NITROGEN PRO 230A: ASSEMBLY GUIDE

ARGON 18

Valid for *MY2017-MY2018* Nitrogen Pro 230A
Revision *12.1 - 28-01-2019*

NITROGEN PRO 230A: Table of Contents

ARGON 18

My Nitrogen Pro

Date of purchase: _____

Retailler: _____

Size: _____

Serial Number: _____

For the warranty to be valid, the bicycle must be fully assembled by an authorized Argon 18 dealer. High end components, particularly carbon parts, need extra care when assembled. These components must be installed using a calibrated torque wrench to make sure every bolt is at the right torque setting to prevent damage.

BEFORE ASSEMBLING YOUR NEW NITROGEN PRO, MAKE SURE THAT YOU HAVE ALL THE FOLLOWING:

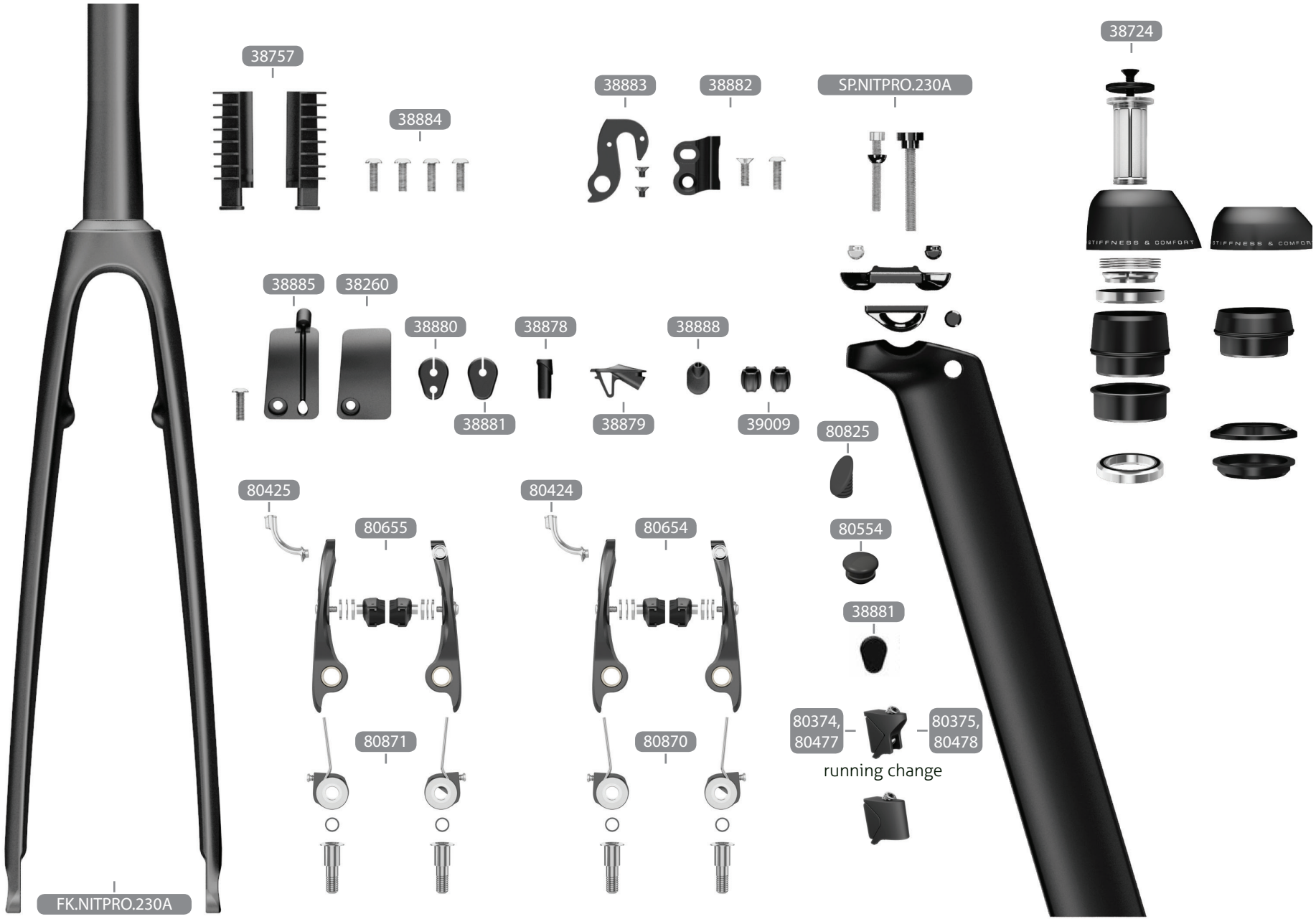
1. Brakes and gears cables and housing set
2: Frameset parts checklist (see p.36)
3: Inspect the frame for cosmetic aspect (scratches, bumps, cracks, paint defect, etc.)
4: For reference, check serial number and write it on p.1
5: All the necessary bolts (refer to Frameset Parts, p.3)
6: For optimal shifting performance, use a dropout alignment gauge to make sure that the drive-side dropout is straight (p.35)

IMPORTANT:
The following parts are assembled on the frame. When assembling the bike, you will need to adjust these parts according to their torque specifications.

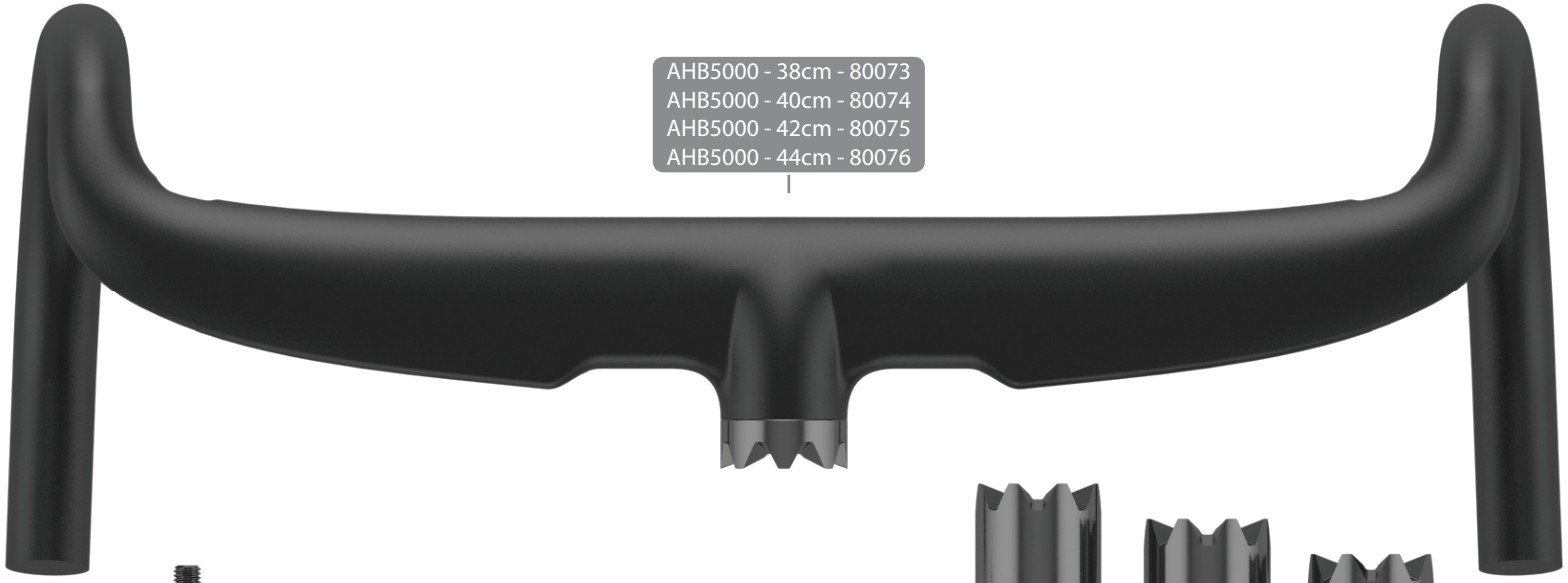
	Parts installed on the frame	Description	Screw type	Tork Nm	Detail
1	Front derailleur hanger	Screw (2)	3mm	4Nm	Loctite
2	Rear derailleur hanger	Screw (2)	3mm	4Nm	Loctite
3	Bottle cage	Screw (4)	4mm	3Nm	Grease
4	Bottom bracket cable guide	Screw	5mm	1.5Nm	Grease

IMPORTANT: No more than 30mm of spacer can be place between the stem and the top cap of the 3D system.
And the use of more than 5mm spacer on top of the stem could void the efficiency of the compressor.
These practices will automatically cancel any warranty claim against the manufacturer.

NITROGEN PRO 230A: 2. Frameset Parts



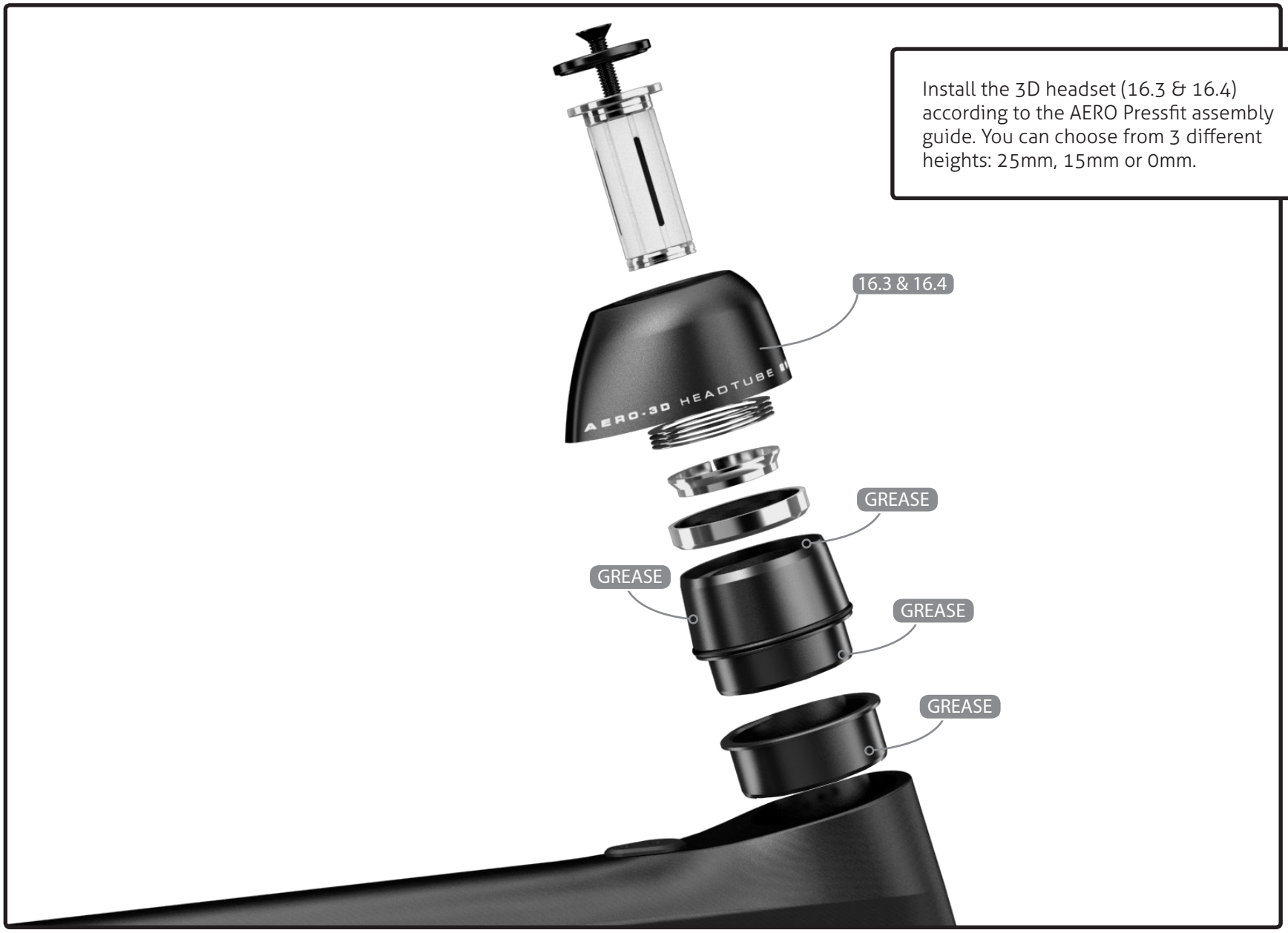
Images are for reference only. Proportions are not accurate.
Argon 18 reserves the right to modify/change parts of the frameset at any moment without prior notice.
*For more info please consult notice on Seatpost clamp dated 2016-06-09



Washer M8	Screw M8x50mm	Screw M8x30mm	Elastic Cover Small	Elastic Cover Large	Spacer 20mm	Screws M5x16mm	Stem A.03 Large	Stem A.02 Medium	Stem A.01 Small
80034	80030	80029	80162	80163	80104	80028	80105	80106	80107

Frameset Size	Handlebar Width 38	40	42	44	Stem Size Small	Medium	Large	20mm Spacer
X-Small		●			●	●		●
Small			●			●	●	●
Medium				●		●	●	●
Large				●		●	●	●
X-Large				●		●	●	●

Notes: *38cm Handlebar is only available aftermarket.*
If you wish to purchase the third non-included stem, you can do so by ordering it as a spare part


Install the 3D headset (16.3 & 16.4) according to the AERO Pressfit assembly guide. You can choose from 3 different heights: 25mm, 15mm or 0mm.
16.3 & 16.4
AERO-3D HEADTUBE
GREASE
GREASE
GREASE
GREASE

NITROGEN PRO 230A: 3. Headset Installation

ARGON 18

STEP 1

First, you must assess which setup suits your needs: **25mm, 15mm or 0mm.**

STEP 2

Inspect the bike's head tube for any sharp edges and apply a small amount of grease.

STEP 3

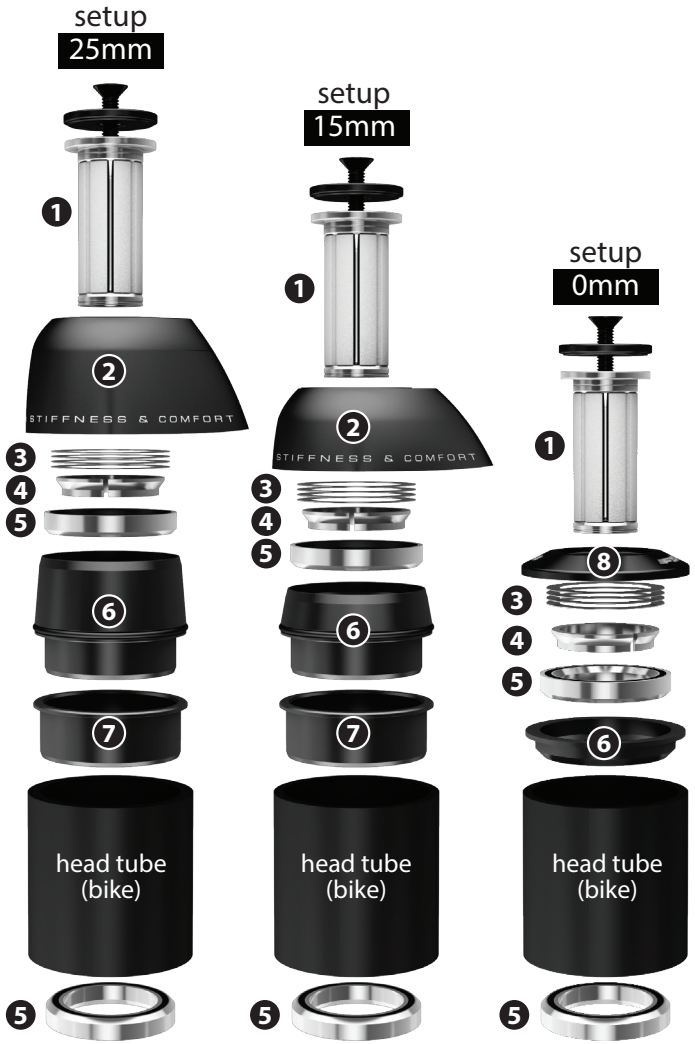
For the **25mm and 15mm** setups, lightly grease the bottom section of the 3D bearing holder (6) and insert the plastic sleeve (7).

STEP 4

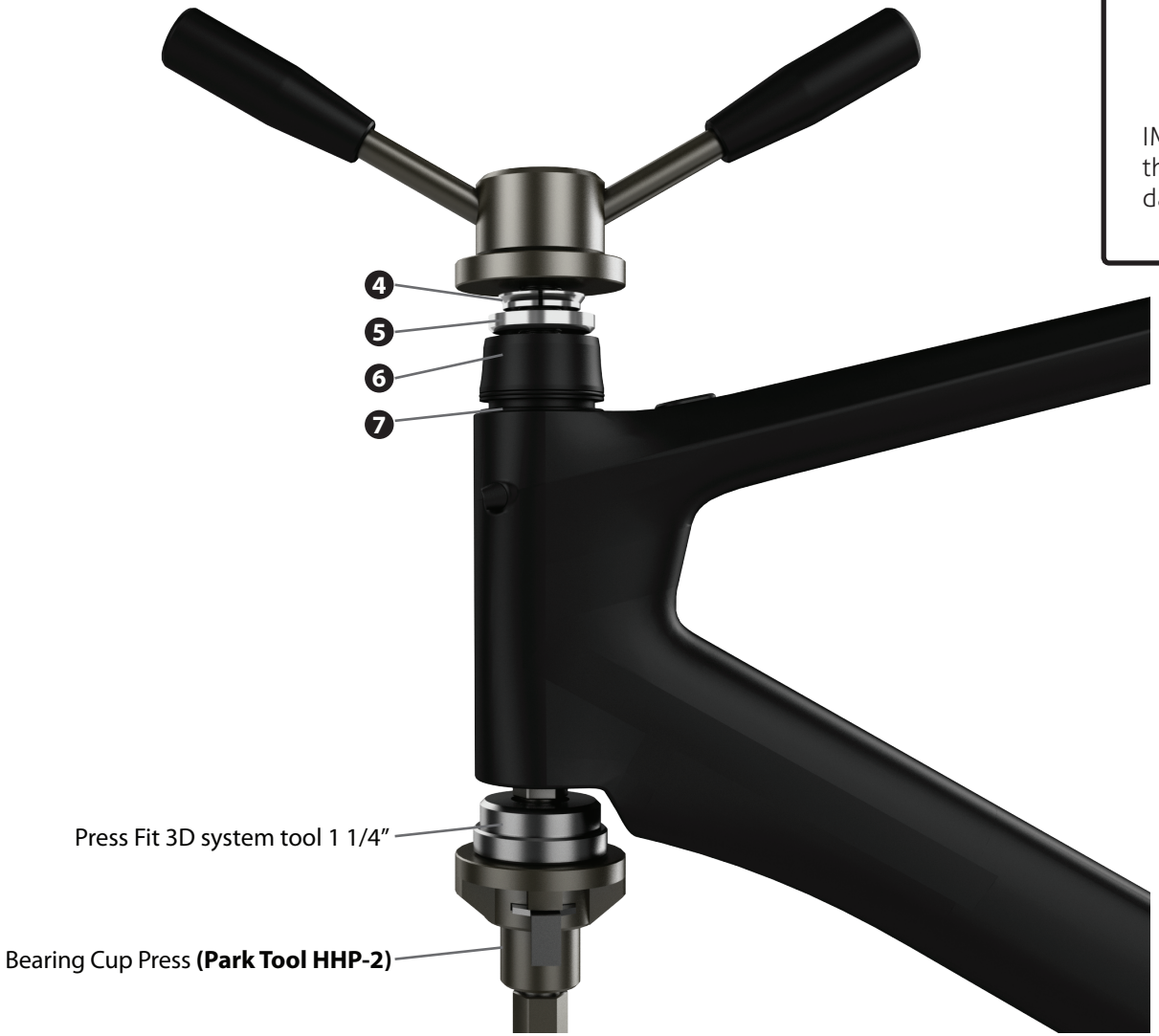
Position the headset inside the head tube. Place the top 3D assembly with the headset bearing inside (this will prevent the sleeve from getting damaged). Add the compression ring on top of the bearing, then add the press fit 3D system tool and softly press down the assembly until it bottoms out using a Bearing Cup Press **(Park Tool HHP-2).** Then, insert the bottom bearing (5), compression ring (4) micro spacers (3) and top cap (2), slide the fork and stem and measure the steerer length needed.

For the **0mm setup** , do not use the plastic sleeve. Install the 3D bearing holder (6) with grease applied directly inside the frame.

To remove the 3D bearing holder, insert the **Park Tool RT-1** and then tap it carefully until the spacer comes out.

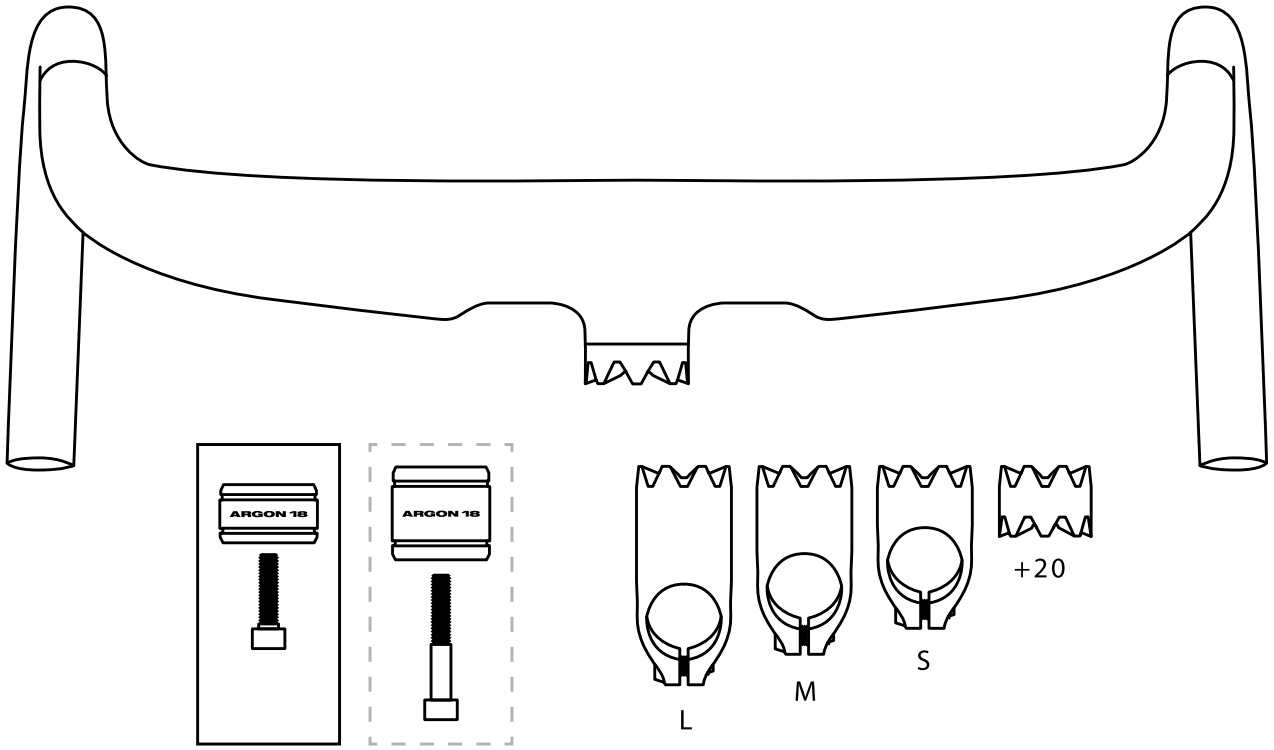


1. Compressor
2. Top cap (including O-ring & seal)
3. Micro spacers
4. Compression ring
5. Bearing
6. 3D bearing holder
7. Plastic sleeve (no need for **0mm** setup)
8. Top cap for **0mm** setup



IMPORTANT: Use the Press Fit 3D system tool 1 1/2" with the Bearing Cup Press (ParkTool HHP-2) to avoid any damage on the bike frame.

1. Compressor
2. Top cap (including O-ring and seal)
3. Micro spacers
4. Compression ring
5. Bearing
6. 3D bearing holder
7. Plastic sleeve (no need for **0mm** setup)
8. Top cap for **0mm** setup



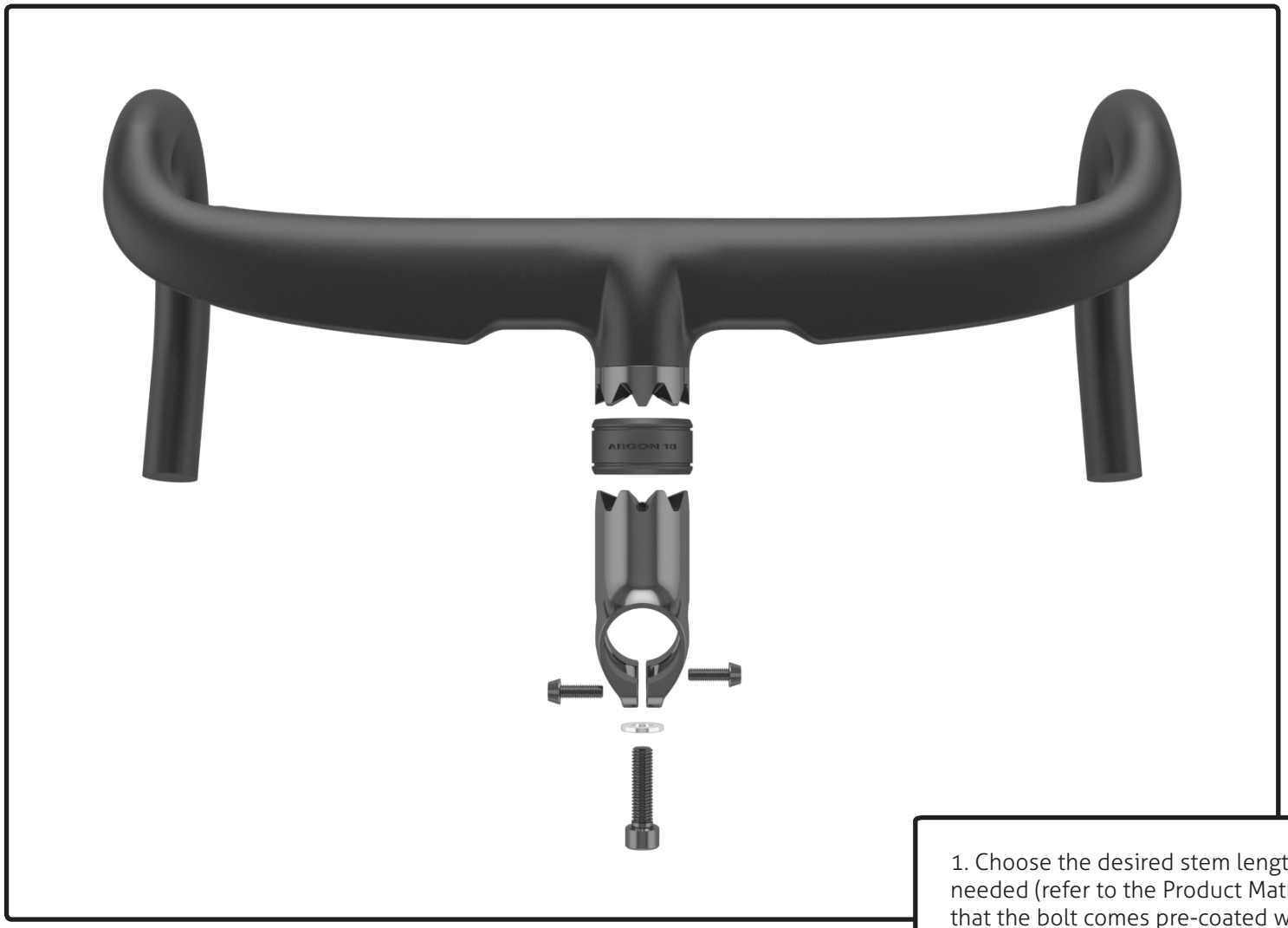
Failure to use long screw when assembling bar with +20mm spacer of any configuration can lead to serious injury

CONFIGURATION MATRIX

Handlebar Width (cm)	Stems size (stems included) S	M	L	20mm spacer
38	70mm	80mm	*(110mm)	●
40	80mm	90mm	*(100mm)	●
42	*(80mm)	90mm	100mm	●
44	*(90mm)	100mm	110mm	●

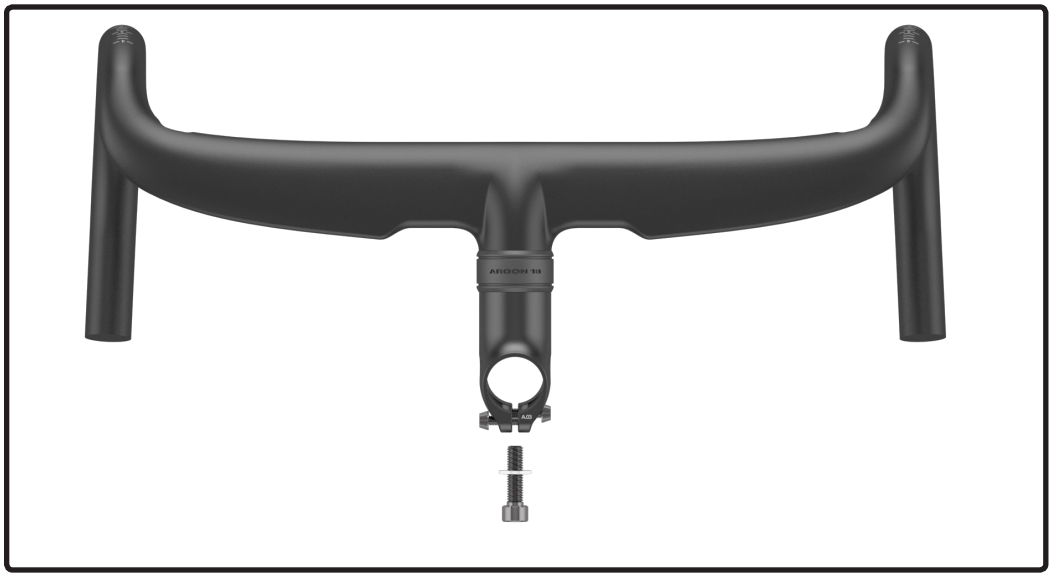
*Requires the purchase of an additional stem from the ones included in basic assembly.

If you wish to purchase the third non-included stem, you can do so by ordering it as a spare part.



1. Choose the desired stem length, bolt, and spacer needed (refer to the Product Matrix chart on p.X) – note that the bolt comes pre-coated with Loctite. In the event of assembling and disassembling, one drop of blue Loctite (#242 or #243) must be applied on the bolt threads.

NITROGEN PRO 230A: 4. Stem/Handlebar Installation

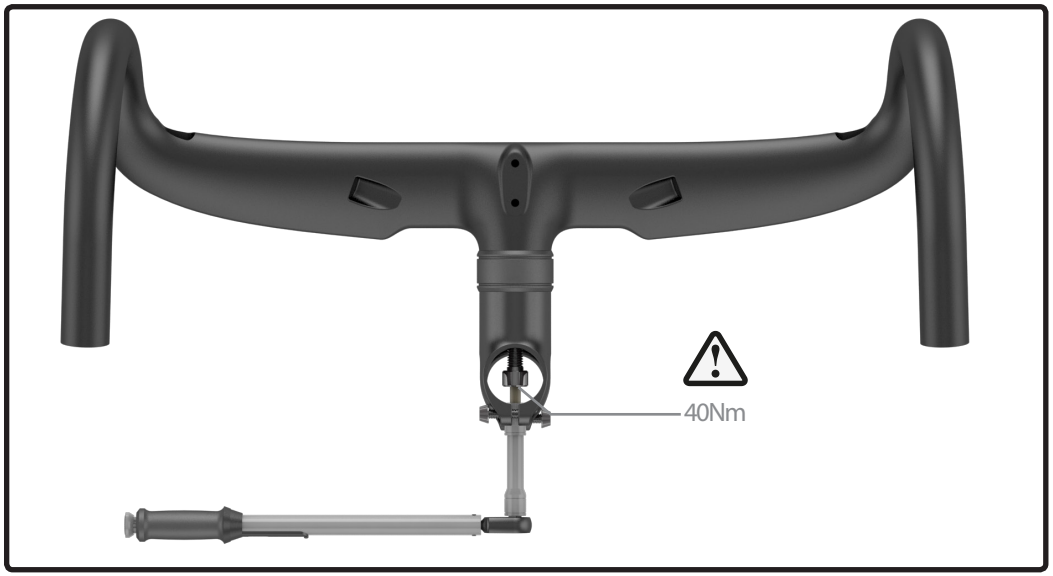


2. Place the elastic cover on the stem and the spacer with the Argon 18 logo facing up.

3. Place the handlebar upside down on a clean rag.

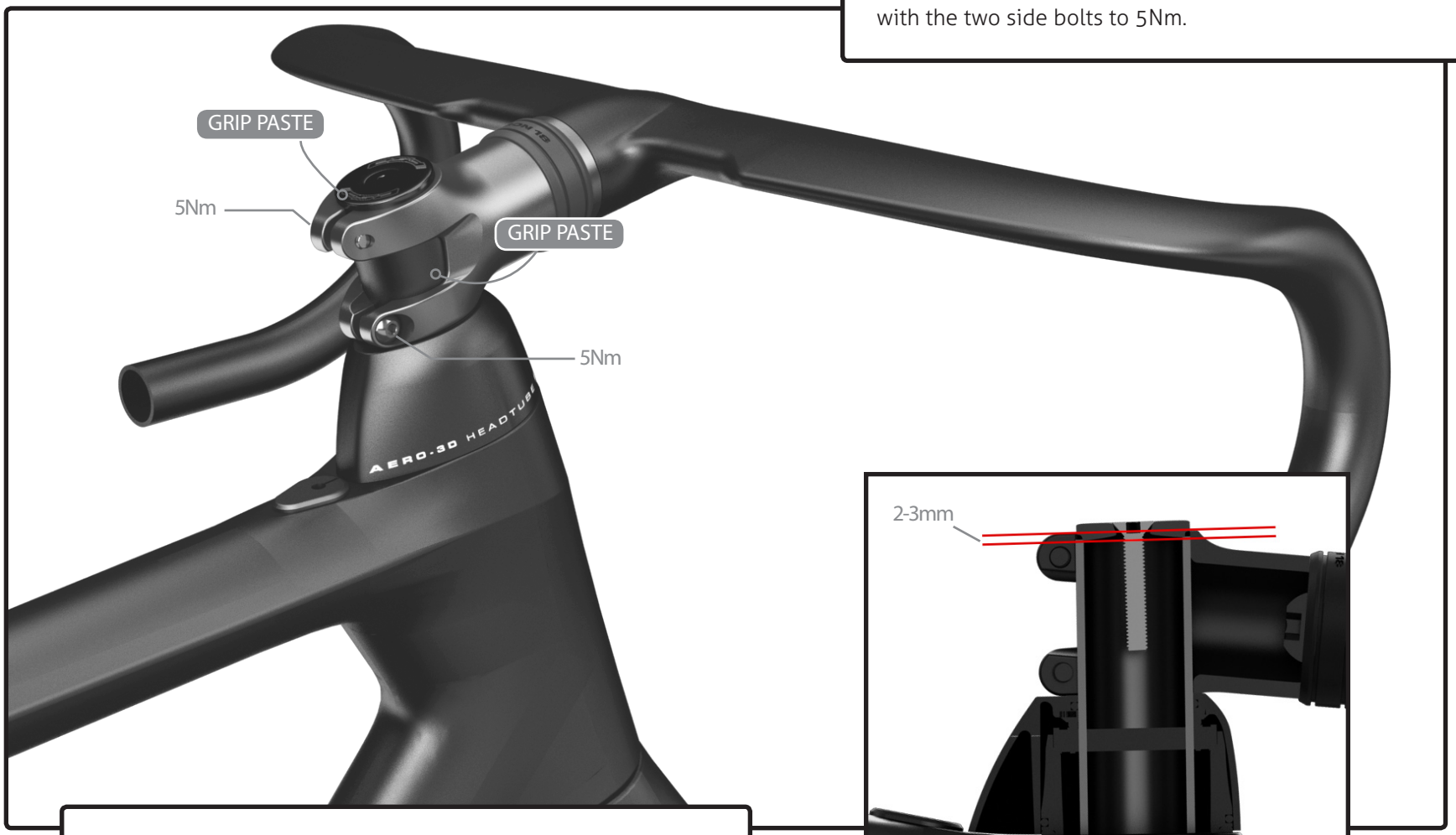
4. With the correct spacer and stem length using a torque wrench, a ratchet extension, and a 6mm bit thread the bolt and spacer up to 40Nm.

5. For easier handling and to prevent damage to the handlebar we recommend holding it down firmly while tightening.



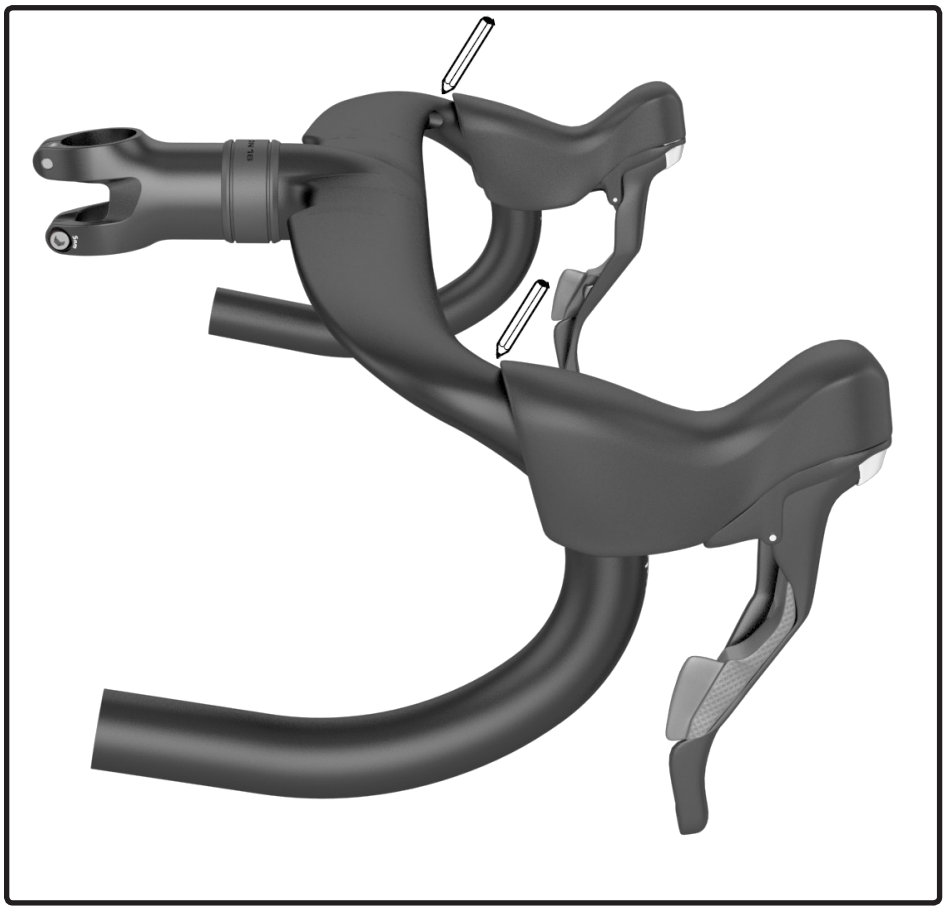
IMPORTANT:
If the appropriate torque (40Nm) is not reached and if Loctite is not applied the handlebar could loosen. Argon 18 cannot be held accountable if this is not measured.

Place the handlebar on the fork and secure the stem/combo with the two side bolts to 5Nm.

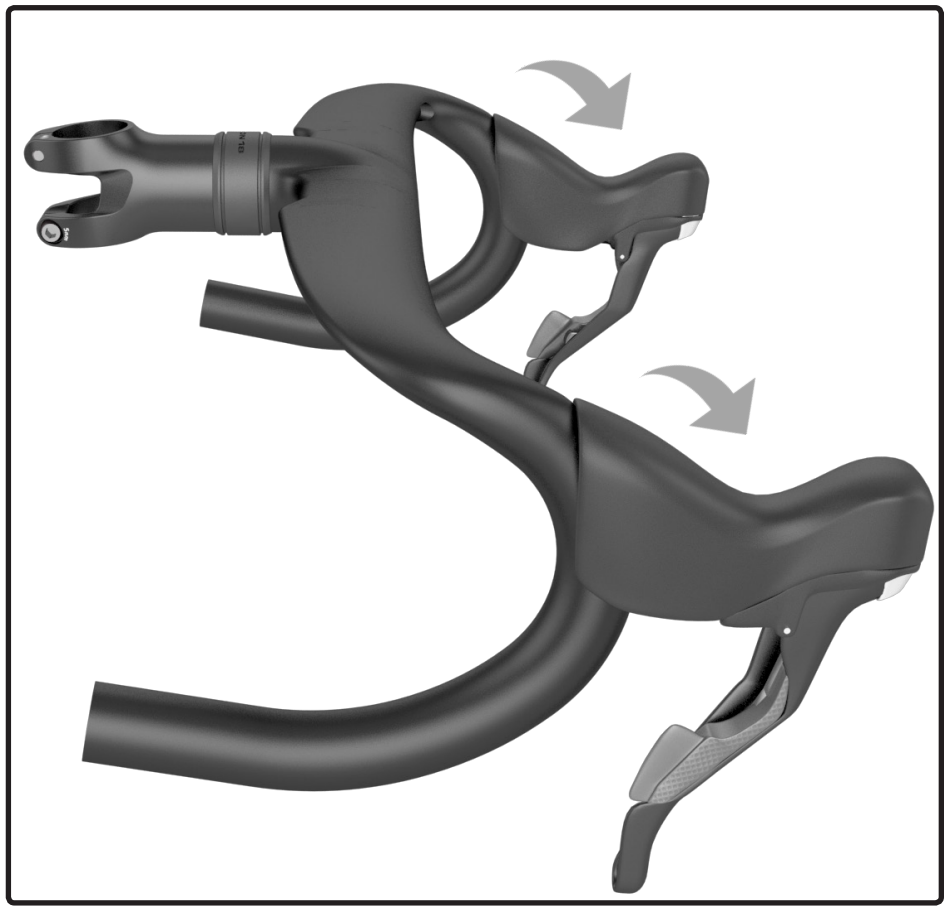


Note: When cutting the fork, allow 2mm or 3mm of additional space between the compressor cap and the fork in order to obtain sufficient compression of the headset.

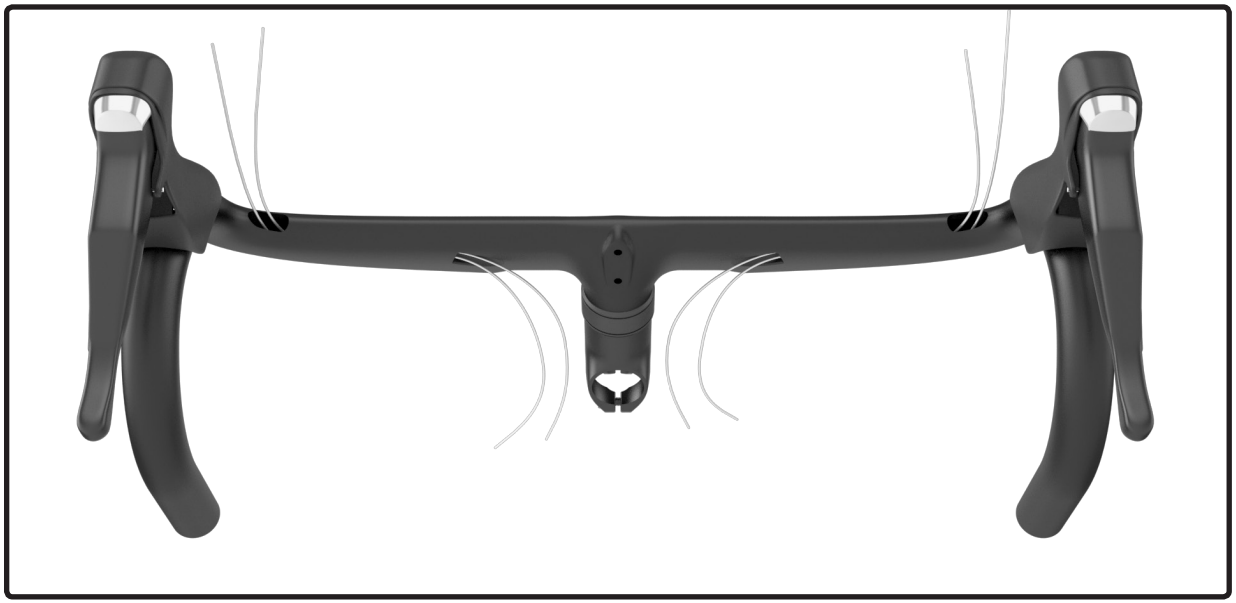
Electronic Shifting
Important: Always pass the electronic cables before the brake housing; the opposite would make it very difficult to get the electronic cables through after the brake housing.



1. Install the brake hood to the desired height and make a mark with a white pen.



2. Lower the shifter assembly.

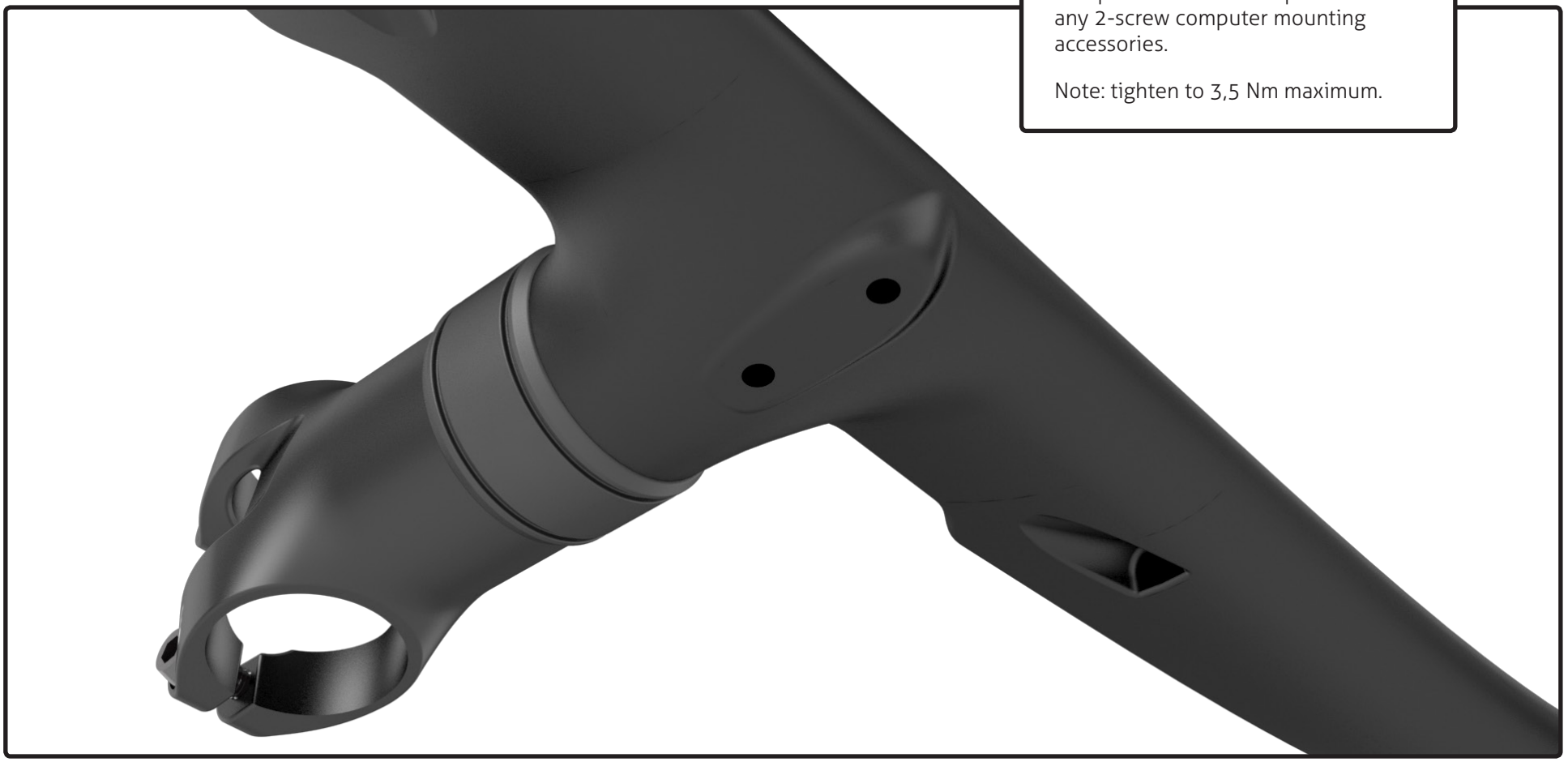


3. Fish two cables inside the handlebar on each side.

4. Select the length of necessary housing and pass both at the same time.

5. Pass the brake and gear cables in the shifter body.

6. Connect cables to housing and put the levers back to the white mark on the handlebar.



Computer mount is compatible with any 2-screw computer mounting accessories.

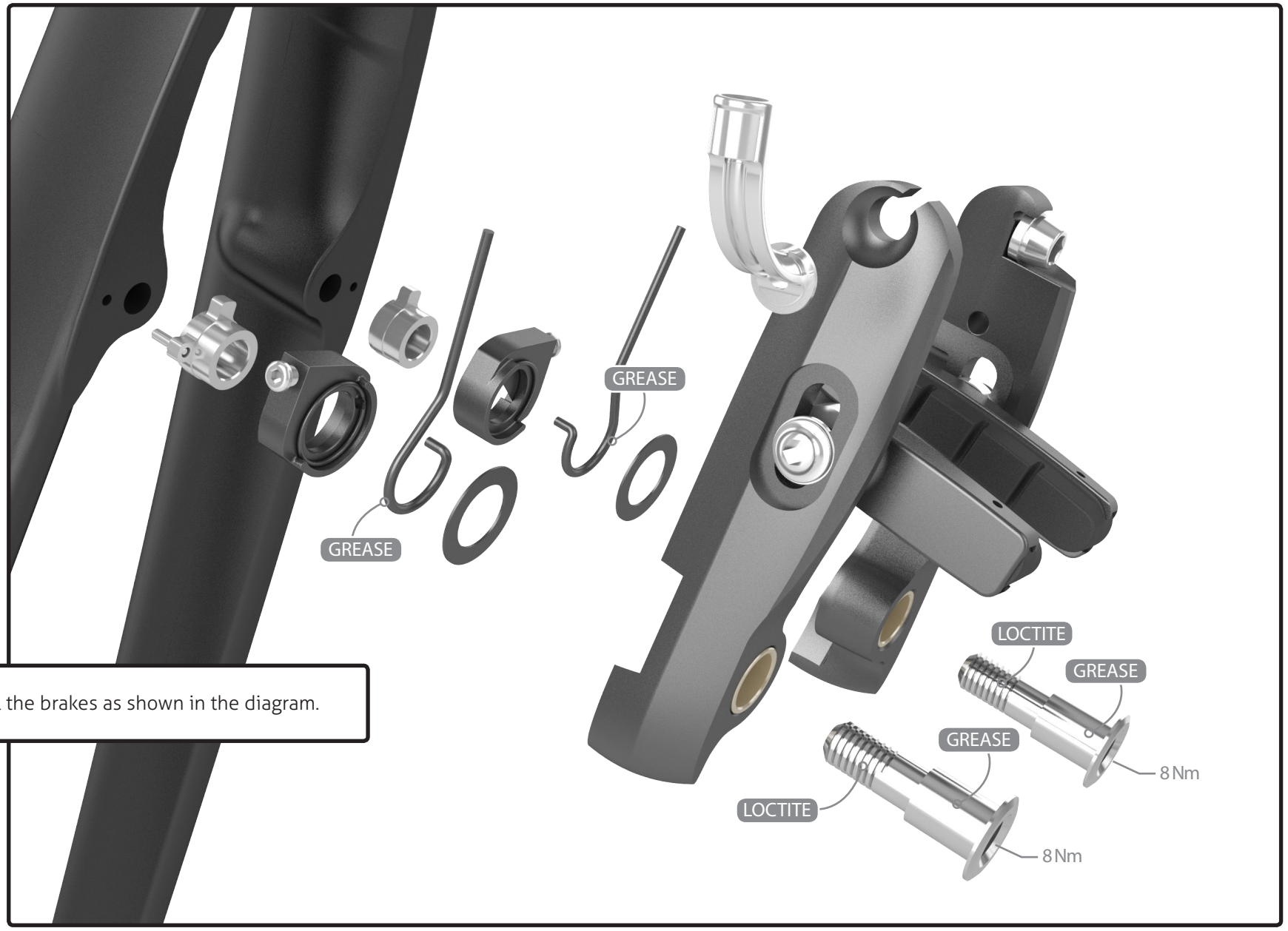
Note: tighten to 3,5 Nm maximum.

Cable routing overview

It's better to install cable housing before installing the bottom bracket and crankset.

Suggested lengths of the cable housing

housing/size	XS	S	M	L
Front brake	40cm	45cm	50cm	55cm
Rear brake front section	30cm	35cm	40cm	45cm
Rear brake rear section	20cm	20cm	20cm	25cm
Front derailleur	110cm	110cm	120cm	125cm
Rear derailleur	185cm	190cm	195cm	200cm



Install the brakes as shown in the diagram.

1. Pass the cable through the curved straw and then in the appropriate guide.

2. Fix the cable to the caliper with the 6mm screw and tighten it to 6Nm.

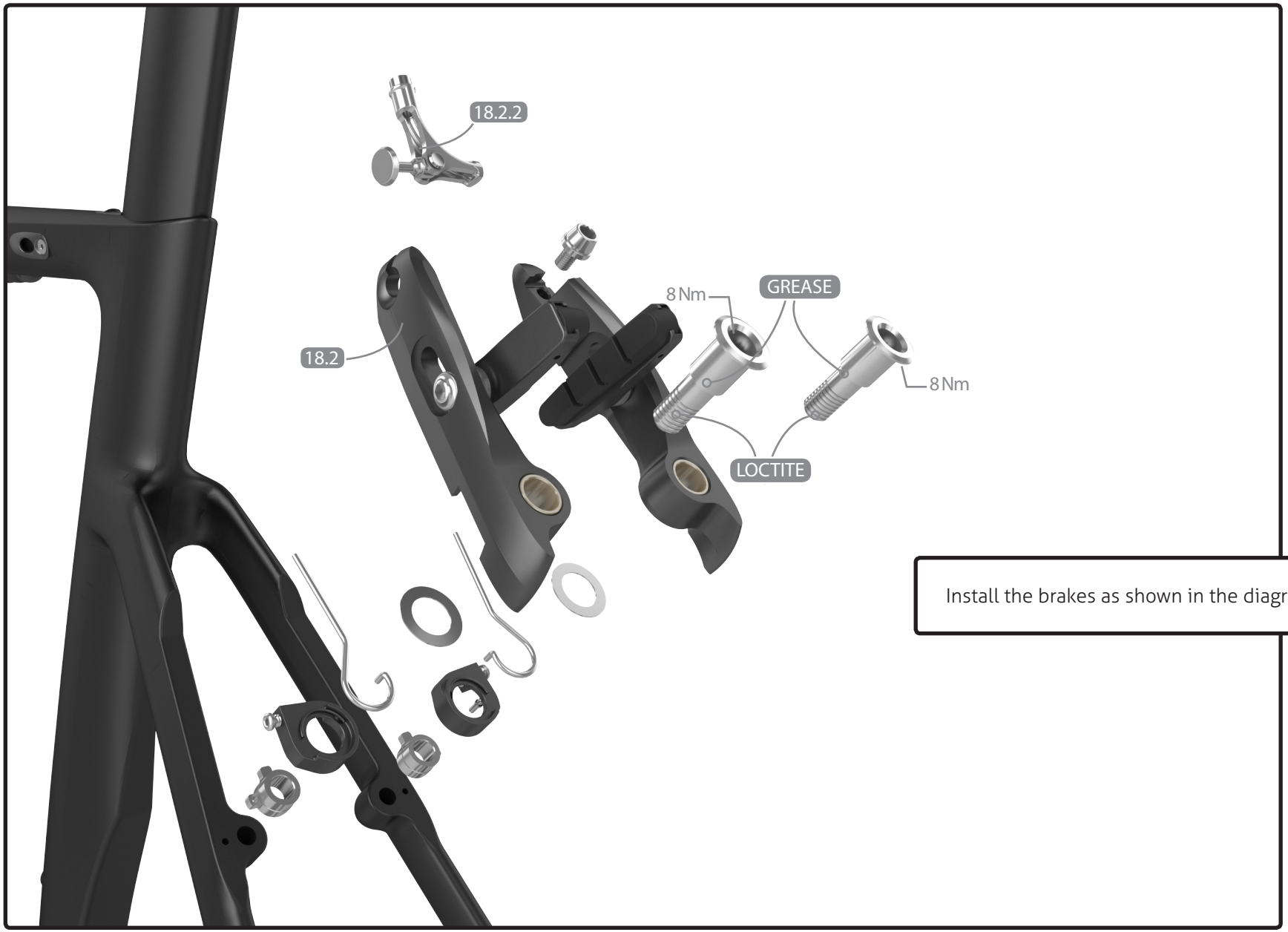
IMPORTANT: If the brake bad spacing is too thick, the brake arm can rub on the frame down tube. Make sure the pad spacing is appropriate.

Adjust brake pads according to the width of your rims:

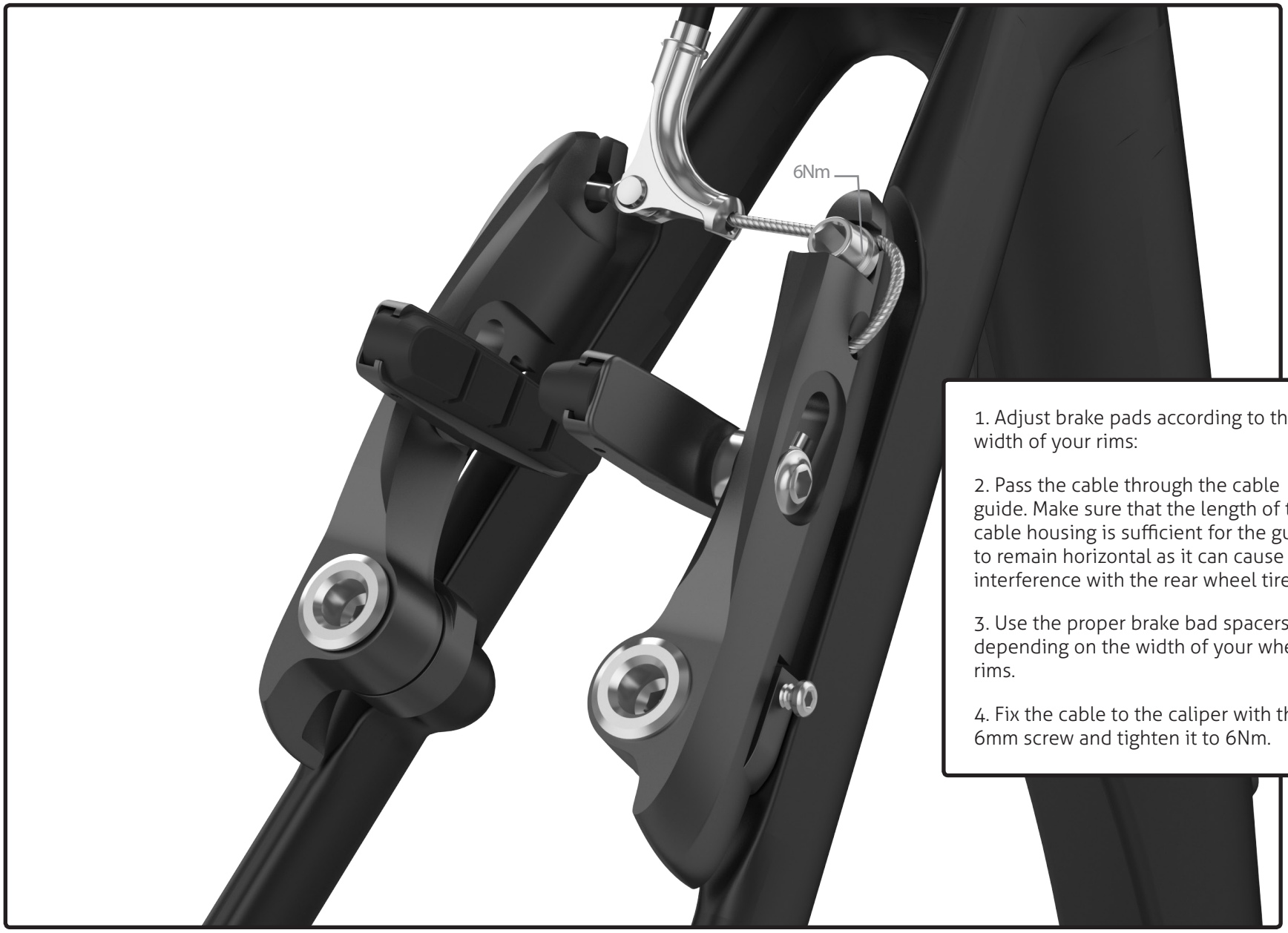
- You can configure the brake pad spacers with 1mm (a), or 2mm (b) depending of the rim width you are using.

Spacers required according to the rim width

Rim width	Spacer combinaison
19mm (e.g.: Shimano C50)	2mm spacer
24mm + (e.g.: 808 clincher/Enve)	1mm spacer (thin pad may be required)



Install the brakes as shown in the diagram.



1. Adjust brake pads according to the width of your rims:

2. Pass the cable through the cable guide. Make sure that the length of the cable housing is sufficient for the guide to remain horizontal as it can cause interference with the rear wheel tire.

3. Use the proper brake bad spacers depending on the width of your wheel rims.

4. Fix the cable to the caliper with the 6mm screw and tighten it to 6Nm.

A: 5mm barrel adj.

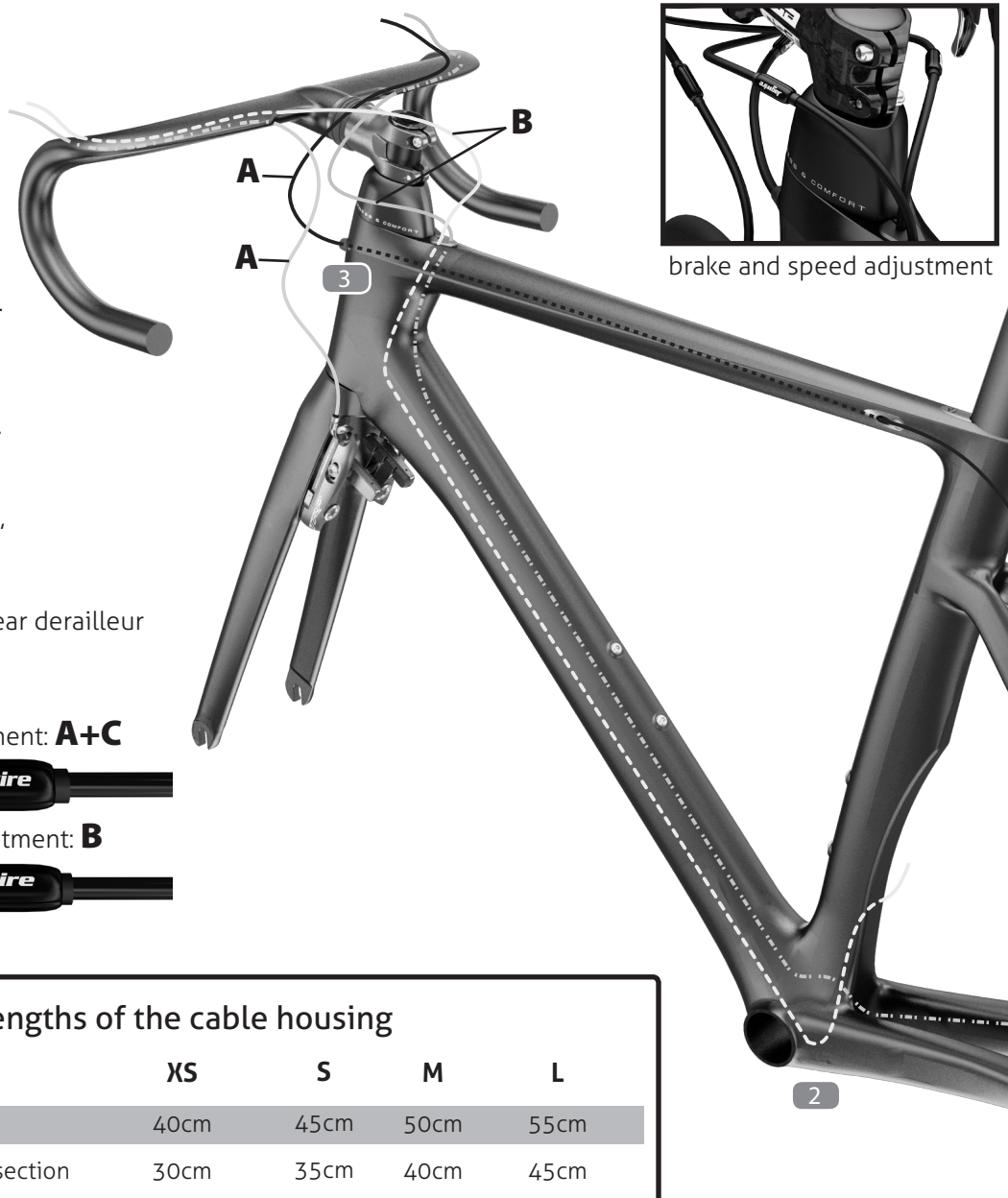
B: 4mm barrel adj.

C: metal cap "pop"

D: metal cap for rear derailleur

brake adjustment: **A+C**

speed adjustment: **B**



brake and speed adjustment

1. Install the rear derailleur cable housing starting at the drive side's drop-out until it comes out in the top tube.

2. Install the front derailleur cable housing starting under the bottom bracket shell.

3. Install the rear brake cable housing (see p.25 for details). Use supplied Jagwire housing (KEB).

Note: For maximum braking performance it is strongly recommended to use the non-compressible jagwire KEB housing (Jagwire 5mmKEB-SL).

Suggested lengths of the cable housing

housing/size	XS	S	M	L
Front brake	40cm	45cm	50cm	55cm
Rear brake front section	30cm	35cm	40cm	45cm
Rear brake rear section	20cm	20cm	20cm	25cm
Front derailleur	110cm	110cm	120cm	125cm
Rear derailleur	185cm	190cm	195cm	200cm

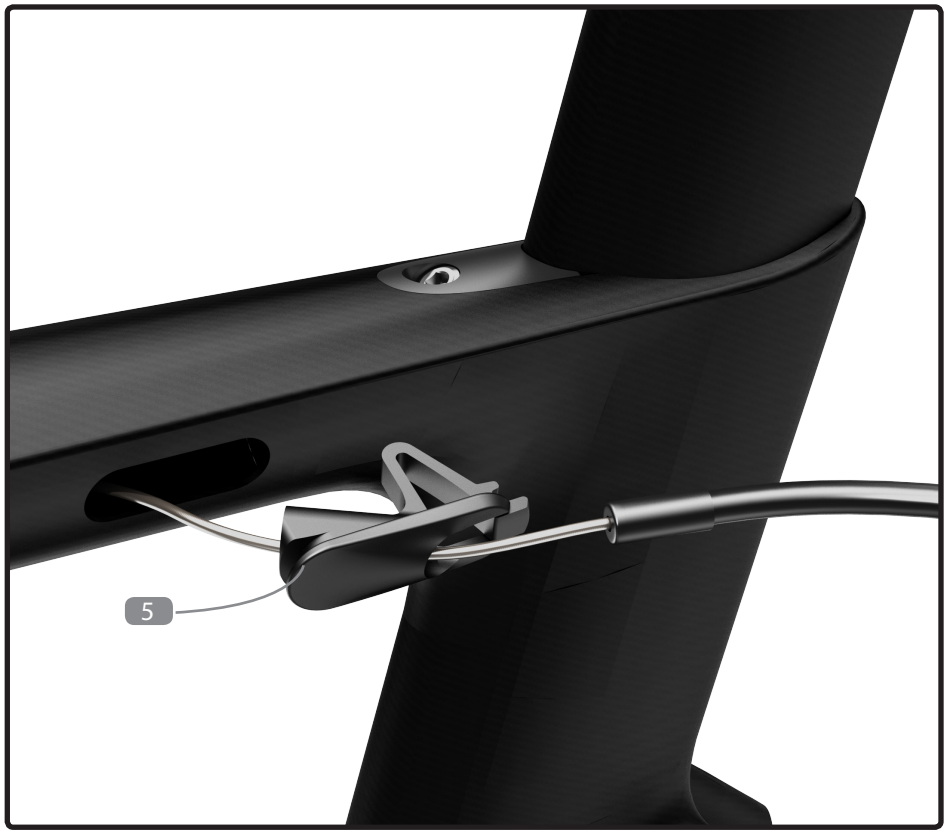
It's better to install cable housing before installing the bottom bracket and crankset.

Note: The front brake cable guide (17.2.2) should be front-oriented to ensure good rotation of the handlebar.

Front brake

Pass the cable through the cable guide (17.2.2).

Create a "hook" with the cable; it will be easier to pass it inside the retainer nut.



Rear brake

Remove the 2 cable stopper (on the head tube and near the seat collar).

Font section: Measure the necessary cable housing to ensure proper rotation of the handlebar. Insert the "KEB" cable housing and the cable trough the top tube.

Rear section: With a magnet, get the rear brake cable out of the frame, and pass it through the rear cable stopper. Mesure the "KEB" rear housing correctly to avoid interference with the rider's left leg.

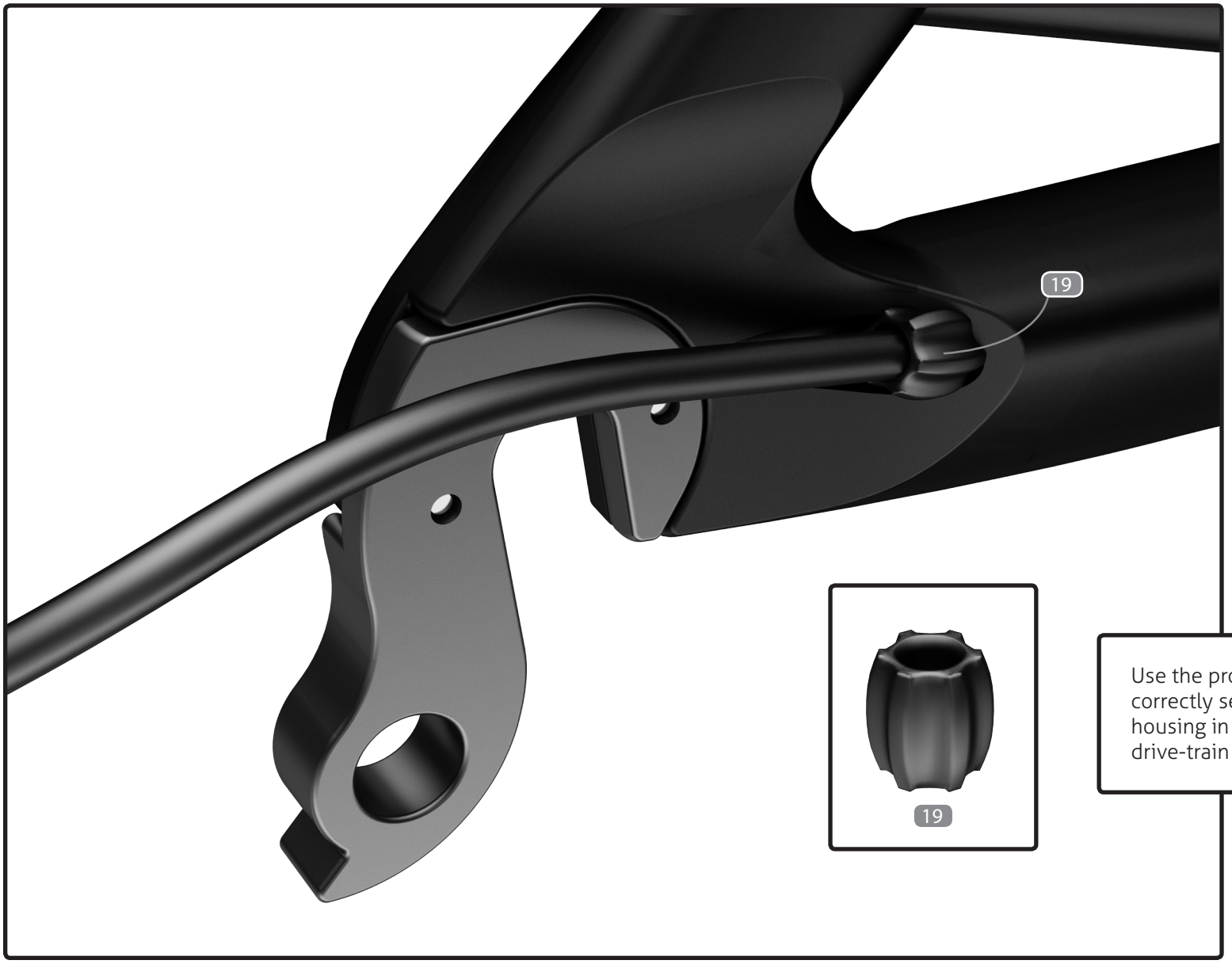
Note:
It's better to install the cable housing before installing the bottom bracket and crankset.

Rear derailleur: Pass the cable housing inside the frame starting at the rear derailleur hanger until it comes out the top tube.

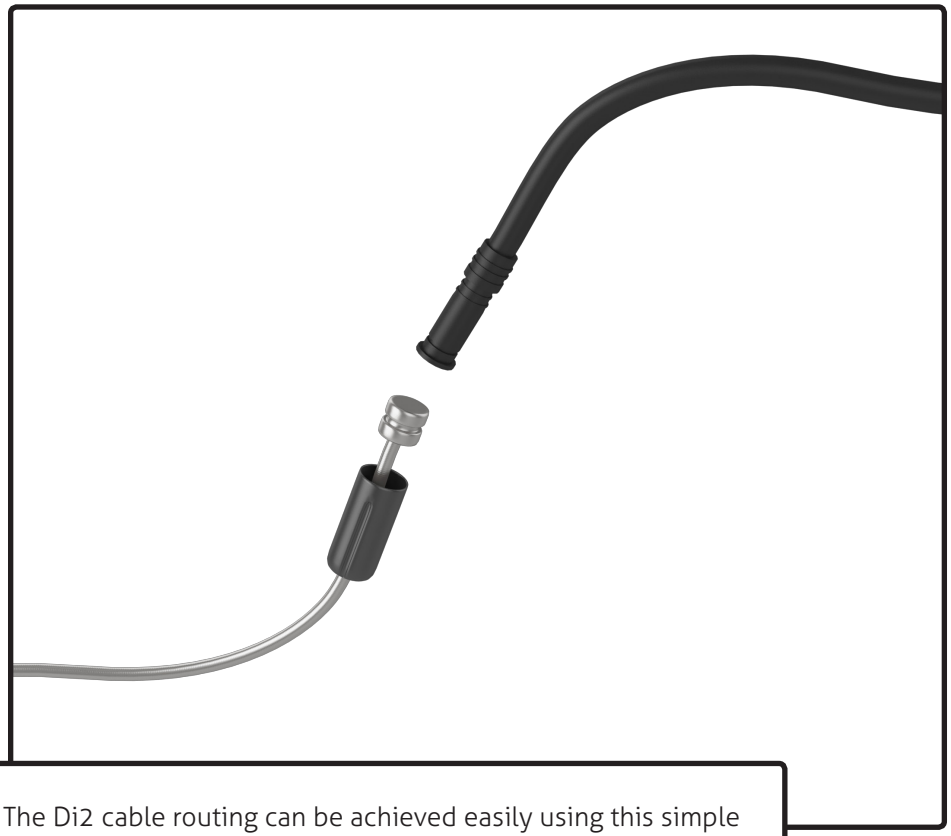
Front derailleur: Remove the cable guide (9) under the bottom bracket. Pass the cable housing inside the downtube until it comes out the top tube.

Add a plastic cap at the end of the housing, pass the rear derailleur cable inside the housing and fix the cable guide under the bottom bracket with the 5mm screw (1.5 Nm).

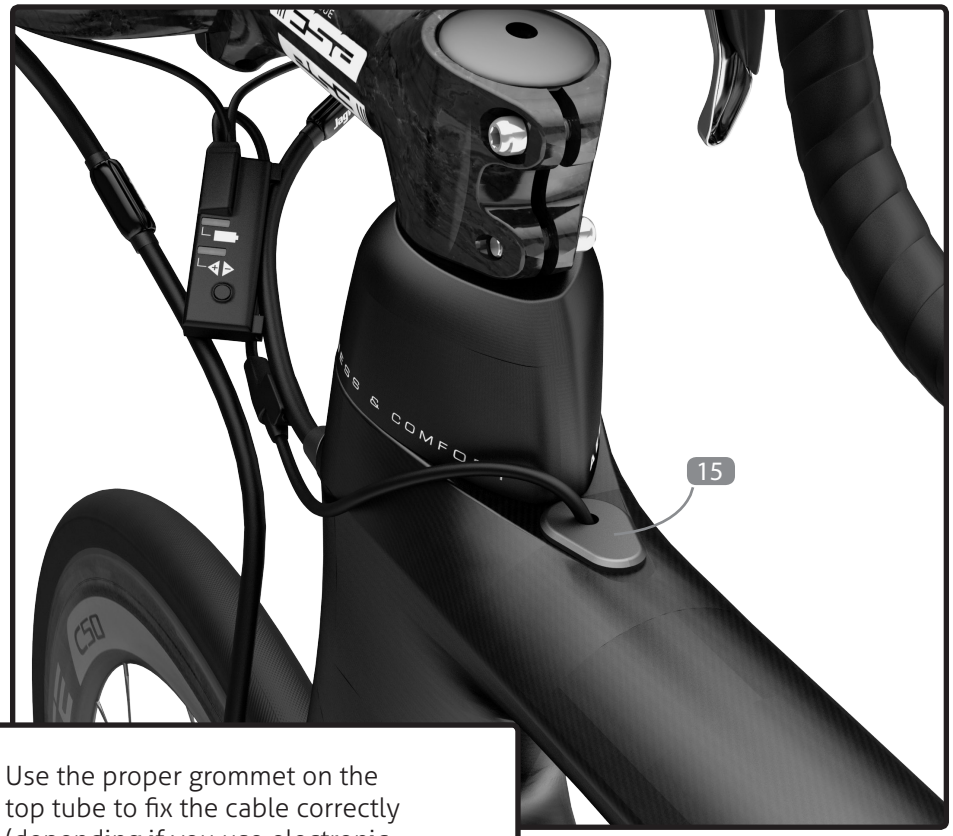
For a Di2 configuration, use the bottom bracket dedicated cover (10) for electric shifting.



Use the provided grommet (19) to correctly set the rear derailleur cable housing in the chainstay (mechanical drive-train only).

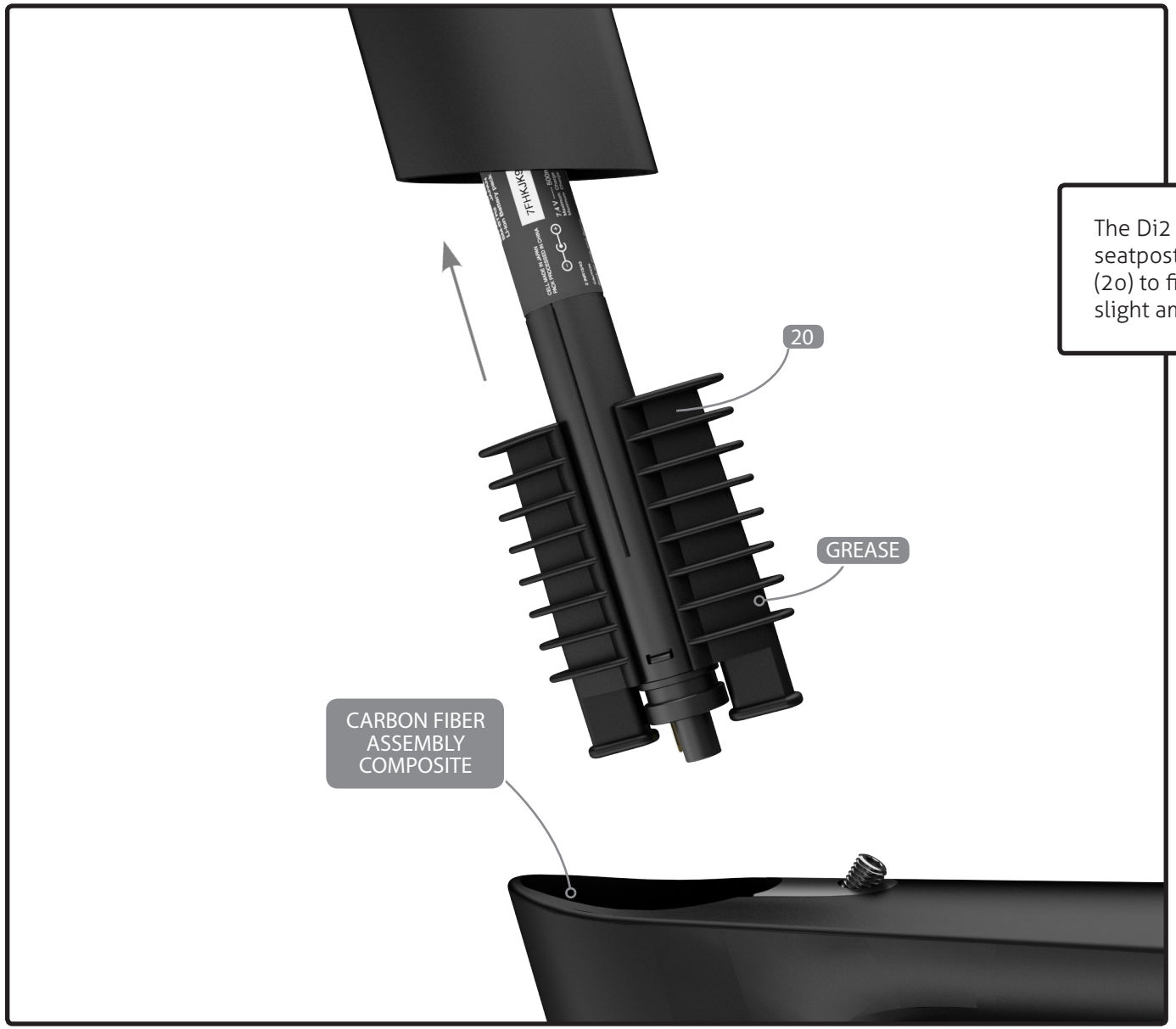


The Di2 cable routing can be achieved easily using this simple trick: use a gear cable and a metal cable end to fix the Di2 cable. For more information on Shimano Di2 electronic system installation, go to: si.shimano.com.

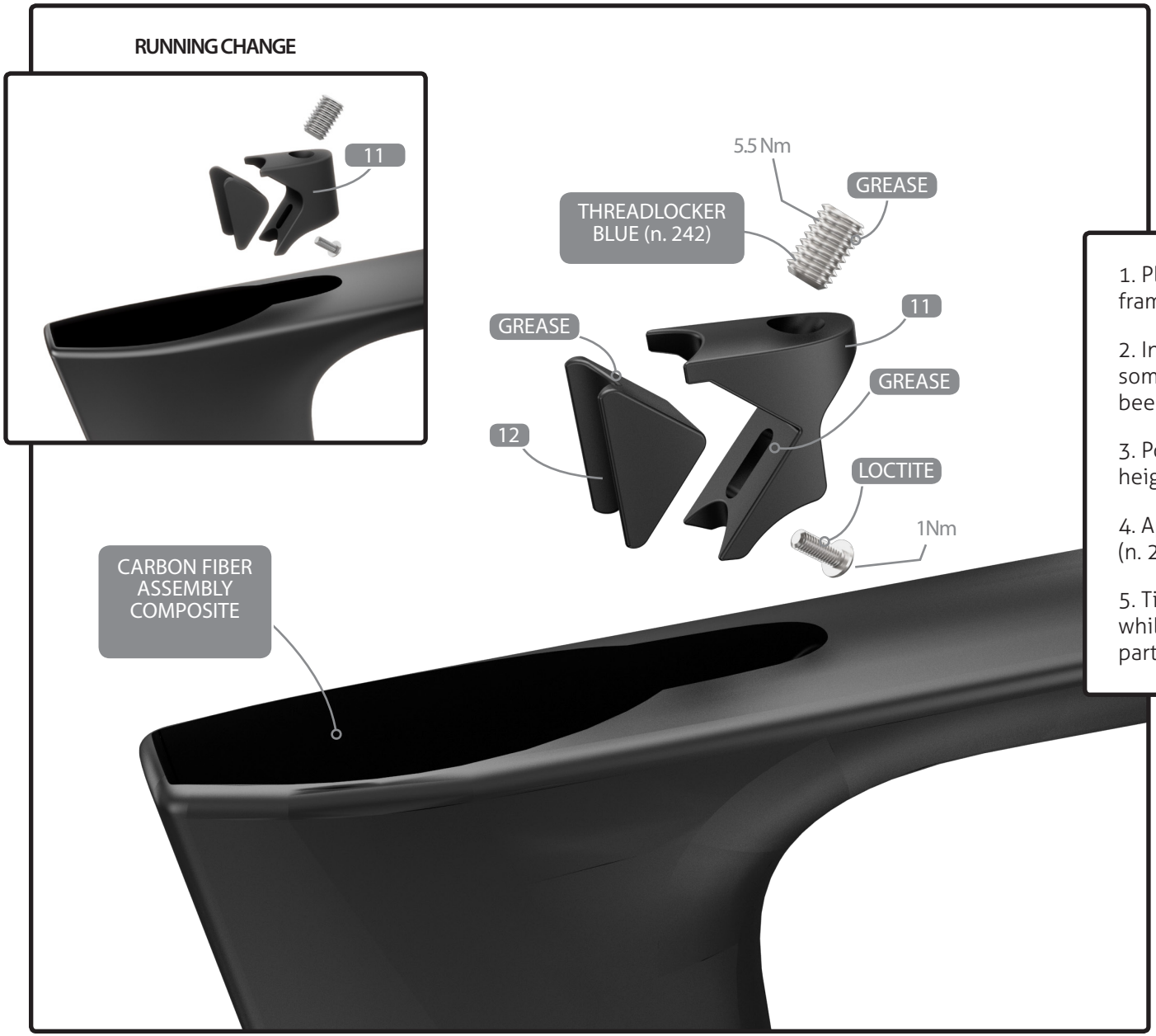


Use the proper grommet on the top tube to fix the cable correctly (depending if you use electronic shifting or mechanical drive-train).

When using an electronic drive-train, use the grommet (13) to fix the front derailleur cable.



The Di2 battery is hidden in the seatpost; use the Di2 battery holder (20) to fix the battery correctly. Apply a slight amount of grease on both parts.



1. Place the seat post collar inside the frame.

2. Insert the seatpost (3) on which some carbon fiber assembly gel has been applied.

3. Position the seatpost to the desired height.

4. Apply a drop of blue Threadlocker (n. 242) on the bolt's thread

5. Tighten the set screw at max. 5.5Nm while leaving a space between the two parts allowing them to slide.

1. Install the saddle on the rocker (3.4) and tighten the rail clamp (3.3) up to 6Nm with M5 screw (3.10).

2. Adjust the angle and the offset of the saddle by hand tightening the thumb screw (3.8).

3. The rocker (3.4) can be flipped to change the saddle offset (+ / - 5mm).

The front derailleur hanger (6) can be adjusted according to the front derailleur angle to get an equal curve between the derailleur and the big chain ring. Once at the right angle, use blue 242 Loctite and screw both screws in at 4Nm.

1. Ensure that the dropout is aligned.

2. Use Derailleur Hanger Alignment Gauge like Park Tool Item # DAG-2.

For any assistance, visit Park Tool's website: parktool.com/product/derailleur-hanger-alignment-gauge-dag-2

NITROGEN PRO 230A: 12. Parts' SKUs and Descriptions*

No.	Name	Assembled on	A18 SKU#	Qty
	Parts already assembled			
8	Rear Derailleur Hanger (incl. screws)	Frame	38883	1
6	Front Derailleur Hanger (incl. screws)	Frame	38882	1
9	BB Cable Guide (incl. screw)	Frame	38885	1
7	Bottle Cage Screws	Frame	38884	4
	Parts			
1	Nitrogen Pro Frame	-	-	1
2	Nitrogen Pro Fork	-	FK.NITPRO.230A	1
3	Nitrogen Pro Seat Post Assembly (ASP-5100)	-	SP.NITPRO.230A	1
4	Head Tube Brake Cable Stopper	Frame	38878	1
5	Top Tube Cable Stopper	Frame	38879	1
10	BB Cover (incl. screw)	Frame	38260	1
11	Seat Clamp Base (incl. screw)	Frame	80375, 80478	1
12	Seat Clamp Wedge (incl. screw)	Frame	80374, 80477	1
13	Di2 Cable Grommet	Frame	38888	1
14	Mechanical Cable Grommet (Top Tube)	Frame	38880	1
15	Di2 Grommet (Top Tube)	Frame	38881	1
16	3D Headset Assembly	Fork	38724	1
17	Front Brake Assembly	Fork	80654	1 Set
18	Rear Brake Assembly	Frame	80655	1 Set
19	Chainstay Cable Grommet	Frame	39009	1 Set
20	Internal Di2 Battery Support	Seat Post	38757	1 Set
	8mm Wrench for Seat Clamp	-	38543	1
	Front Brake Cable Guide (noodle)	-	80424	1
	Rear Brake Cable Guide (noodle)	-	80425	1
	TKB137-2/TKB138-2/TKB138-3 spring kit	-	80871	1 Set
	TKB137-2/TKB138-2/TKB138-3 spring holder kit	-	80870	1 Set
	Rear derailleur plug for eTap	Frame	80825	1
	Round plug	Frame	80554	1
	Top tube plug	Frame	38881	1

*Except for the frame itself, which is not sold as a spare part, all parts can be ordered by referring to their respective SKU number.

No.	Name	Assembled on	A18 SKU#	Qty
	Parts			
21	Derailleur and Brake Cable Housing Kit	Frame	39014	1
	Brake cable/housing kit includes:			
	KEB Housing		INCL.	1
	End Caps		INCL.	2
	End Caps		INCL.	1
	End Caps		INCL.	2
	Cable		INCL.	2
	Barrel Adjuster		INCL.	2
	Derailleur cable/housing kit includes:			
	LEX40-SL Housing		INCL.	1
	End Caps		INCL.	2
	End Caps		INCL.	2
	Cable		INCL.	2
	Barrel Adjuster		INCL.	2
22	Handlebar (AHB5000 - 38cm)	Fork	80073	1
	Handlebar (AHB5000 - 40cm)	Fork	80074	1
	Handlebar (AHB5000 - 42cm)	Fork	80075	1
	Handlebar (AHB5000 - 44cm)	Fork	80076	1
22.11	Spacer (M8)	Fork	80034	1
22.10	Screw (M8x50mm)	Fork	80030	1
22.9	Screw (M8x30mm)	Fork	80029	1
22.8	Small Elastic Cover	Fork	80162	1
22.7	Large Elastic Cover	Fork	80163	1
22.6	Stem Spacer (20mm)	Fork	80104	1
22.5	Screw (M5x16mm)	Fork	80028	2
22.4	Stem A.03 Large	Fork	80105	1
22.3	Stem A.02 Medium	Fork	80106	1
22.2	Stem A.01 Small	Fork	80107	1

HOW TO ASSEMBLE HB (FRAME SET AND COMPLETE BIKE)

Stem/Handlebar Installation AHB5000

Frame size	XS	S	M	L	XL	part# assembly guide	product #
Handle bar width	40cm	42cm	44cm	44cm	44cm	22	40cm: 80074 42cm: 80075 44cm: 80076
Stem length	80mm	90mm	100mm	110mm	120mm	N/A	N/A
Stem label	A.01	A.02	A.02	A.03	A.02	30: Large 31: Medium 32: Small	A.03: 80105 A.02: 80106 A.01: 80107
20mm Spacer	NO	NO	NO	NO	YES	28	80104
M8 Washer	YES	YES	YES	YES	YES	23	80034
M8 X 30mm Screw	YES	YES	YES	YES	NON	25	80029
M8 X 50mm Screw	NO	NO	NO	NO	YES	24	80030
Small Elastic Cover	YES	YES	YES	YES	NO	26	80162
Large Elastic cover	NO	NO	NO	NO	YES	27	80163
M5 X 16mm Screws	YES	YES	YES	YES	YES	29	80028