

English

**SERVICE PART GUIDE**

**TURBO PORTO 4.0**











*turbob*



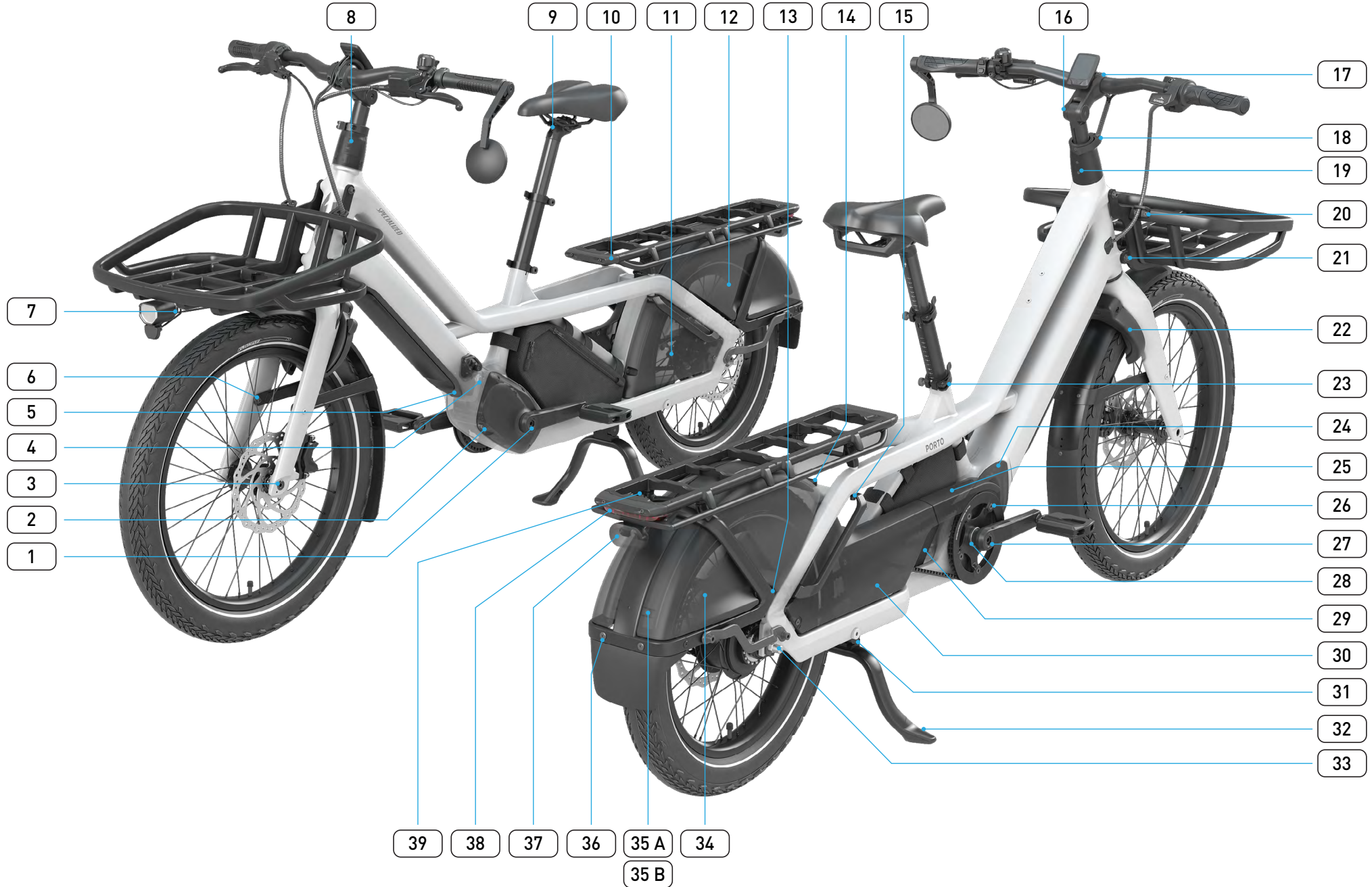
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## SYMBOLS LEGEND

|   |   |                              |
|---|---|------------------------------|
|    | → | <b>PART NUMBER</b>           |
|    | → | <b>ORDER OF ASSEMBLY</b>     |
|    |   | <b>INSERT PATH</b>           |
|    |   | <b>ASSEMBLY DIRECTION</b>    |
|    |   | <b>HIGH QUALITY GREASE</b>   |
|    |   | <b>BLUE THREADLOCKER</b>     |
|   |   | <b>EVERSEAL THREADLOCKER</b> |
|  |   | <b>BEARING RETAINER</b>      |
|  |   | <b>TORQUE REQUIRED</b>       |
| S123456789  |   | <b>SERVICE PART NUMBER</b>   |
|  |   | <b>VIDEO GUIDE AVAILABE</b>  |

# GENERAL TORQUE SPECIFICATIONS

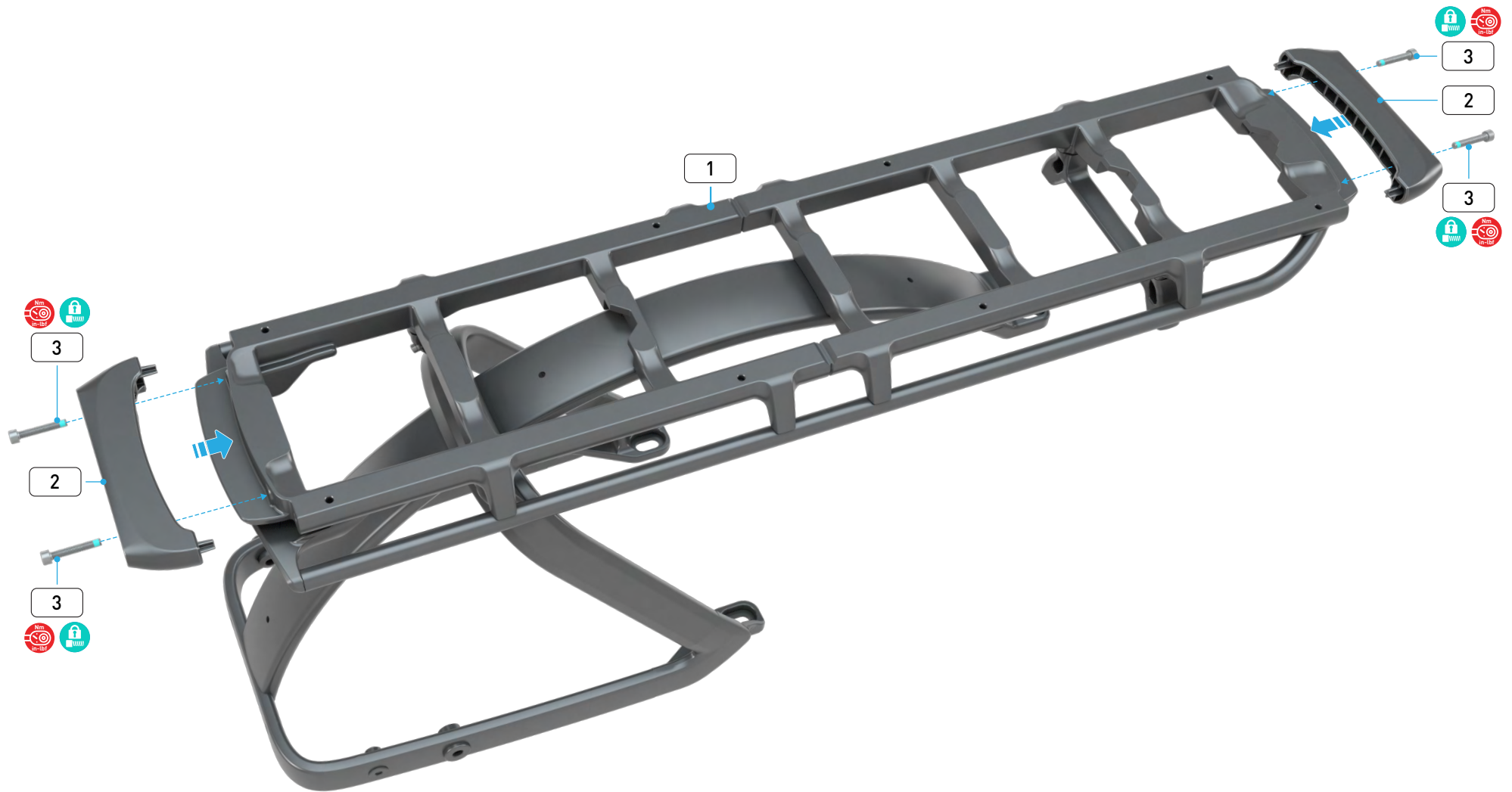


## GENERAL TORQUE SPECIFICATIONS

| #   | PART NAME                                   | SPECIFICATION  | QUANTITY | TOOL                | TORQUE |        | COMMENT                                |
|-----|---|--|----------|---------------------|--------|--------|--|
|     |   |  |          |                     | Nm     | in-lbf |  |
| 1   | Crank Arm Non-drive Side                    | Brose® 165 mm, Non-drive Side Arm, Alloy               | 1        | 8 mm hex            | 50     | 443    |  |
| 2   | Custom Motor Cover Nut                      | Nut M4 x 8 mm x 0.7 mm P                               | 5        | T20 Torx            | 1      | 9      | Thread - Tuflok® blue nylon torq-patch |
| 3   | Front Wheel Thru-axle                       | Axl Front, Porto Thru-Axle, 15 x 110 mm, Bolt-On       | 1        | 6 mm hex            | 12     | 106    |  |
| 4   | Motor Mounting Nut                          | Nut M8 x 1.25 mm P                                     | 3        | 13 mm socket wrench | 23     | 203    |  |
| 5   | Battery Charge Port Cover Screws            | M4 x 18 mm x 0.7 mm P                                  | 6        | T20 Torx            | 3.2    | 28     |  |
| 6   | Front Fender Mounting Bolt                  | Bolt M5 x 10 mm x 0.8 mm P                             | 2        | 4 mm hex            | 5      | 44     |  |
| 7   | Front Light Mounting Bolt                   | Bolt M4 x 0.7 x 8 mm                                   | 1        | 4 mm hex            | 4      | 35.4   |  |
| 8   | Steerer Clamp Bolts                         | Steerer Clamp Bolts                                    | 3        | 4 mm hex            | 6      | 53     |  |
| 9   | Seat Mounting Bolt                          | Bolt M6 x 40 mm  | 2        | 5 mm hex            | 12     | 106    |  |
| 10  | Bolt - Rack Bumper                          | Bolt M4 x 25 mm x 0.7 P                                | 4        | 3 mm hex            | 1.2    | 10.6   | Thread - Everseal® 183                 |
| 11  | Brake Cover - Shoulder Bolts                | Bolt shoulder M5 x 7 mm OD x 4.75 mm thread x 0.8 mm P | 3        | 3 mm hex            | 2.5    | 22     | Thread - Everseal® 183                 |
| 12  | Rear Fender Non-drive Side - Shoulder Bolts | Bolt shoulder M5 x 7 mm OD x 4.75 mm thread x 0.8 mm P | 2        | 3 mm hex            | 2.5    | 22     | Thread - Everseal® 183                 |
| 13  | Rear Rack Mounting Bolt Rear                | Bolt M8 x 14 mm x 1.25 mm P                            | 2        | 6 mm hex            | 20     | 177    | Thread - Everseal® 183                 |
| 14  | Rear Rack Mounting Bolt Centre              | Bolt M5 x 12 mm x 0.8 mm P                             | 2        | 4 mm hex            | 3.5    | 31     | Thread - Tuflok® blue nylon torq-patch |
| 15  | Rear Rack Mounting Bolt Front               | Bolt M6 x 65 mm x 1 mm                                 | 2        | 5 mm hex            | 4      | 35     | Thread - Everseal® 183                 |
| 16  | Stem Angle Adjustment Bolt                  | Stem Angle Adjustment Bolt                             | 1        | 5 mm hex            | 18     | 159    |  |
| 17  | Stem Faceplate Bolts                        | Stem Faceplate Bolts                                   | 4        | 4 mm hex            | 6      | 53     |  |
| 18  | Stem Clamp Lever                            | Stem Clamp Lever                                       | 1        | Quick Release       | 5      | 44.2   |  |
| 19  | Stem Cover Bolt                             | Stem Cover Bolt  | 2        | 2 mm hex            | 1      | 9      |  |
| 20  | Front Rack Cable Holder Bolt                | Bolt M4 x 12 mm x 1 mm P                               | 4        | 1.5 mm hex          | 2      | 18     |  |
| 21  | Front Rack Mounting Bolt                    | Bolt M6 x 16 mm x 1 mm P                               | 4        | 5 mm hex            | 8      | 71     |  |
| 22  | Abus Frame Lock Mounting Bolt               | Bolt M5 x 14 mm x 0.8 mm P                             | 2        | 4 mm hex            | 5      | 44     |  |
| 23  | Seatpost Collar                             | Seatpost clamp 39 mm                                   | 2        | Quick Release       |        |        |  |
| 24  | Motor Mounting Bolt                         | Bolt M8 x 50 mm x 1.25 mm P                            | 1        | 5 mm hex            | 23     | 203    | Thread - Tuflok® blue nylon torq-patch |
| 25  | Chaincase Guard Front Bolt                  | Bolt M5 x 0,8 mm P                                     | 1        | 4 mm hex            | 1.5    | 13.2   |  |
| 26  | Belt Ring Bolts                             | Belt Ring Bolts  | 5        | 5 mm hex            | 10     | 89     | Thread - Tuflok® blue nylon torq-patch |
| 27  | Crank Arm Drive Side                        | Brose® 165 mm, Drive Side Arm, Alloy                   | 1        | 8 mm hex            | 50     | 443    |  |
| 28  | Spider Lock Ring                            | Isis groove nut  | 1        | Parktool BBT-18     | 50     | 443    |  |
| 29  | Chaincase Backplate Bolt                    | Bolt M5 x 10 mm x 0.8 mm P                             | 7        | 3 mm hex            | 2.5    | 22     | Thread - Everseal® 183                 |
| 30  | Rear Chaincase - Shoulder Bolts             | Bolt shoulder M5 x 7 mm OD x 4.75 mm thread x 0.8 mm P | 3        | 3 mm hex            | 2.5    | 22     | Thread - Everseal® 183                 |
| 31  | Center Mount Kickstand Mounting Bolt        | Bolt, M10 x 1.5 P                                      | 2        | 8 mm hex            | 40     | 354    |  |
| 32  | Kickstand Feet Replacement Bolt             | Bolt M5 x 8 mm   | 4        | 3 mm hex            |        |        |  |
| 33  | Rear Wheel Axle Nut                         | Nut, acorn nut for igh                                 | 2        | 15 mm wrench        | 35     | 310    |  |
| 34  | Rear Fender Drive Side - Shoulder Bolts     | Bolt shoulder M5 x 7 mm OD x 4.75 mm thread x 0.8 mm P | 3        | 3 mm hex            | 2.5    | 22     | Thread - Everseal® 183                 |
| 35A | Centre Fender Mounting Bolts (Centre)       | Bolt M5 x 10 mm x 0.8 mm P                             | 3        | 3 mm hex            | 2.5    | 22     | Thread - Everseal® 183                 |
| 35B | Centre Fender Mounting Bolts (Outer)        | Bolt M5 x 10 mm x 0.8 mm P                             | 6        | 3 mm hex            | 1.5    | 13     | Thread - Everseal® 183                 |
| 36  | Fender Flap Bolt                            | Bolt M5 x 16 mm x 0.8 mm P                             | 2        | 3 mm hex            | 1.5    | 13     | Thread - Everseal® 183                 |
| 37  | Garmin Radar Mount Bolts                    | Bolt M4 x 5 mm x 0.7 P                                 | 2        | 3 mm hex            | 2      | 18     |  |
| 38  | Garmin Radar Rack Mount Bolts               | Bolt M3 x 14 mm x 0.5 P                                | 2        | 2 mm hex            |        |        | Thread - Tuflok® blue nylon torq-patch |
| 39  | Cable Guide Bolt                            | Bolt   | 1        |                     | 1.2    | 10.6   |  |

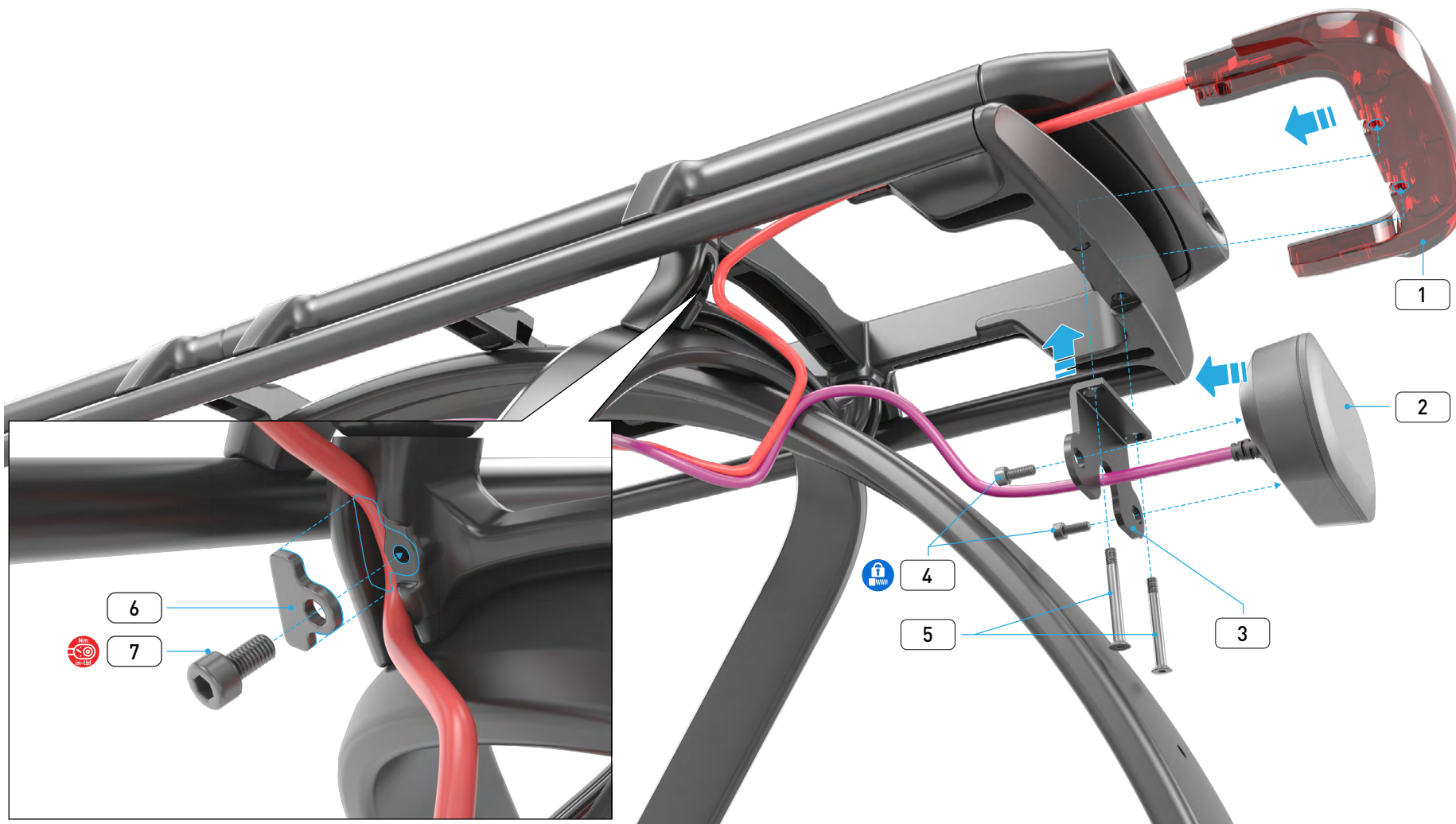


# SECTION 1 - REAR RACK



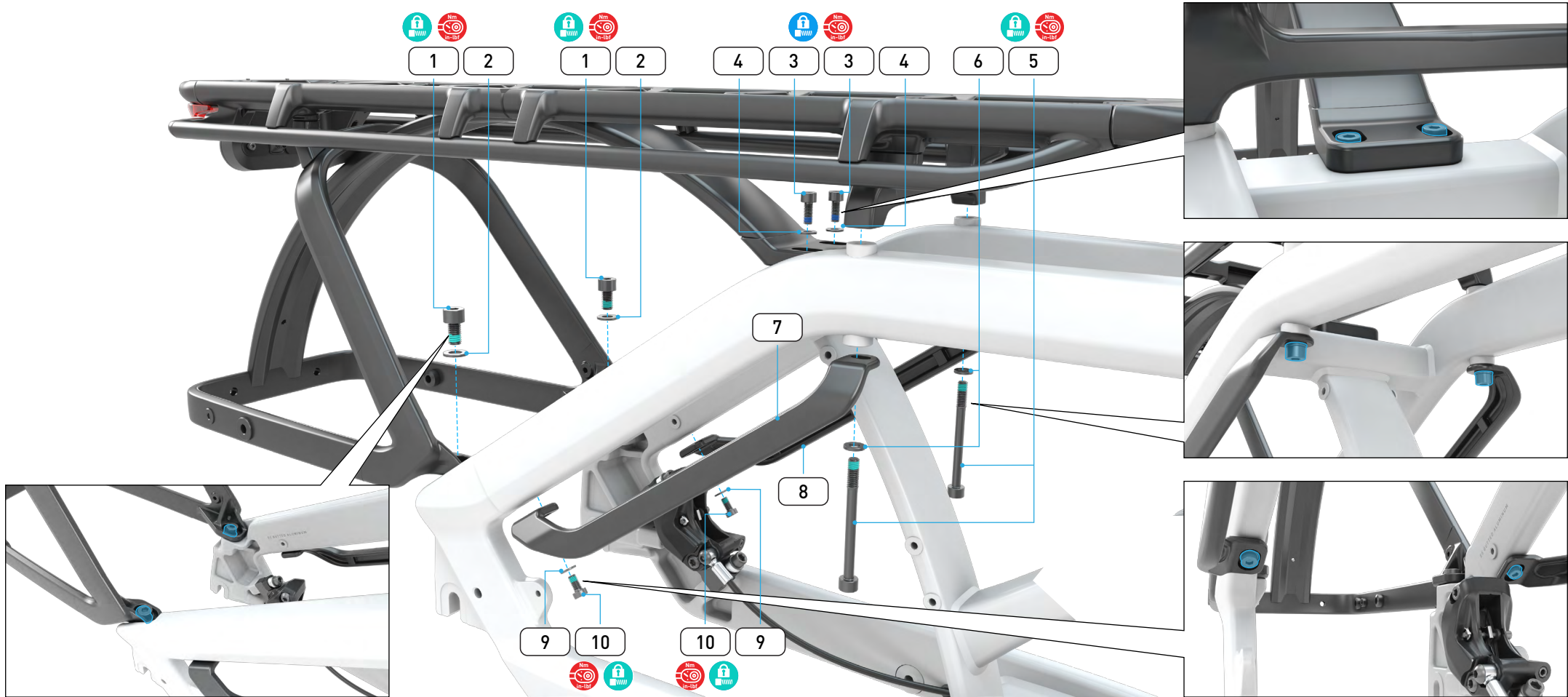
|   | PART NAME                | PART NUMBER | PART DESCRIPTION           | QUANTITY | TOOL     | TORQUE |        | COMMENT                |
|---|--------------------------|-------------|----------------------------|----------|----------|--------|--------|------------------------|
|   |                          |             |                            |          |          | Nm     | IN-LBS |                        |
|   | Porto Rear Rack Assembly | S221700010  | Porto Rear Rack Assembly   |          |          |        |        |                        |
| 1 | Rear Rack                |             | Rack, PA Crgo HT B1.1, Aly | 1        |          |        |        |                        |
| 2 | Rack Bumper              |             | Bumper                     | 2        |          |        |        |                        |
| 3 | Bolt - Rack Bumper       |             | Bolt M4 x 25 mm x 0.7 P    | 4        | 3 mm hex | 1.2    | 10.6   | Thread - Everseal® 183 |

## SECTION 1 - REAR RACK



|   | PART NAME                     | PART NUMBER | PART DESCRIPTION                                     | QUANTITY | TOOL     | TORQUE |        | COMMENT                                |
|---|-------------------------------|-------------|--|----------|----------|--------|--------|--|
|   |                               |             |  |          |          | Nm     | IN-LBS |  |
|   | Porto Rear Rack Assembly      | S221700010  | Porto Rear Rack Assembly                             |          |          |        |        |  |
| 1 | Integrated Rear Light         | S225800006  | LGT Rear, Spanninga® Commuter Glow R581001, W/O Wire | 1        |          |        |        |  |
| 2 | Radar Unit                    | S226800015  | Garmin® Radar, Wired Version, 1400 mm                | 1        |          |        |        |  |
| 3 | Garmin Radar Mount            |             | Garmin® Radar Mount Bracket                          | 1        |          |        |        |  |
| 4 | Garmin Radar Mount Bolts      | S211700002  | Bolt M4 x 5 mm x 0.7 P                               | 2        | 3 mm hex | 2      | 18     |  |
| 5 | Garmin Radar Rack Mount Bolts |             | Bolt M3 x 14 mm x 0.5 P                              | 2        | 2 mm hex |        |        | Thread - Tuflok® blue nylon torq-patch |
| 6 | Cable Guide                   | S246500004  | Cable Guide, Light, PA Crgo HT B1.1                  | 1        |          |        |        |  |
| 7 | Cable Guide Bolt              |             | Bolt   | 1        |          | 1.2    | 10.6   |  |

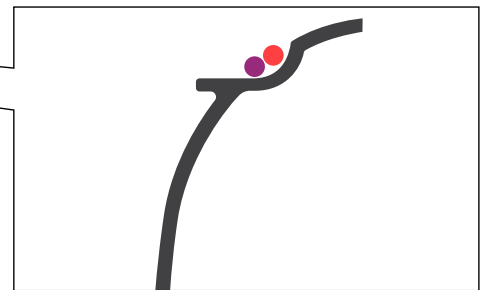
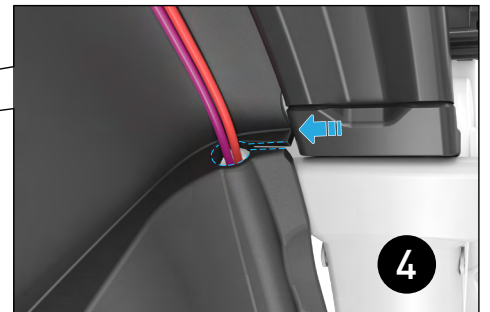
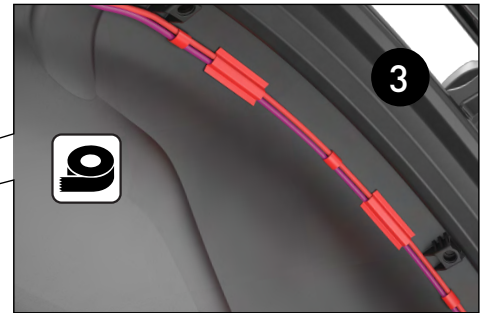
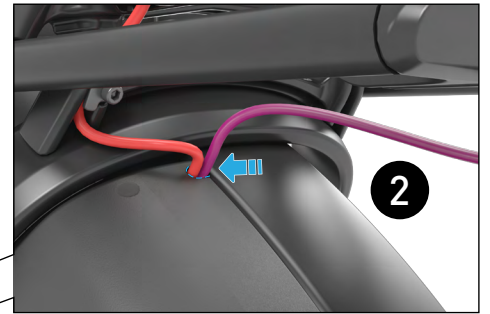
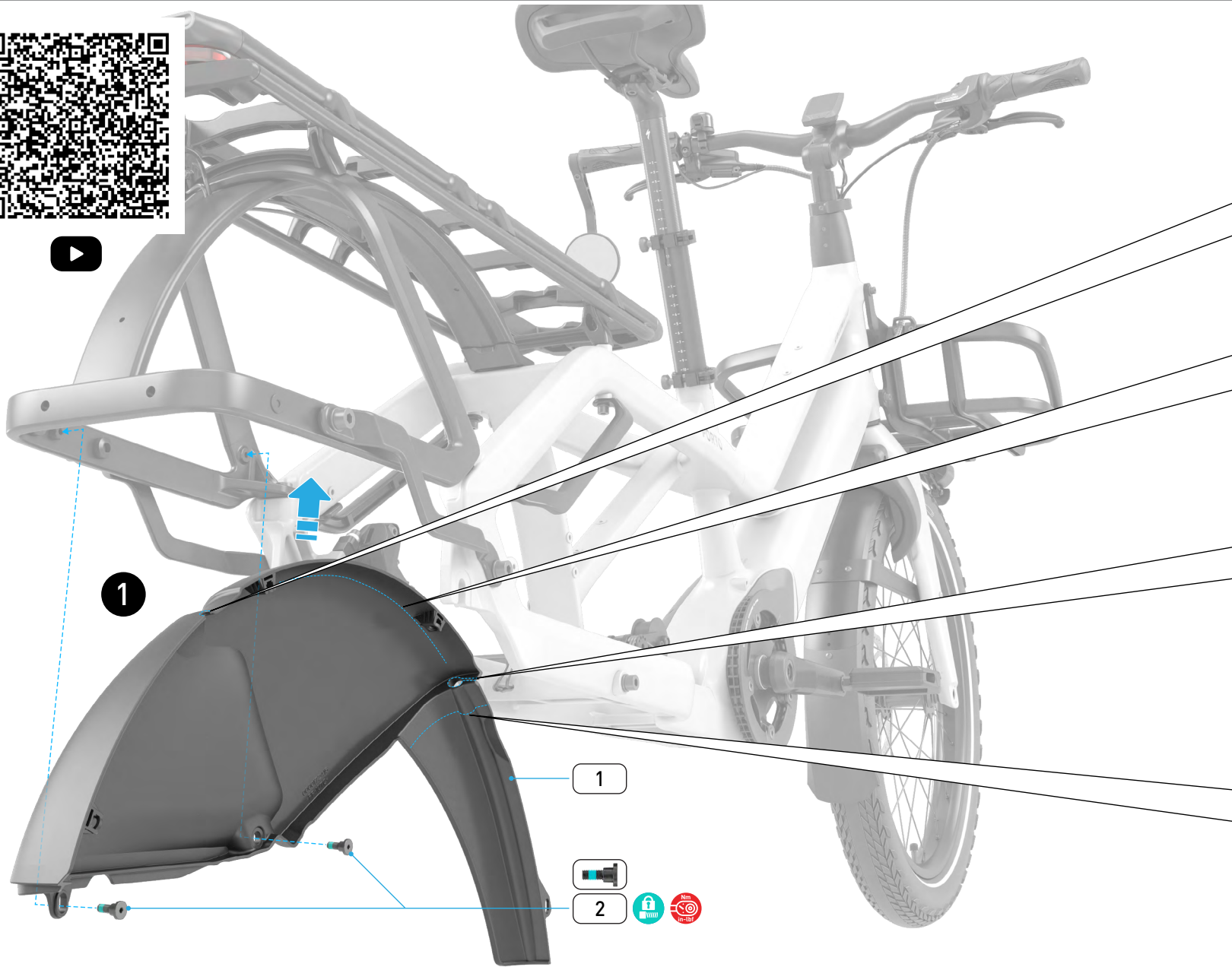
# SECTION 1 - REAR RACK



|    | PART NAME                           | PART NUMBER | PART DESCRIPTION                          | QUANTITY | TOOL     | TORQUE |        | COMMENT                                |
|----|-------------------------------------|-------------|---|----------|----------|--------|--------|--|
|    |                                     |             |   |          |          | Nm     | IN-LBS |  |
|    | <b>Porto Rear Rack Assembly</b>     |             | Porto Rear Rack Assembly                  |          |          |        |        |  |
| 1  | Bolt - Mounting Bolt Rear           | S221700010  | Bolt M8 x 14 mm x 1.25 mm P               | 2        | 6 mm hex | 20     | 177    | Thread - Everseal® 183                 |
| 2  | Washer - Mounting Bolt Rear         |             | Washer M8 x 8.4 mm ID x 15 mm OD x 1.5 mm | 2        |          |        |        |  |
| 3  | Bolt - Mounting Bolt Center         |             | Bolt M5 x 12 mm x 0.8 mm P                | 2        | 4 mm hex | 3.5    | 31     | Thread - Tuflok® blue nylon torq-patch |
| 4  | Washer - Mounting Bolt Center       |             | Washer M5 x 5.2 mm ID x 10 mm OD x 1 mm   | 2        |          |        |        |  |
| 5  | Bolt - Mounting Bolt Forward        |             | Bolt M6 x 65 mm x 1 mm                    | 2        | 5 mm hex | 4      | 35     | Thread - Everseal® 183                 |
| 6  | Washer - Mounting Bolt Forward      |             | Washer M6 x 6.4 mm ID x 11 mm OD x 1.5 mm | 2        |          |        |        |  |
|    | <b>Porto Pannier Rails Assembly</b> |             | Porto Pannier Rails Assembly              |          |          |        |        |  |
| 7  | Pannier Rail, Drive Side            | S221700012  | Pannier Rail, DS                          | 1        |          |        |        |  |
| 8  | Pannier Rail, Non-drive Side        |             | Pannier Rail, NDS                         | 1        |          |        |        |  |
| 9  | Pannier Rail Washer                 |             | Washer M5 x 5.2 mm ID x 10 mm OD x 1 mm   | 2        |          |        |        |  |
| 10 | Pannier Rail Bolt                   |             | Bolt M5 x 14 mm x 0.8 P                   | 2        | 4 mm hex | 4      | 35     | Thread - Everseal® 183                 |

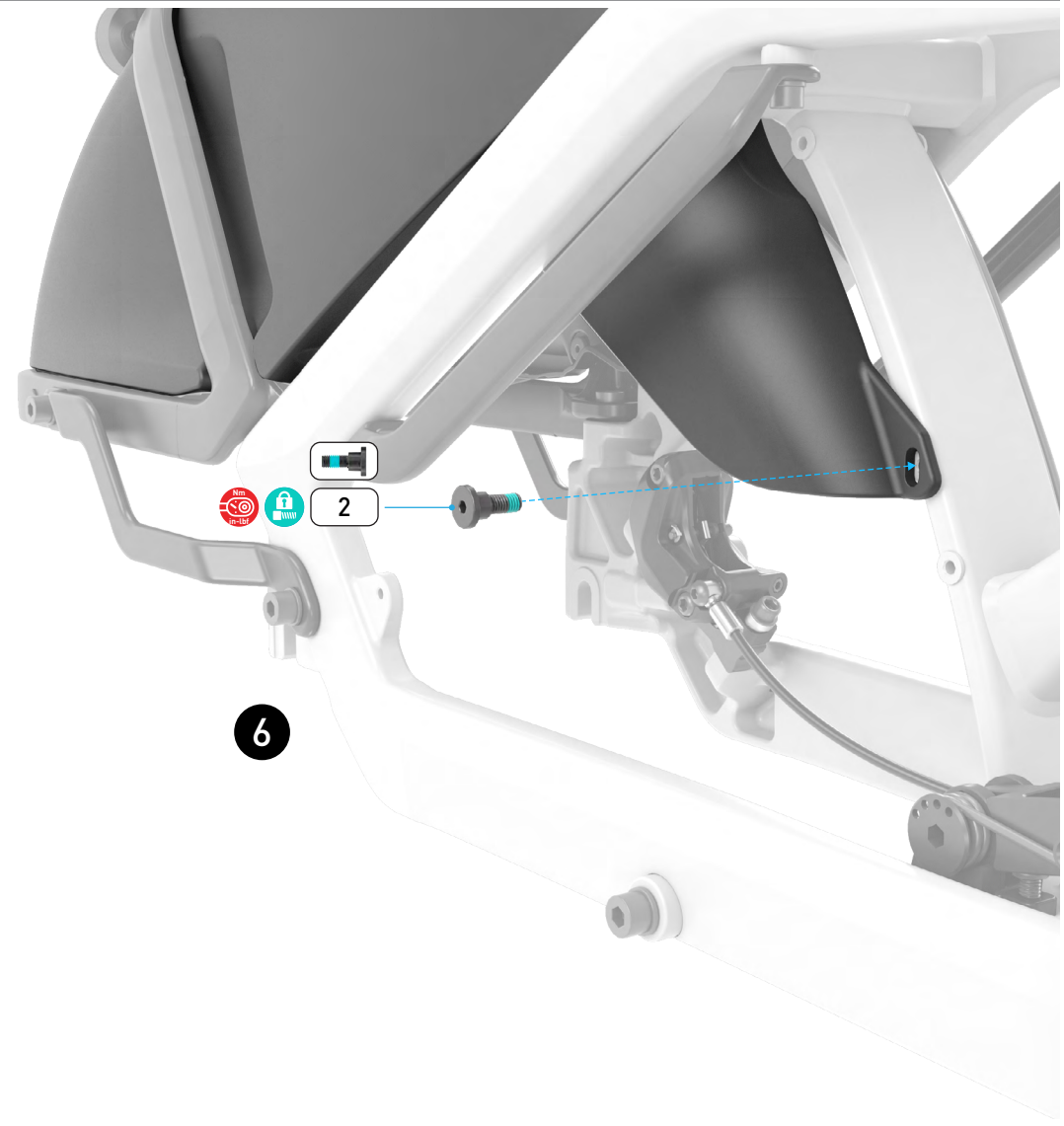
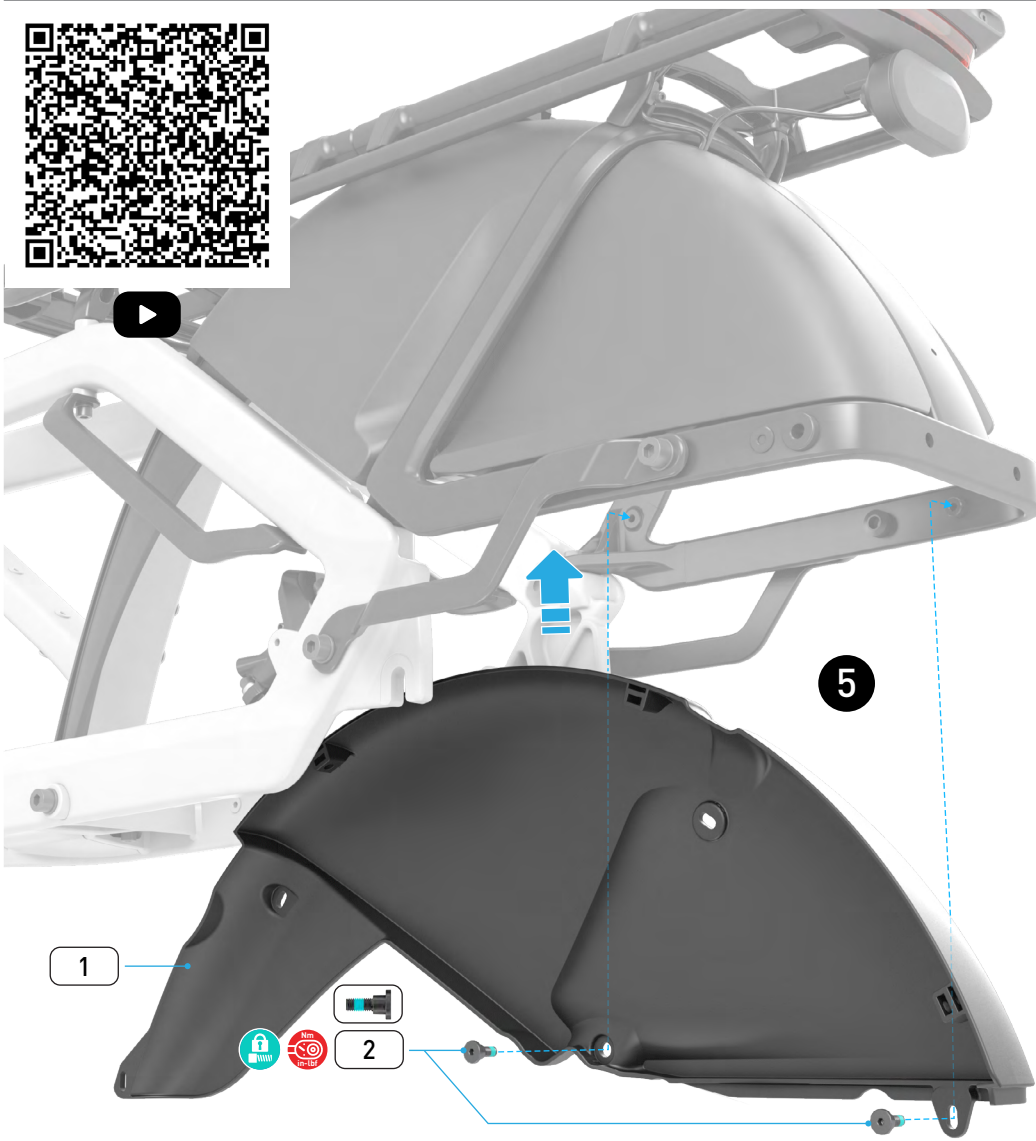


# SECTION 2 - REAR FENDERS



|   | PART NAME                    | PART NUMBER | PART DESCRIPTION                                  | QUANTITY | TOOL     | TORQUE |        | COMMENT                |
|---|------------------------------|-------------|---|----------|----------|--------|--------|------------------------|
|   |                              |             |   |          |          | Nm     | IN-LBS |                        |
|   | Porto Rear Fender Assembly   |             | Porto Rear Fender & Frame Skirt Kit               |          |          |        |        |                        |
| 1 | Rear Fender Non-drive Side   | S222200011  | Fender Assy, Non-drive Side                       | 1        |          |        |        |                        |
| 2 | Rear Fender - Shoulder Bolts |             | Bolt Shoulder M5 x 7 mm OD x 4.75 mm T x 0.8 mm P | 2        | 3 mm hex | 2.5    | 22     | Thread - Everseal® 183 |

## SECTION 2 - REAR FENDERS

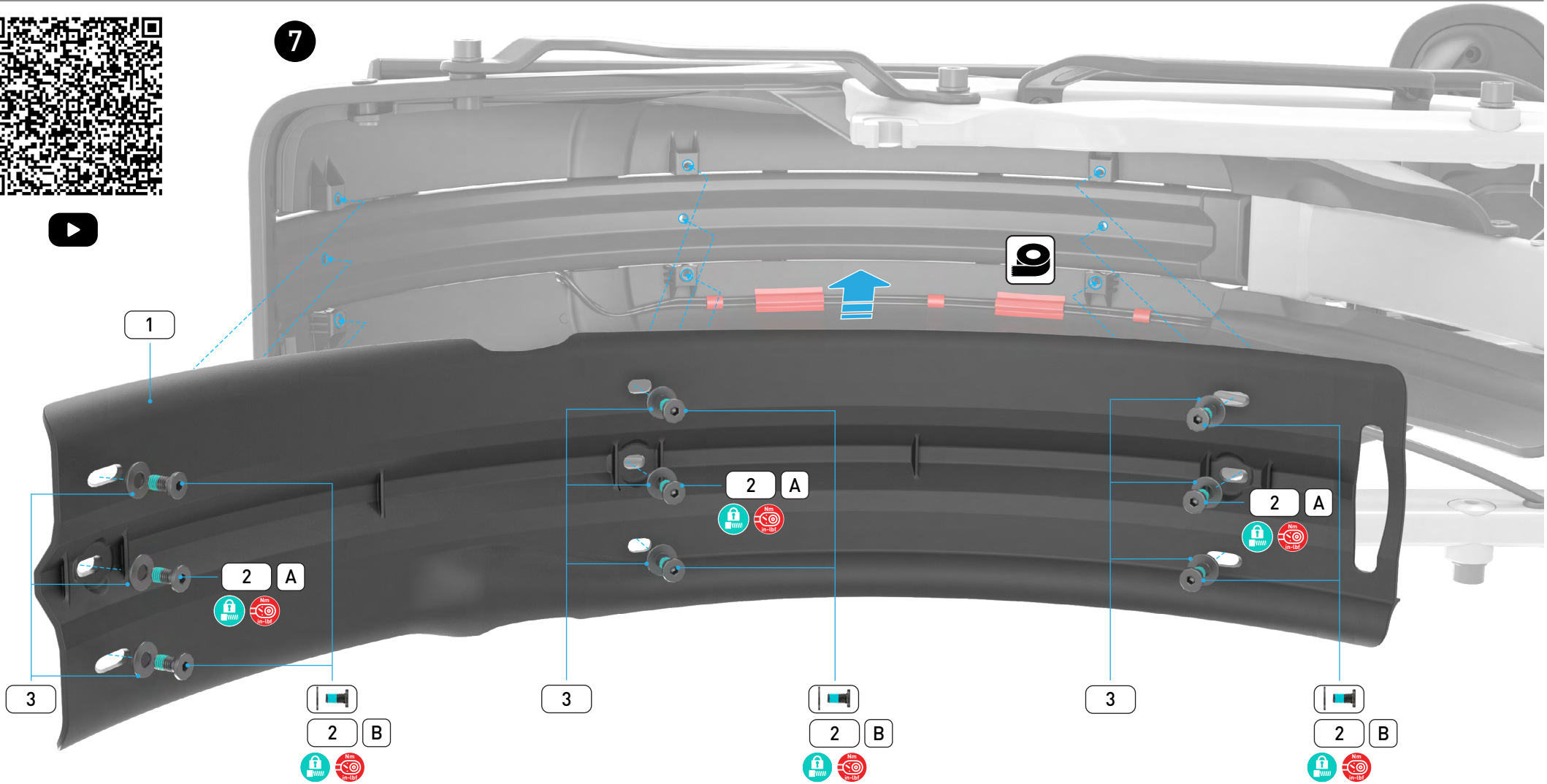


|   | PART NAME                         | PART NUMBER | PART DESCRIPTION                                  | QUANTITY | TOOL     | TORQUE |        | COMMENT                |
|---|-----------------------------------|-------------|---|----------|----------|--------|--------|------------------------|
|   |                                   |             |   |          |          | Nm     | IN-LBS |                        |
|   | <b>Porto Rear Fender Assembly</b> |             | Porto Rear Fender & Frame Skirt Kit               |          |          |        |        |                        |
| 1 | Rear Fender Drive Side            | S222200011  | Fender Assy, Drive Side                           | 1        |          |        |        |                        |
| 2 | Rear Fender - Shoulder Bolts      |             | Bolt Shoulder M5 x 7 mm OD x 4.75 mm T x 0.8 mm P | 3        | 3 mm hex | 2.5    | 22     | Thread - Everseal® 183 |

## SECTION 2 - REAR FENDERS



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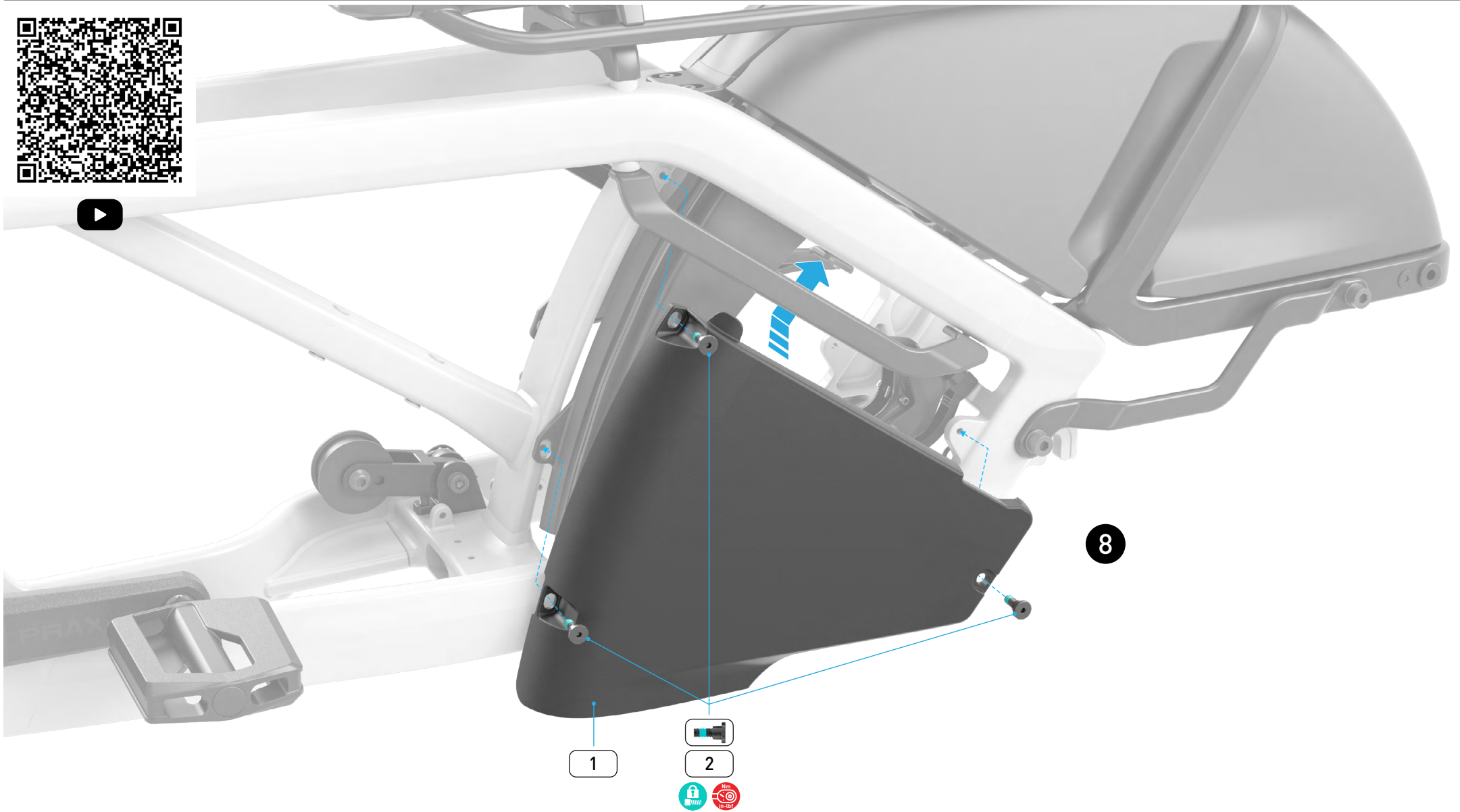
|     | PART NAME                     | PART NUMBER | PART DESCRIPTION                        | QUANTITY | TOOL     | TORQUE |        | COMMENT                |
|-----|-------------------------------|-------------|---|----------|----------|--------|--------|------------------------|
|     |                               |             |   |          |          | Nm     | IN-LBS |                        |
|     | Porto Rear Fender Assembly    |             | Porto Rear Fender & Frame Skirt Kit     |          |          |        |        |                        |
| 1   | Center Fender                 |             | Fender, Center                          | 1        |          |        |        |                        |
| 2 A | Bolt - Center Fender (Centre) | S222200011  | Bolt M5 x 10 mm x 0.8 mm P              | 3        | 3 mm hex | 2.5    | 22     | Thread - Everseal® 183 |
| 2 B | Bolt - Center Fender (Outer)  |             | Bolt M5 x 10 mm x 0.8 mm P              | 6        | 3 mm hex | 1.5    | 13     | Thread - Everseal® 183 |
| 3   | Washer - Center Fender        |             | Washer M5 x 5.3 mm ID x 12 mm OD x 1 mm | 9        |          |        |        |                        |



**CAUTION:** Make sure the cables are taped down securely before fitting the center fender. Degrease the taping surfaces with isopropyl alcohol before taping.



## SECTION 2 - REAR FENDERS



|   | PART NAME                    | PART NUMBER | PART DESCRIPTION                                  | QUANTITY | TOOL     | TORQUE |        | COMMENT                |
|---|------------------------------|-------------|---|----------|----------|--------|--------|------------------------|
|   |                              |             |   |          |          | Nm     | IN-LBS |                        |
|   | Porto Rear Fender Assembly   |             | Porto Rear Fender & Frame Skirt Kit               |          |          |        |        |                        |
| 1 | Brake Cover                  | S222200011  | Brake Cover                                       | 1        |          |        |        |                        |
| 2 | Brake Cover - Shoulder Bolts |             | Bolt Shoulder M5 x 7 mm OD x 4.75 mm T x 0.8 mm P | 3        | 3 mm hex | 2.5    | 22     | Thread - Everseal® 183 |

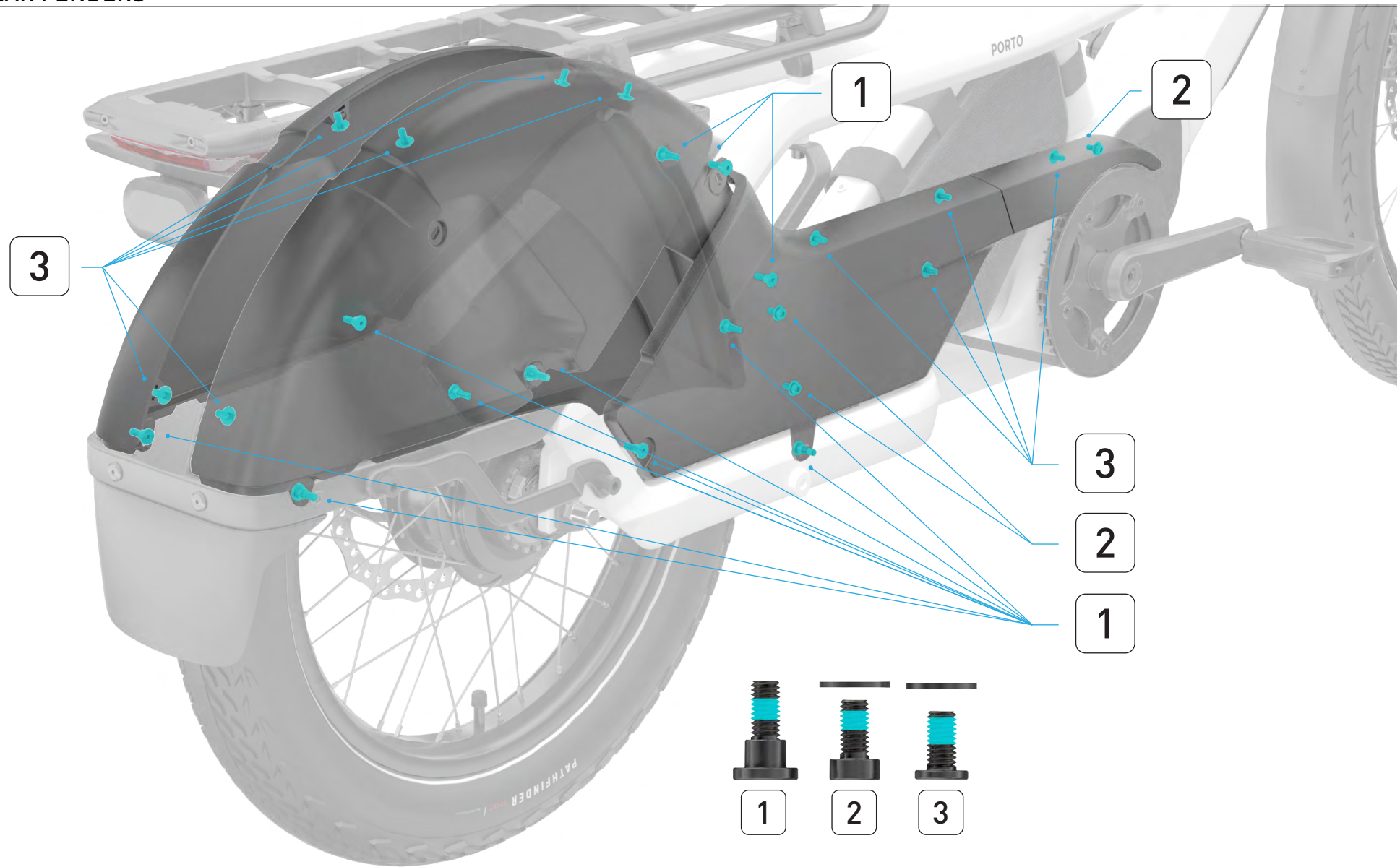


## SECTION 2 - REAR FENDERS



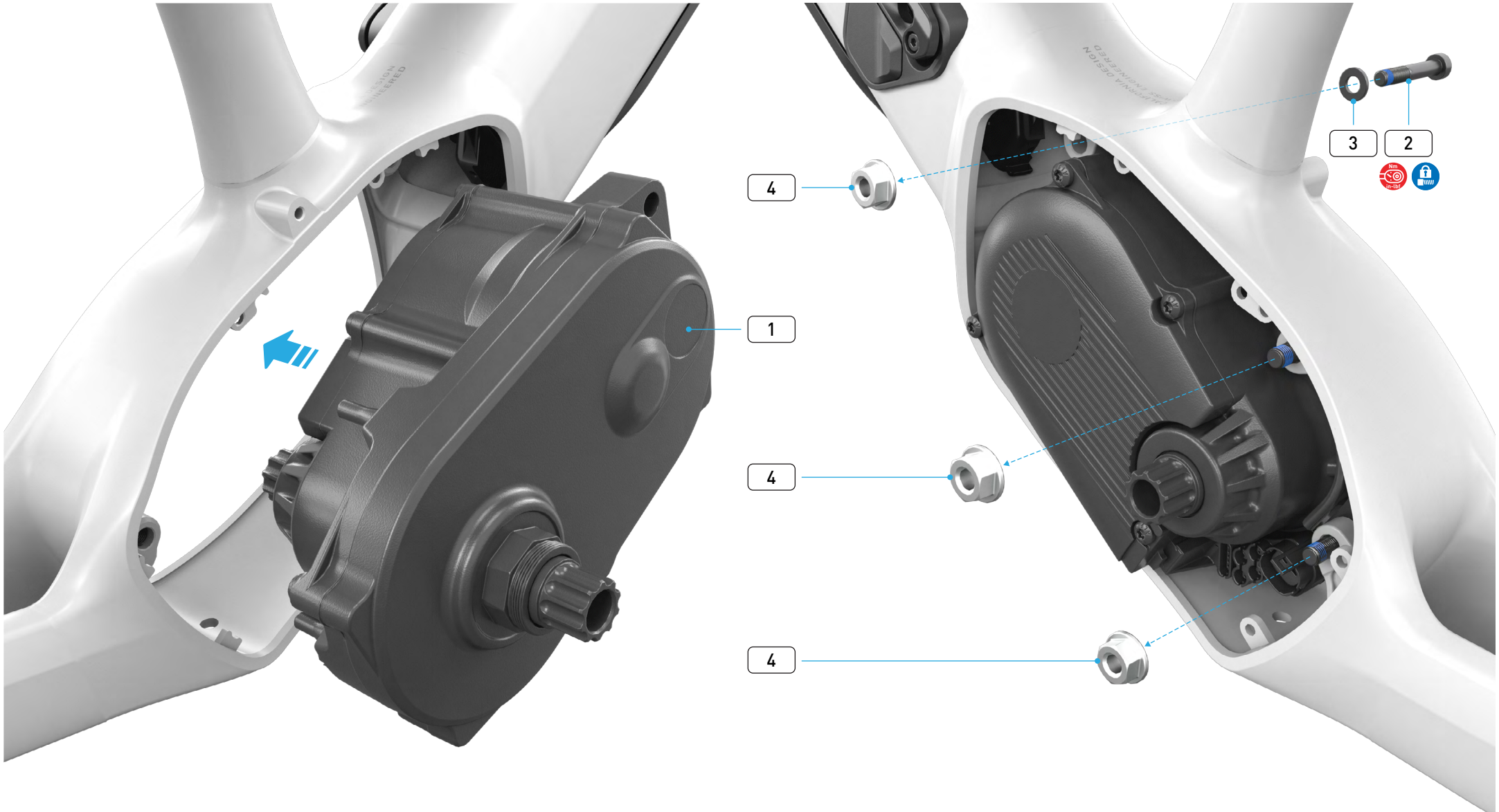
|   | PART NAME                  | PART NUMBER | PART DESCRIPTION                    | QUANTITY | TOOL     | TORQUE |        | COMMENT                |
|---|----------------------------|-------------|-------------------------------------|----------|----------|--------|--------|------------------------|
|   |                            |             |                                     |          |          | Nm     | IN-LBS |                        |
|   | Porto Rear Fender Assembly |             | Porto Rear Fender & Frame Skirt Kit |          |          |        |        |                        |
| 1 | Fender Flap                | S22220001   | Fender Flap                         | 1        |          |        |        |                        |
| 2 | Bolt - Fender Flap         |             | Bolt M5 x 16 mm x 0.8 mm P          | 2        | 3 mm Hex | 1.5    | 13     | Thread - Everseal® 183 |

## SECTION 2 - REAR FENDERS



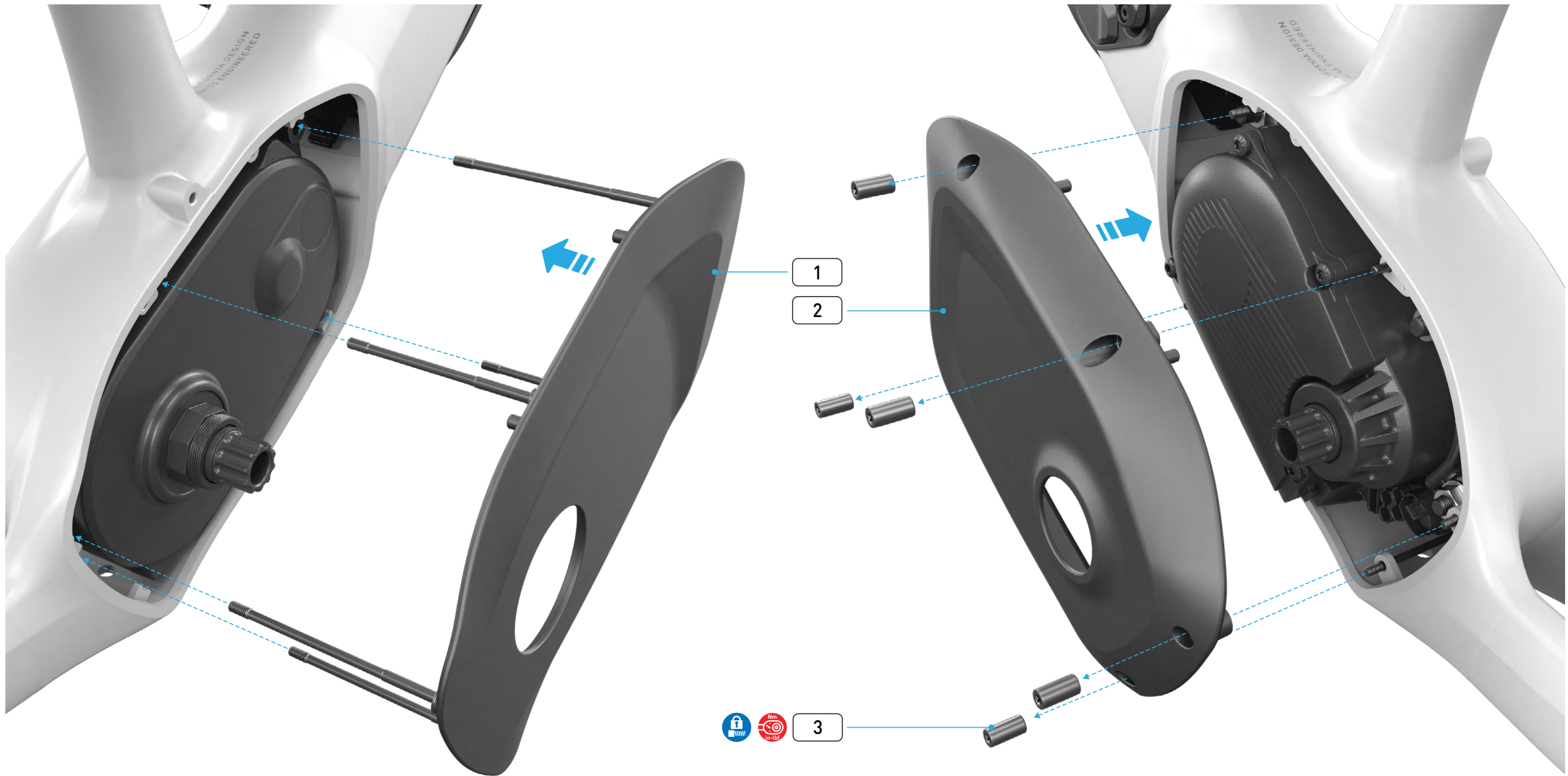
|   | Location                              | Tool     | Torque |        |
|---|---------------------------------------|----------|--------|--------|
|   |                                       |          | Nm     | In-lbf |
| 1 | Rear Fender - Shoulder Bolts          | 3 mm hex | 2.5    | 22     |
| 2 | Rear Fender - Bolts and Washers       | 3 mm hex | 2.5    | 22     |
| 3 | Rear Fender - Inner Bolts and Washers | 3 mm hex | 1.5    | 13     |

## SECTION 3 - MOTOR



|   | PART NAME                 | PART NUMBER | PART DESCRIPTION  | QUANTITY | TOOL                | TORQUE |        | COMMENT                                |
|---|---------------------------|-------------|---|----------|---------------------|--------|--------|--|
|   |                           |             |   |          |                     | Nm     | IN-LBS |  |
| 1 | Motor                     | S246800003  | Specialized 2.2 Mag Motor, Horizontal Mounting, Custom Cargo Bike, RX Tune (90Nm) | 1        |                     |        |        | Install from the drive side            |
|   | <b>Motor Mounting Kit</b> |             | Motor Mounting Hardware Kit   |          |                     |        |        |  |
| 2 | Motor Mounting Bolt       | S210500015  | Bolt M8 x 50 mm x 1.25 mm P   | 1        | 5 mm hex            | 23     | 203    | Thread - Tuflok® blue nylon torq-patch |
| 3 | Motor Mounting Washer     |             | Washer M8 x 8.4 mm ID x 16 mm OD x 1.6 mm   | 1        |                     |        |        |  |
| 4 | Motor Mounting Nut        |             | Nut M8 x 1.25 mm P  | 3        | 13 mm socket wrench | 23     | 203    |  |

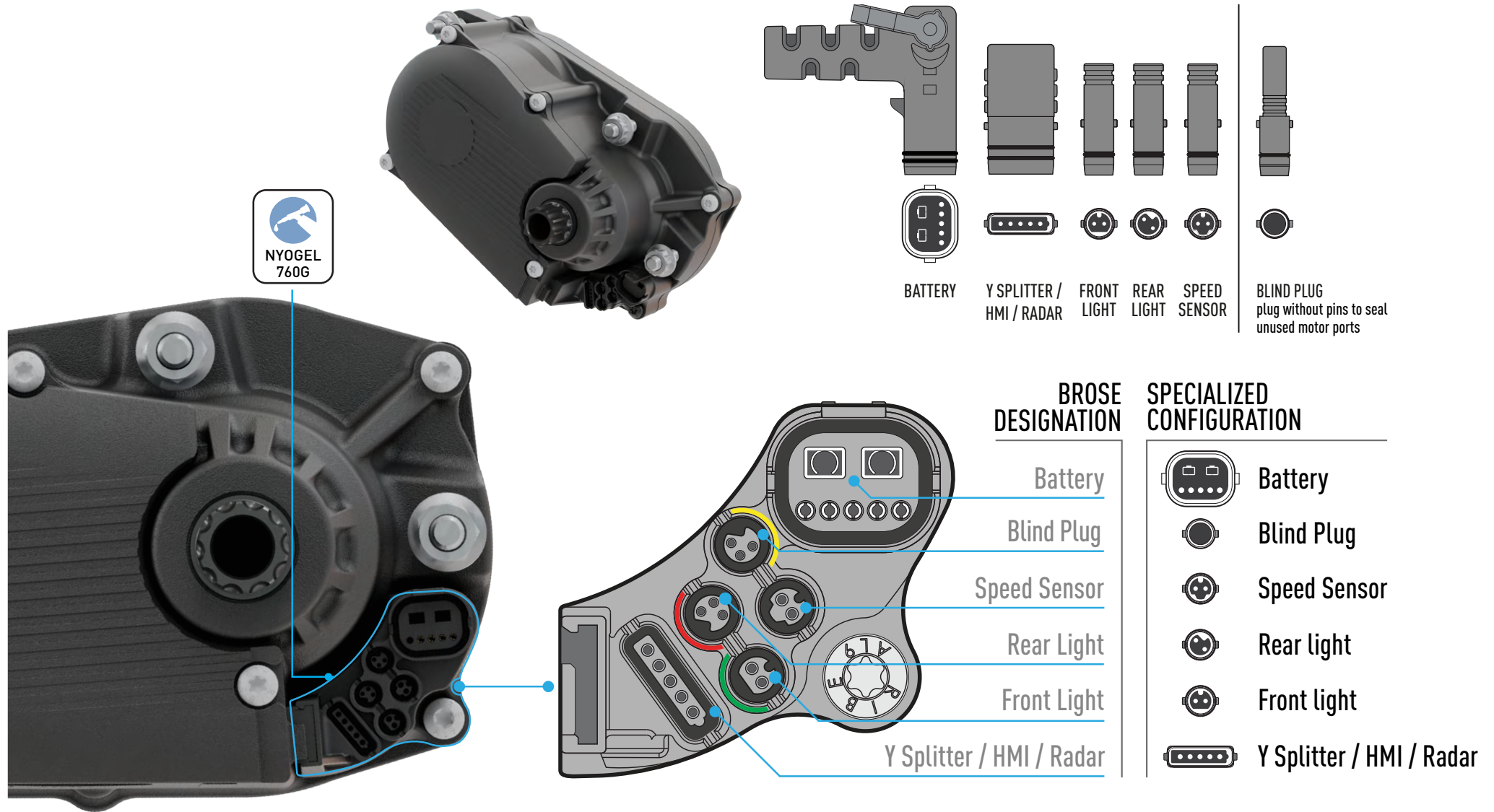
## SECTION 3 - MOTOR



|   | PART NAME              | PART NUMBER | PART DESCRIPTION              | QUANTITY | TOOL     | TORQUE |        | COMMENT                                |
|---|------------------------|-------------|-------------------------------|----------|----------|--------|--------|--|
|   |                        |             |                               |          |          | Nm     | IN-LBS |  |
|   | <b>Motor Cover Kit</b> |             | Motor Cover Kit               |          |          |        |        |  |
| 1 | DS Motor Cover         | S219900056  | CVR, Motor, DS, PA fit HT F1  | 1        |          |        |        | With moulded thru bolts                |
| 2 | NDS Motor Cover        |             | CVR, Motor, NDS, PA fit HT F1 | 1        |          |        |        |  |
| 3 | Custom Motor Cover Nut |             | Nut M4 x 8 mm x 0.7 mm P      | 5        | T20 torx | 1      | 9      | Thread - Tuflok® blue nylon torq-patch |



## SECTION 3 - MOTOR CONNECTORS

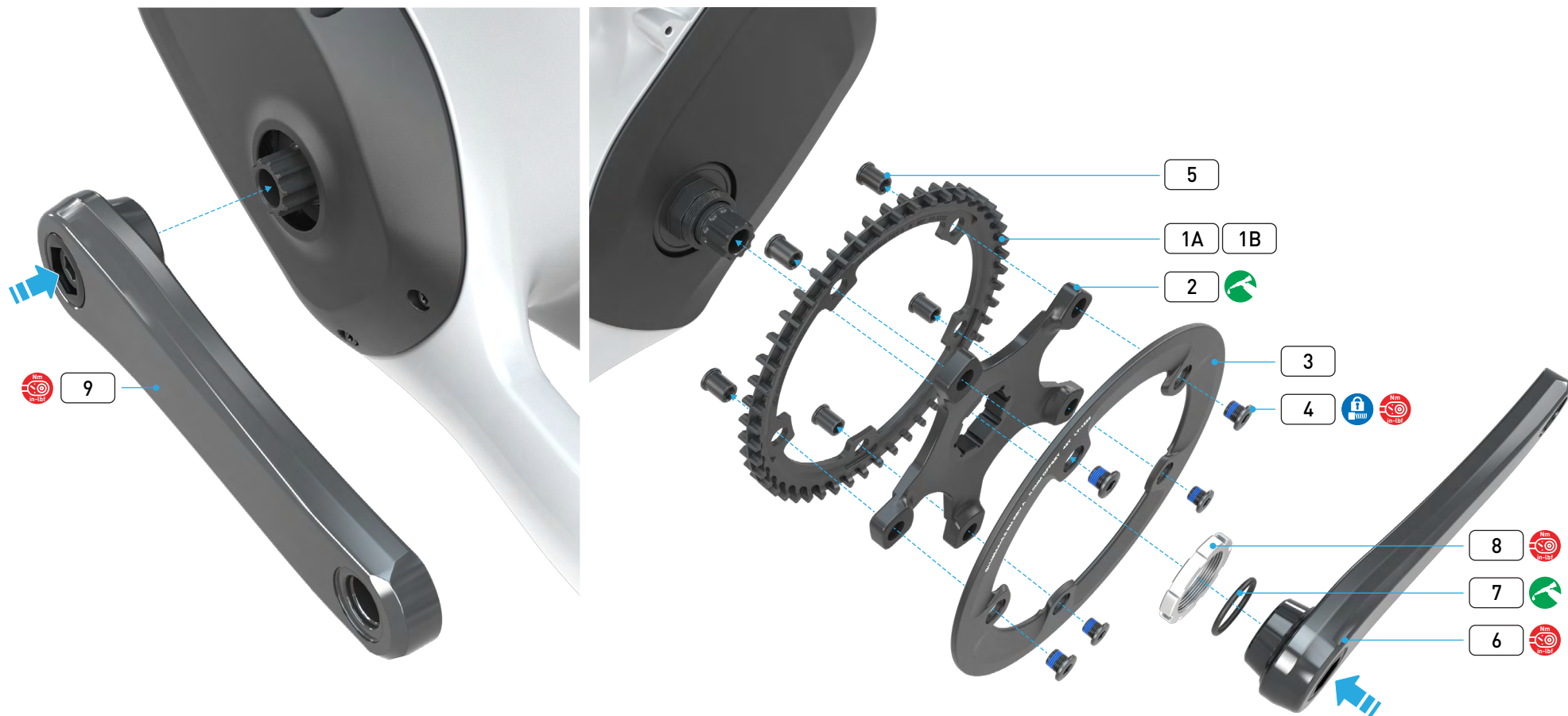


|   | PART NAME  | PART NUMBER | PART DESCRIPTION              | QUANTITY | TOOL | TORQUE |        | COMMENT |
|---|------------|-------------|-------------------------------|----------|------|--------|--------|---------|
|   |            |             |                               |          |      | Nm     | IN-LBS |         |
| 1 | Blind Plug | S216800024  |                               | 1        |      |        |        |         |
| 2 | Motor      | S216800027  | Specialized Drive Side Loader | 1        |      |        |        |         |

**i** It is also recommended that a thin layer of Nyogel® 760G (special electrical contact grease) be applied to all ports at the motor. Excessive use of Nyogel® 760G can be problematic.

**!** CAUTION: Make sure all ports not used are sealed with a blind plug.

## SECTION 4 - DRIVE TRAIN



|    | PART NAME                | PART NUMBER | PART DESCRIPTION  | QUANTITY | TOOL            | TORQUE |        | COMMENT  |
|----|--------------------------|-------------|---|----------|-----------------|--------|--------|--|
|    |                          |             |   |          |                 | Nm     | IN-LBS |  |
| 1A | Belt Ring                | S221400004  | Belt Ring CDX 48 T, 25 kph (EU Countries)                         | 1        |                 |        |        | Note that standard gearing specification may change over product lifetime. |
| 1B | Belt Ring                | S221400004  | Belt Ring CDX 50 T, 32 kph (Australia, New Zealand, South Africa) | 1        |                 |        |        |  |
| 2  | Spider                   | S225100006  | Brose® Motor Spider 130 BCD Gates® CDX 5 bolt                     | 1        |                 |        |        |  |
| 3  | Belt Ring Guard          | S221200008  | Porto Chainring Guard, 130 mm BCD                                 | 1        |                 |        |        |  |
| 4  | Belt Ring Bolts          |             | Belt Ring Bolts   | 5        | 5 mm hex        | 10     | 89     | Thread - Tuflok® blue nylon torq-patch                                     |
| 5  | Spider Nut               |             | Spider Nut  | 5        |                 |        |        |  |
| 6  | Crank Arm Drive Side     | S201600021  | Brose® 165 mm, Drive Side Arm, Alloy                              | 1        | 8 mm hex        | 50     | 443    |  |
| 7  | Crank Seal Drive Side    | S221600011  | O-Ring, 23.5 mm ID x 2.4 mm OD, Drive Side                        | 1        |                 |        |        | Grease   |
| 8  | Spider Lock Ring         | S166800011  | Isis Groove Nut   | 1        | Parktool BBT-18 | 50     | 443    |  |
| 9  | Crank Arm Non-drive Side | S201600022  | Brose® 165 mm, Non-drive Side Arm, Alloy                          | 1        | 8 mm hex        | 50     | 443    |  |

**i** Consult the Table on the last page for details on belt specifications for different regions.

## SECTION 4 - DRIVE TRAIN



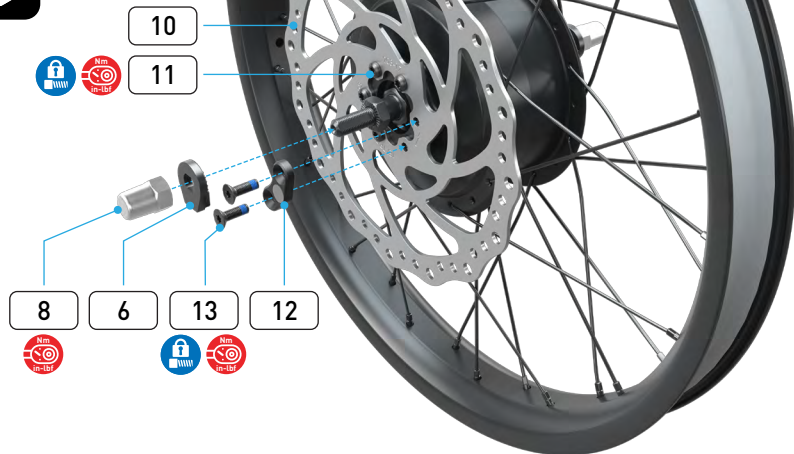
|    | PART NAME                  | PART NUMBER | PART DESCRIPTION  | QUANTITY | TOOL     | TORQUE |        | COMMENT  |
|----|----------------------------|-------------|---|----------|----------|--------|--------|--|
|    |                            |             |   |          |          | Nm     | IN-LBS |  |
| 1  | Belt Ring                  | S221400004  | Belt Ring CDX   | 1        |          |        |        |  |
| 2  | Gates® CDX Carbon Belt     | S221300001  | Gates® Carbon Belt (CDX) 92551054, 11m-166t-12ct                    | 1        |          |        |        |  |
| 3A | Gates® Belt Drive Sprocket | S221000002  | Gates® 24 T Sprocket, 25 kph (EU Countries)                         | 1        |          |        |        | Note that standard gearing specification may change over product lifetime. |
| 3B | Gates® Belt Drive Sprocket | S221000002  | Gates® 22 T Sprocket, 32 kph (Australia, New Zealand, South Africa) | 1        |          |        |        |  |
| 4  | Porto Belt Tensioner       | S229900039  | Porto Belt Tensioner  | 1        |          |        |        | Follow User Manual guide on belt tension                                   |
| 5  | Tensioner Bolt             |             | Bolt  | 1        |          |        |        |  |
| 6  | Mounting Bolt              |             | Bolt M6 x 12 mm x 1 mm P  | 2        | 5 mm hex | 10     | 89     | Thread - Tuflok® blue nylon torq-patch                                     |
| 7  | Washer                     |             | Washer M6 x 6.4 mm ID x 11 mm OD x 1.5 mm                           | 2        |          |        |        |  |



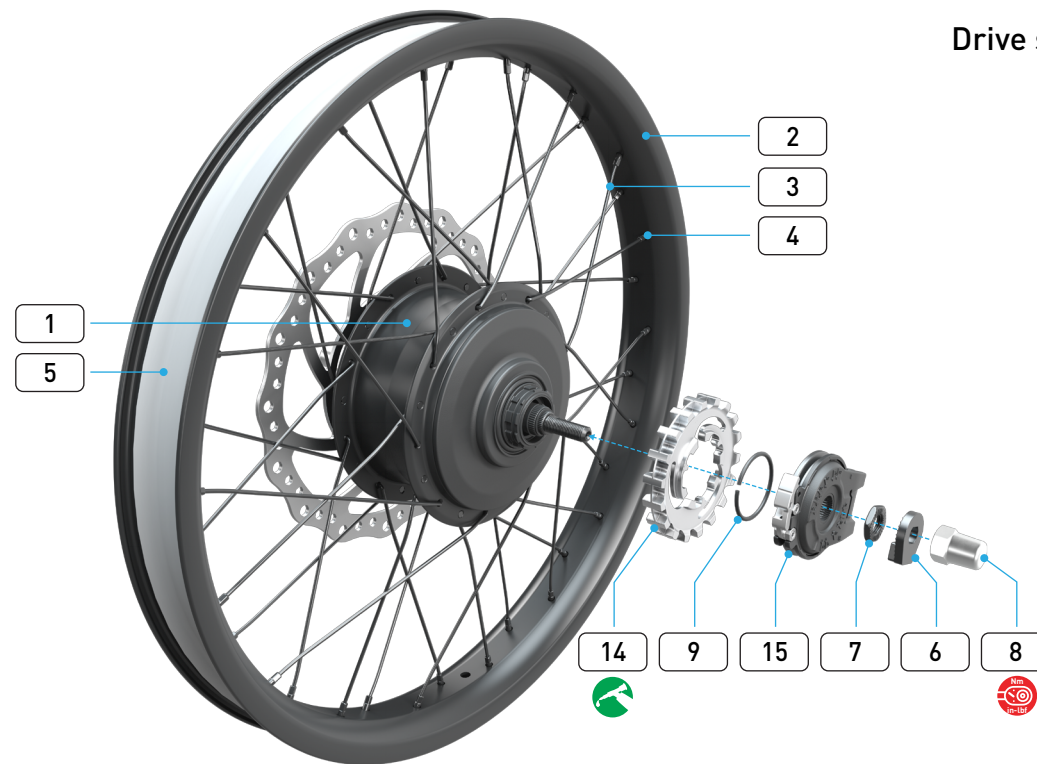
Consult the User Manual regarding alignment of the belt tensioner.



# SECTION 5 - REAR WHEEL



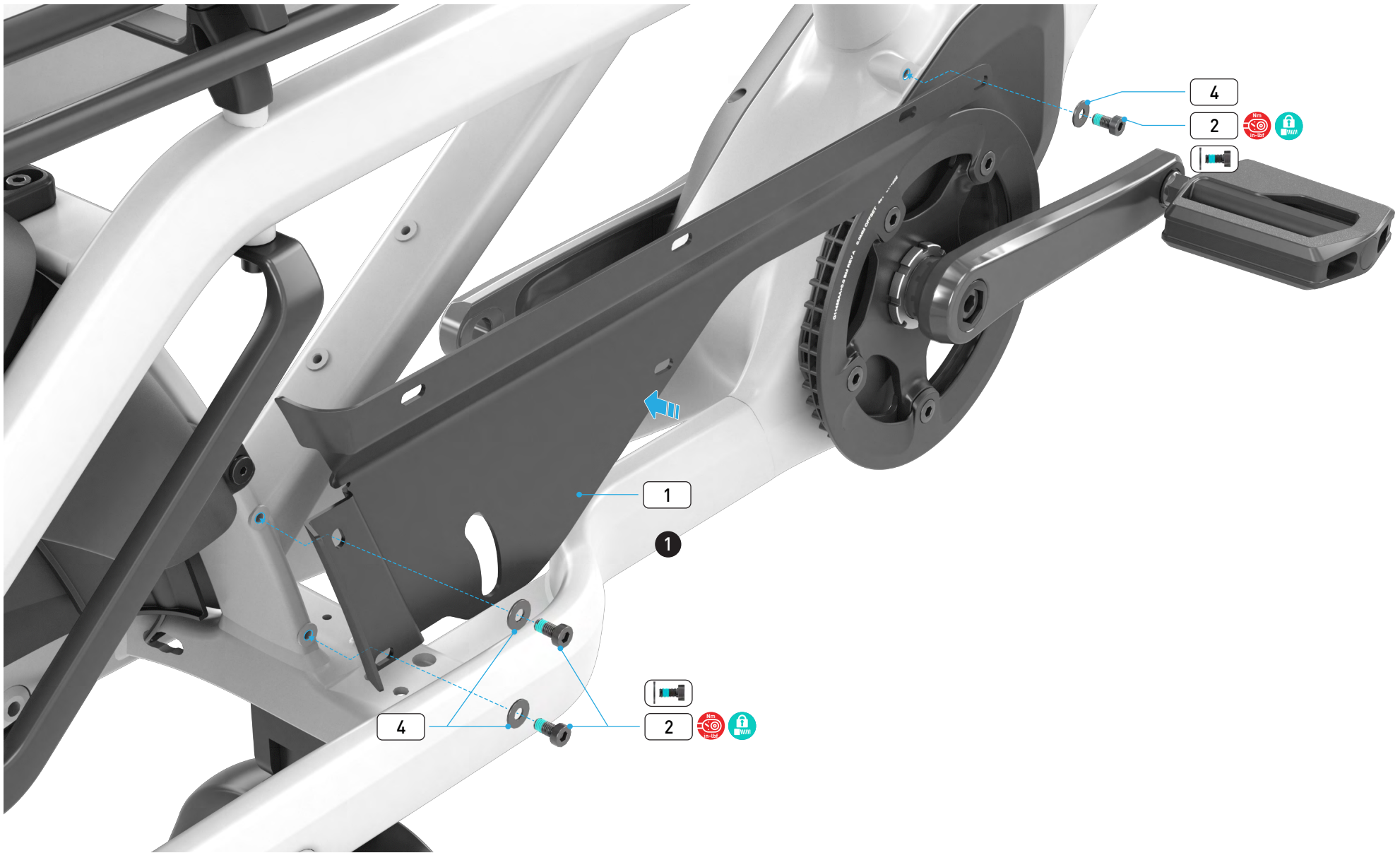
Non-drive side



Drive side

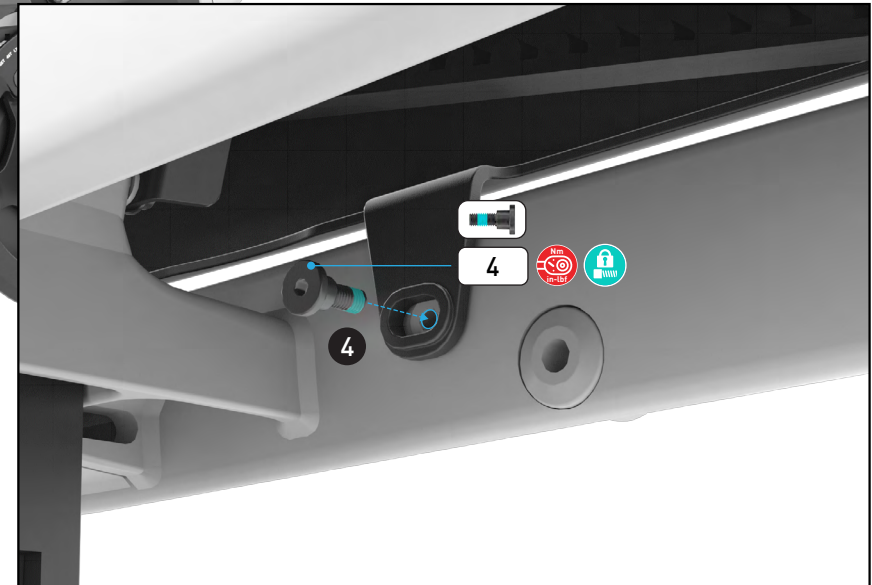
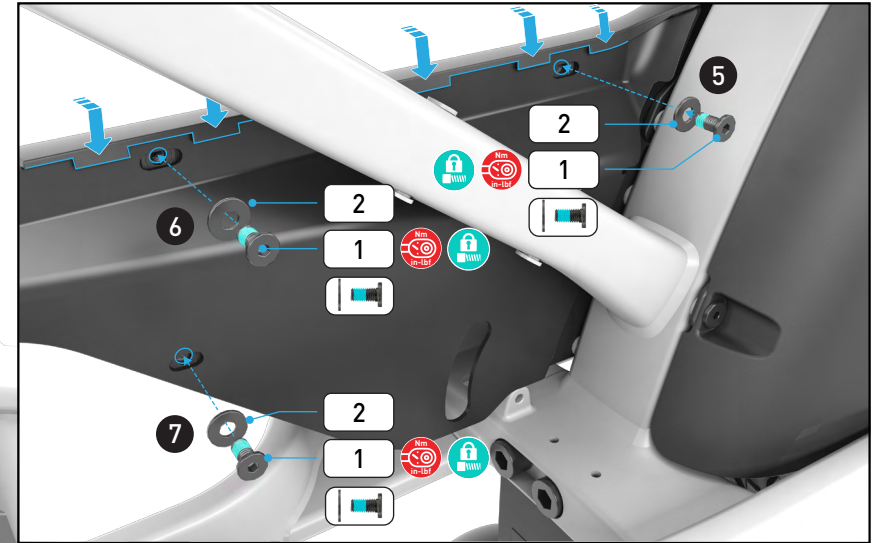
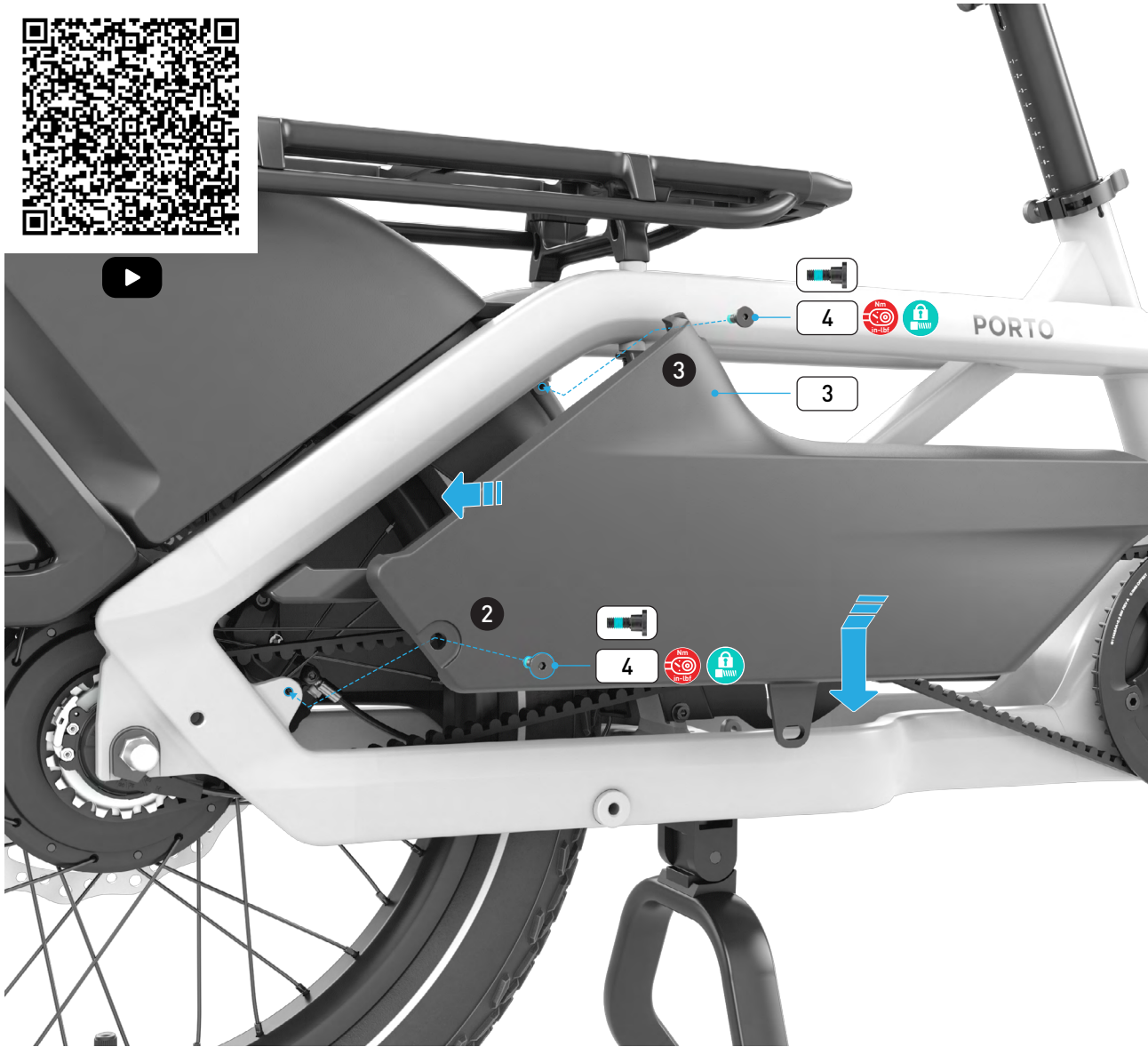
|    | PART NAME                    | PART NUMBER | PART DESCRIPTION  | QUANTITY | TOOL         | TORQUE |        | COMMENT                                |
|----|------------------------------|-------------|---|----------|--------------|--------|--------|--|
|    |                              |             |   |          |              | Nm     | IN-LBS |  |
|    | Rear Wheel                   |             | 20" Rear Wheel - enviolo® HD Hub  |          |              |        |        |  |
| 1  | IGH Hub                      | S225500024  | Rear Hub IGH, enviolo® CVP-HD-SA-36-DC-OE CVP, SA, 36 Spoke, 135 mm Spacing | 1        |              |        |        |  |
| 2  | Rear Rim                     |             | Rim E-SCD40 20", 36 holes, 21.3 mm Rim Depth, 40 mm Internal Width          | 1        |              |        |        |  |
| 3  | Spoke                        |             | Spoke DT Swiss®, SID020XXS0001  | 36       |              |        |        |  |
| 4  | Nipple                       |             | Nipple DT Swiss®, NORA 20120s0500 2.0 x 12 mm                               | 36       |              |        |        |  |
| 5  | Rim Tape                     |             | Rim Strip Jogon JN204205 20" x 42 mm x 0.5 mm                               | 1        |              |        |        |  |
|    | enviolo® Axle Nut Kit        |             | Blt Kit, enviolo® IGH Hub, Axle Nuts & Anti Rotation Washers Kit            |          |              |        |        |  |
| 6  | Washer                       | S220500017  | Washer, HW-Wash-OE, enviolo®, No Turn Washer for IGH                        | 2        |              |        |        |  |
| 7  | Hex Nut                      |             | Nut, HW-Hnut-OE, enviolo,   | 1        |              |        |        |  |
| 8  | Axle Nut                     |             | Nut, Acorn Nut for IGH  | 2        | 15 mm wrench | 35     | 310    |  |
| 9  | Retaining Ring               |             | Retaining Wire enviolo®, for IGH  | 1        |              |        |        |  |
| 10 | Brake Rotor                  | S233800001  | Tektro®, 203 mm Disc Brake Rotor  | 1        |              |        |        |  |
| 11 | Brake Rotor Bolts            |             |   | 4        | T25 Torx     | 6.2    | 55     | Thread - Tuflok® blue nylon torq-patch |
| 12 | Speed Sensor Magnet          |             |   | 1        |              |        |        |  |
| 13 | Speed Sensor Magnet Bolts    |             |   | 2        | T25 Torx     | 6.2    | 55     | Thread - Tuflok® blue nylon torq-patch |
| 14 | Gates Belt Drive Sprocket    | S221000002  | Gates® Sprocket   | 1        |              |        |        |  |
| 15 | enviolo Manual Hub Interface |             |   | 1        |              |        |        |  |

## SECTION 6 - CHAIN CASE



|   | PART NAME           | PART NUMBER | PART DESCRIPTION                        | QUANTITY | TOOL     | TORQUE |        | COMMENT                |
|---|---------------------|-------------|---|----------|----------|--------|--------|------------------------|
|   |                     |             |   |          |          | Nm     | IN-LBS |                        |
|   | Chaincase Kit       |             | Porto Chain Guard Kit                   |          |          |        |        |                        |
| 1 | Backplate           | S221200009  | Chain Case Back-plate                   | 1        |          |        |        |                        |
| 2 | Bolt - Backplate DS |             | Bolt M5 x 10 mm x 0.8 mm P              | 3        | 4 mm hex | 4      | 35     | Thread - Everseal® 183 |
| 4 | Washer              |             | Washer M5 x 5.3 mm ID x 12 mm OD x 1 mm | 7        |          |        |        |                        |

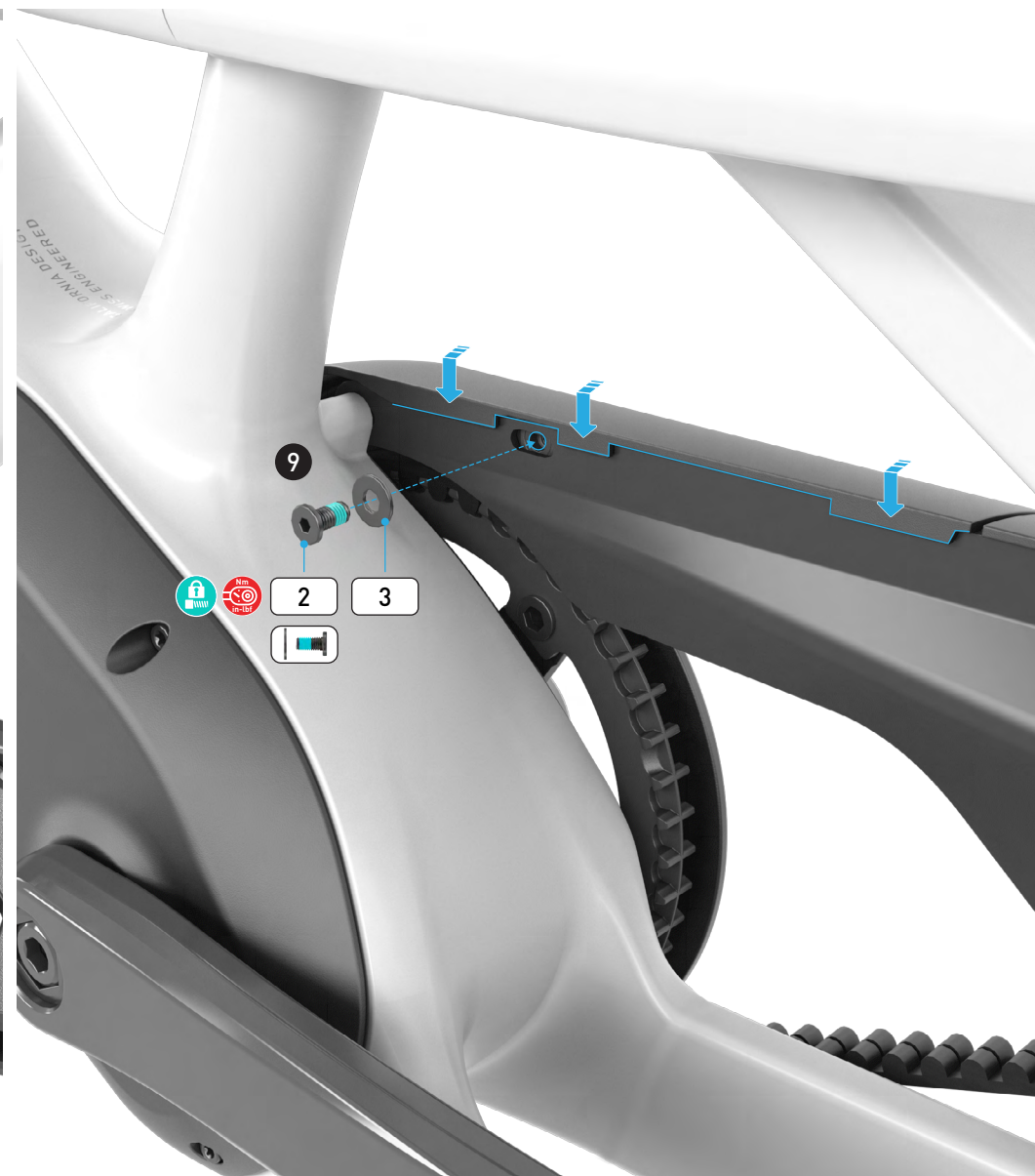
# SECTION 6 - CHAIN CASE



|   | PART NAME                       | PART NUMBER | PART DESCRIPTION                        | QUANTITY | TOOL     | TORQUE |        | COMMENT                |
|---|---------------------------------|-------------|---|----------|----------|--------|--------|------------------------|
|   |                                 |             |   |          |          | Nm     | IN-LBS |                        |
|   | Chaincase Kit                   |             | Porto Chain Guard Kit                   |          |          |        |        |                        |
| 1 | Bolt - Backplate NDS            | S221200009  | Bolt M5 x 10 mm x 0.8 mm P              | 4        | 4 mm hex | 1.5    | 13.2   | Thread - Everseal® 183 |
| 2 | Washer                          |             | Washer M5 x 5.3 mm ID x 12 mm OD x 1 mm | 7        |          |        |        |                        |
| 3 | Chain Case Rear                 |             | Chain Case Rear Assy                    | 1        |          |        |        |                        |
| 4 | Bolt Shoulder - Chain Case Rear |             | Bolt Shoulder M5 x 7 mm x 0.8 mm P      | 3        | 3 mm hex | 2.5    | 22     | Thread - Everseal® 183 |

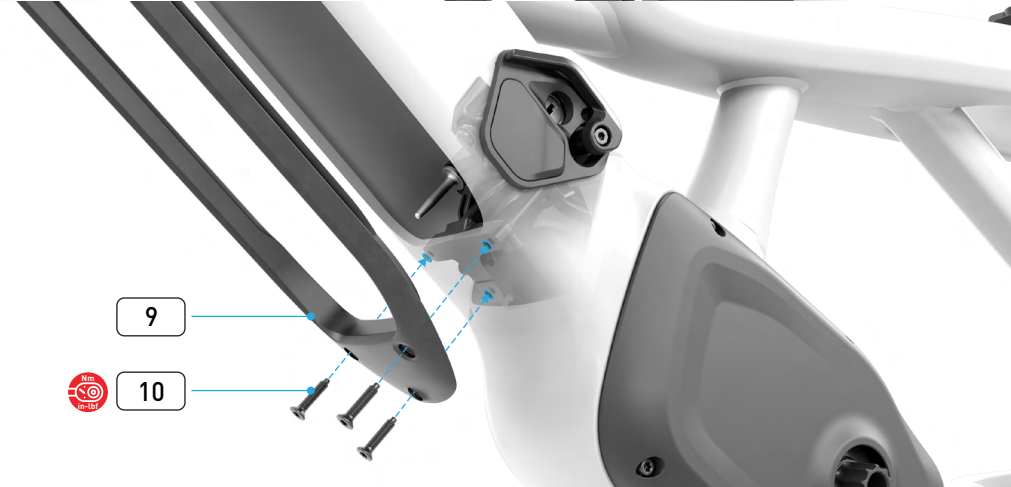
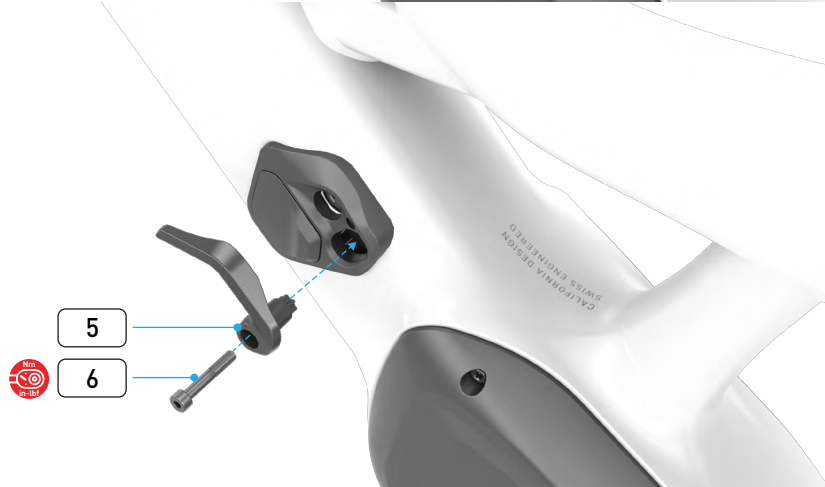
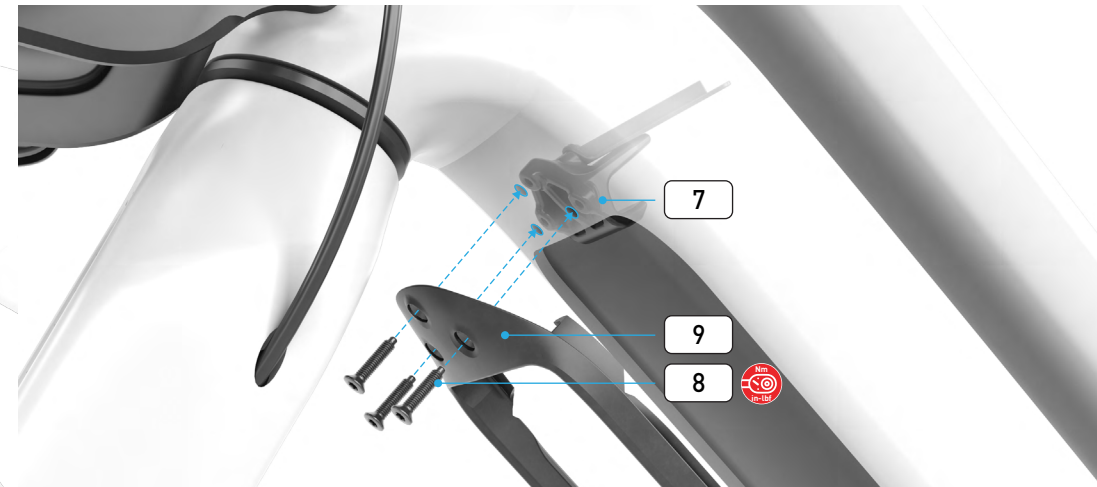
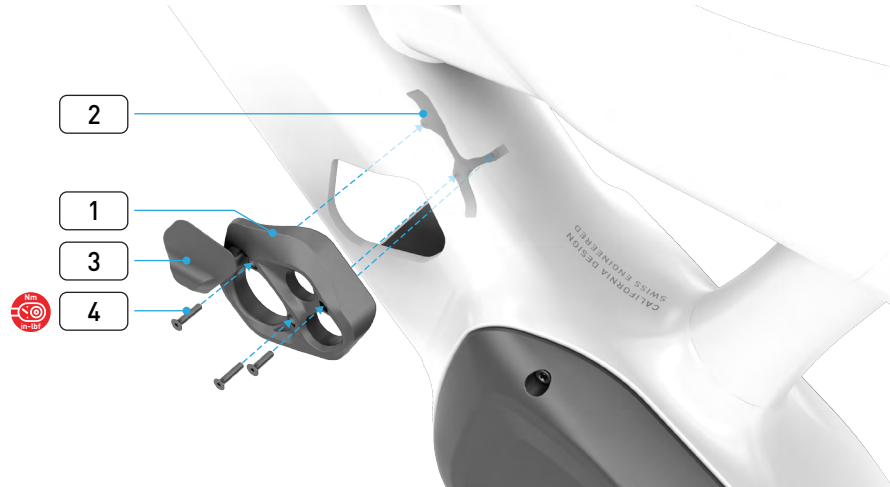


## SECTION 6 - CHAIN CASE



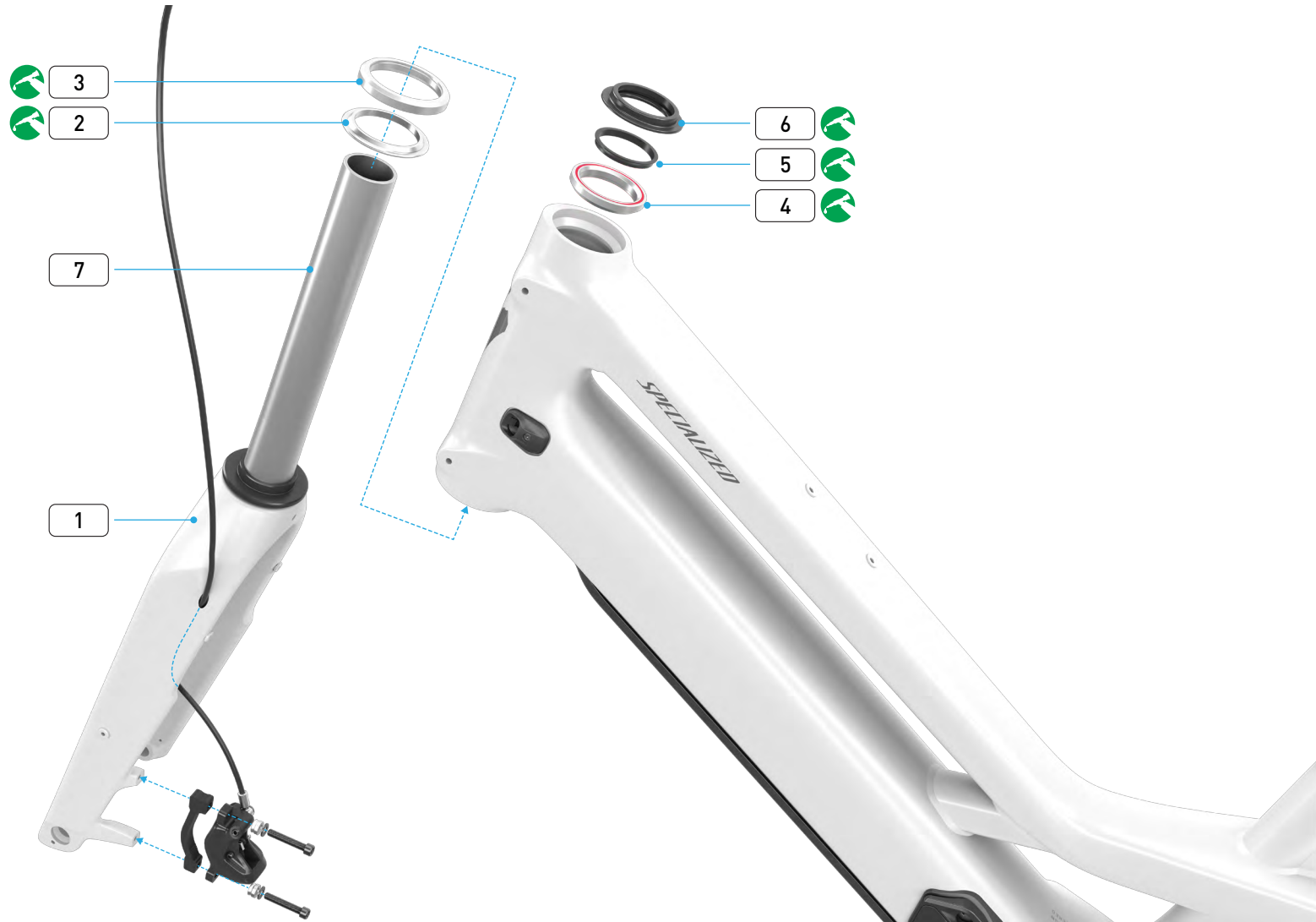
|   | PART NAME                 | PART NUMBER | PART DESCRIPTION                           | QUANTITY | TOOL     | TORQUE |        | COMMENT |
|---|---------------------------|-------------|--|----------|----------|--------|--------|---------|
|   |                           |             |  |          |          | Nm     | IN-LBS |         |
|   | Chaincase Guard Front Kit |             | Porto Chain Guard Cover Kit Front          |          |          |        |        |         |
| 1 | Chain Case Front          | S231200001  | Chain Case Front                           | 1        |          |        |        |         |
| 2 | Bolt                      |             | Bolt M5 x 0,8 mm P                         | 1        | 4 mm hex | 1.5    | 13.2   |         |
| 3 | Washer                    |             | Washer M5 x 5.3 mm ID x 8.3 mm OD x 2.7 mm | 1        |          |        |        |         |

## SECTION 7 - BATTERY



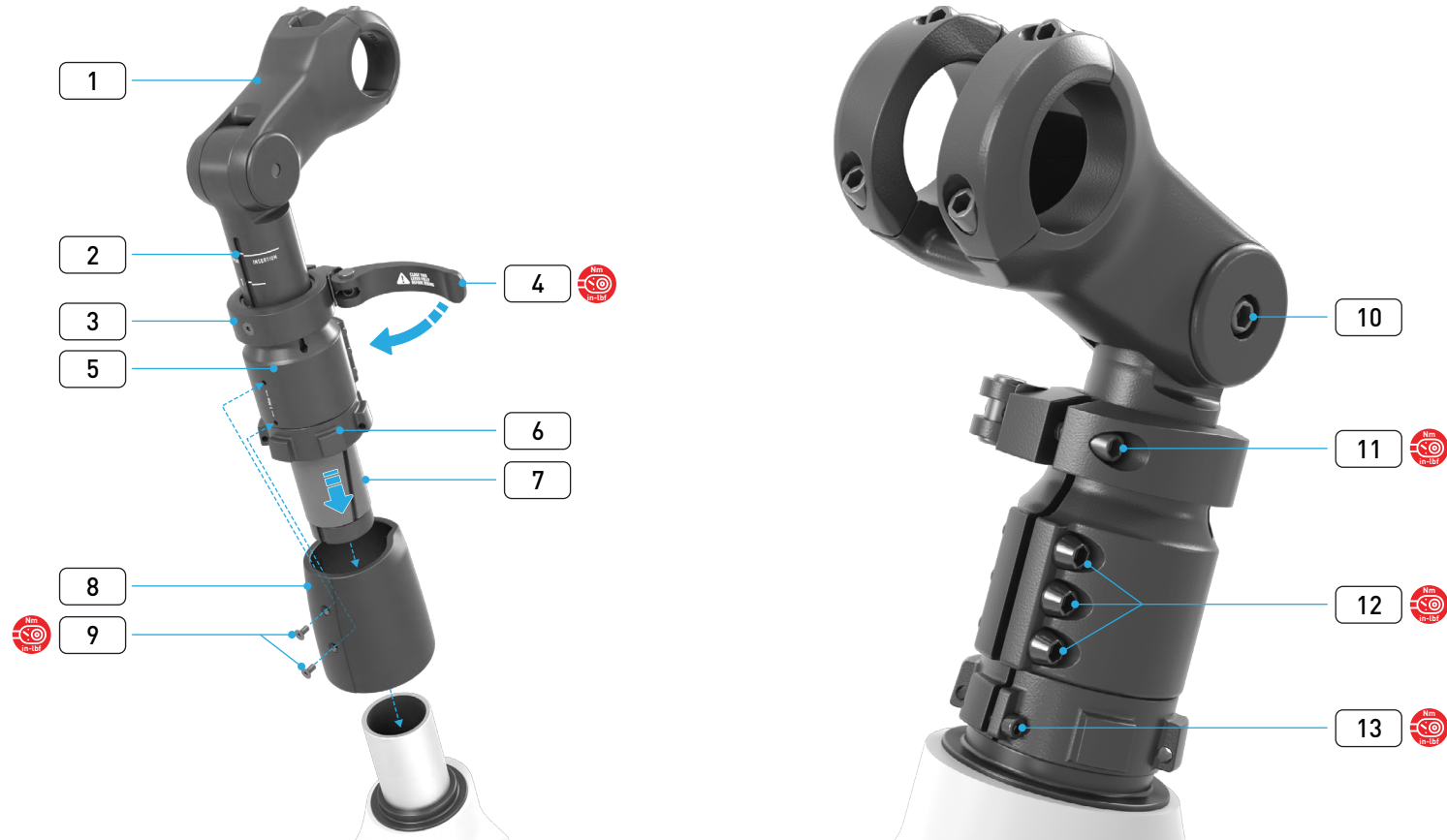
|    | PART NAME                        | PART NUMBER | PART DESCRIPTION       | QUANTITY | TOOL       | TORQUE |        | COMMENT |
|----|----------------------------------|-------------|------------------------|----------|------------|--------|--------|---------|
|    |                                  |             |                        |          |            | Nm     | IN-LBS |         |
| 1  | Battery Charge Port Cover        | S216800035  |                        | 1        |            |        |        |         |
| 2  | Battery Cover Mount Bracket      |             |                        | 1        |            |        |        |         |
| 3  | Battery Charger Magnetic Flap    |             |                        | 1        |            |        |        |         |
| 4  | Battery Charge Port Cover Screws |             | M2 x 10 mm x 0.45 mm P | 3        | 1.5 mm hex | 1.5    | 13.2   |         |
| 5  | Battery Lever                    | S216800040  |                        | 1        |            |        |        |         |
| 6  | Battery Lever Bolt               |             | M4 x 25 mm x 0.7 mm P  | 1        | 3 mm hex   | 3      | 27     |         |
| 7  | Battery Mount Upper              |             | Battery Hook           | 1        |            |        |        |         |
| 8  | Battery Mount Screws             |             | M4 x 18 mm x 0.7 mm P  | 3        | T20 Torx   | 3.2    | 28     |         |
| 9  | Downtube Battery Seal            | S219900035  |                        | 1        |            |        |        |         |
| 10 | Battery Mount Screws             | S220500020  | M4 x 18 mm x 0.7 mm P  | 6        | T20 Torx   | 3.2    | 28     |         |

## SECTION 8 - FRONT FORK



|   | PART NAME        | PART NUMBER | PART DESCRIPTION                 | QUANTITY | TOOL | TORQUE |        | COMMENT   |
|---|------------------|-------------|----------------------------------|----------|------|--------|--------|---|
|   |                  |             |                                  |          |      | Nm     | IN-LBS |   |
| 1 | Porto Fork       | S222300188  | 24 Porto Fork 24"                | 1        |      |        |        |   |
|   | Headset          |             | Headset Complete, Integrated     |          |      |        |        |   |
| 2 | Crown Race       | S222500007  | Alloy Split-style Crown Race     | 1        |      |        |        |   |
| 3 | Lower Bearing    |             | 1.8" Campy 45° Cartridge Bearing | 1        |      |        |        |   |
| 4 | Upper Bearing    |             | 1.5" Campy 45° Cartridge Bearing | 1        |      |        |        |   |
| 5 | Compression Ring |             | H2111 Alloy Compression Ring     | 1        |      |        |        |   |
| 6 | Top Cap          |             | H2601 Top Cap                    | 1        |      |        |        | Top Cap can be installed with "top" facing upward |
| 7 | Steerer Tube     |             | 38.1 mm Alloy Steerer Tube       | 1        |      |        |        |   |

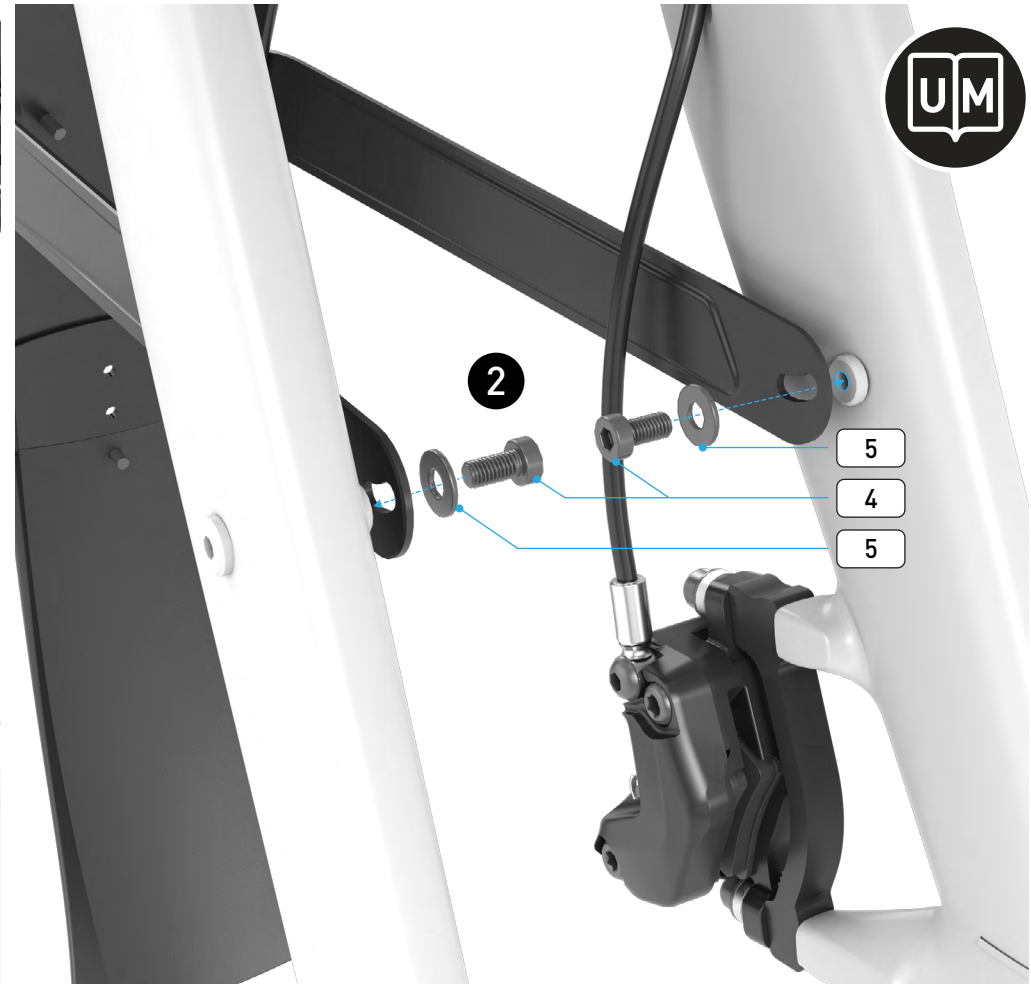
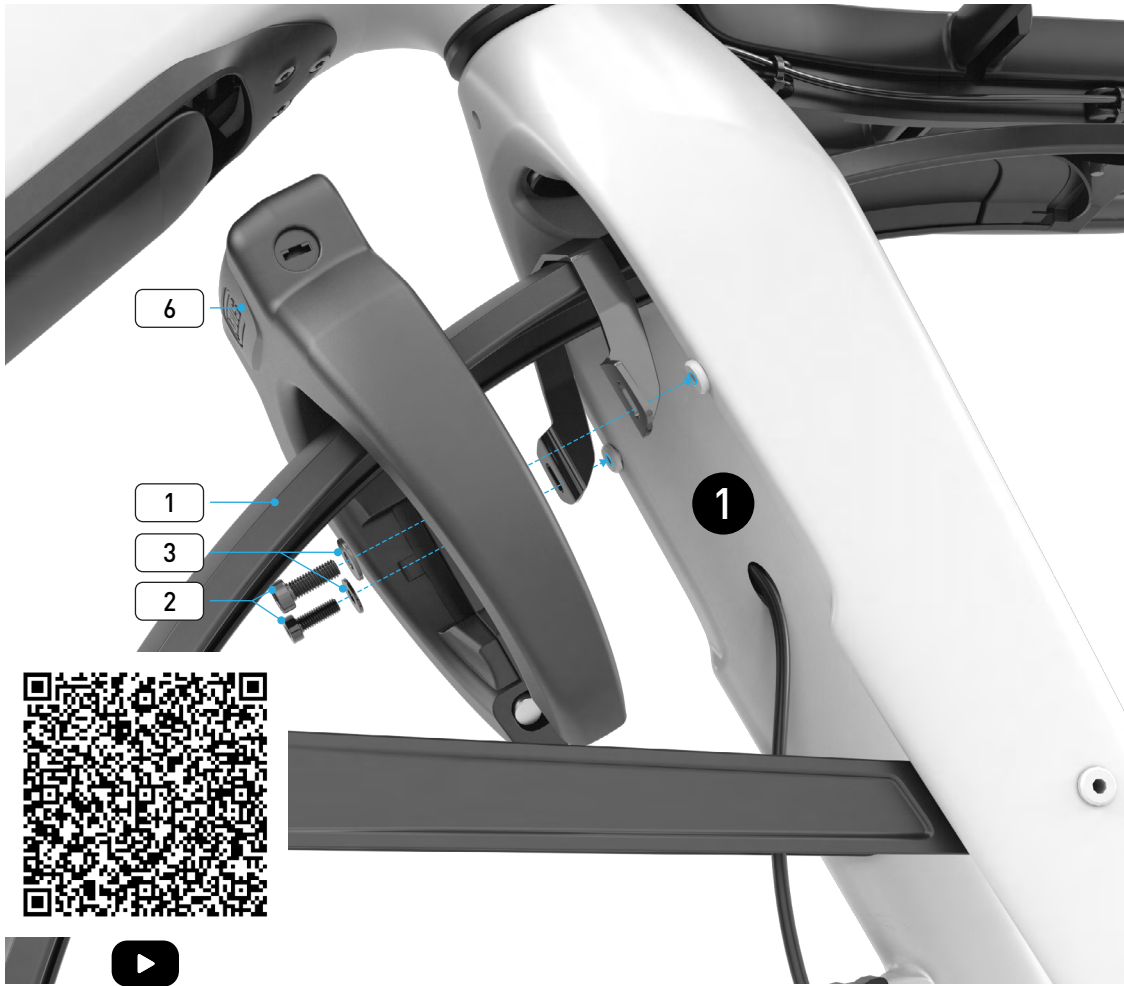
## SECTION 9 - ADJUSTABLE STEM



|    | PART NAME                  | PART NUMBER | PART DESCRIPTION                   | QUANTITY | TOOL          | TORQUE |        | COMMENT |
|----|----------------------------|-------------|------------------------------------|----------|---------------|--------|--------|---------|
|    |                            |             |                                    |          |               | Nm     | IN-LBS |         |
|    | Porto Adjustable Stem      |             | Porto Custom Adjustable Quill Stem | 1        |               |        |        |         |
| 1  | Stem 77 mm                 |             | Stem 77 mm                         | 1        |               |        |        |         |
| 2  | Extension                  |             | Extension                          | 1        |               |        |        |         |
| 3  | Clamp                      |             | Clamp                              | 1        |               |        |        |         |
| 4  | Clamp Lever                |             | Clamp Lever                        | 1        | Quick Release | 5      | 44.2   |         |
| 5  | Main Body                  |             | Main Body                          | 1        |               |        |        |         |
| 6  | Adjustment Nut             | S224800003  | Adjustment Nut                     | 1        |               |        |        |         |
| 7  | Extension Sleeve           |             | Extension Sleeve                   | 1        |               |        |        |         |
| 8  | Stem Cover                 |             | Stem Cover                         | 1        |               |        |        |         |
| 9  | Stem Cover Bolt            |             | Stem Cover Bolt                    | 2        | 2 mm hex      | 1      | 9      |         |
| 10 | Stem Angle Adjustment Bolt |             | Stem Adjustment Bolt               | 1        | 5 mm hex      | 18     | 159    |         |
| 11 | Stem Clamp Bolt            |             | Stem Clamp Bolt                    | 1        | 4 mm hex      | 5      | 44     |         |
| 12 | Steerer Clamp Bolts x 3    |             | Steerer Clamp Bolts x 3            | 3        | 4 mm hex      | 6      | 53     |         |
| 13 | Adjustment Nut Bolt        |             | Adjustment Nut Bolt                | 1        | 2.5 mm hex    | 1      | 9      |         |



## SECTION 10 - FRONT FENDER

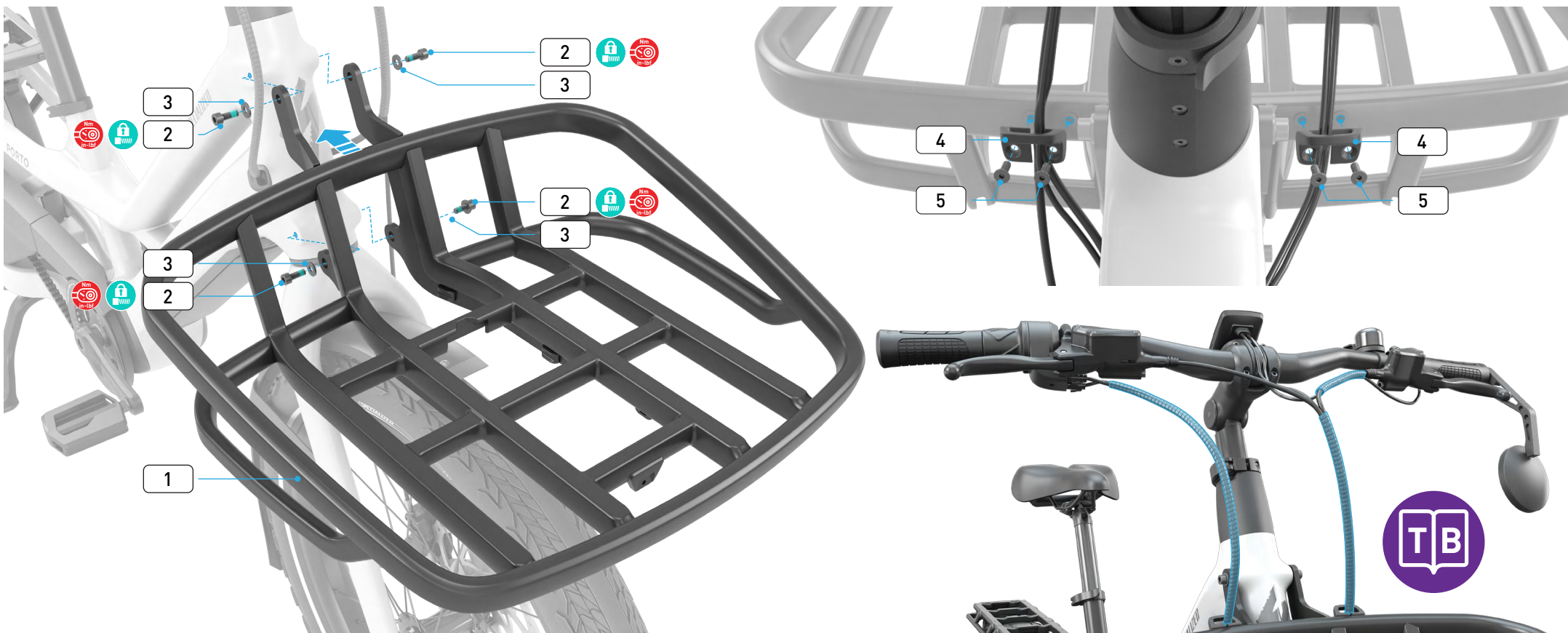


|   | PART NAME                      | PART NUMBER | PART DESCRIPTION                          | QUANTITY | TOOL     | TORQUE |        | COMMENT  |
|---|--------------------------------|-------------|---|----------|----------|--------|--------|--|
|   |                                |             |   |          |          | Nm     | IN-LBS |  |
| 1 | Front Fender                   | S222200010  | Drytech 78c fender                        | 1        |          |        |        |  |
| 2 | Abus® Frame Lock Mounting Bolt |             | Bolt M5 x 14 mm x 0.8 mm P                | 2        | 4 mm hex | 5      | 44     |  |
| 3 | Front Fender Mounting Washer   |             | Washer M5 x 5.3 mm ID x 12 mm OD x 1 mm   | 2        |          |        |        |  |
| 4 | Front Fender Mounting Bolt     |             | Bolt M5 x 10 mm x 0.8 mm P                | 2        | 4 mm hex | 5      | 44     |  |
| 5 | Washer                         |             | Washer M5 x 5.2 mm ID x 10 mm OD x 1 mm   | 2        |          |        |        |  |
|   | Replacement Lock and Core      | S226800033  | Porto, Replacement Frame Lock & Lock Core |          |          |        |        | Deflate front wheel when installing with lock in place |
| 6 | Abus® Frame Lock               |             | Abus® Pro Shield 4750xl                   | 1        |          |        |        |  |

**i** Consult the User Manual for a more thorough guide to removing and installing the front wheel.

**i** Consult the User Manual regarding replacing lost keys.

## SECTION 11 - FRONT RACK

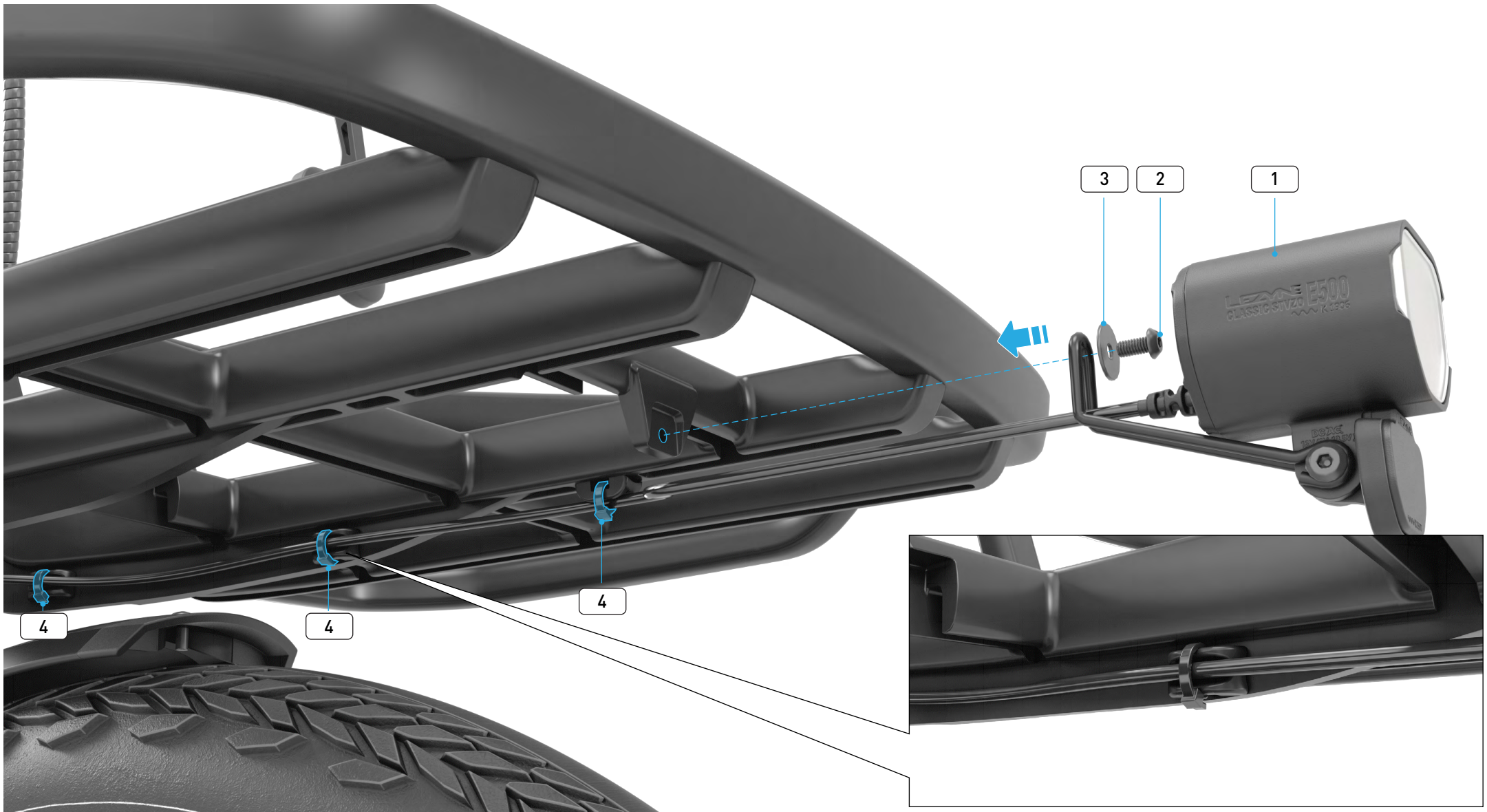


|   | PART NAME                          | PART NUMBER | PART DESCRIPTION                          | QUANTITY | TOOL       | TORQUE |        | COMMENT                |
|---|------------------------------------|-------------|---|----------|------------|--------|--------|------------------------|
|   |                                    |             |   |          |            | Nm     | IN-LBS |                        |
|   | Porto Front Rack                   |             | Porto Front Rack                          |          |            |        |        |                        |
| 1 | Front Rack                         | S221700011  | Front Rack, PA Crgo HT B1.1               | 1        |            |        |        |                        |
| 2 | Bolt                               |             | Bolt M6 x 16 mm x 1 mm P                  | 4        | 5 mm hex   | 8      | 71     | Thread - Everseal® 183 |
| 3 | Washer                             |             | Washer M6 x 6.4 mm ID x 14 mm OD x 1.6 mm | 4        |            |        |        |                        |
| 4 | Cable Holder                       |             | Front Rack, Cable Holder, PA Crgo HT B1.1 | 2        |            |        |        |                        |
| 5 | Bolt - Cable Holder                |             | Bolt M4 x 12 mm x 1 mm P                  | 4        | 1.5 mm hex | 2      | 18     |                        |
|   | Porto Front Rack Mounting Hardware |             | Porto Front Rack, Mounting Hardware Kit   |          |            |        |        |                        |
| 2 | Bolt                               | S231700001  | Bolt M6 x 16 mm x 1 mm P                  | 4        | 5 mm hex   | 8      | 71     | Thread - Everseal® 183 |
| 3 | Washer                             |             | Washer M6 x 6.4 mm ID x 14 mm OD x 1.6 mm | 4        |            |        |        |                        |
|   | Porto Front Rack Cable Guide Kit   |             | Front Rack, Cable Guide Kit (2 pcs.)      |          |            |        |        |                        |
| 4 | Cable Holder                       | S236500002  | Front Rack, Cable Holder, PA Crgo HT B1.1 | 2        |            |        |        |                        |
| 5 | Bolt - Cable Holder                |             | Bolt M4 x 12 mm x 1 mm P                  | 4        | 1.5 mm hex | 2      | 18     | Do not over tighten    |



Consult the Tech Bulletin - TB 2024 TURBO PORTO - CABLE WRAP GUIDE regarding installing the cable wrap.

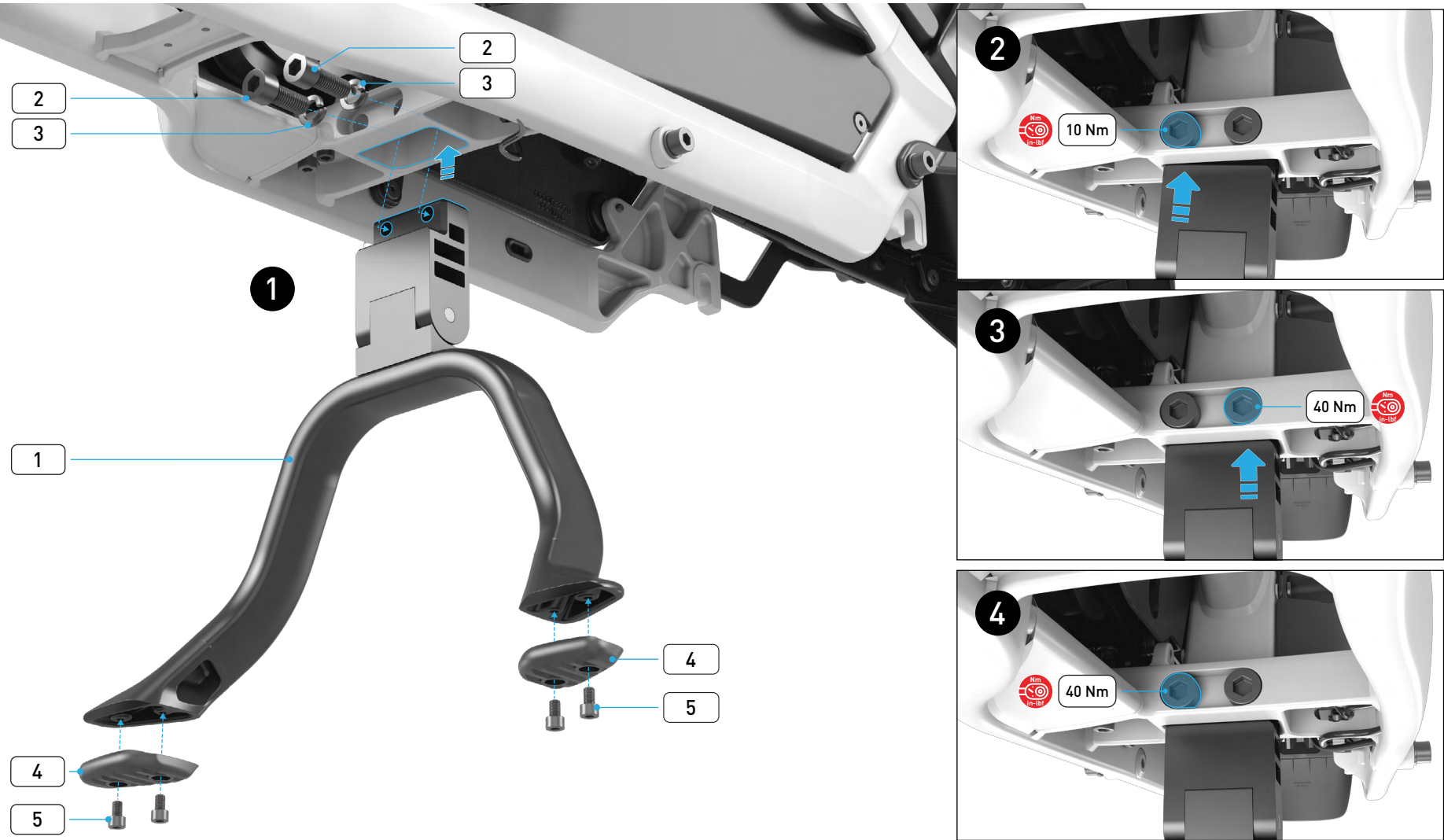
## SECTION 11 - FRONT RACK



|   | PART NAME                   | PART NUMBER | PART DESCRIPTION  | QUANTITY | TOOL     | TORQUE |        | COMMENT                   |
|---|-----------------------------|-------------|---|----------|----------|--------|--------|---------------------------|
|   |                             |             |   |          |          | Nm     | IN-LBS |                           |
|   | Front Light Mounting Kit    |             | Porto Front Light with Mounting Hardware Kit                              |          |          |        |        |                           |
| 1 | Front Light                 | S245800002  | Front Light, Lezyne® Ebike Classic Stvzo E500 for Brose®, with Wire Mount | 1        |          |        |        |                           |
| 2 | Front Light Mounting Bolt   |             | Bolt M4 x 0.7 x 8 mm  | 1        | 4 mm hex | 4      | 35.4   |                           |
| 3 | Front Light Mounting Washer |             | Washer M4 x 1   | 1        |          |        |        |                           |
| 4 | Cable Ties                  |             |   |          |          |        |        | Run through cable holders |



## SECTION 12 - CENTER MOUNT KICKSTAND

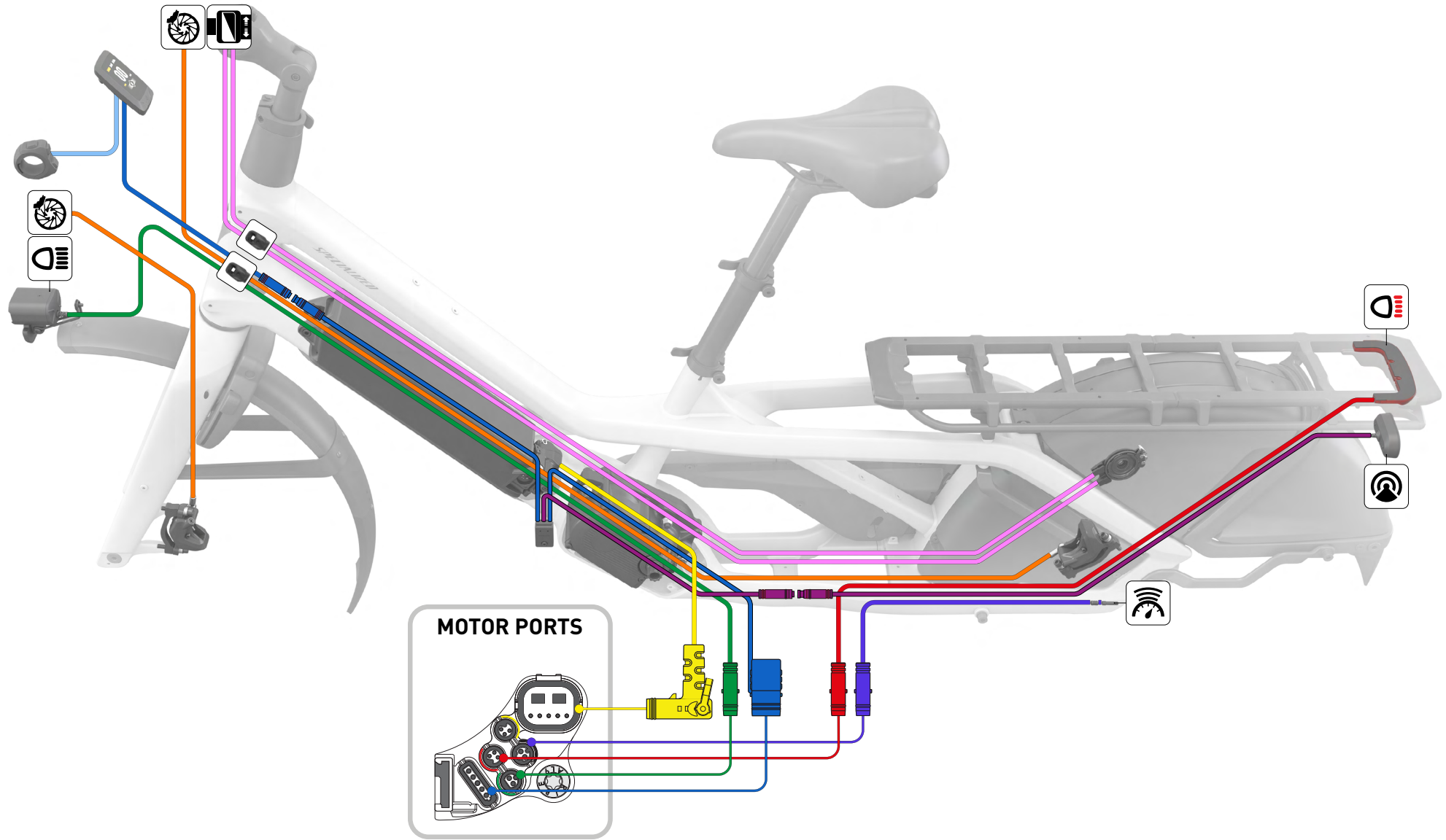


|   | PART NAME              | PART NUMBER | PART DESCRIPTION   | QUANTITY | TOOL     | TORQUE |        | COMMENT |
|---|------------------------|-------------|--|----------|----------|--------|--------|---------|
|   |                        |             |  |          |          | Nm     | IN-LBS |         |
|   | Center Mount Kickstand |             | MSC Kickstand  |          |          |        |        |         |
| 1 | Center Mount Kickstand | S229900033  | Kickstand, Nuvo®, Sbc-kc88aa, Center Mount with Double Leg Kickstand | 1        |          |        |        |         |
| 2 | Bolt                   |             | Bolt M10 x 1.5 P   | 2        | 8 mm hex | 40     | 354    |         |
| 3 | Spring Washer          |             | Spring Washer  | 2        |          |        |        |         |
| 4 | Replacement Feet       | S249900014  | Replacement Feet   | 2        |          |        |        |         |
| 5 | Replacement Feet Bolt  |             | Bolt M5 x 0.8 P  | 4        | 3 mm hex |        |        |         |

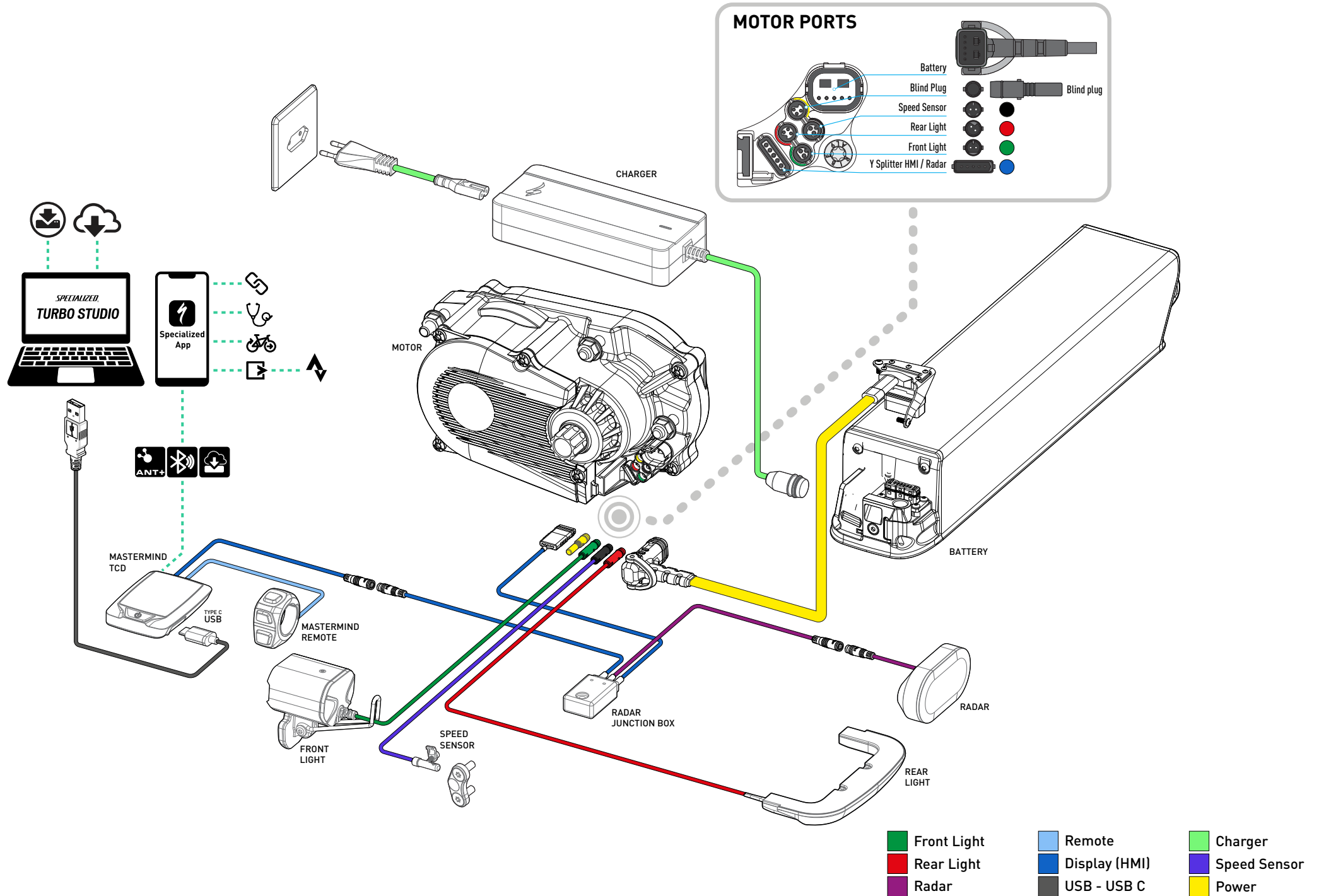


**CAUTION:** If the shown kickstand installation procedure is not followed as shown, the bike may lean toward one side. Ensure to follow the described tightening sequence and bolt torques so that the Porto is supported perfectly upright. Verify bike position on kickstand after bike assembly.

# SECTION 13 - CABLE SCHEMATIC



| PART NAME                  | PART NUMBER | PART DESCRIPTION  | QUANTITY | TOOL | TORQUE |        | COMMENT |
|----------------------------|-------------|-------------------|----------|------|--------|--------|---------|
|                            |             |                   |          |      | Nm     | IN-LBS |         |
| Complete Cable Routing Kit | S216500008  | Cable Routing Kit | 1        |      |        |        |         |

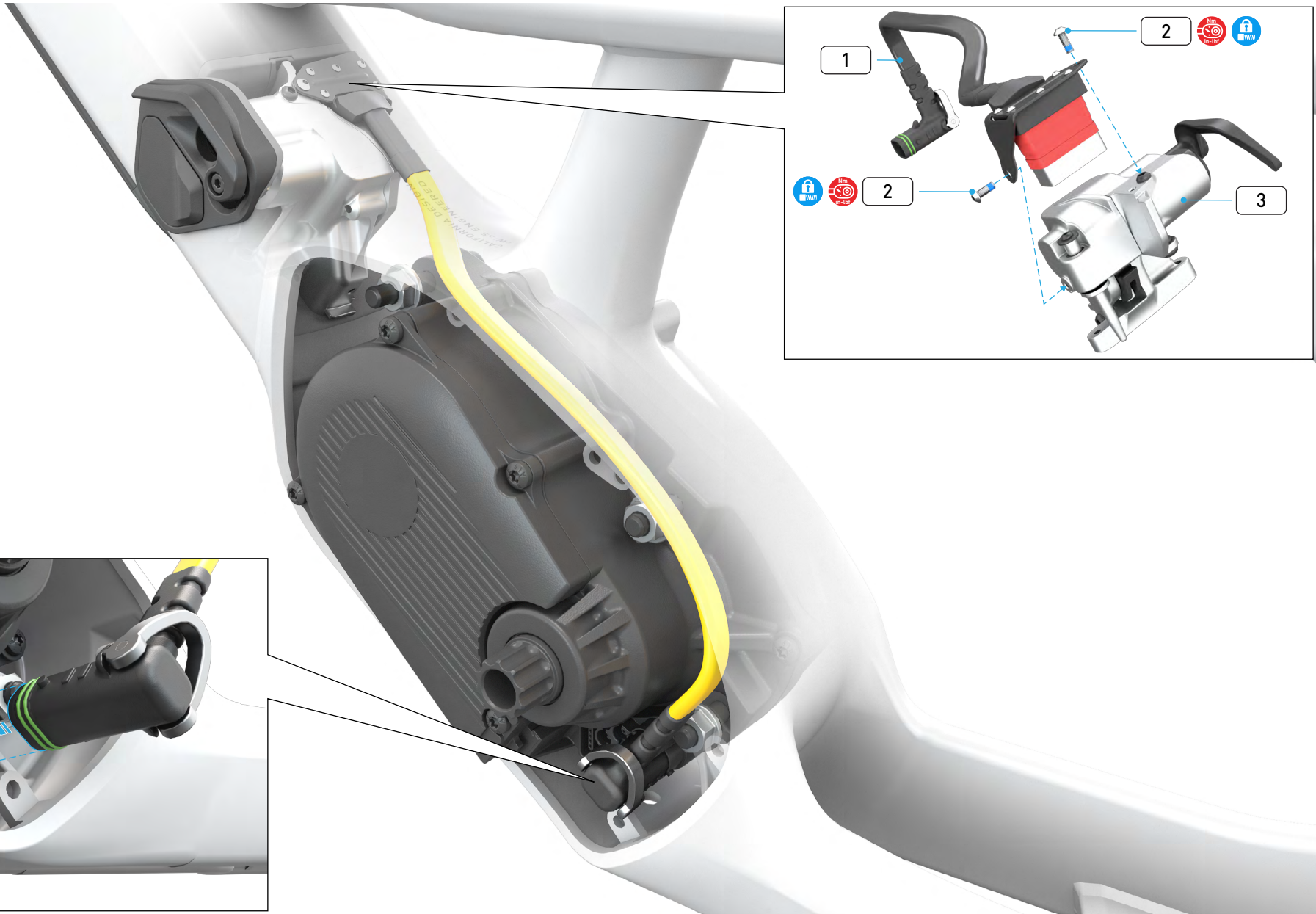


### MOTOR PORTS

- Battery
- Blind Plug
- Speed Sensor
- Rear Light
- Front Light
- Y Splitter HMI / Radar
- Blind plug

- Front Light
- Remote
- Charger
- Rear Light
- Display (HMI)
- Speed Sensor
- Radar
- USB - USB C
- Power

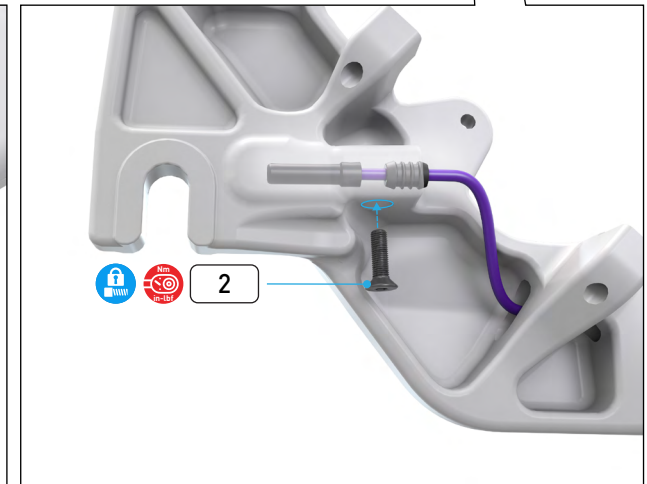
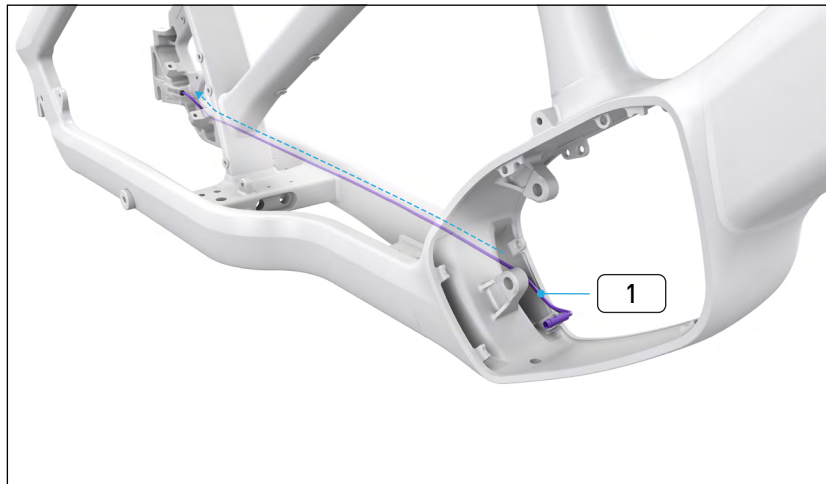
# SECTION 13 - CABLE ROUTING - MAIN HARNESS



|   | PART NAME                    | PART NUMBER | PART DESCRIPTION                | QUANTITY | TOOL     | TORQUE |        | COMMENT                                |
|---|------------------------------|-------------|---------------------------------|----------|----------|--------|--------|--|
|   |                              |             |                                 |          |          | Nm     | IN-LBS |  |
| 1 | Cable - Battery to Motor     | S216800034  | Battery to Motor Cable          | 1        |          |        |        |  |
| 2 | Motor / Battery Cable Bolts  | S216800034  | M3 x 8 mm x 0.5 mm P            | 2        | 2 mm hex | 1      | 9      | Thread - Tuflok® blue nylon torq-patch |
| 3 | Lower Battery Lock Mechanism | S226800021  | Btry Mechanism Assy, Abus®, ET3 | 1        |          |        |        |  |

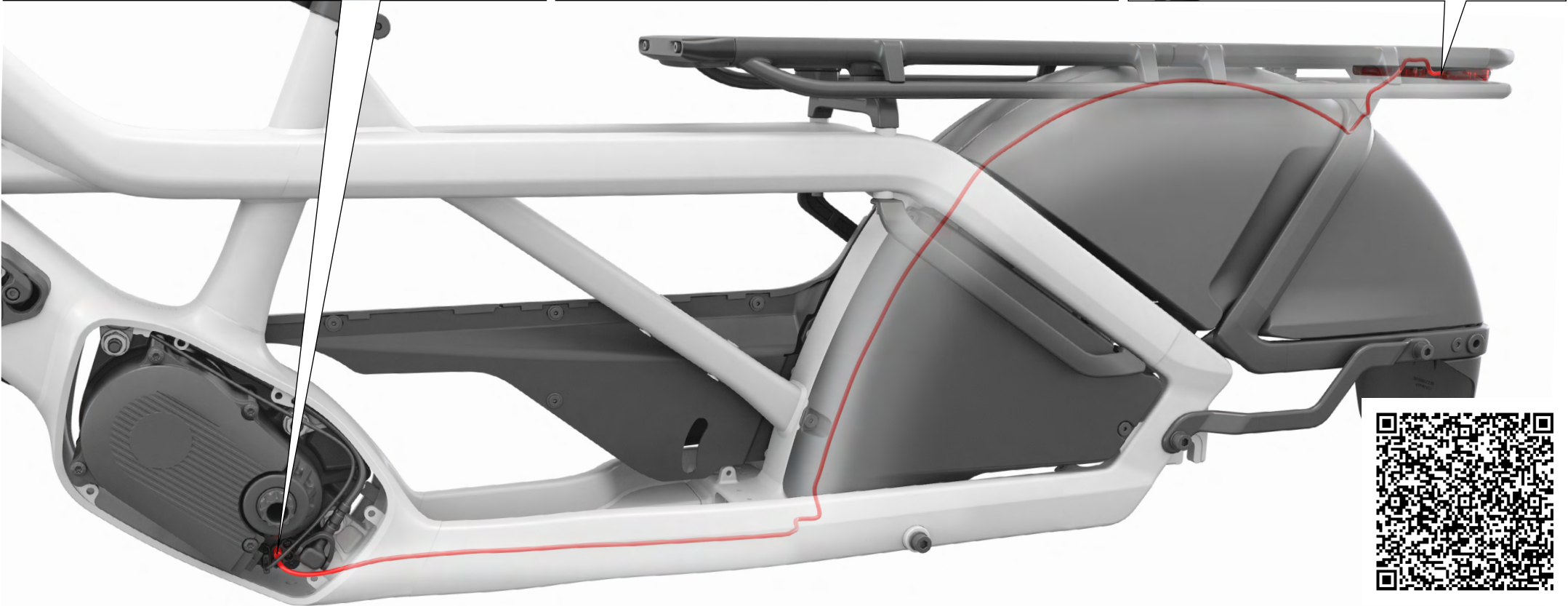
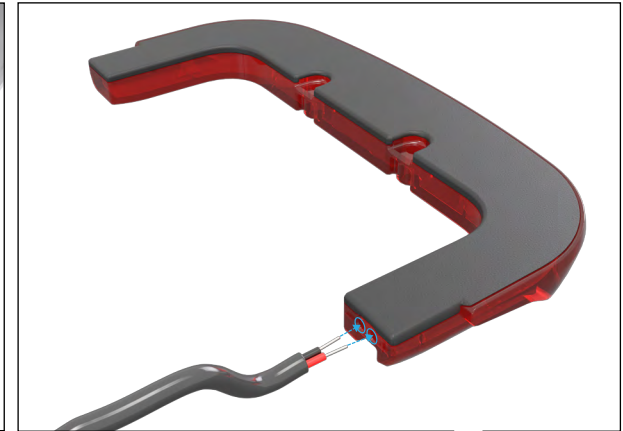
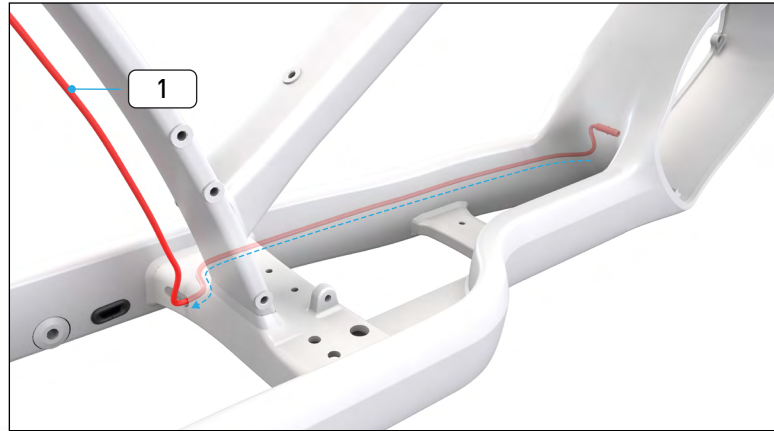


## SECTION 13 - CABLE ROUTING - SPEED SENSOR



|   | PART NAME                      | PART NUMBER | PART DESCRIPTION                            | QUANTITY | TOOL     | TORQUE |        | COMMENT |
|---|--------------------------------|-------------|---|----------|----------|--------|--------|---------|
|   |                                |             |   |          |          | Nm     | IN-LBS |         |
| 1 | Speed Sensor Cable             | S226800025  | Speed Sensor Cable for Brose® Motors 720 mm | 1        |          |        |        |         |
| 2 | Speed Sensor Cable Holder Bolt |             | Bolt M4 x 8 mm x 0.7 mm P                   | 1        | 3 mm hex | 1      | 9      |         |

# SECTION 13 - CABLE ROUTING - REAR LIGHT



|   | PART NAME        | PART NUMBER | PART DESCRIPTION                    | QUANTITY | TOOL | TORQUE |        | COMMENT  |
|---|------------------|-------------|-------------------------------------|----------|------|--------|--------|--|
|   |                  |             |                                     |          |      | Nm     | IN-LBS |  |
| 1 | Rear Light Cable | S226800024  | Brose® 12v Rear Light Cable 1400 mm | 1        |      |        |        | See section 2 for detailed cable routing instructions (rear fender assy) |

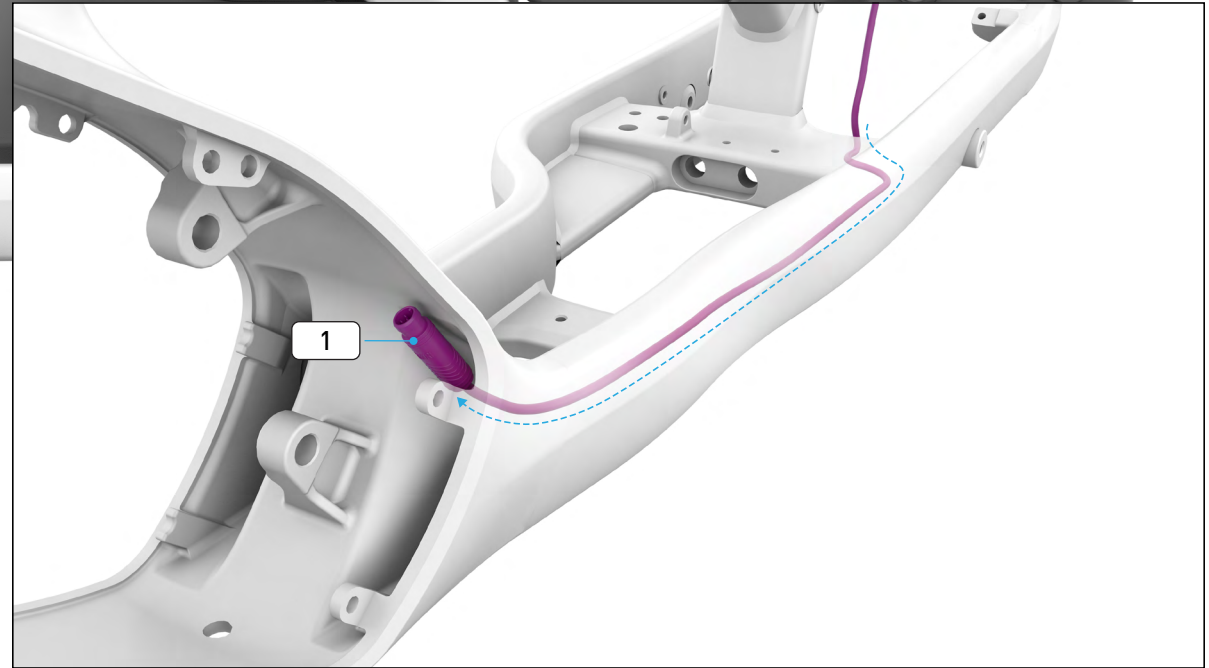
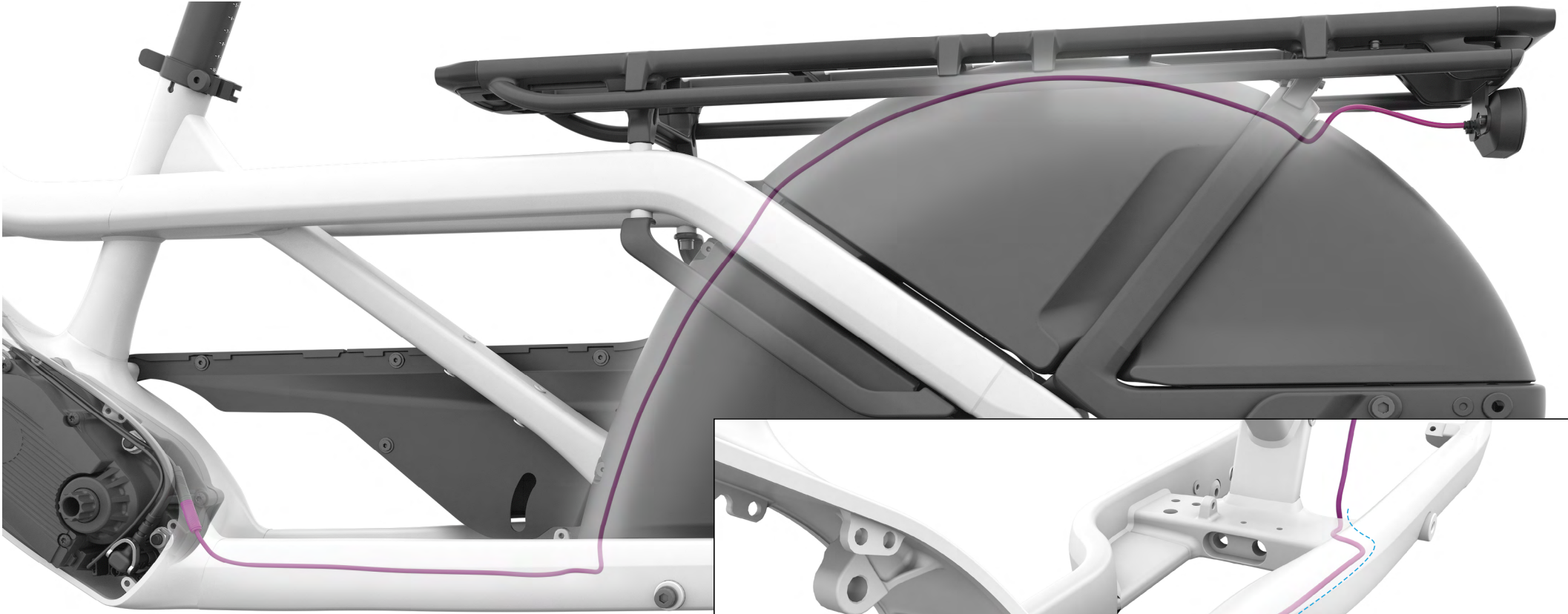


# SECTION 13 - CABLE ROUTING - FRONT LIGHT



|   | PART NAME   | PART NUMBER | PART DESCRIPTION            | QUANTITY | TOOL | TORQUE |        | COMMENT |
|---|-------------|-------------|-----------------------------|----------|------|--------|--------|---------|
|   |             |             |                             |          |      | Nm     | IN-LBS |         |
| 1 | Front Light | S225800006  | Light Commuter Glow R581001 | 1        |      |        |        |         |

## SECTION 13 - CABLE ROUTING - RADAR

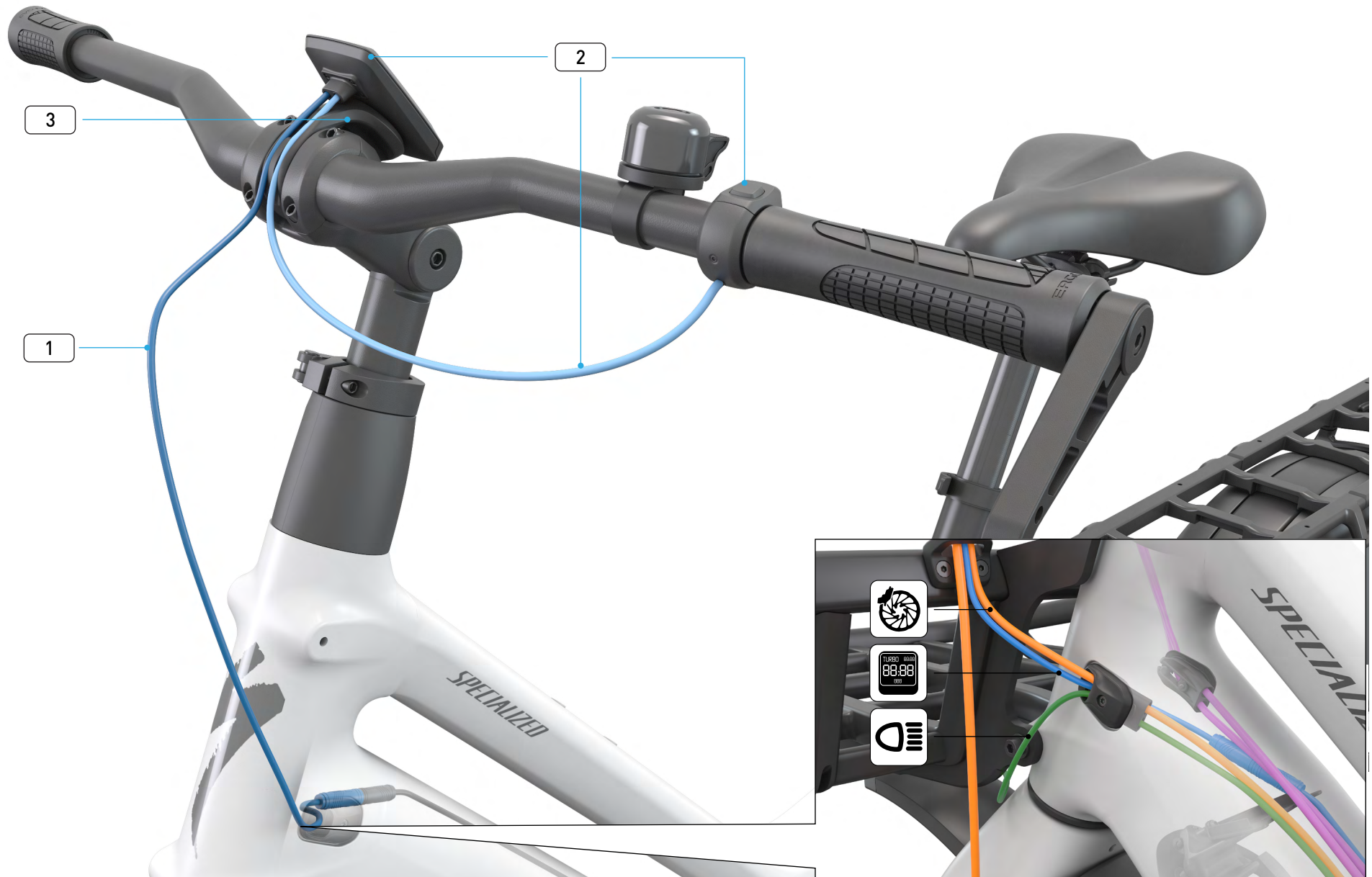


|   | PART NAME  | PART NUMBER | PART DESCRIPTION                     | QUANTITY | TOOL | TORQUE |        | COMMENT  |
|---|------------|-------------|--------------------------------------|----------|------|--------|--------|--|
|   |            |             |                                      |          |      | Nm     | IN-LBS |  |
| 3 | Radar Unit | S226800015  | Garmin® Radar, Wired Version, 1400mm | 1        |      |        |        | See section 2 for detailed cable routing instructions (rear fender assy) |

**i** Consult the rear fender assembly page for more detail on installing the radar cable.

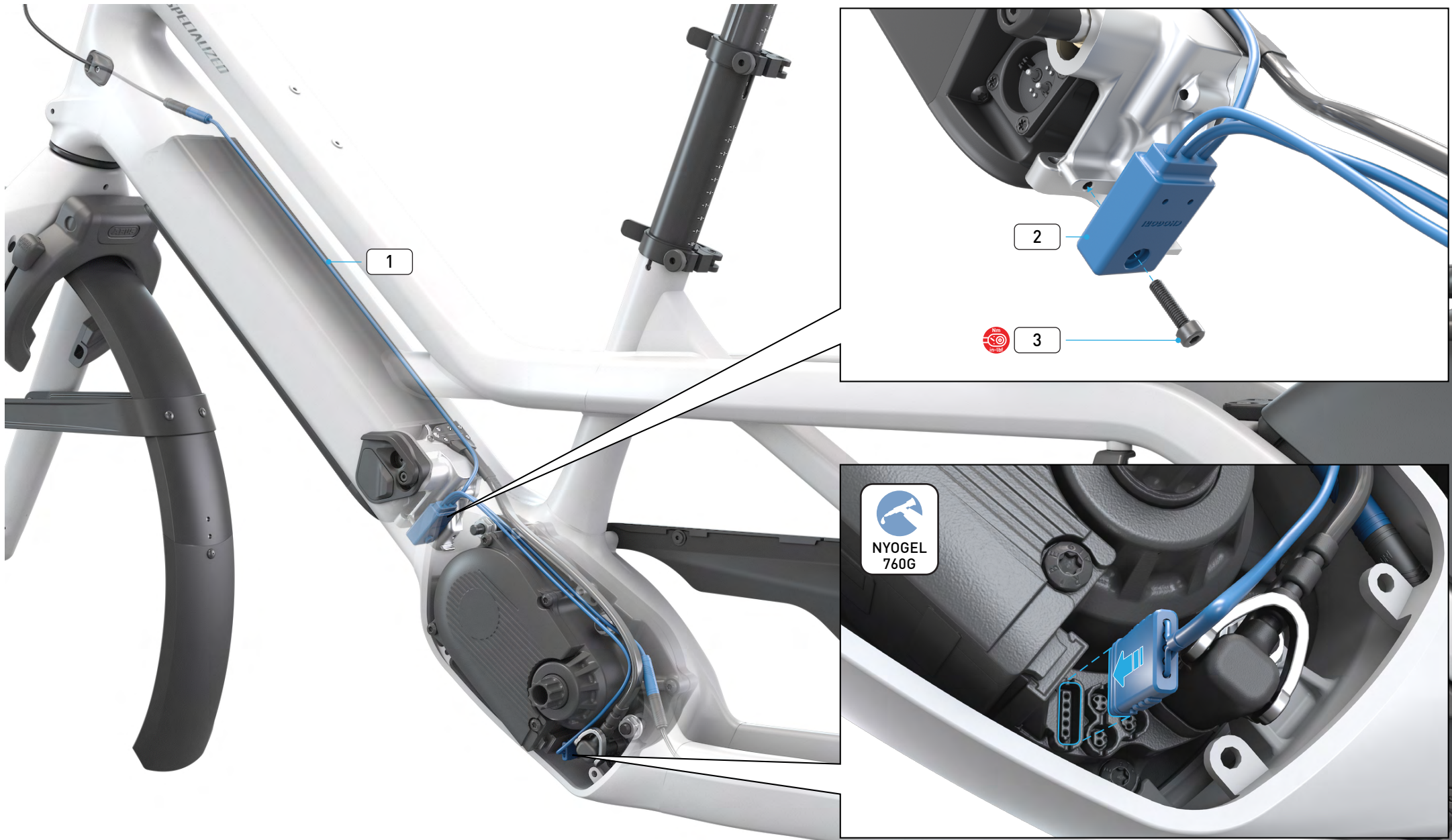


## SECTION 13 - CABLE ROUTING - HMI/REMOTE



|   | PART NAME               | PART NUMBER | PART DESCRIPTION              | QUANTITY | TOOL | TORQUE |        | COMMENT |
|---|-------------------------|-------------|-------------------------------|----------|------|--------|--------|---------|
|   |                         |             |                               |          |      | Nm     | IN-LBS |         |
| 1 | Cable TCD to Y splitter | S194200010  | Cable HMI to Y splitter       | 1        |      |        |        |         |
| 2 | Display and Remote      | S216800041  | Wired TCD Display with Remote | 1        |      |        |        |         |
| 3 | TCD Mount               | 48119-1405  | TCD - Handlebar Mount         | 1        |      |        |        |         |

## SECTION 13 - CABLE ROUTING - CABLE SPLITTER



|   | PART NAME              | PART NUMBER | PART DESCRIPTION           | QUANTITY | TOOL     | TORQUE |        | COMMENT |
|---|------------------------|-------------|----------------------------|----------|----------|--------|--------|---------|
|   |                        |             |                            |          |          | Nm     | IN-LBS |         |
| 1 | Cable Y splitter Radar | S216800033  | Cable Y splitter for Radar | 1        |          |        |        |         |
| 2 | Radar Y splitter       |             | Y splitter 3 Cables        | 1        |          |        |        |         |
| 3 | Radar Y splitter Bolt  |             | Bolt M4 x 16 mm x 0.7 mm P | 1        | 3 mm hex | 2      | 18     |         |

## SECTION 14 - ADDITIONAL SERVICE PARTS

| PART NAME                                | PART NUMBER  | PART DESCRIPTION   | QUANTITY | TORQUE |        | COMMENT |
|--|--|--|----------|--------|--------|---------|
|  |  |  |          | Nm     | IN-LBS |         |
| Battery Charger                          | 98916-5643 /<br>98916-5641 /<br>98916-5640 /<br>98916-5644 /<br>98916-5645 | 36v Charger  | 1        |        |        |         |
| Grips                                    | S230800001   | Ergon® Lock-On Grips, Left 135.5 mm / Right 95 mm  | 1        |        |        |         |
| Front Brakes                             | S230700005   | Tektro® Tkd144, Front, Disc, Caliper, Post Mount, Flat Bar Lever, 203 mm Adapter                   |          |        |        |         |
| Rear Brakes                              | S230700004   | Tektro® Tkd144, Rear, Disc, Caliper, Post Mount, Flat Bar Lever, 203 mm Adapter                    |          |        |        |         |
| enviolo® Twist Shifter Manual Controller | S226100001   | enviolo® Pro Manual Controller Twist Shifter 2200 mm Cables  | 1        |        |        |         |
| Porto Bar End Mirror                     | S239900002   | Mirror Bar End Mounted Handlebar Mirror  |          |        |        |         |
|  |  | Mirror Clamp Mount, (b140-36)  | 1        |        |        |         |
| Porto Framebag                           | S241700001   | Porto Frame Bag W/Hardware   |          |        |        |         |
| Porto Toptube Protector                  | S249900015   | Msc Protector, My24 Porto, Mylar® Toptube Protector  | 1        |        |        |         |
| TCD Handlebar Mount                      | S244800001   | Stm Sub, Porto Stem, Mastermind TCD-W 2 Display Stem Mount   |          |        |        |         |
|  |  | Scr, Skt Hd Cap, M4 x 0.7 x 8, Stl, Blk  | 1        |        |        |         |
|  |  | Nut, Hex, M4 x 0.7, Sst  | 1        |        |        |         |
|  |  | Scr, Phil Pan Hd, M2.5 x 0.45 x 5, Sst, Lck  | 2        |        |        |         |
|  |  | Computer Mount, Co-Molded, Pa Crgo Ht B1.1   | 1        |        |        |         |
|  |  | Computer Mount, Interface, Pa Crgo Ht B1.1   | 1        |        |        |         |
| Porto Comfort Saddle                     | S234100001   | Sdl Bg Comfort Saddle, W/Integrated Handle, Steel Rails, 200 mm Width                              | 1        |        |        |         |
| Porto Front Wheel                        | S225500025   | Whl Turbo, 24", Front, Alloy, 15 x 110 mm, Disc, 6-Bolt, 32h, 40 mm Internal Width                 | 1        |        |        |         |
| Porto Rear Wheel Rim                     | S223700013   | Rim Turbo, 20", Rear, Alloy, 32h, Disc, 40 mm Internal - Black                                     | 1        |        |        |         |
| Porto Safety Rail                        | S241700005   | CRR Sub, MY24 Porto, Safety Rail, Hardware Kit (One Side)  | 1        |        |        |         |
| Porto Foot Platform                      | S241700004   | CRR Sub, MY24 Porto, Foot Platform, Hardware Kit (One Side)  | 1        |        |        |         |
| Porto Cargo Platform                     | S241700003   | CRR Sub, MY24 Porto, Cargo Platform, Hardware Kit (One Side)                                       | 1        |        |        |         |
| Porto Battery                            | 98921-5634   | Specialized u2-710, Integrated Battery, 710 Wh, SBC-B20  | 1        |        |        |         |
| Porto Seatpost                           | S214900008   | Seatpost Alloy, 30.9 mm, Offset 0 mm, 400 mm   | 1        |        |        |         |
| Porto Seat Collar                        | S214700004   | Seatpost Clamp, 39 mm, Quick Release   | 2        |        |        |         |
| Front Wheel Thru-axle                    | S220200004   | Axl Front, Porto Thru-Axle, 15 x 110 mm, Bolt-On, 6 mm Hex Head, M15 x 1.5 P x145 mm Length, Alloy | 1        |        |        |         |

**SPOKE LENGTHS**

These spoke lengths refer to the default wheel configuration.

**PORTO 4.0 SPOKE LENGTHS**

| SPOKES/<br>NIPPLES                       | SPOKE LENGTHS FRONT |                   | SPOKE LENGTHS REAR |                   |
|--|---------------------|-------------------|--------------------|-------------------|
|  | DRIVE<br>SIDE       | NON-DRIVE<br>SIDE | DRIVE<br>SIDE      | NON-DRIVE<br>SIDE |
| DT Industry 2.0, J-bend<br>12 mm nipples | 225 mm              | 223 mm            | 135 mm             | 134 mm            |

**SPOKE TENSION GUIDELINES**

These are the allowed factory spoke tension spectrums, measured with the tire inflated to 3 bars:

- High tension side: 800 -1400 N
- Low tension side: 600 -1200 N

Note that 3 spokes are allowed to be tensioned at 100 N higher than standard on each side, but no spoke must be lower than the defined standard. At factory, spoke tension is measured with a regularly inspected/calibrated DT tensiometer.