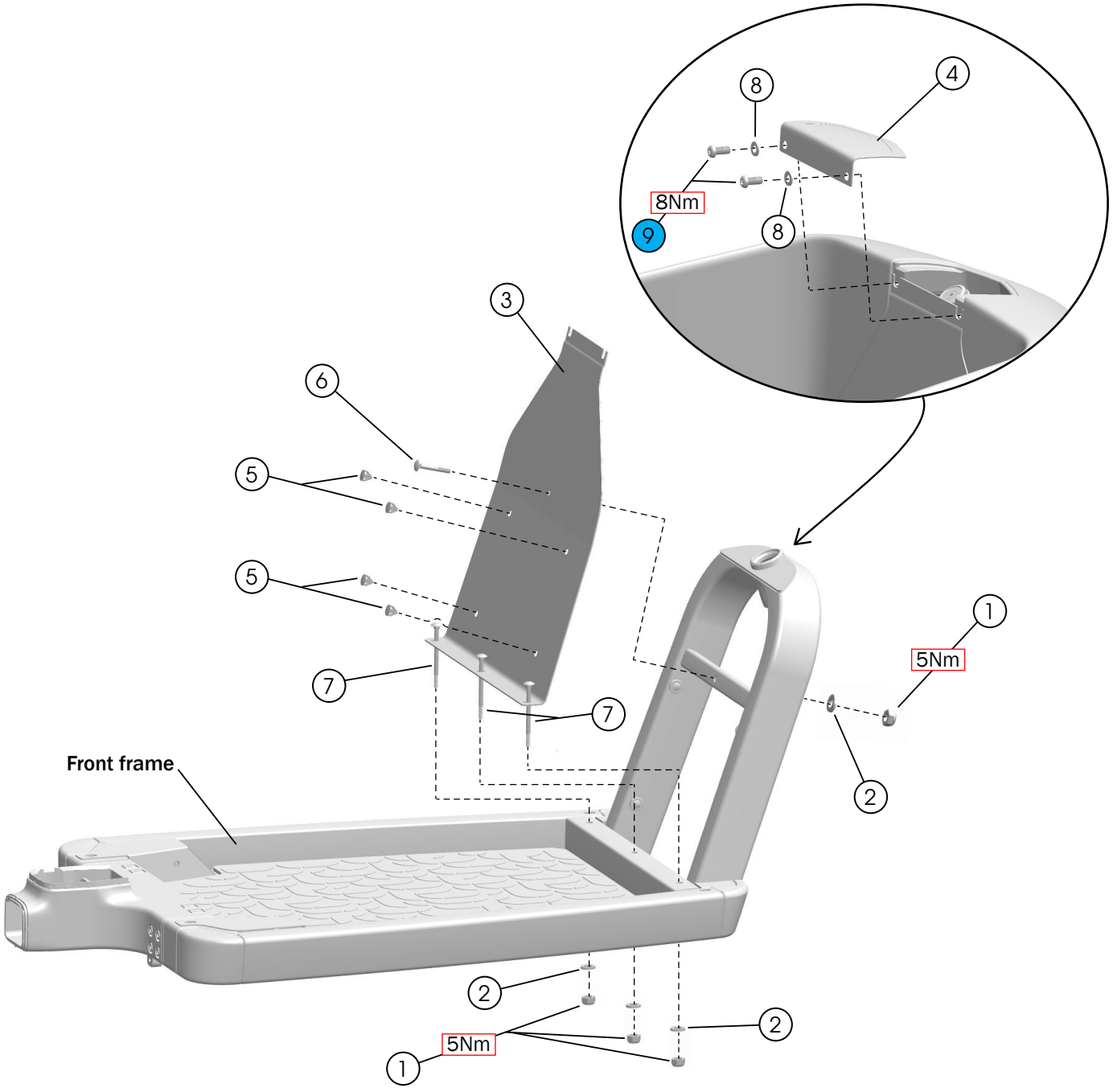


1. Bolts (M8x90mm)
2. Washers (M8)

— 5284748

3. Bolts (M5x10mm) — 5284749
4. Cargo box — 5280798
5. Decals — 5291298
6. Floor plate — W5267707

Frame: front cover



1. Nuts (M6)
2. Washers (M6)

5284748

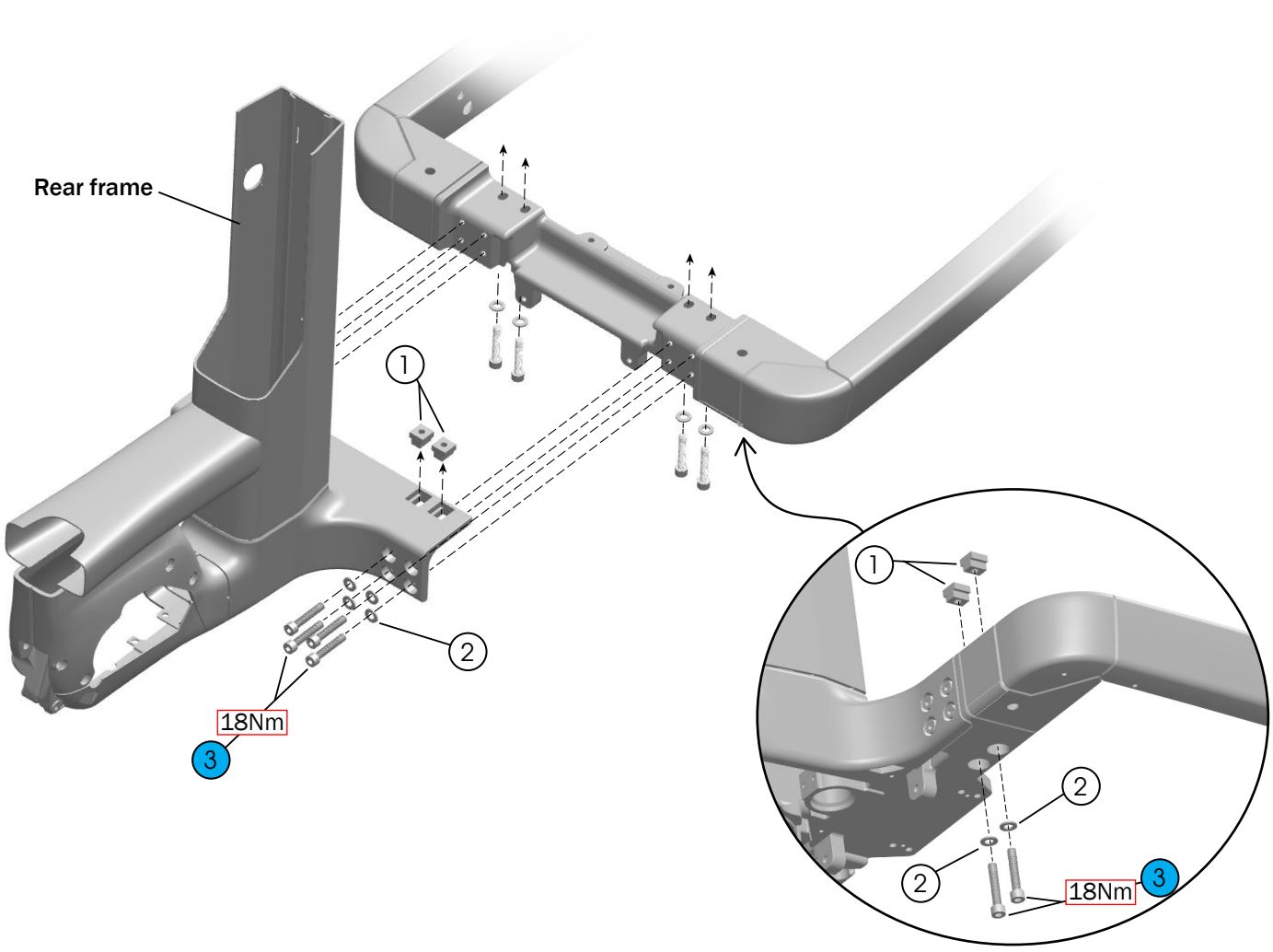
3. Front cover
4. Headset lid

5280797

5. Hole covers (M8)
6. Bolt (M6x50mm)
7. Bolts (M6x90mm)
8. Washers (M8)
9. Bolts, T40 drive (M8x20mm)

5284749

Frame: frame assembly

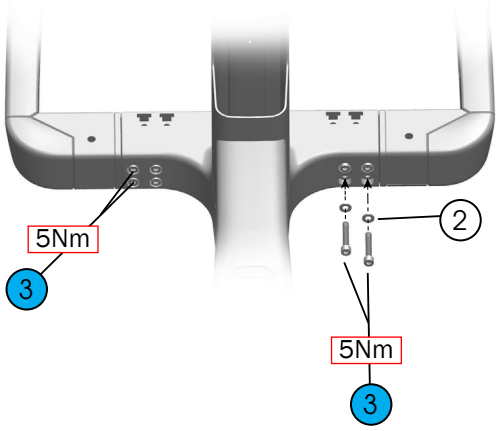


1	T-nuts	5286563
2	Washers (M8)	
3	Bolts (M8x45mm)	

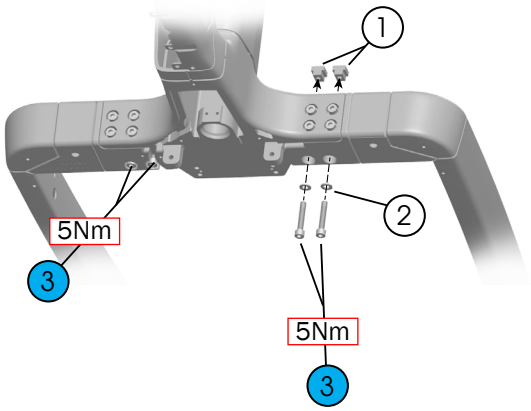
IMPORTANT: If connecting the front and rear frame together, follow the frame tightening sequence on page 25.

Frame: frame tightening sequence

1. Tighten the eight horizontal bolts to 5Nm.



2. Tighten the four vertical bolts to 5Nm.



3. Fully tighten the eight horizontal bolts — in an X pattern — to 18Nm in the order shown below.

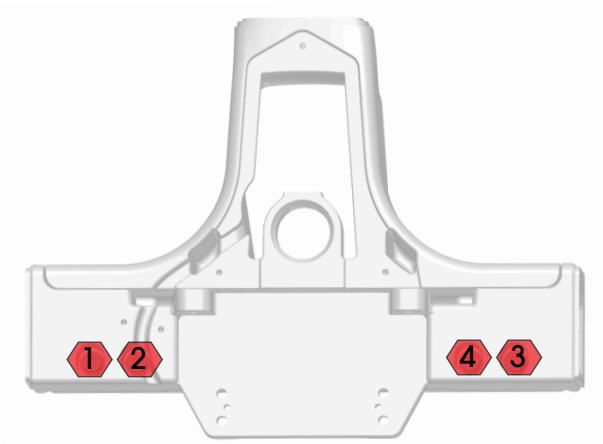
Top



Bottom

4. Fully tighten the four vertical bolts — outside first — to 18Nm in the order shown below.

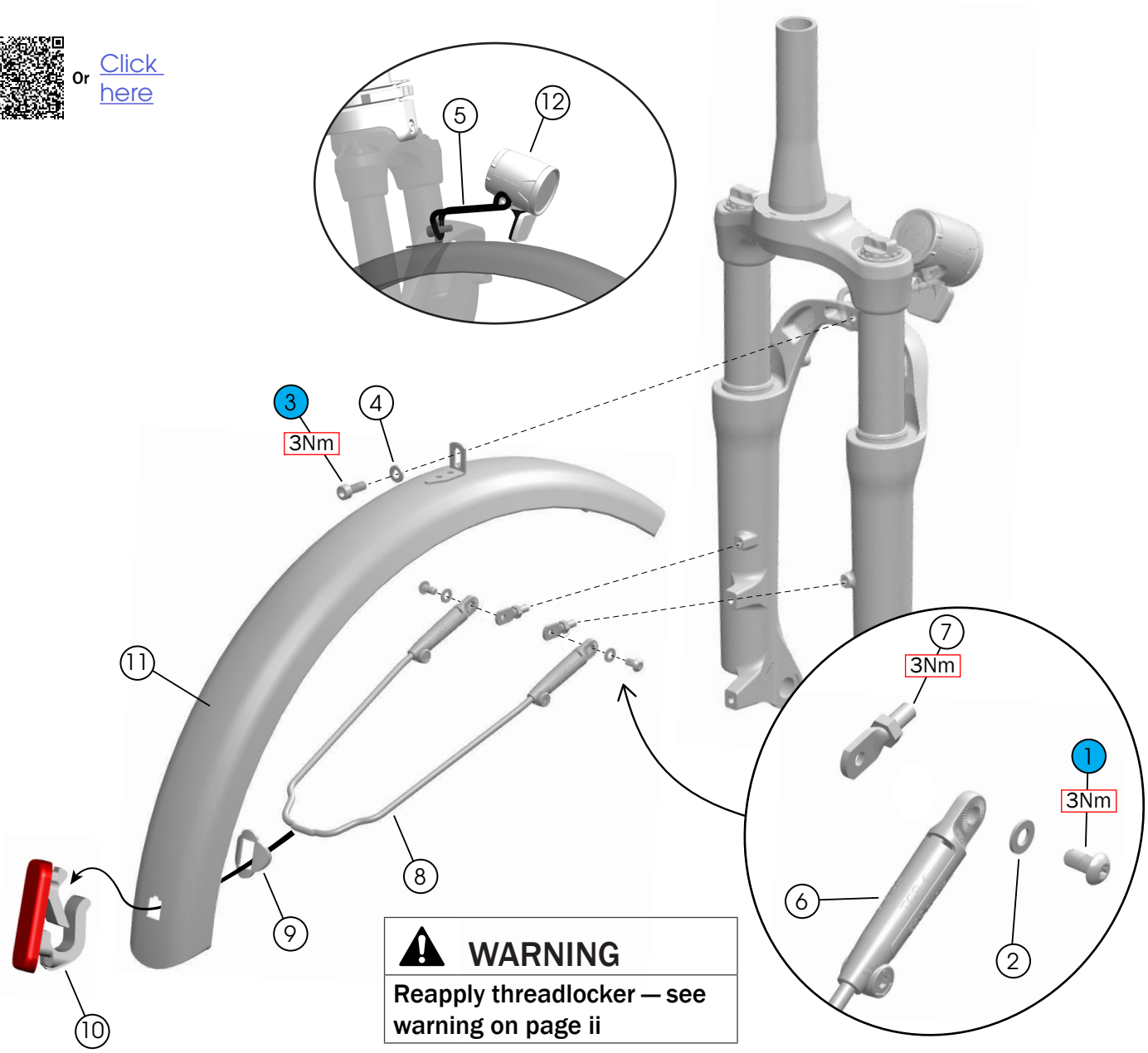
Rear



Front

Accessories: front fender and light

Or Click here



WARNING

Reapply threadlocker — see warning on page ii

1. Bolts, T25 drive (M5x10mm)
2. Washers (M5)

— 5284747

3. Bolt (M6x16mm)
4. Washer (M6)
5. Light bracket

— 5286558

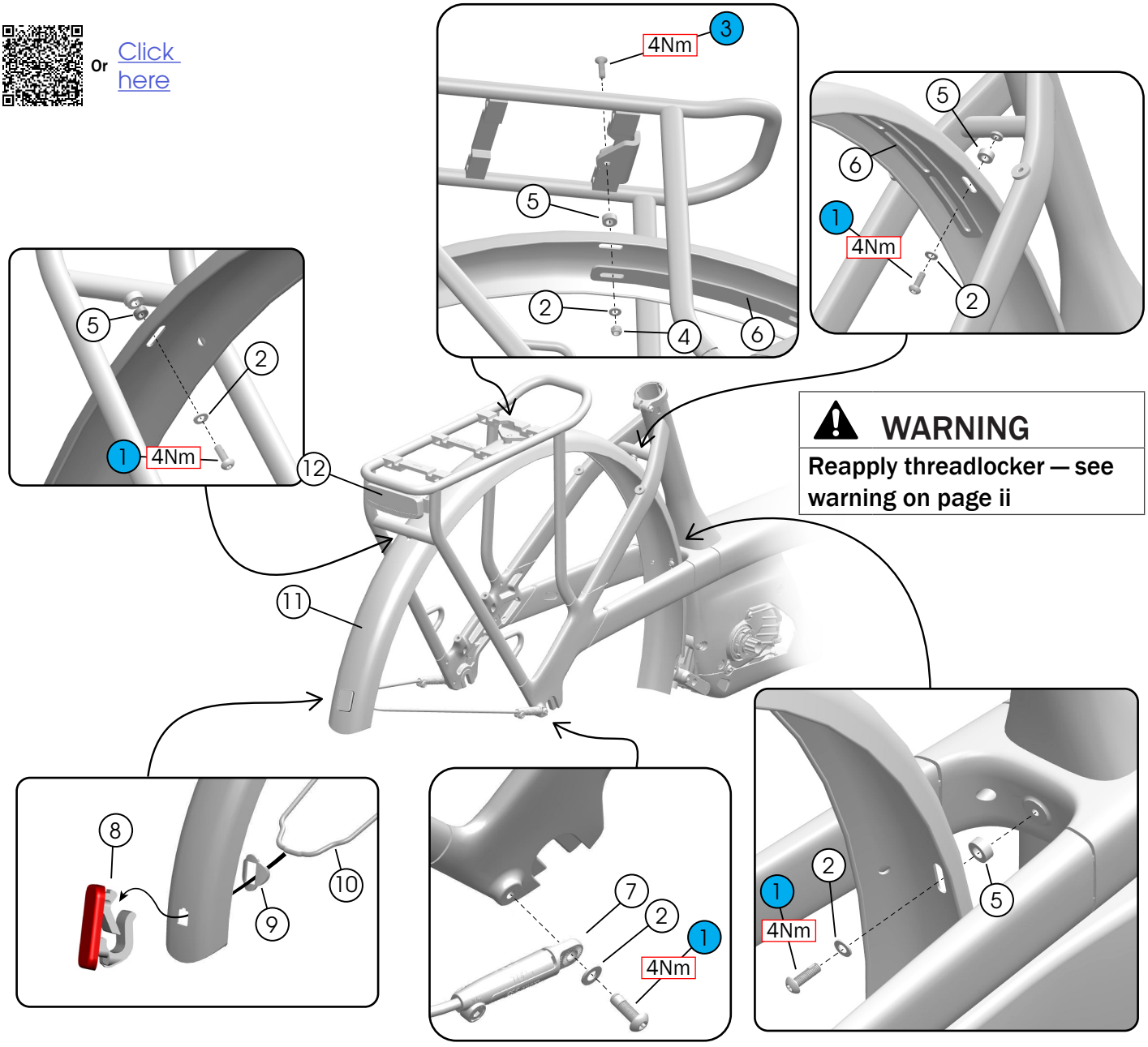
6. Stay mounts — 5258260
7. Mount bolts — W331954
8. Fender stay (20”x65mm) — W5269940
9. Stay holder
10. Stay damping rubber

— 5258253

11. Front fender — W5269617
12. Front light — 598624

Accessories: rear fender and light

Or Click here



1. Bolts, T25 drive (M5x16mm)
2. Washers (M5)
3. Bolt (M5x18mm)
4. Nut (M5)

— 5284754

5. Spacers (5mm) — 5307541
6. Strut (380mm) — W600320
7. Stay mounts — 5258260
8. Stay holder
9. Stay damping rubber

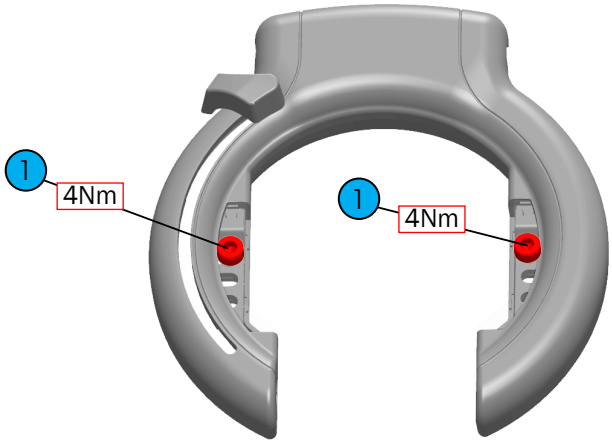
— 5258253

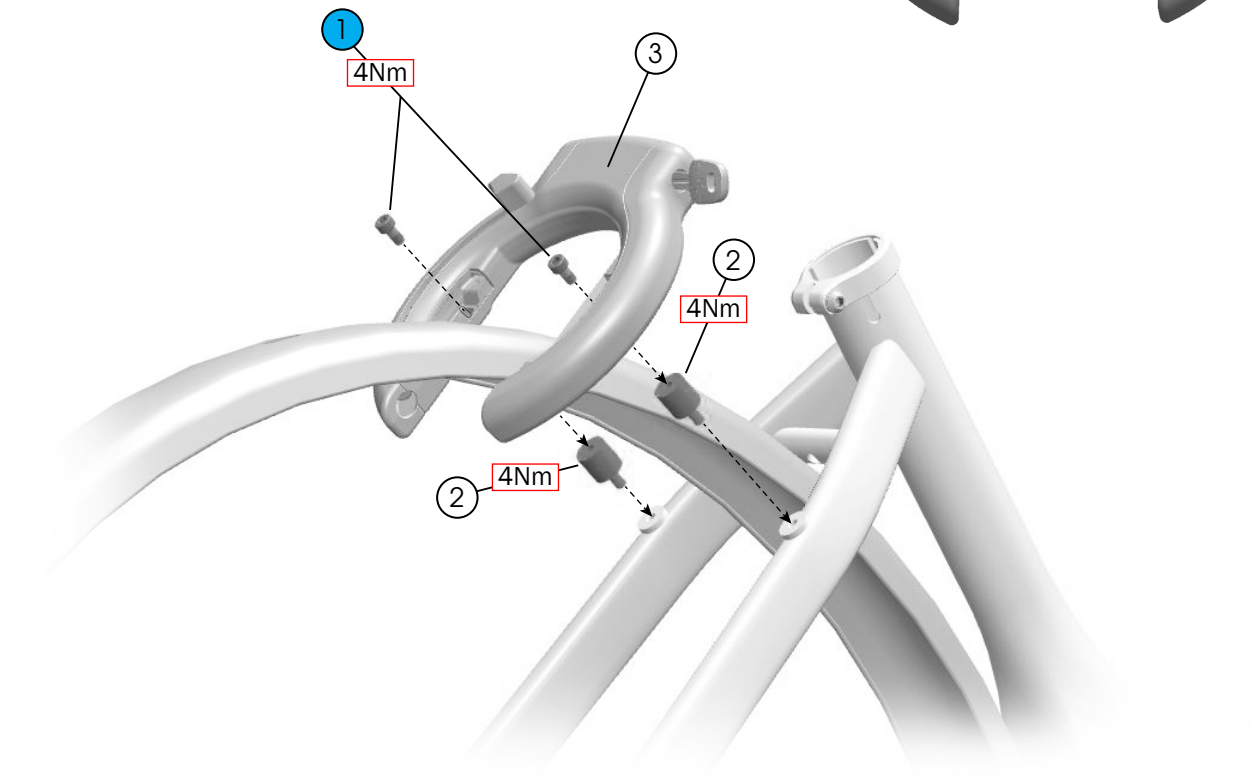
10. Fender stay (27.5”x65mm) — W5269996
11. Rear fender — W5269618
12. Rear light — *W504513

**Replacement part is different than the original*

Accessories: ring lock

Or Click here





1 Bolts (M5x10mm)

2 Vibration dampers (M5x10mm) — *5284753*

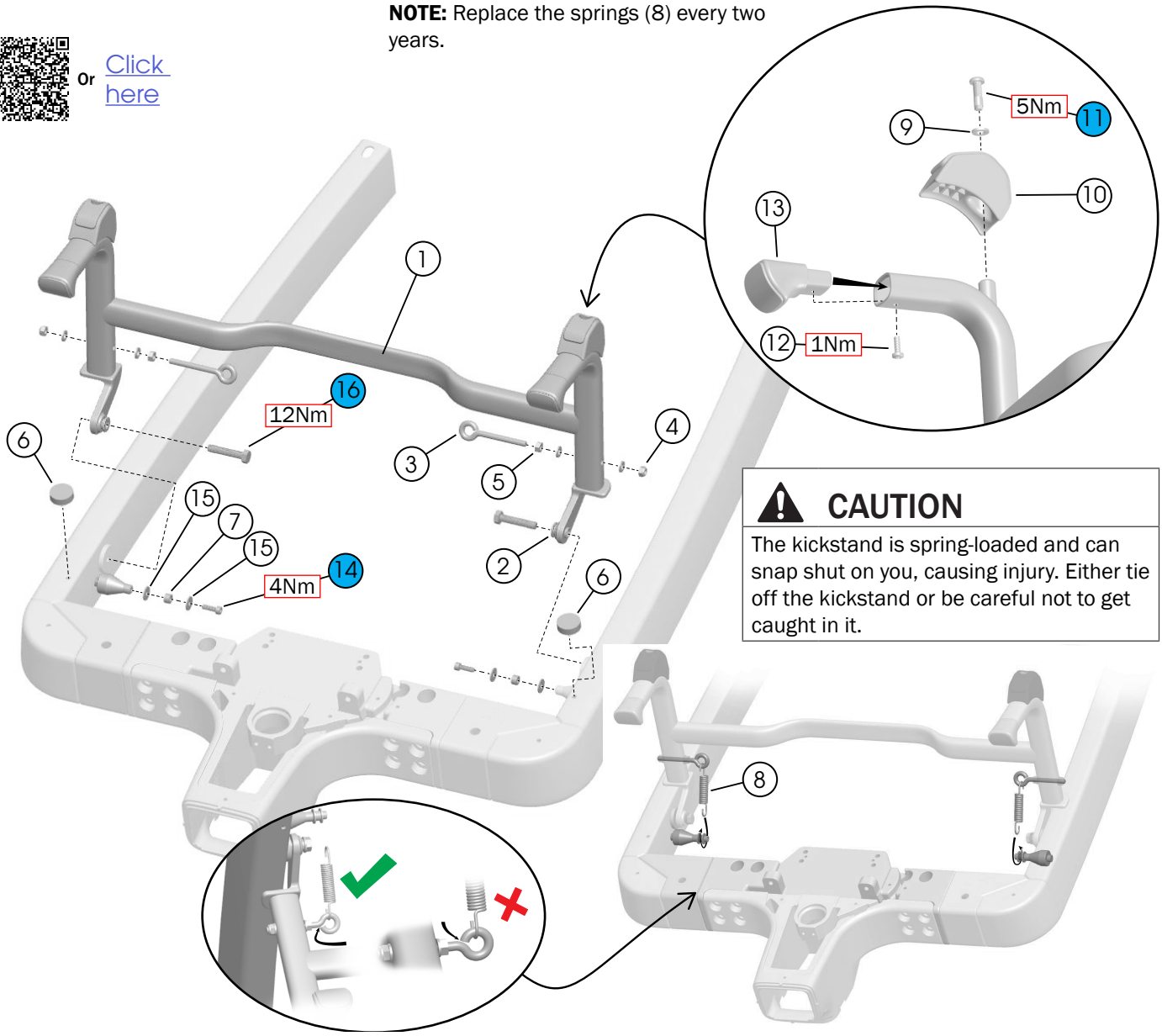
3 Ring lock
- Non-retainable — *5253038*
- *Retainable — *592162*

**The key cannot be removed if the ring lock is unlocked.*

Accessories: kickstand

Or Click here

NOTE: Replace the springs (8) every two years.



CAUTION

The kickstand is spring-loaded and can snap shut on you, causing injury. Either tie off the kickstand or be careful not to get caught in it.

- 1 Kickstand
- 2 Bearings
- 3 Eye bolts (M6x65mm)
- 4 Nuts, nylock (6mm)
- 5 Nuts (6mm)
- 6 Threaded bumper
- 7 Spacers (6mm)
- 8 Springs — *5291884*

5280791

- 9 Washers (M6)
- 10 Knee
- 11 Bolts (M6x20mm)

5288121

- 12 Bolts (M3.5x15mm)
- 13 Foot

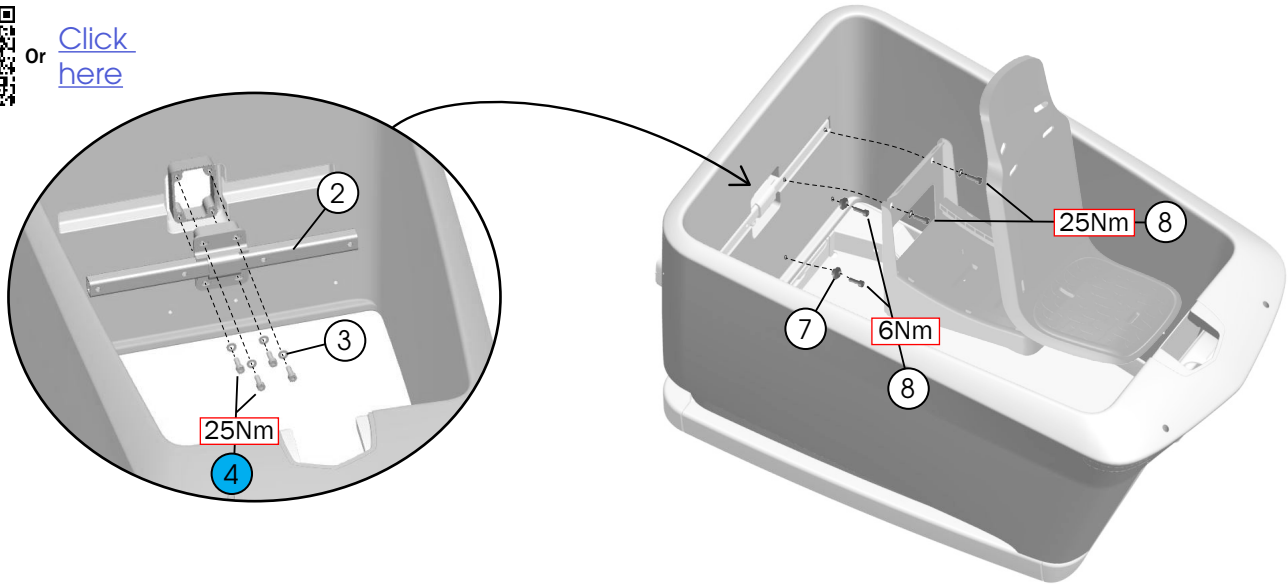
5291301

- 14 Bolts (M5x16)
- 15 Washers (M5), oversized
- 16 Bolts (M8x40)

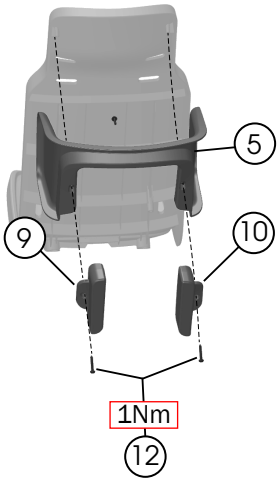
5280791

Accessories: child seats

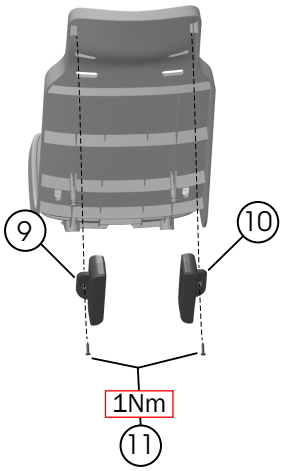
Or Click here

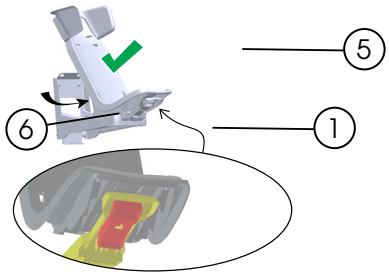


With headrest



Without headrest

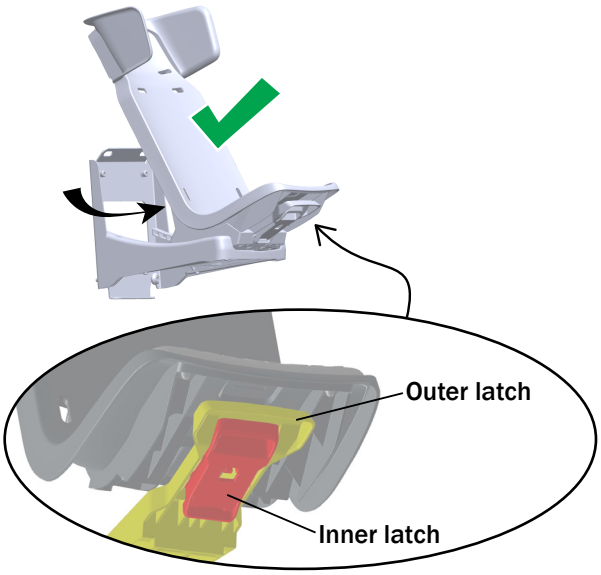




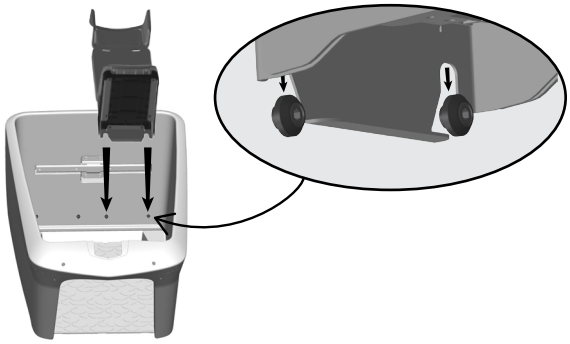
1. Child seat — *5283900*
2. Crossbar mount — *W5270763*
3. Washers (M8)
4. Bolts (M8x25mm) — *5286564*
5. Headrest — *5298521*
6. Harness — *5291779*
7. Mushroom fasteners
8. Bolts (M8x16mm) — *5291431*
9. Left bumper
10. Right bumper — *5310015*
11. Bolt (16mm), without headrest — *W5313645*
12. Bolt (25mm), with headrest — *W5313646*

Accessories: install the child seats

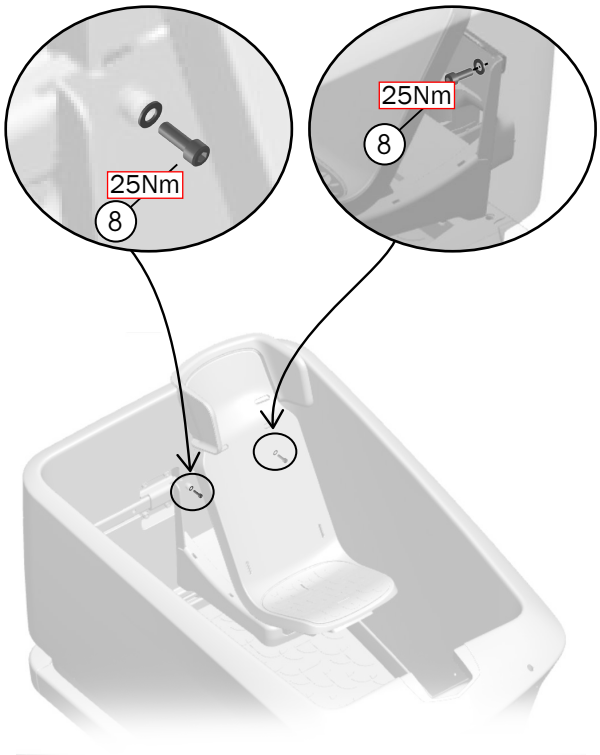
1. Pull the inner latch and put the seat in the fully reclined position.



2. Slide the seat down onto the mushroom fasteners.



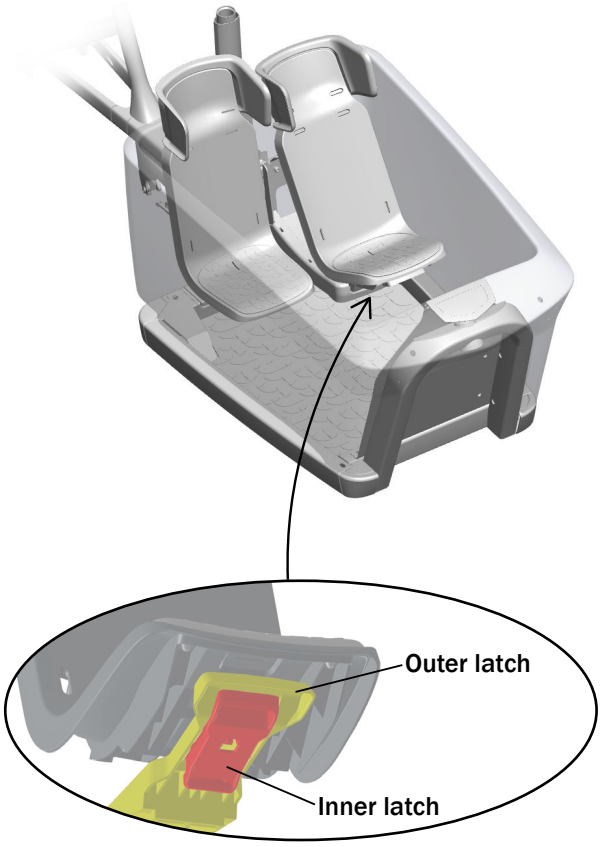
3. Install the upper bolts and torque to 25Nm.



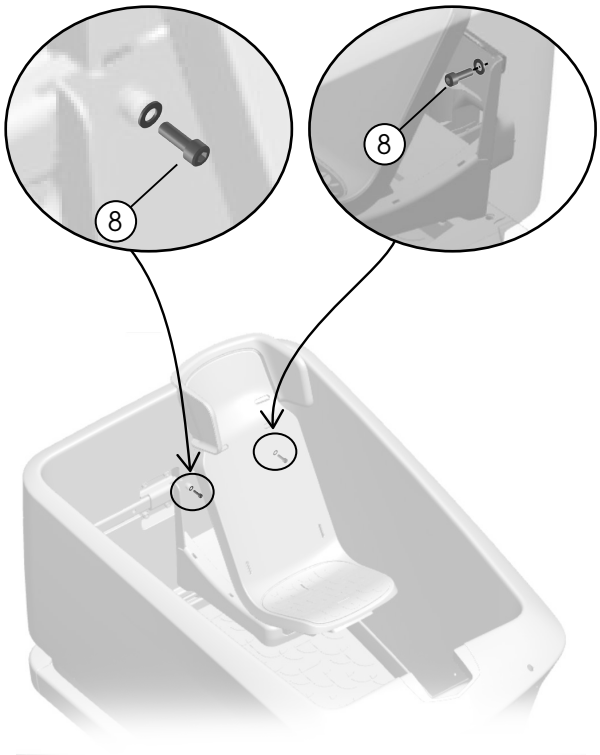
4. Put the seat in the fully upright position.
5. Install the other seat following Steps 1-4.

Accessories: remove the child seats

1. Pull the inner latch and put one seat in the fully reclined position.



2. Remove the upper bolts.



3. Pull the seat up and remove it.
4. Remove the other seat following Steps 1-3.

Parts list

Wheels

	Part number
Front wheel	W5292177
Rear wheel	W5292180
Front rim	W5283286
Rear rim	W5283287
Hub axle	5304638
End caps	436181
Axle bearings	431759
Rim strip (20”)	W5280094
Rim strip (27.5”)	W332413
Tire pick-up twinskin (20”)	W5273457
Tire pick-up twinskin (27.5”)	W5273456

Cranks

	Part number
Crank prowheel ISIS 170mm	W571998
Crank bolts	W572003

Brakes (Tektro)

	Part number
Brakeset Dorado Cargo HD-T737	W5280220
Brakeset Dorado Cargo HD-E737R	W5280221
Rotor TR-17 180mm 2.3mm	5293931
Rotor TR-17 203mm 2.3mm	5293932
A-11 PM to PM Spacer 20mm	1048801
A-12 PM to PM Spacer 23mm	1048802
Hydraulic brake fluid 100mL	5295307
Q13RS 5.0mm	5293929
Olive & barb Dorado Auriga Comp Draco	5293930

Seatpost (TranzX)

	Part number
Seatpost 31.6 120mm with dropper post	W571998

Specifications

		Fetch+ 4
Rear hub OLD		135mm
Tire width max 700c	**Front**	25mm
	Rear	28mm

Dropper post stiffness

Weight of rider	Pressure
>50-70kg	200-230PSI
75-100kg	230-260PSI
100-125<	260-300PSI