ELECTRON PRO TKO Pursuit - Assembly Guide

ARGON 18

Artwork : 312A / 350A

Valid for MY2020-2021 - Electron Pro TKO

Revision 6.1 - 16.02.2021

ELECTRON PRO TKO Pursuit Bars - Assembly Guide

ARGON 18

Artwork : 312A / 350A
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ELECTRON PRO TKO Sprint - Assembly Guide

ARGON 18

Artwork : 313A / 350B

Valid for MY2020-2021 - Electron Pro TKO

Revision 6.1 - 16.02.2021

ELECTRON PRO TKO Sprint Bars - Assembly Guide

ARGON 18

Artwork : 313A / 350B
Valid for MY2020-2021 - Electron Pro TKO
Revision 6.1 - 16.02.2021

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My Electron Pro

Date of purchase: _____

Retailer: _____

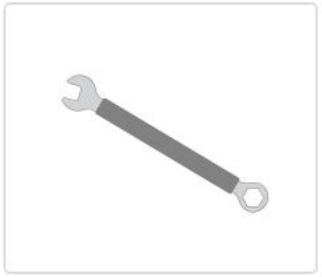
Size: _____

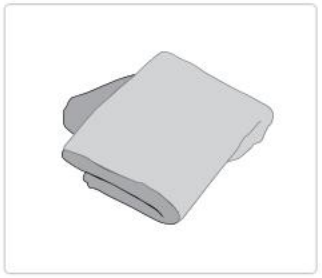
Serial Number: _____

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.





Tools needed for assembly

1. Allen Key Set
2. 8mm Wrench
3. Grease
4. Loctite #242 or #243
5. Clean Rags
6. Carbon Paste
7. Torque Wrench and Hex bits
8. Extension for Hex Bit or Extended 5mm Hex Bit

SKU: 80577

SKU: 80576

1. Seat Post Clamp

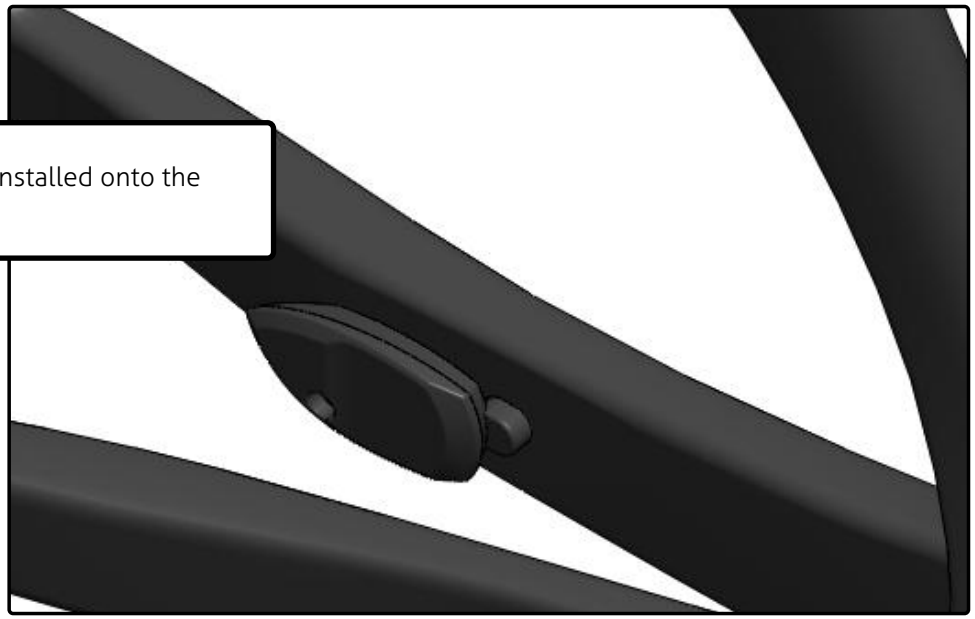
ELECTRON PRO SPECS	RIO PURSUIT	RIO SPRINT	TKO PURSUIT VERSION	TKO SPRINT VERSION
FRAME WEIGHT	1650g	1650g	1370g	1630
FORK WEIGHT	510g	510g	475g	475g
STIFFNESS	Baseline	Compare to Baseline: Bottom Bracket : +21% Torsionnal Stiffness : +15% Rear Triangle Stiffness: +32%	Compare to Baseline: Bottom Bracket : +2% Torsionnal Stiffness : +9% Rear Triangle Stiffness: Equal	Compare to Baseline: Bottom Bracket : +14% Torsionnal Stiffness : +27% Rear Triangle Stiffness: +27%
PURSUIT COCKPIT	Included w/Regular Ext. Bars + Hardware	Not Included	Included w/Regular Ext. Bars + Hardware	Not Included
SPRINT HANDLEBAR	Not Included	Not Included	Not Included	Not Included
BB STANDARD	BSA (english threads)	BSA (english threads)	BSA (english threads)	BSA (english threads)
HEADSET	MR055A+MR054	MR055A+MR054	MR055A+MR054	MR055A+MR054
TIRE CLEARANCE	23mm	23mm	24mm	24mm
MAX CHAINRING	65T	65T	70T	70T
REGULAR STEM COMPATIBILITY	Yes	Yes	Yes	Yes
WHEEL INTERFACE	Front : Bolt-on Rear : Bolt-on	Front : Bolt-on Rear : Bolt-on	Front : 12x100mm Thru-Axle Rear : Bolt-on Note: Compatible front wheel are very limited. Make sure to check availability	Front : 12x100mm Thru-Axle Rear : Bolt-on Note: Compatible front wheel are very limited. Make sure to check availability

UCI UNION CYCLISTE INTERNATIONALE

*Union Cycliste Internationale (UCI) compliant

Speed-Sensor-Ready

Speedsense speed sensor can be installed onto the frame.



Timing-Chip-Ready

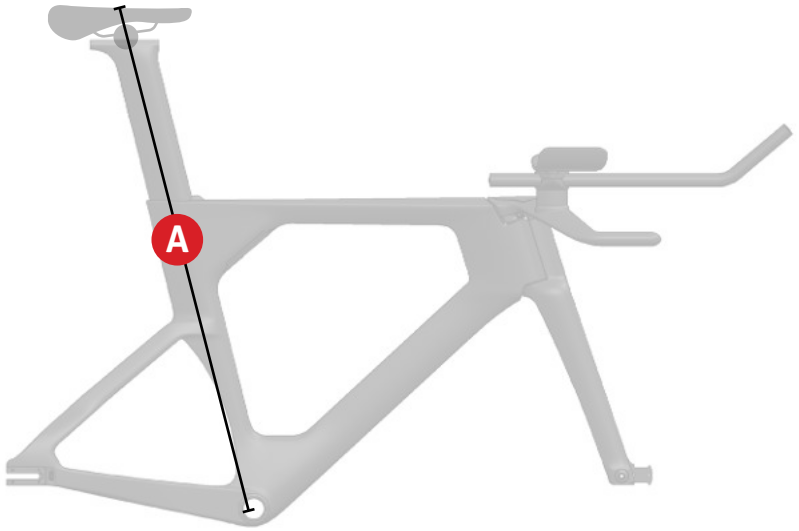
Integrated timing chip mount.

Data-Logger-Ready

Screw the datalogger cover with both M4x12mm bolt.

Depending on the size of the frame and the desired height, the SeatPost might need to be cut.
Measure the SeatPost cut length in accordance with your desired Saddle Height with this formula.

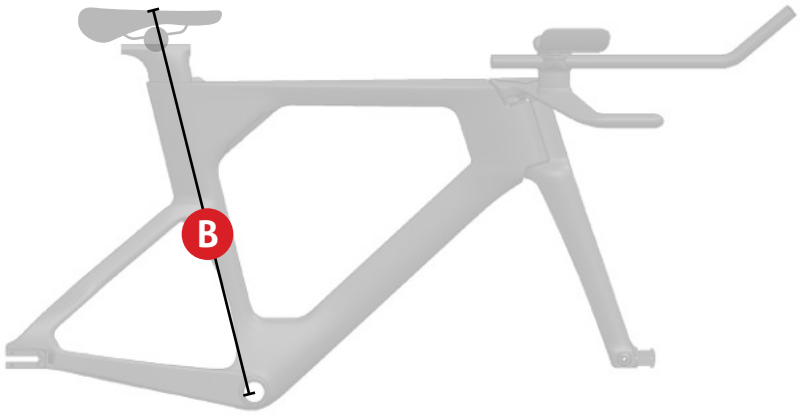
Saddle Height Limits			
Size	Max Saddle Height	Min Saddle Height	Formula Value
	mm	mm	
	A	B	C
Small	880	670	800
Medium	892	682	812
Large	899	689	819



My desired saddle height

- The value must be between A & B **based on your bike size**.
- Measured from the **BB center to the top of the saddle***
- Based on a chariot and saddle of +/- 133mm in height.

D = ____ **in mm.**



Seatpost Cutting Formula

Use the values based on your bike size in the sizing chart above.

C - D = **Cutting Lenght in mm. (Max. 210mm)**
If the value is negative, **no cutting** is neccessary.

Minimum Seatpost Insertion : 80mm
Maximum Seatpost Insertion : 160 mm
Maximum Seatpost Cut : 210 mm

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.

Screw Sizes & Torques Chart

Part name	Description	SKU	Hex Key	Torque	Detail
Rear dropout inserts screws	8 x FHCS_M4x8	Included in 81048	2.5mm	1.5Nm	Loctite 242
Seat post clamp screws	1 x SHSS_M8x16	Included in 80577	4mm	5.5Nm	Grease
	1 x BHCS_M3x8		2.5mm	5.5Nm	Grease
Seat post head chariot screws	2 x SHCS_M5x16	80584	4mm	6Nm	Grease
Fork steerer screw	1 x SHCS_M5x12	N\A	4mm	5.5Nm	Grease
Steerer module screws	1 x SHCS_M6x45	Included in 81177	5mm	9Nm	Grease
	2 x SHCS_M6x14				
	1 x BHCS_M6x12		4mm	6Nm	Grease
Aerobar and Extensions					
Aerobar Screws	1 x FHCS_M6x30	80598	5mm	12Nm	Grease
	1 x FHCS_M6x40	80599			
	2 x FHCS_M6x20	80600			
Extension clamp's bottom screws	4 x FHCS_M5x15	80590	3mm	5Nm	Grease
	4 x FHCS_M5x25	80592			
	4 x FHCS_M5x35	80593			
	4 x FHCS_M5x45	80594			
	4 x FHCS_M5x55	80595			
Extension clamp's top / bridge screws	4 x FHCS_M5x18	80591	3mm	6Nm	Grease
Armrests screws	4 x FHCS_M5x12	80596	3mm	5Nm	Grease
Sprint Bars					
Sprint Bar Screws	FHCS_M6	-	5mm	12Nm	Grease
	FHCS_M6	-			
	FHCS_M6	-			
Handlebar Cover Screw	BHCS_M4	-	3mm	5Nm	Grease

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

1. Frameset parts checklist
2. All the necessary bolts (refer to Frameset Parts, p.9)

WHEN ASSEMBLING YOUR NEW ELECTRON PRO, MAKE SURE YOU FOLLOW THIS PROCEDURE:

3. Inspect the frame for cosmetic aspect (scratches, bumps, cracks, paint defect, etc.)
4. For reference, check serial number and write it on p.2

Pursuit Frameset

Name	A18 SKU#	Qty
ELECTRON PRO PURSUIT FRAME (XS / S / M / L)	NOT AVAILABLE AS SPARE PART	1
REAR DROP-OUT ASSEMBLY	81285	1 KIT
TOP HEADSET BEARING - MR055E	80475	1
BOTTOM HEADSET BEARING - MR054	80476	1
SEATPOST CLAMP WEDGE	80576	1
SEATPOST CLAMP BASE (INCL. SCREWS)	80577	1 KIT
DATALOGGER COVER (INCL. SCREWS)	81286	
ELECTRON PRO SPRINT FORK (INCL. SCREW) - (S / M / L)	FK.ELPR.S.XXXX FK.ELPR.M.XXXX FK.ELPR.L.XXXX	1
STEERER (S / M / L)	81287 (S) 81288 (M) 81289 (L)	1
STEERER PLUG	81290	1
HEADSET L-TOOL, 29.5mm WIDTH	80653	1
ELECTRON PRO SEATPOST COMPLETE ASSEMBLY	SP.ELPR.XXXX	1 KIT
SEATPOST HEAD ASSEMBLY (RITCHEY WCS 1-Bolt)	-	1
STEERER MODULE ASSEMBLY	81177	1
SEATPOST	-	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.
Replace XXXX by the artwork #

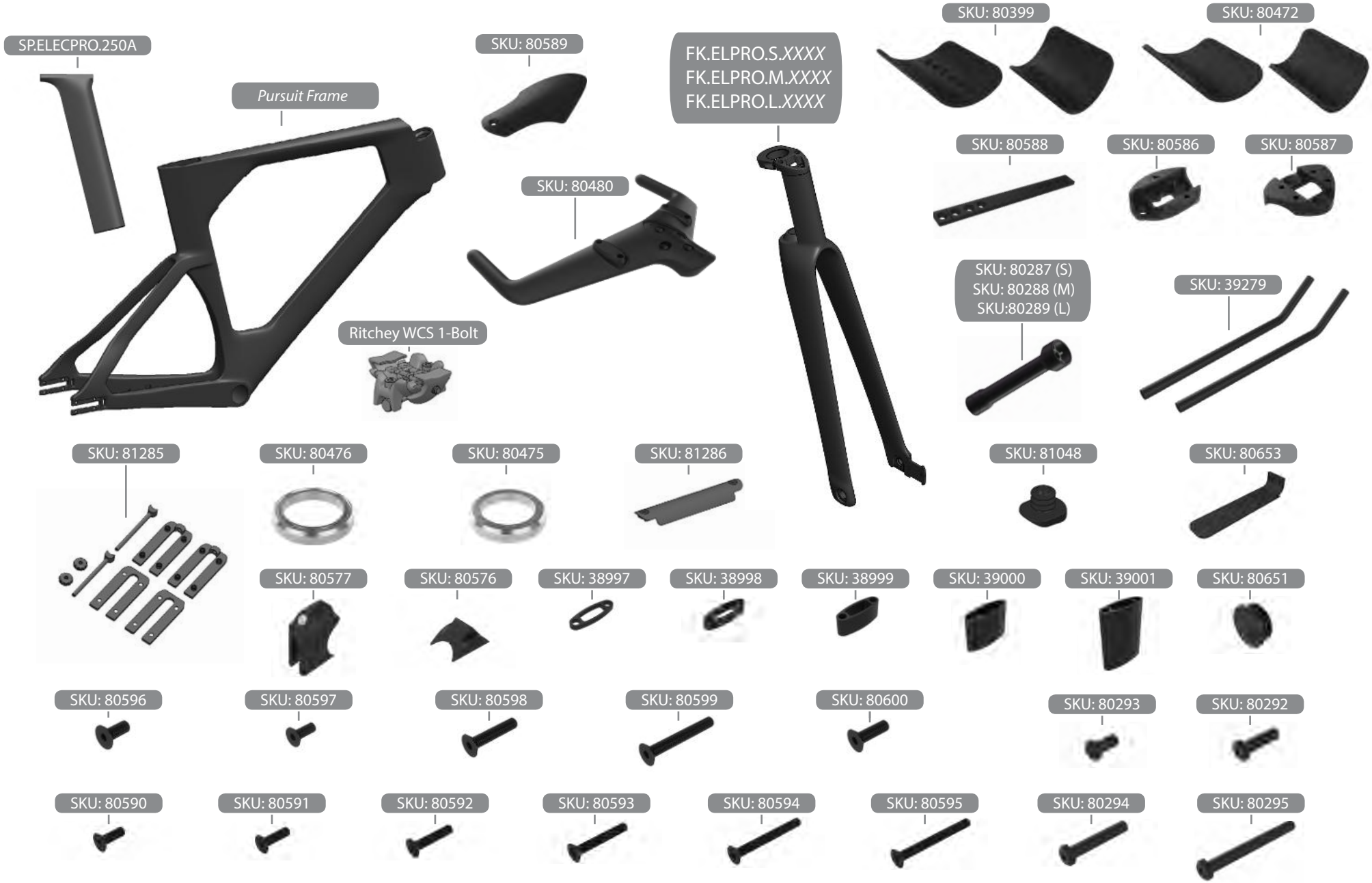
Extension Bars

Name	A18 SKU#	Qty
ELECTRON PRO PURSUIT HANDLEBAR KIT (INCL. AEROBAR)	-	1
AB Extension clamp - bottom	80586	2
AB Extension clamp - top	80587	2
Bridge	80588	1
Armrest - Right	80399	1
Armrest - Left	80399	1
Armrest Pad - Right	80472	1
Armrest Pad - Left	80472	1
PURSUIT HANDLEBAR COVER	80589	1
5mm EXTENSION BAR SPACER	38997	2
10mm EXTENSION BAR SPACER	38998	2
20mm EXTENSION BAR SPACER	38999	2
40mm EXTENSION BAR SPACER	39000	2
70mm EXTENSION BAR SPACER	39001	2
Sleeve nut min	80293	4
Sleeve nut min +10mm	80292	4
Sleeve nut min +30mm	80294	4
Sleeve nut min +60mm	80295	4
FHCS_M5x18	80591	4
FHCS_M5x15	80590	4
FHCS_M5x25	80592	4
FHCS_M5x35	80593	4
FHCS_M5x45	80594	4
FHCS_M5x55	80595	4
FHCS_M5x12	80596	4
FHCS_M3x8	80597	2
FHCS_M6x30	80598	1
FHCS_M6x40	80599	1
FHCS_M6x20	80600	2
EXTENSION BARS	81050	1 KIT OF 2
EXTENSION BAR END CAPS	80651	4
STEERER MODULE ASSEMBLY (FOR SPRINT CONFIGURATION)	81177	1 KIT

*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.

ELECTRON PRO TKO: 4.2 Pursuit Frameset Parts*

ARGON 18



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.
Replace XXXX by the artwork #

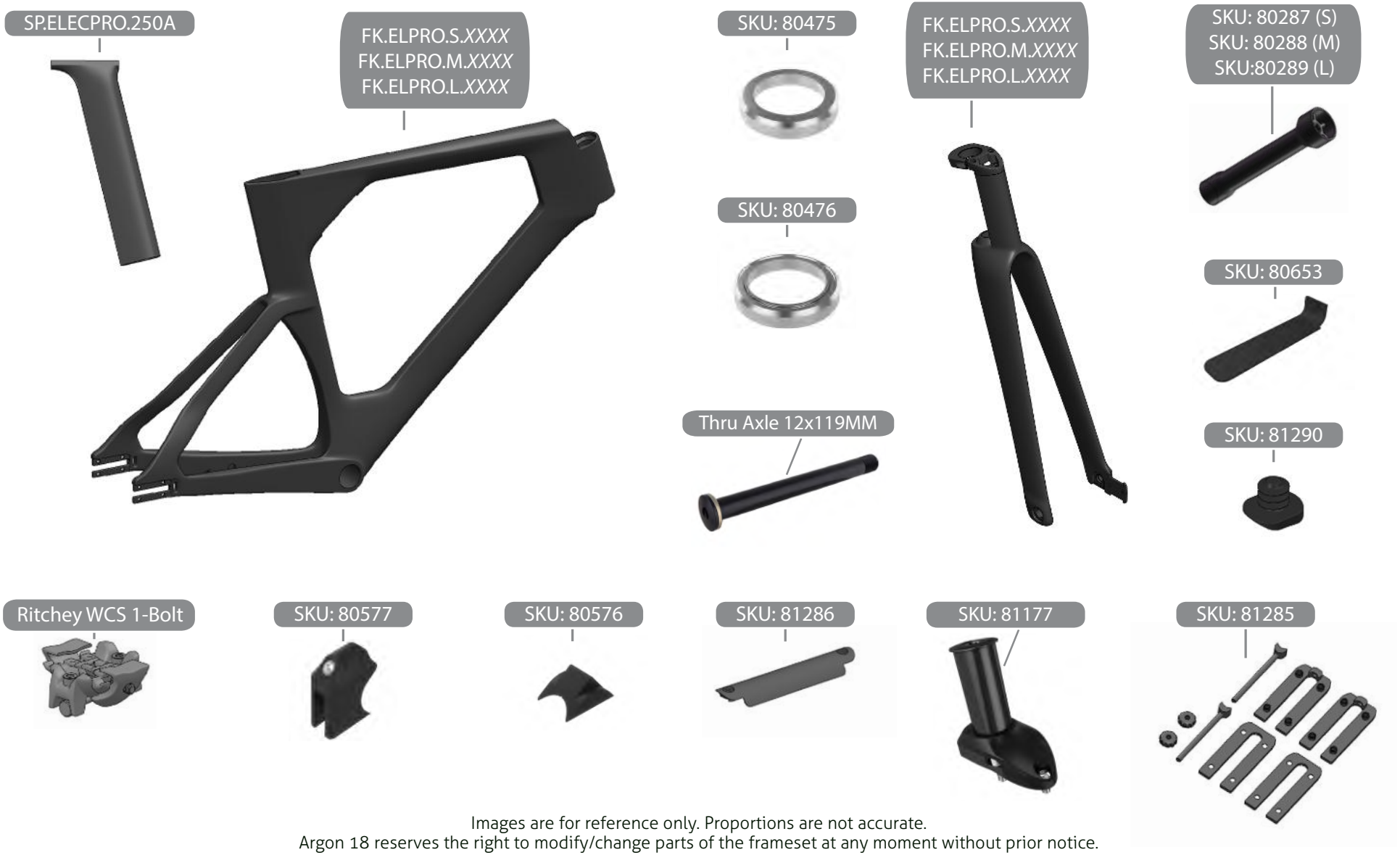
Sprint Frameset

Name	A18 SKU#	Qty
ELECTRON PRO Sprint Frame (S / M / L)	*Not available as spare parts*	1
Steerer Module Assembly	81177	1 KIT
Rear Dropout Assembly	81285	1 KIT
Top Bearing (MR055E)	80475	1
Bottom Bearing (MR054)	80476	1
Datalogger Cover (Incl. Screws)	81286	1
Seatclamp Base (Incl. Screws)	80577	1
Seatclamp Wedge	80576	1
ELECTRON PRO Sprint Fork	FK.ELPR.S.XXXX FK.ELPR.M.XXXX FK.ELPR.L.XXXX	1
Steerer	81287 (S) 81288 (M) 81289 (L)	1
Steerer Plug	81290	1
Seatpost	SP.ELPR.XXXX	1
DT Swiss Front Thru axle 12 x 119mm	80812	
Seatpost Head Ritchey WCS 1-Bolt	-	1 KIT

*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.

ELECTRON PRO TKO: 4.4 Sprint Frameset Parts*

ARGON 18



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Replace XXXX by the artwork #

Pursuit Bars

Name	A18 SKU#	Qty
Left Pursuit Extension	81292 (312A) - 81293 (350A)	1
Right Pursuit Extension	80586	1
Flip-Chip 10mm	80587	2
Transition Spacer	80588	2
Left Elbow Pad Spacer	80399	1
Right Elbow Pad Spacer	80399	1
FHCS M5x12mm	80472	2

*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.

Pursuit and Sprint bars are accessory components that need to be ordered seperatly. They are **not included** in the frameset.

ELECTRON PRO TKO: 4.6 Pursuit Bars Parts

ARGON 18

240mm : 81210 (312A) - 81494 (350A)
260mm : 81211 (312A) - 81495 (350A)
280mm : 81212 (312A) - 81496 (350A)
300mm : 81213 (312A) - 81497 (350A)

Elbow Pads

Left Elbow Pad Spacer

Right Elbow Pad Spacer

Flip-Chip

Transition Spacer

2 x FHCS M5X12MM

Not Included with the frameset*

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.

Sprint Bars

Name	A18 SKU#	Qty
Sprint Handlebar	See Sizing Chart* (p.34)	1
Sprint Handlebar Cover	-	1
Handlebar Stem Spacer 5mm	-	2
Handlebar Stem Spacer 10mm	-	2
FHCS M6x20	-	2
FHCS M6x25	-	2
FHCS M6x30	-	2
FHCS M6x35	-	2
FHCS M6x40	-	2
FHCS M6x45	-	2
FHCS M6x50	-	2
FHCS M6x55	-	1
FHCS M6x60	-	1
FHCS M6x70	-	1
BHCS M4x16	-	1
BHCS M4x18	-	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.

Pursuit and Sprint bars are accessory components that need to be ordered seperatly. They are **not included** in the frameset.

ELECTRON PRO TKO: 4.8 Sprint Bars Parts*

81214 (313A) - 81490 (350B)
81215 (313A) - 81491 (350B)
81284 (313A) - 81492 (350B)

Handlebar Cover

10mm Spacer

5mm Spacer

FHCS M6x20MM

FHCS M6x25MM

FHCS M6x30MM

FHCS M6x35MM

FHCS M6x40MM

FHCS M6x45MM

FHCS M6x50MM

FHCS M6x55MM

FHCS M6x60MM

FHCS M4X16mm (A-C)
FHCS M4x18mm (B)

FHCS M6x70MM

Not Included with the frameset*

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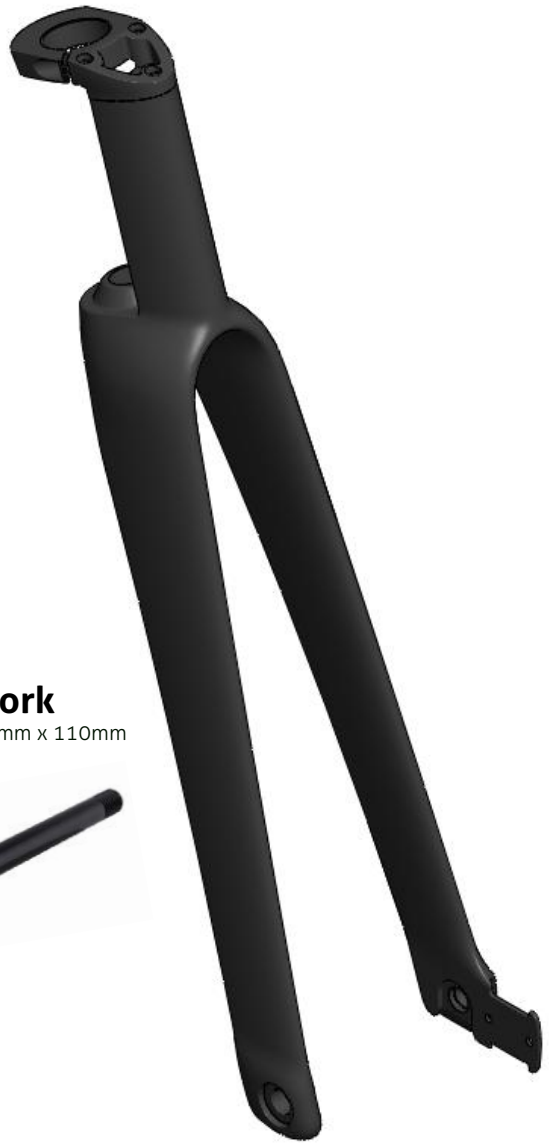
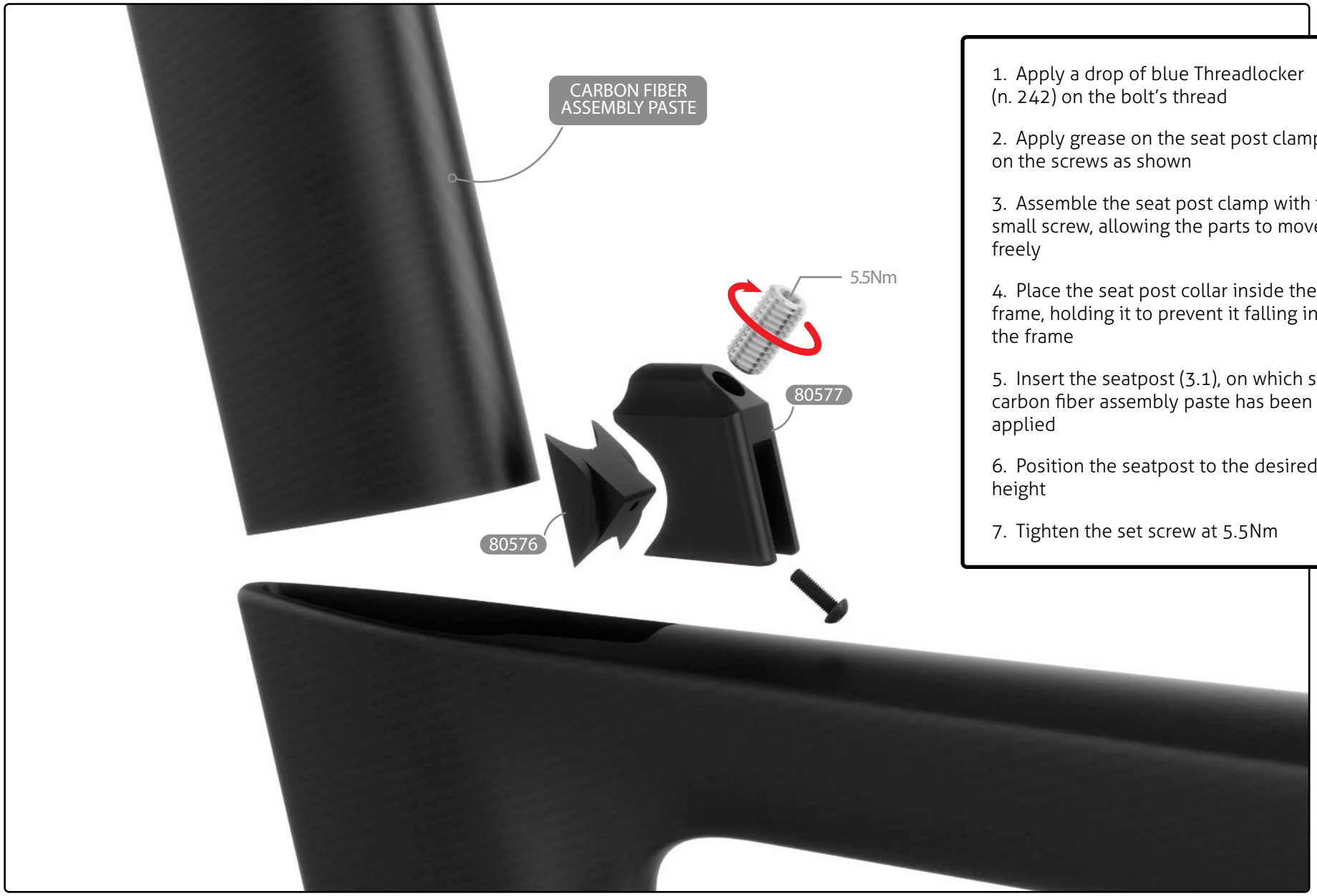


Sprint Fork
Thru Axle : 12mm x 110mm

Pursuit fork is a accessory component that need to be ordered seperatly. It is **not included** in the frameset.

Pursuit Fork
Thru Axle : 15mm x 40mm



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

2. Apply grease on the seat post clamp and on the screws as shown

3. Assemble the seat post clamp with the small screw, allowing the parts to move freely

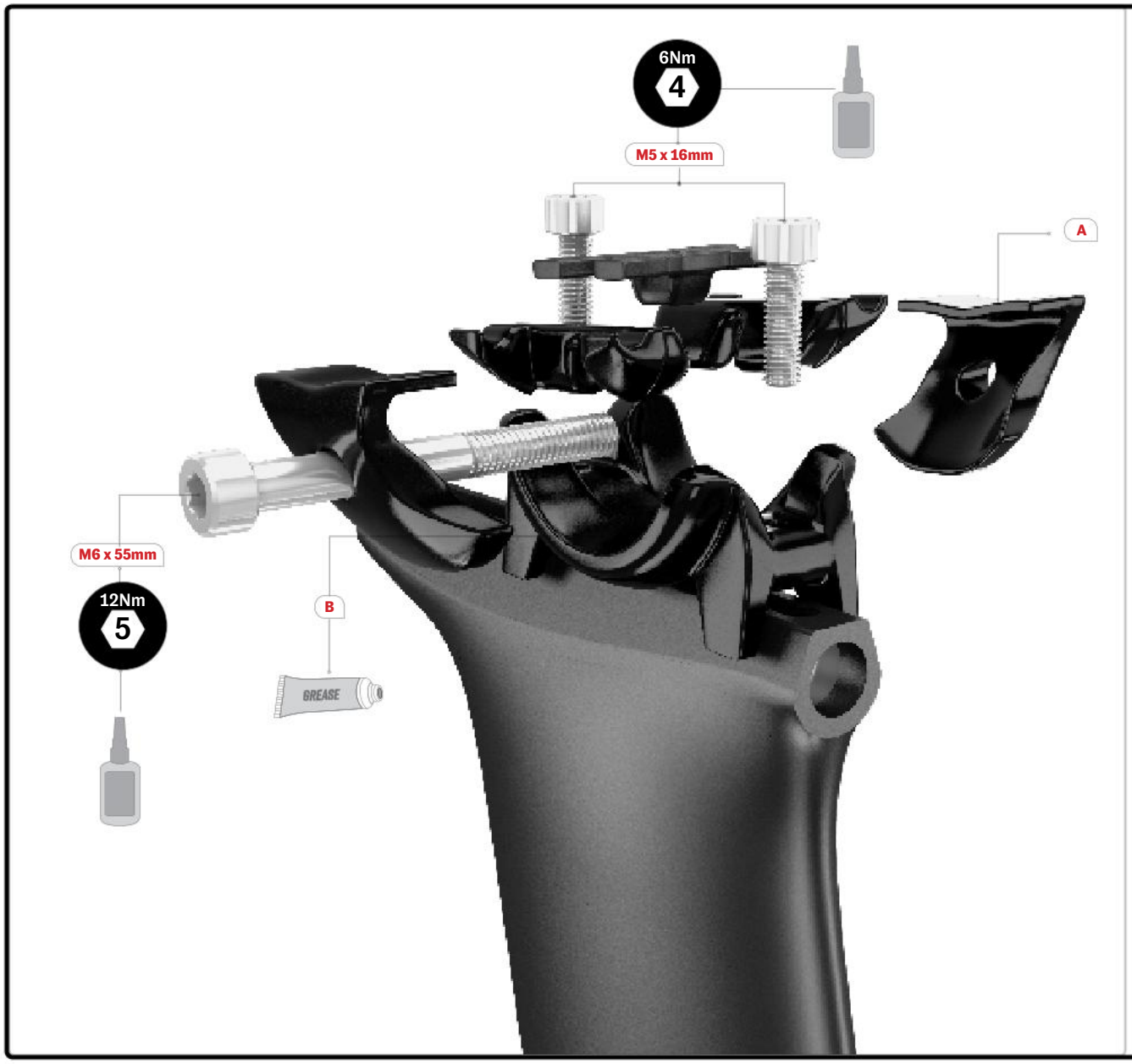
4. Place the seat post collar inside the frame, holding it to prevent it falling inside the frame

5. Insert the seatpost (3.1), on which some carbon fiber assembly paste has been applied

6. Position the seatpost to the desired height

7. Tighten the set screw at 5.5Nm

ELECTRON PRO TKO: 7. Seat Post Head Assembly



The seat post is supplied fully assembled.

1. Apply a drop of blue Threadlocker (n. 242) on the M5 x 16mm screw thread.

2. Loosen the two M5 x 16mm screw to allow the seat post head assembly to slide.

3. Apply a drop of blue Threadlocker (n. 242) on the M5 x 16mm screw thread.

4. Position the seat post head at the desired position and tighten the two M5 x 16mm screw to 6 Nm.

5. Unscrew the M6 x 55mm as far as possible without fully removing from the lock nut (a).

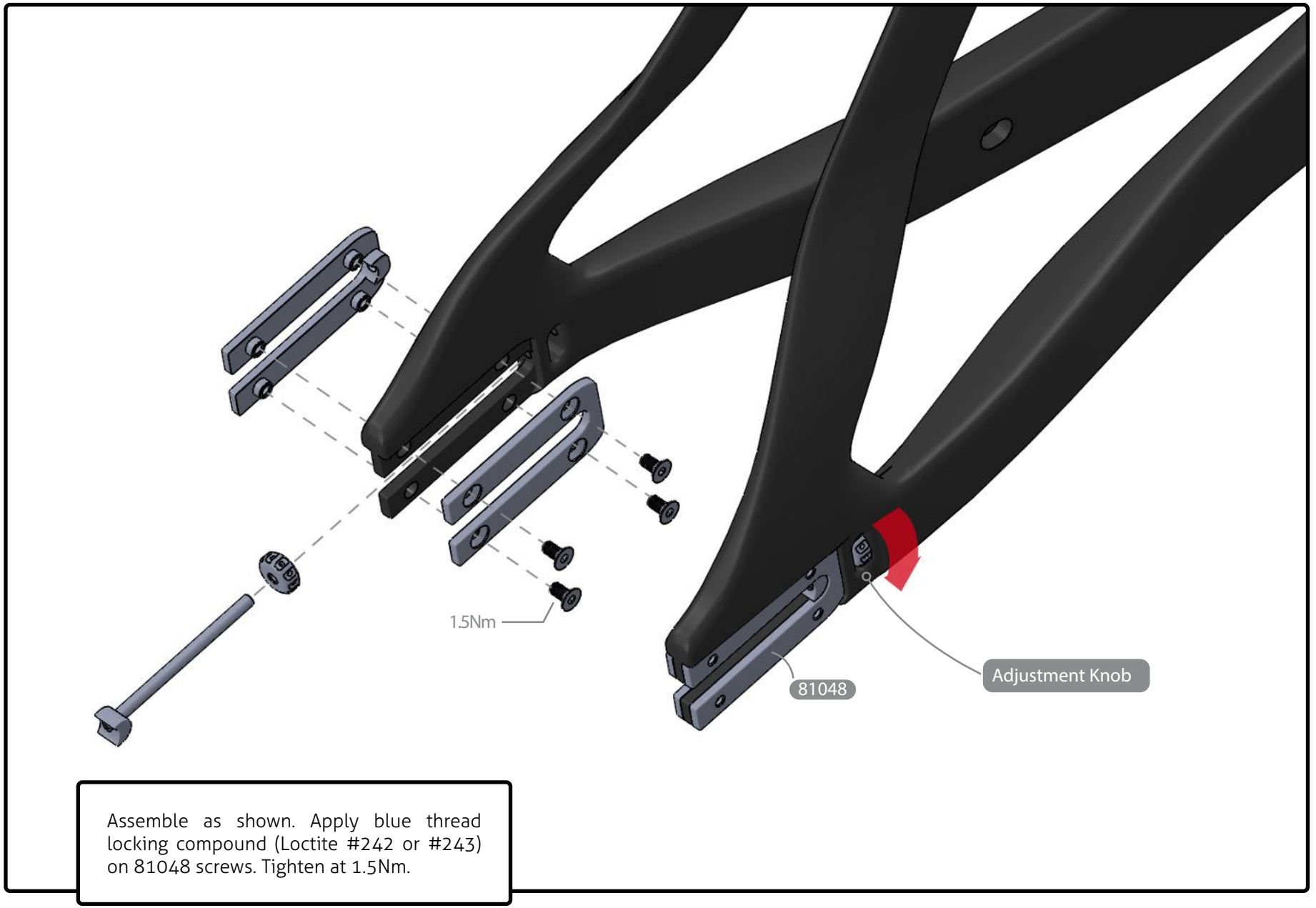
6. Apply a drop of blue Threadlocker (n. 242) on the M6 x 55mm screw thread.

7. Apply Carbon paste on the curved face of the lower part (b)

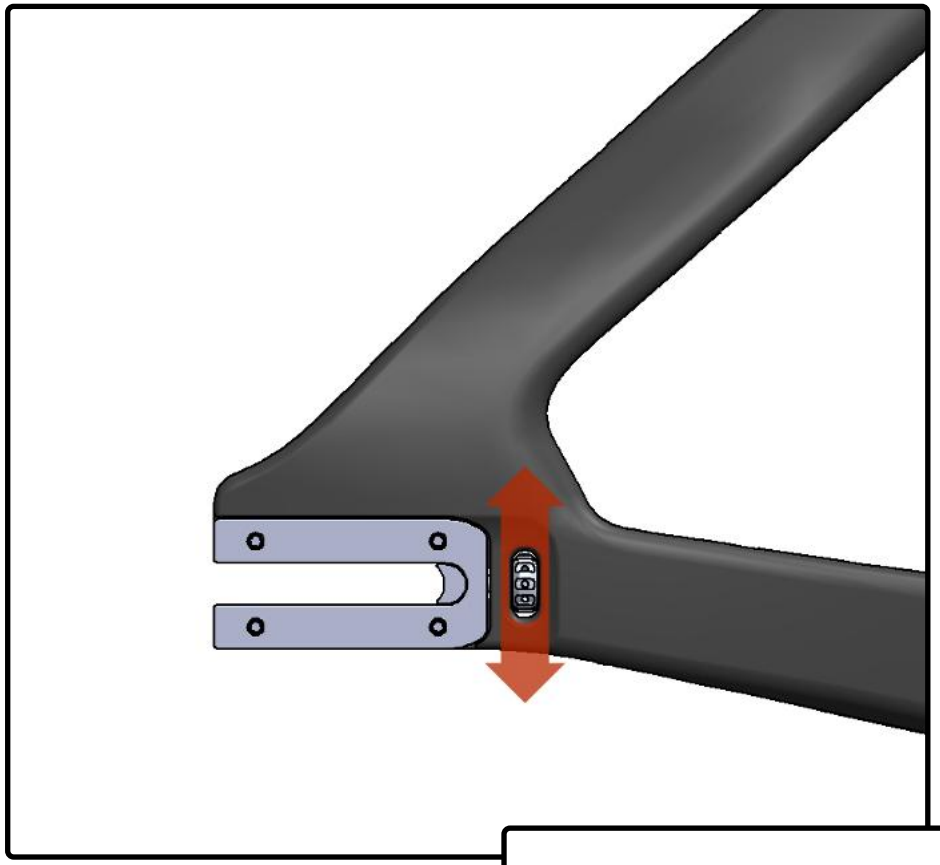
8. Install the saddle rails into the seatpost clamp.

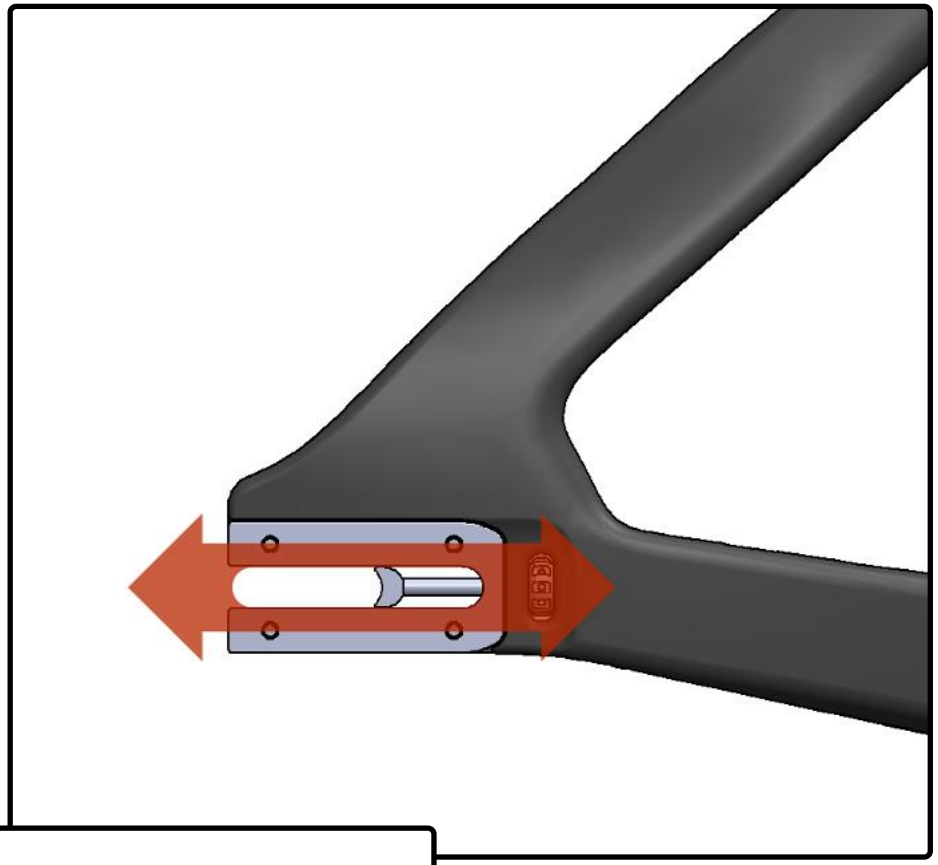
9. Adjust the angle of the saddle and tighten the M6 x 55mm screw at 12Nm.

IMPORTANT:
The Electron Pro saddle rail clamp is made for 7mm round-shaped saddle rails (Ritchey part number: 55055467004). For other types of saddle rails, select one of the following Ritchey component: 41055467003 for 8x8.5mm saddle rails and 41055467002 for 7x9.6mm saddle rails.



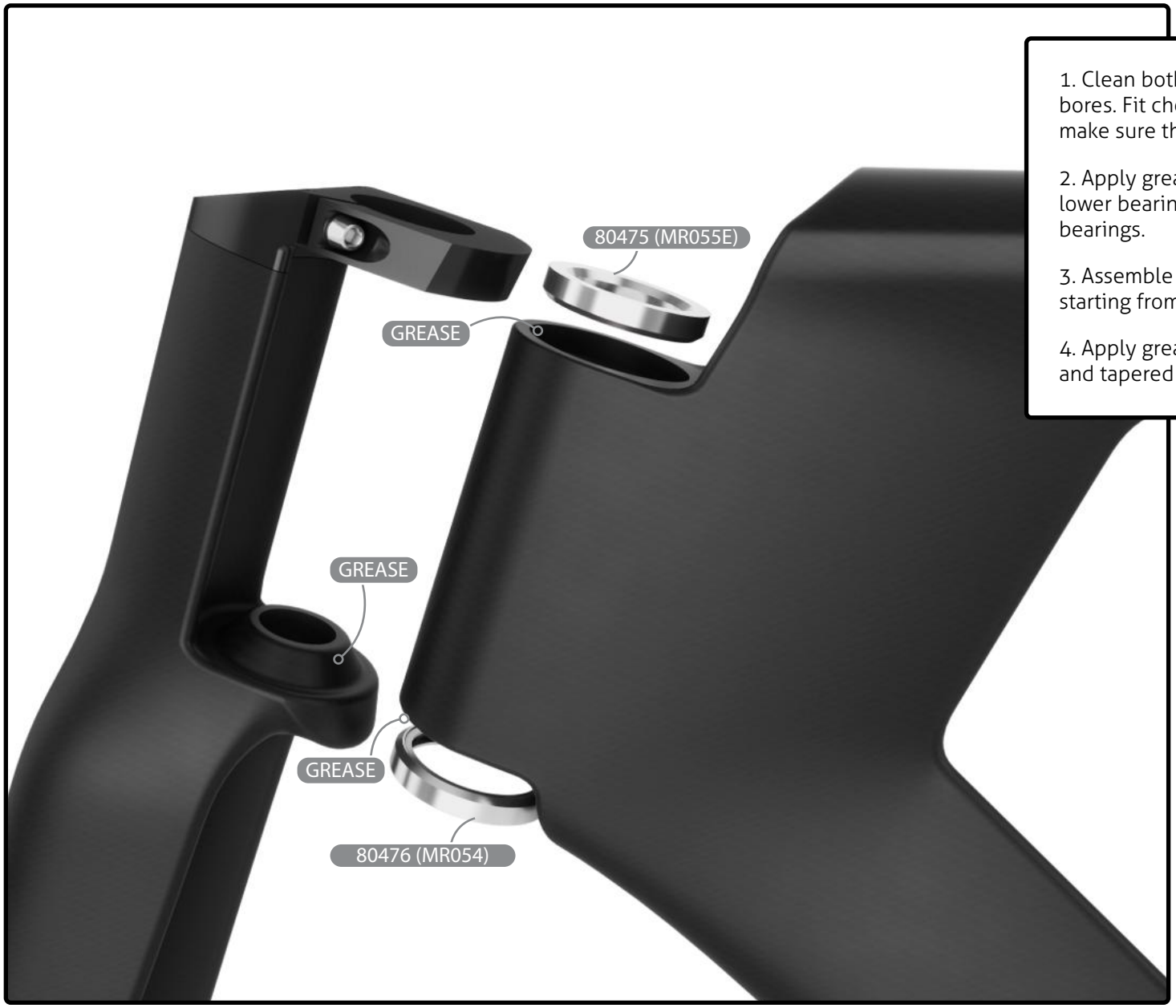
Assemble as shown. Apply blue thread locking compound (Loctite #242 or #243) on 81048 screws. Tighten at 1.5Nm.





Turning the adjustment knob will allow you to set your dropouts to the desired position. This allow the bike to keep the perfect chain tension and wheel alignment every time.

ELECTRON PRO TKO: 9. Fork and Steerer Assembly

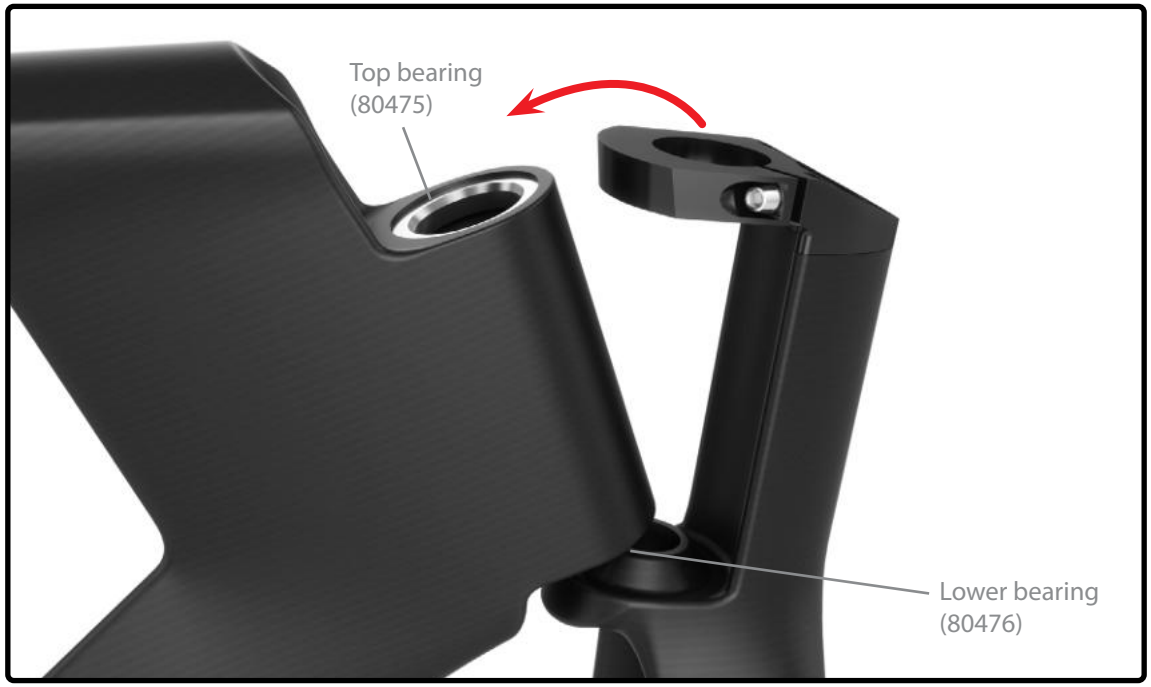


1. Clean both upper and lower bearing bores. Fit check with bearings and make sure there is no interference.

2. Apply grease in both upper and lower bearing bores and insert bearings.

3. Assemble fork onto frame head tube starting from lower bearing as shown.

4. Apply grease on steerer threads and tapered section.

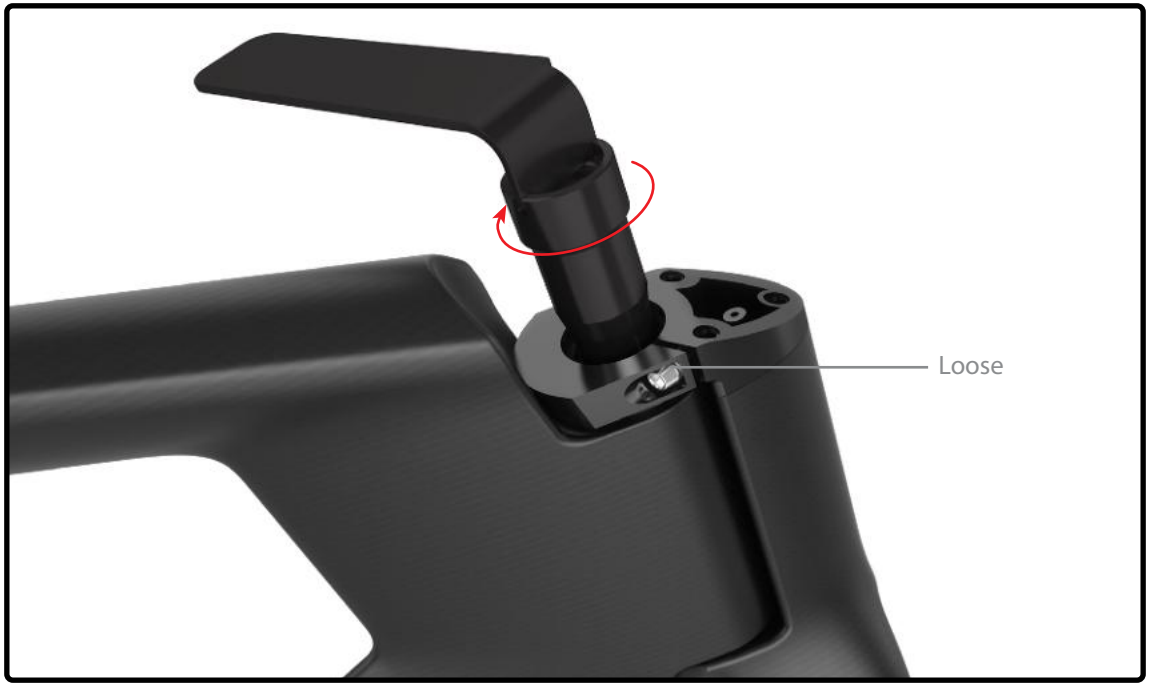


5. Screw in steerer. Make sure fork collar screw is loosened.

6. Lightly compress fork bearings until there is no possible movement but can rotate fork without any restriction.
Use provided L-Tool to compress bearings.

Note: Steerer top should sit lower than top surface (approx. 1-2mm clearance, see next page.)

7. Tighten fork collar bolt (M5) at 5.5Nm to lock steerer in place.


Loose

1-2mm
5.5Nm

1. Assemble Steerer Module using bolts provided (2x front M6x14 + 1x central M6x45). Make sure washer is placed under central bolt. Grease and tighten all bolts at 9Nm. Use an extended M5 Hex bit or extension to access central bolt.

2. Assemble the Module Cover using the Button Head Screw (1x BHCS M6x12) and a 4mm Hex key. Grease the screw and tighten at 6Nm with a torque wrench.

Note: you might want to temporarily set up the steerer module in order to fit rider, determine stem height position, and cut line prior to tightening bolts (see instructions on following page).

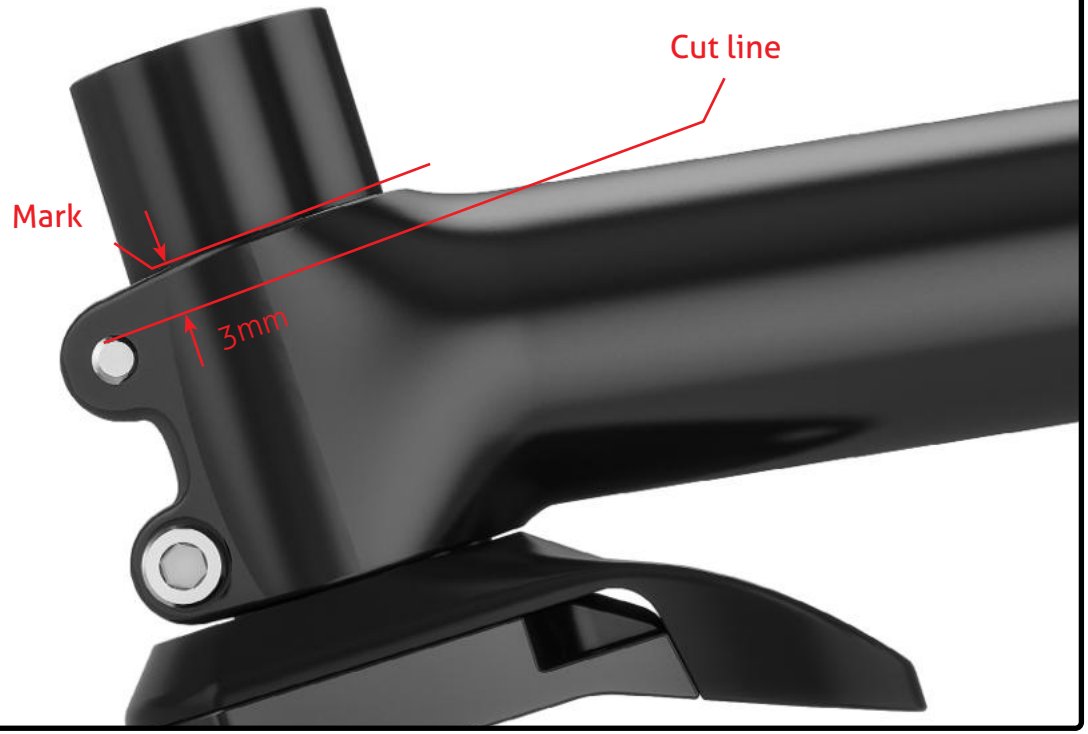
3. The design of the steerer module allows it to be cut to length based on stem height position, similar to a standard fork steerer. You will need to cut the aluminum steerer as shown (use standard steerer cutting jig).

4. File down and cut end of steerer clean to make sure it is free of burr.

5. Insert stem, align with wheel and compress down using top cap and 8mm Hex Key.

6. Tighten stem according to manufacturer's instructions.

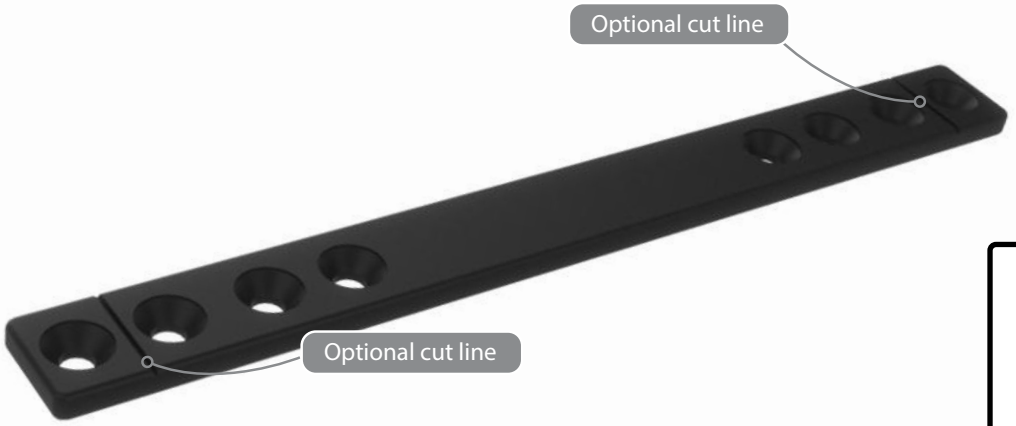
7. Install preferred drop bar onto stem as per manufacturer's instructions.



1. Assemble aerobar with provided M6 screws (2x 20mm, 1x 30mm and 1x 40mm). Apply dab of grease under all bolt heads and threads.

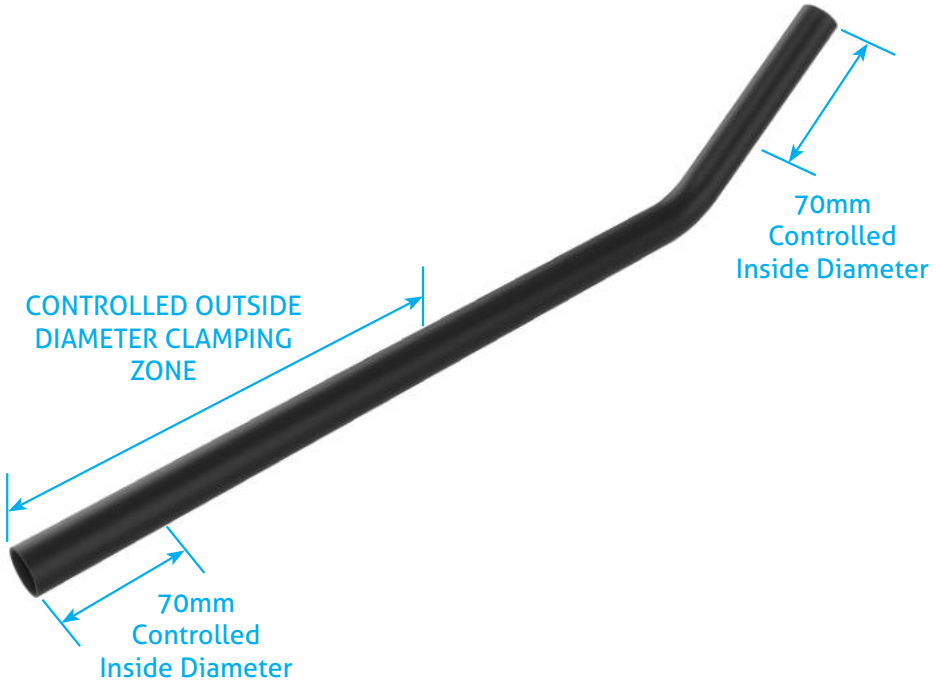
2. Tighten all bolts at 12Nm.

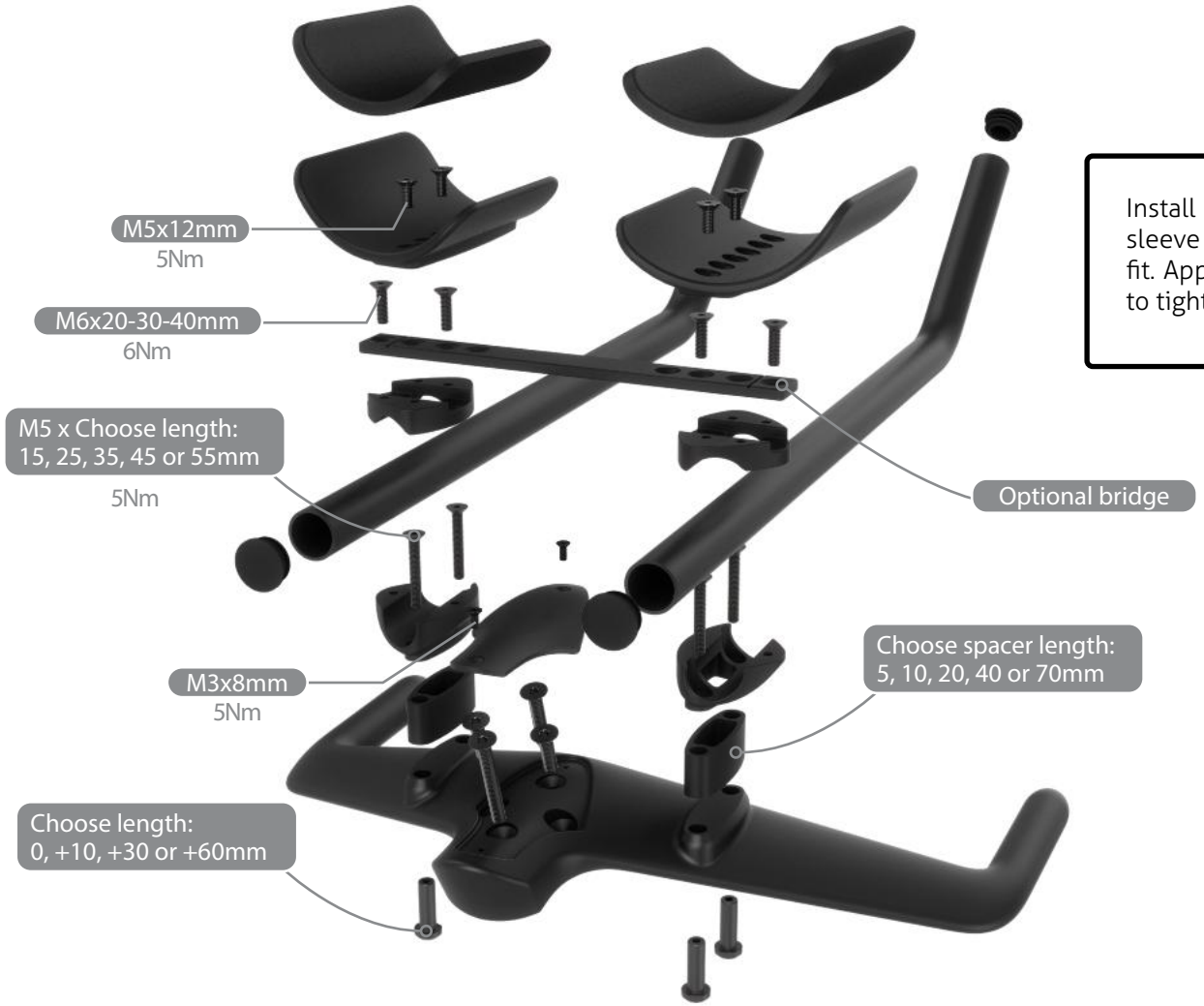
3. Install screw cover with provided M3 screws.



Bridge is optional and can be installed to increase armrest lateral stiffness (e.g.: when set up at maximum height.) It also can be cut to reduce overall length (cut at marked lines.)

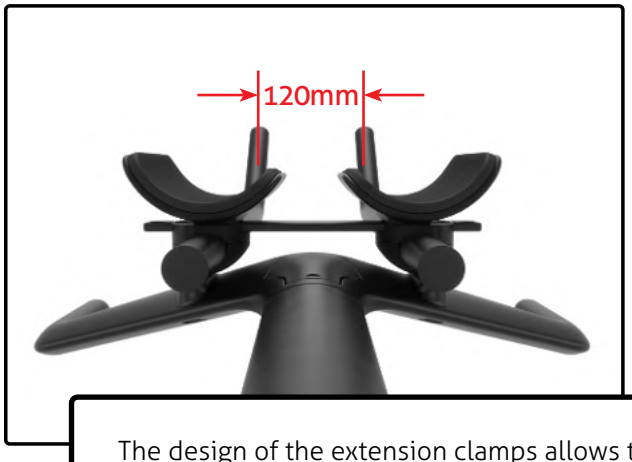
Cut the extension bars at the desired length.
Note that end-plugs might not fit well if you cut more than 70mm. Apply carbon fibre paste in the clamping area.

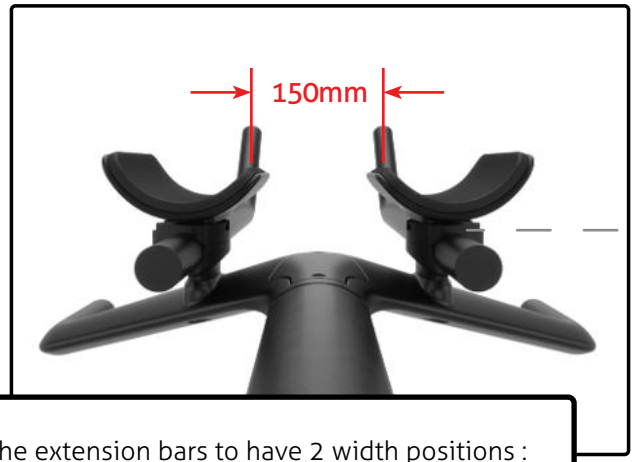




Install as shown and choose appropriate spacers, sleeve nuts and screw length based on required fit. Apply carbon paste onto extension bars prior to tightening extension clamps.

ELECTRON PRO TKO: 11.3 Armrest Positioning Options



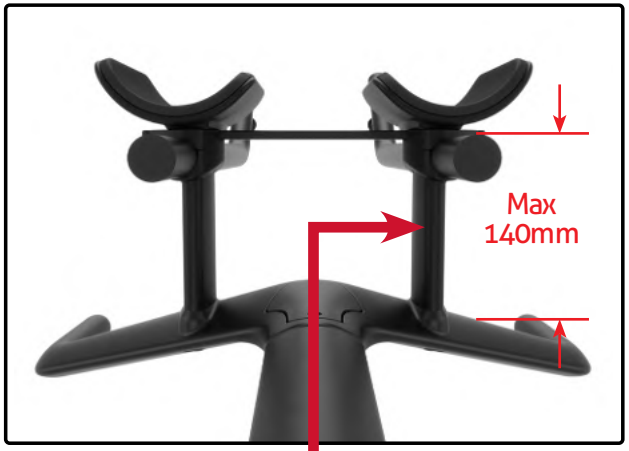


The design of the extension clamps allows the extension bars to have 2 width positions :

Center-to-center : 120mm / 150mm

Flip the extension clamps 180 degrees to change extension width. (120mm/150mm)

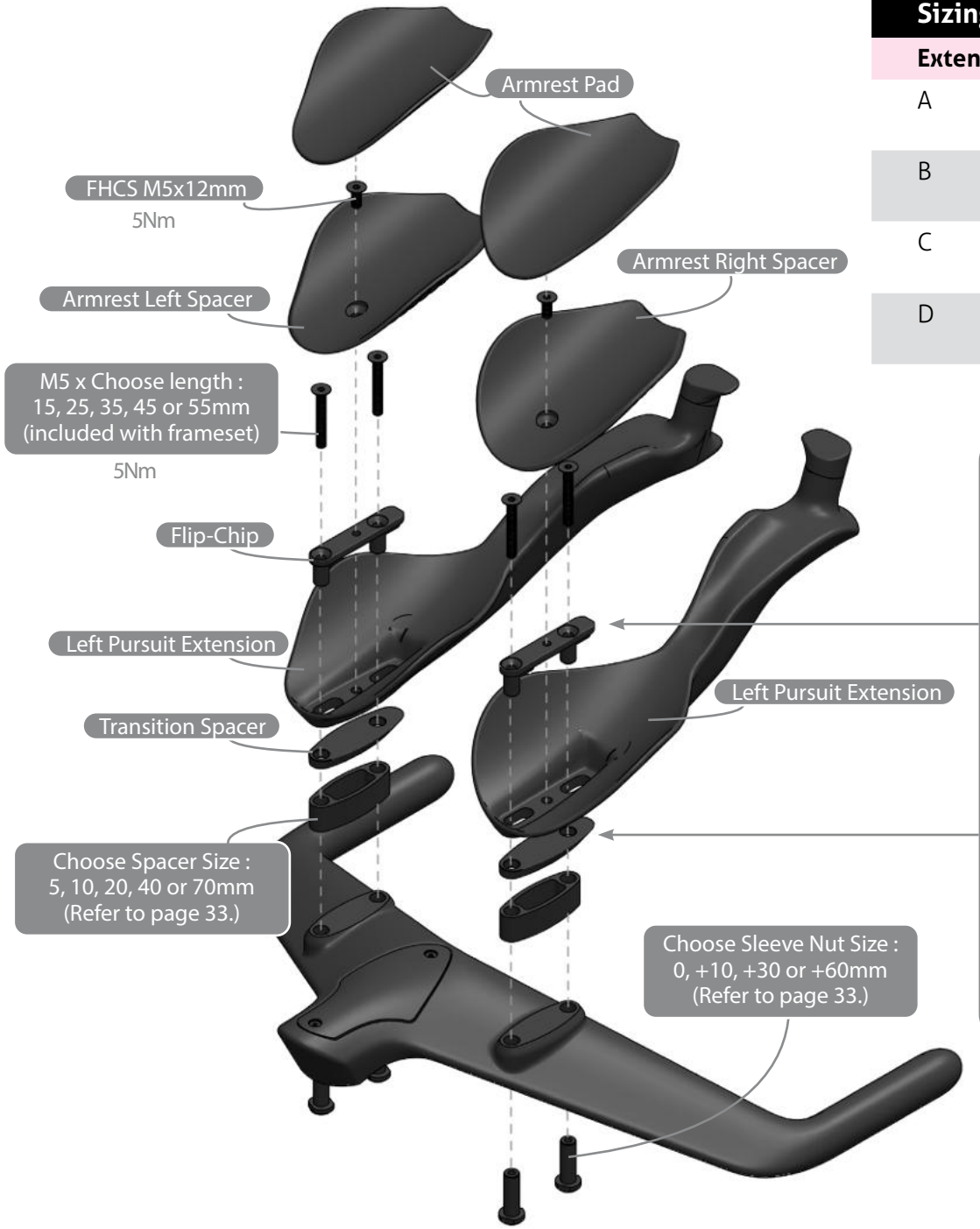
Make sure to have a 10mm minimum insertion between the sleeve nut and the FHCS screws.



100mm spacer stack maximum

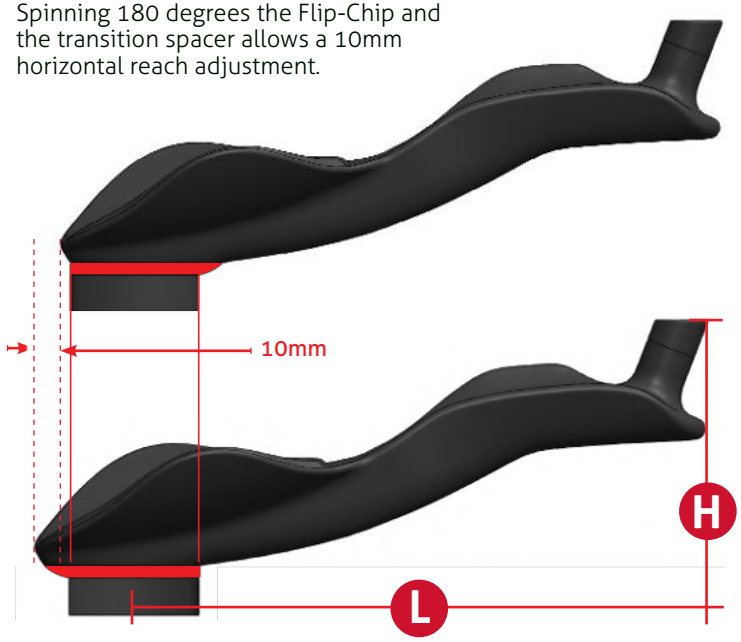
ELECTRON PRO TKO: 12. Pursuit Bars Assembly

ARGON 18



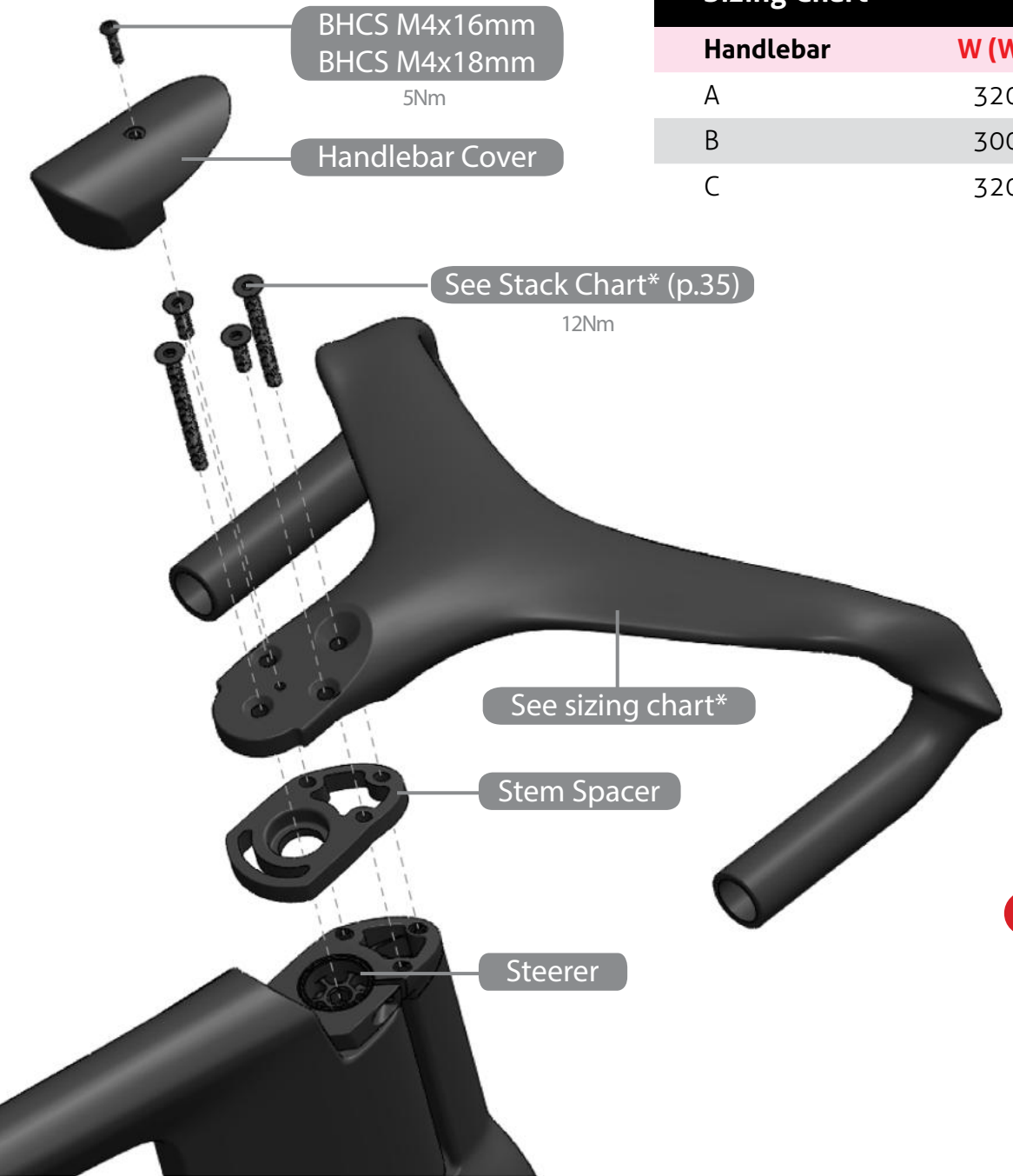
Sizing Chart*			Part #
Extensions	**L (Lenght)**	**H (Height)**	
A	240mm	104mm	FB10-4001A FB10-4002A
B	260mm	112mm	FB10-4001B FB10-4002B
C	280mm	120mm	FB10-4001C FB10-4002C
D	300mm	128mm	FB10-4001D FB10-4002D

Spinning 180 degrees the Flip-Chip and the transition spacer allows a 10mm horizontal reach adjustment.

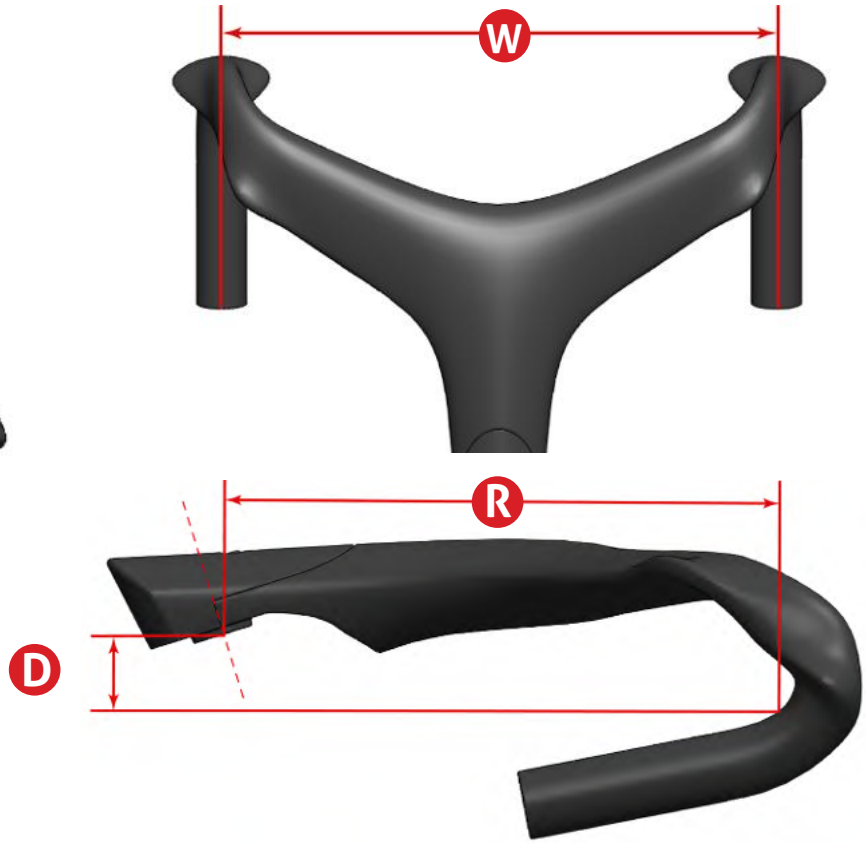


ELECTRON PRO TKO: 13 Sprint Bars Assembly

ARGON 18

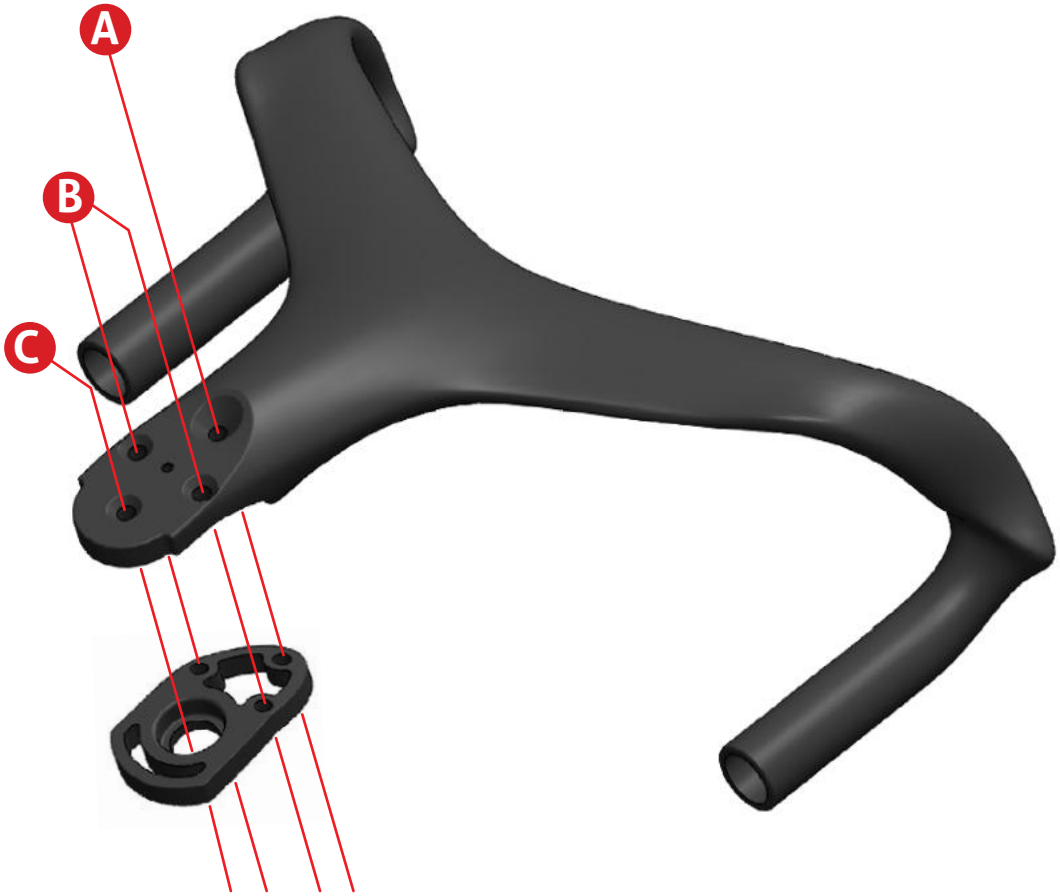
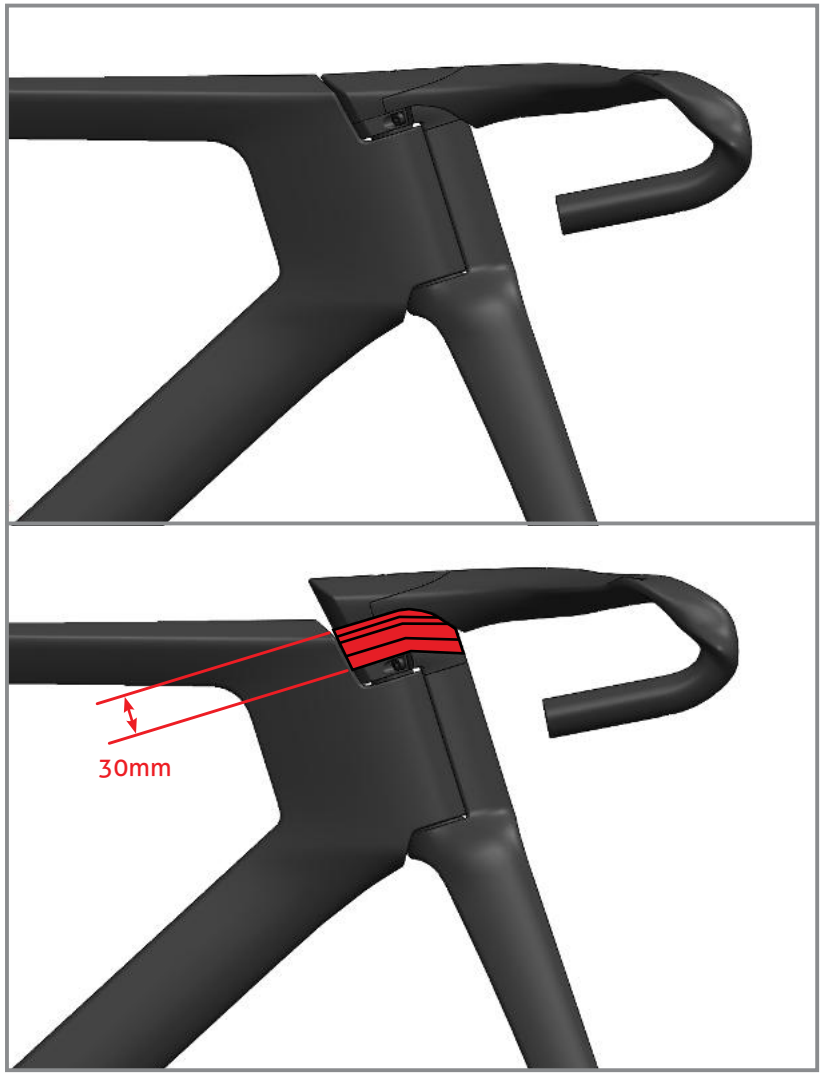


Sizing Chart*				Part #
Handlebar	**W (Width)**	**D (Drop)**	**R (Reach)**	
A	320mm	53mm	253mm	FB11-4001A
B	300mm	30mm	225mm	FB11-4000B
C	320mm	30mm	254mm	FB11-4000C



Stack Chart*			Screw	Spacers
Stack	**A**	**B**	**C**	
0mm	1 x M6x30mm	2 x M6x20mm	1 x M6x40mm	-
5mm	1 x M6x35mm	2 x M6x25mm	1 x M6x45mm	1 x 5mm
10mm	1 x M6x40mm	2 x M6x30mm	1 x M6x50mm	1 x 10mm
15mm	1 x M6x45mm	2 x M6x35mm	1 x M6x55mm	1 x 5mm + 1 x 10mm
20mm	1 x M6x50mm	2 x M6x40mm	1 x M6x60mm	2 x 10mm
25mm	1 x M6x55mm	2 x M6x45mm	1 x M6x65mm	1 x 5mm + 1 x 10mm
30mm	1 x M6x60mm	2 x M6x50mm	1 x M6x70mm	1 x 5mm + 2 x 10mm

Tighten all at 12Nm



30mm stack adjustment