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My Nitrogen Disc

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: Bearing Cup Press (Park Tool HHP-2)
- 2: Allen Key Set
- 3: Grease
- 4: Utility Pick Set (Park Tool Item #UP-SET)
- 5: Clean Rags
- 6: Derailleur Hanger Alignment Gauge (Park Tool Item #DAG-2 or #DAG-2.2)
- 7: Cables and Housing Cutter
- 8: Carbon Paste
- 9: Loctite #242
- 10: Torque Wrench

First Aid Kit: Essential parts to always have on hand

IN CASE OF EMERGENCY...THIS MIGHT SAVE YOUR RIDE!

- 1: Spare rear derailleur hanger assembly
- 2: Seat post collar

(Direct mount option if utilized)





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

- 1: Frameset parts checklist (see p.5)
- 2: Inspect the frame for cosmetic aspect (scratches, bumps, cracks, paint defect, etc.)
- 3: For reference, check serial number and write it on p.2
- 4: All the necessary bolts (refer to Frameset Parts, p.5)
- 5: For optimal shifting performance, use a dropout alignment gauge to make sure that the drive-side dropout is straight (p.13)

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
Front derailleur hanger	Screw (2)	5mm	4Nm	Loctite
Rear derailleur hanger	Screw	4mm	2Nm	Loctite
Bottle cage	Screw (4)	5mm	3Nm	Grease
Bottom bracket cable guide	Screw	5mm	1.5Nm	Grease



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



No.	Name	Assembled on	A18 SKU#	Qty
Parts already assembled				
8	Rear Derailleur Hanger (incl. dropout, screw)	Frame	80802	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 Disc Frame	-	-	1
2	Nitrogen Disc Fork	-	FK.NIT_D.286A	1
3	Nitrogen Disc Seat Post Assembly	-	SP.NIT_D.286A	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	80478	1
12	Seat Clamp Wedge (incl. screw)	Frame	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
19	Chainstay Cable Grommet	Frame	39009	1 Set
20	Internal Di2 Battery Support	Seat Post	38757	1 Set
21	8mm Wrench for Seat Clamp	-	38543	1
22	HT Rear Brake Grommet Di2	Frame	81000	1
23	HT Rear Brake Grommet	Frame	80999	1
24	Direct Mount Rear Derailleur Hanger	Frame	80832	1
25	DT Swiss RWS Thru-axle FRONT 12 x 119mm	Fork	80812	1
26	DT Swiss RWS Thru-axle REAR 12 x 161mm with handle	Frame	80813	1
27	TT Di2 Plug	Frame	80026	1
28	Oblong Cable Guide	Frame	80551	2
29	Rear derailleur plug for eTap	Frame	80825	1
30	Round plug	Frame	80554	1
31	TT grommet (Di2)	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.

**IMPORTANT:**

No more than 30mm of spacers can be placed between the stem and the top cap of the 3D system.

The steerer must be trimmed no more than 5mm above the stem. The use of more than 5mm of spacers above the stem could void the efficiency of the compressor.

These practices will automatically cancel any warranty claim against the manufacturer.



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.



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.

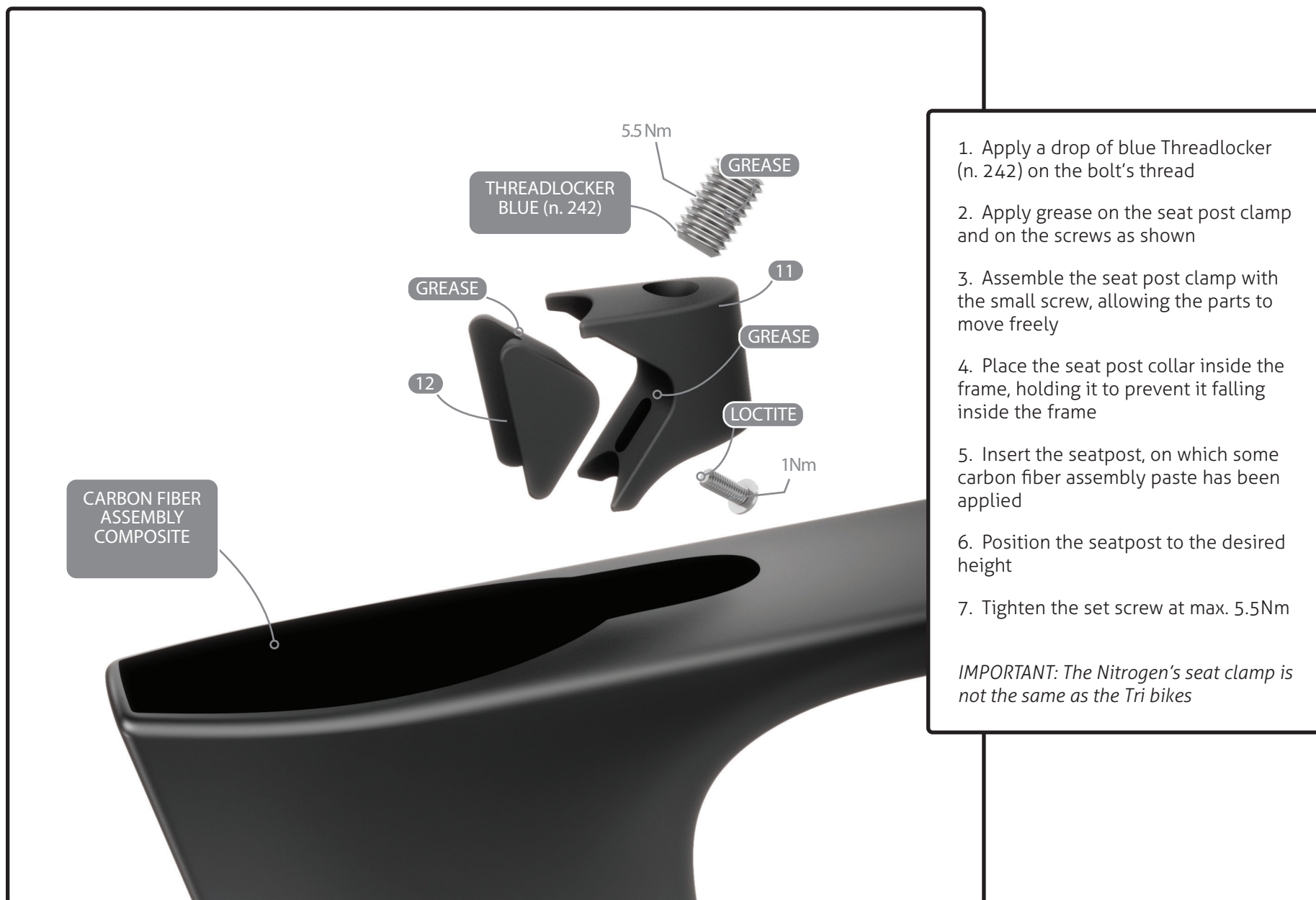


- ① Compressor
- ② Top cap (including O-ring & seal)
- ③ Micro spacers
- ④ Compression ring
- ⑤ Bearing
- ⑥ 3D bearing holder
- ⑦ Plastic sleeve (no need for **0mm** setup)
- ⑧ Top cap for **0mm** setup



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





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).



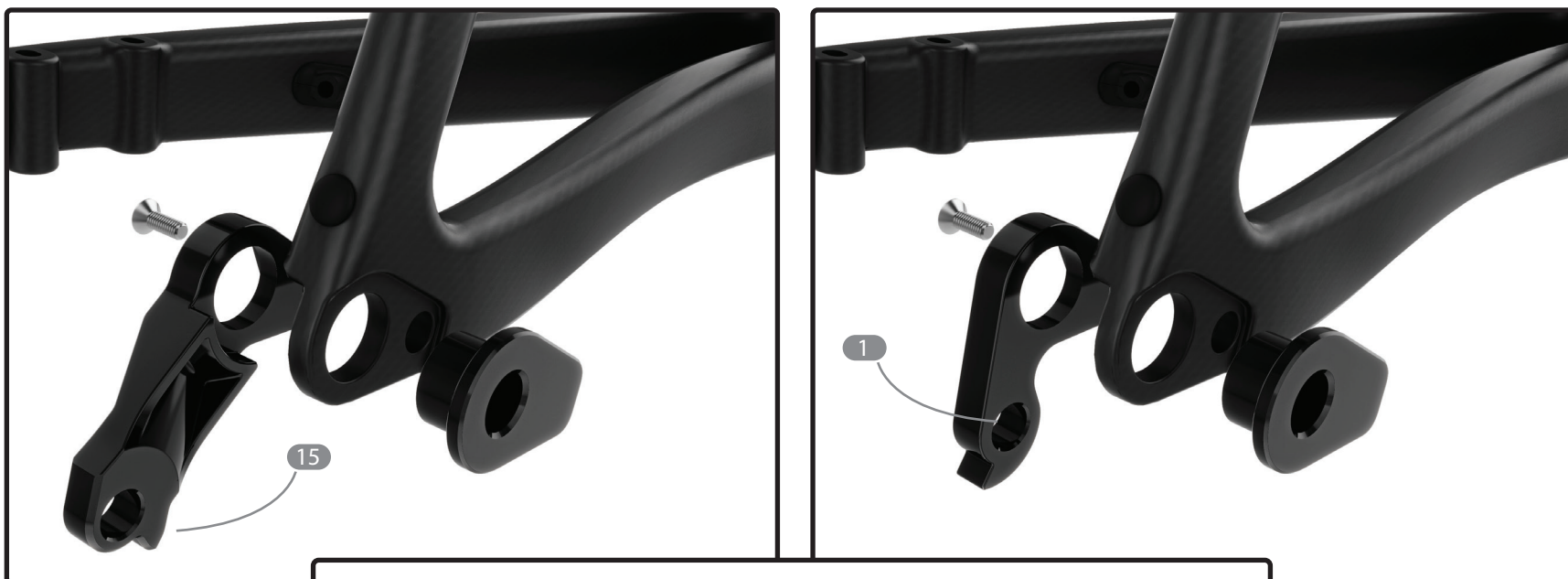
The front derailleur hanger (6) can be adjusted according to the front derailleur angle to get an equal curve between the derailleur and the big chain ring. Once at the right angle, use blue 242 Loctite and screw both screws in at 4Nm.



LOCTITE

LOCTITE

8



1. Select the correct rear derailleur hanger depending on the type of derailleur that you have.

- Direct mount (15)
- Regular mount (1)

2. Make sure to align the rear derailleur hanger.

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

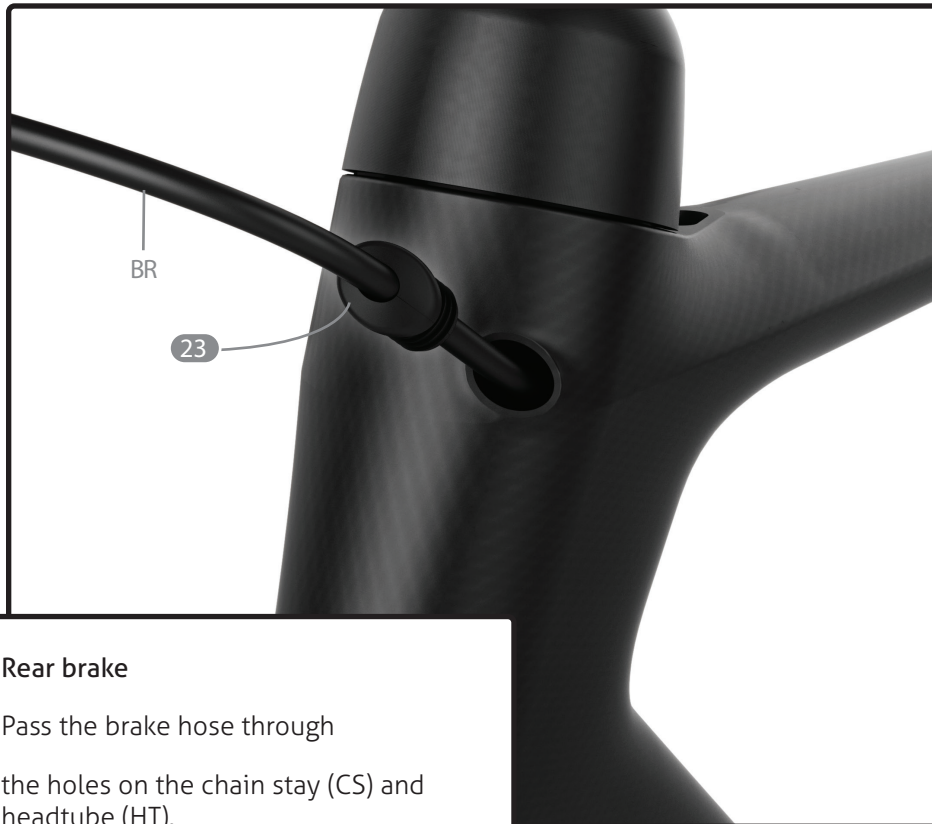
For any assistance, visit Park Tool's website:

www.parktool.com/product/derailleur-hanger-alignment-gauge-dag-2



Red line: brake cable/housing / Yellow line: derailleur cable/housing

The rear derailleur cable and rear brake housing must be routed inside the frame, passing over the BB sleeve/axle.



Rear brake

Pass the brake hose through the holes on the chain stay (CS) and headtube (HT).

Secure the brake hose with the Oblong Cable Guide (28) on the CS, and the HT Rear Brake Brommet (23) on the HT.





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.

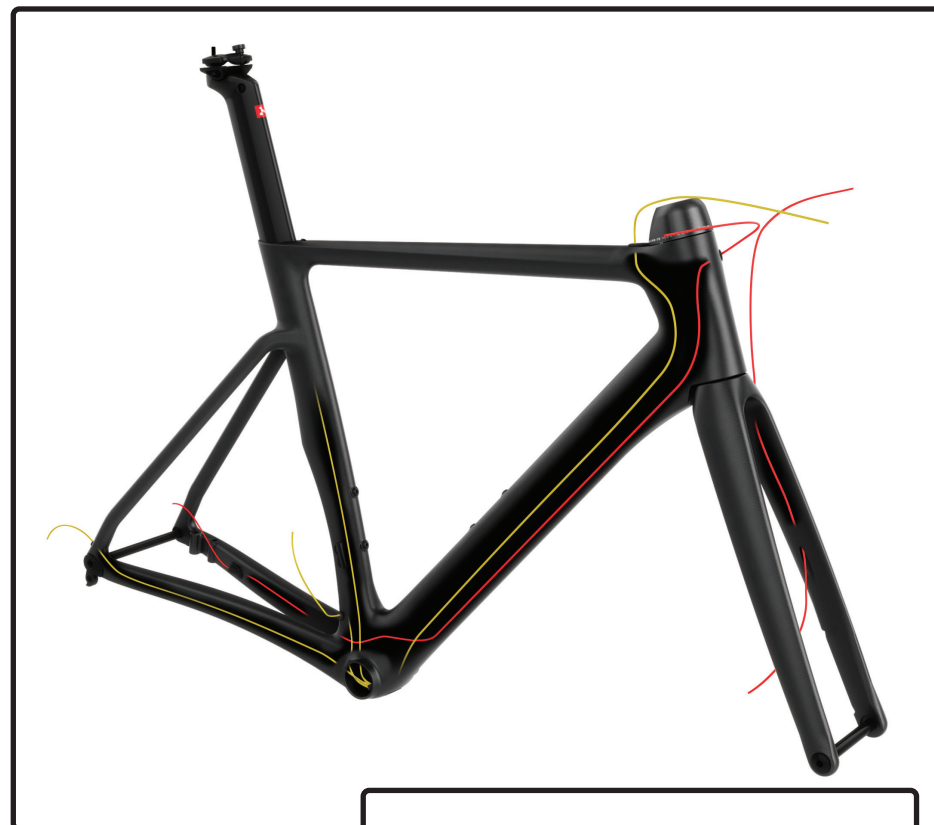
Add a plastic cap at the end of the housing, pass the rear derailleur cable inside the housing and fix the cable guide under the bottom bracket with the 5mm screw (1.5 Nm).

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



Option 1:

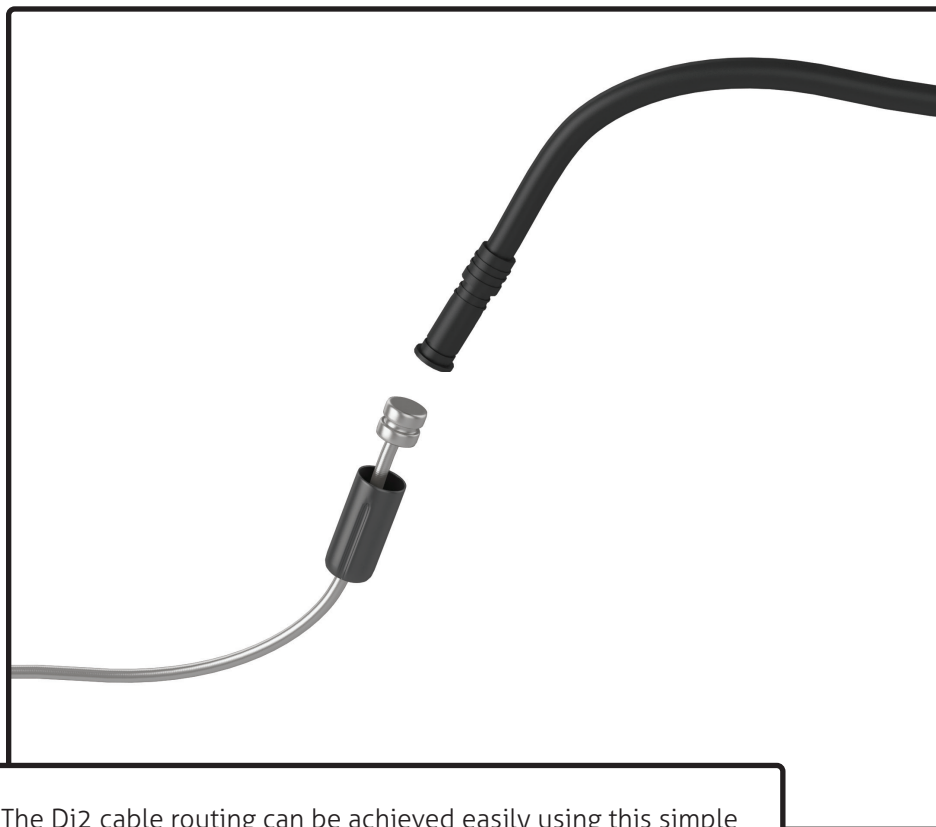
Di2 cable routing can be done through the head tube hole along with the rear brake housing.



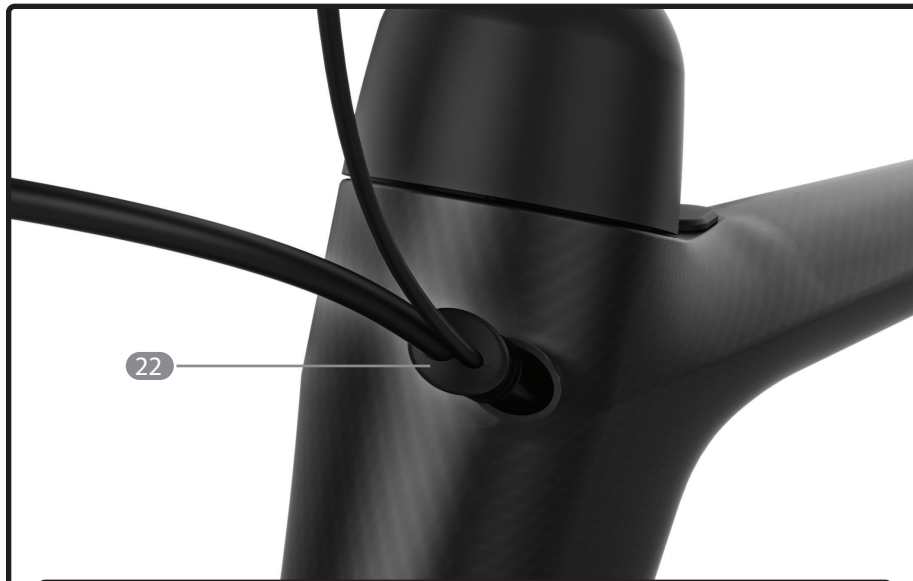
Option 2:

Di2 cable routing can be done through the top tube hole.

Red line: brake cable/housing / Yellow line: derailleur cable/housing



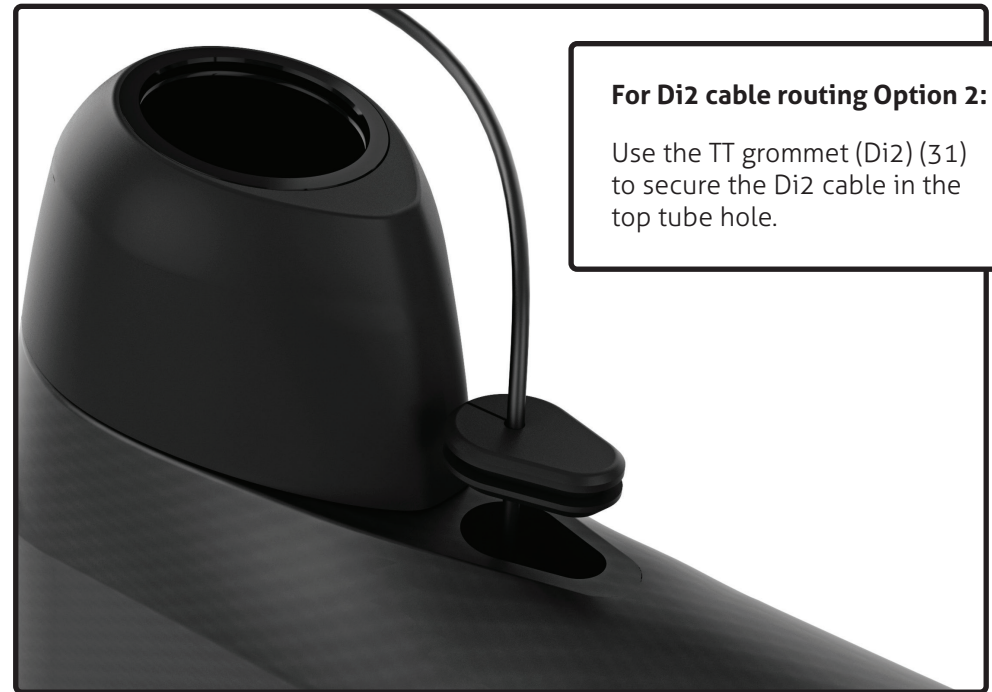
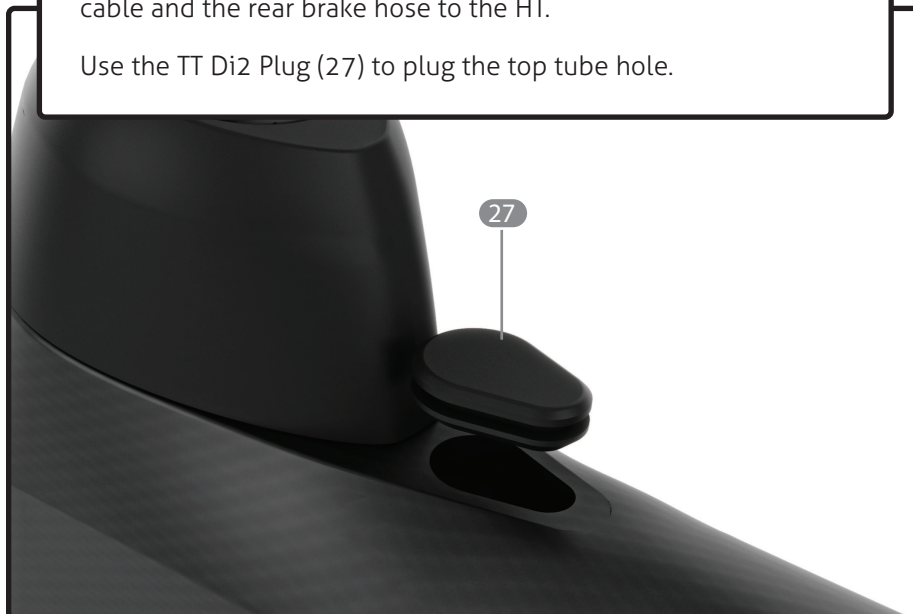
The Di2 cable routing can be achieved easily using this simple trick: use a gear cable and a metal cable end to fix the Di2 cable. For more information on Shimano Di2 electronic system installation, go to: si.shimano.com.



For Di2 cable routing Option 1:

Use the HT Rear Brake Grommet Di2 (22) to secure both the Di2 cable and the rear brake hose to the HT.

Use the TT Di2 Plug (27) to plug the top tube hole.



For Di2 cable routing Option 2:

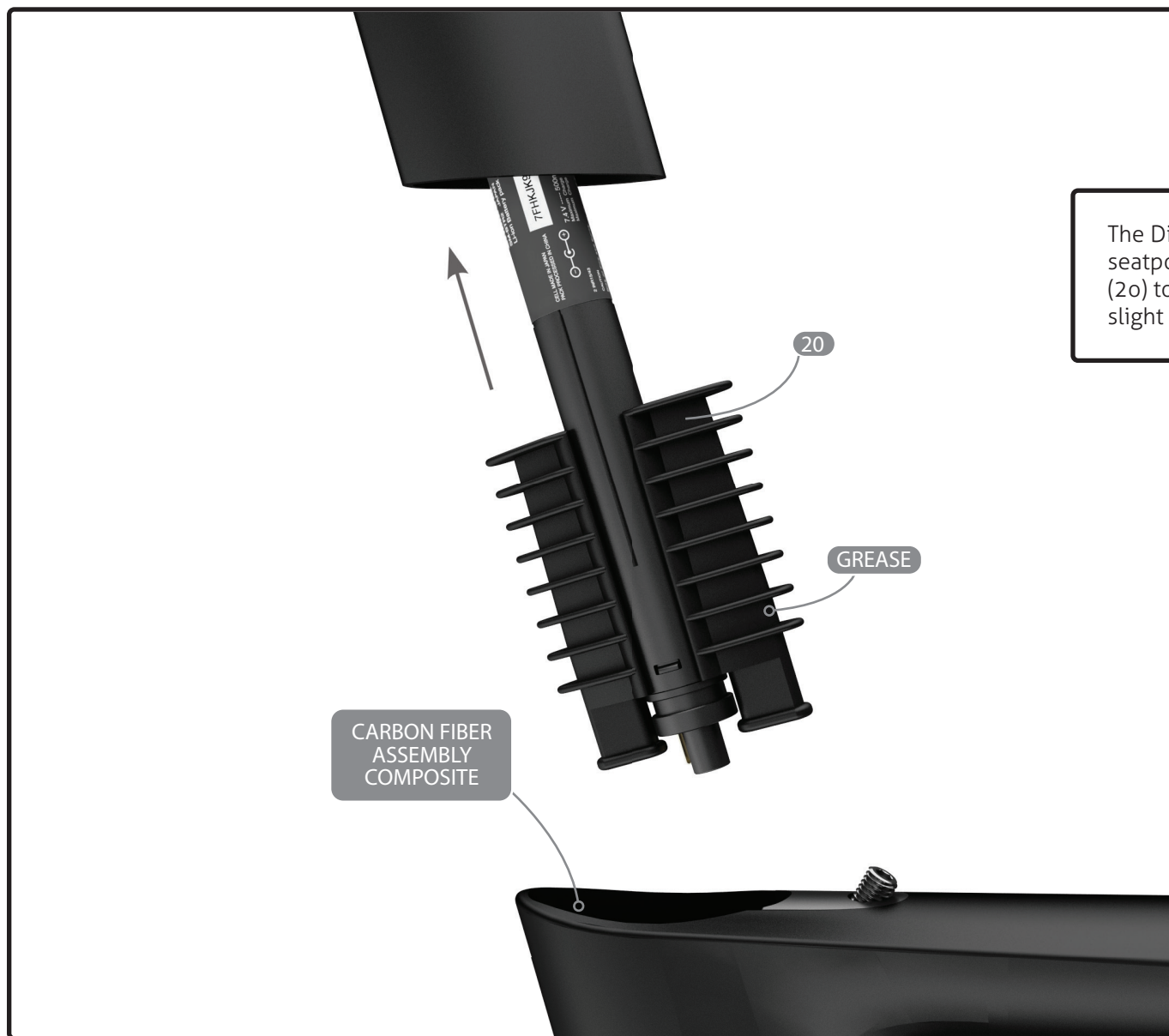
Use the TT grommet (Di2) (31) to secure the Di2 cable in the top tube hole.



Use the Chain Stay Cable Grommet (19) to secure the rear derailleur Di2 cable in the chain stay hole.



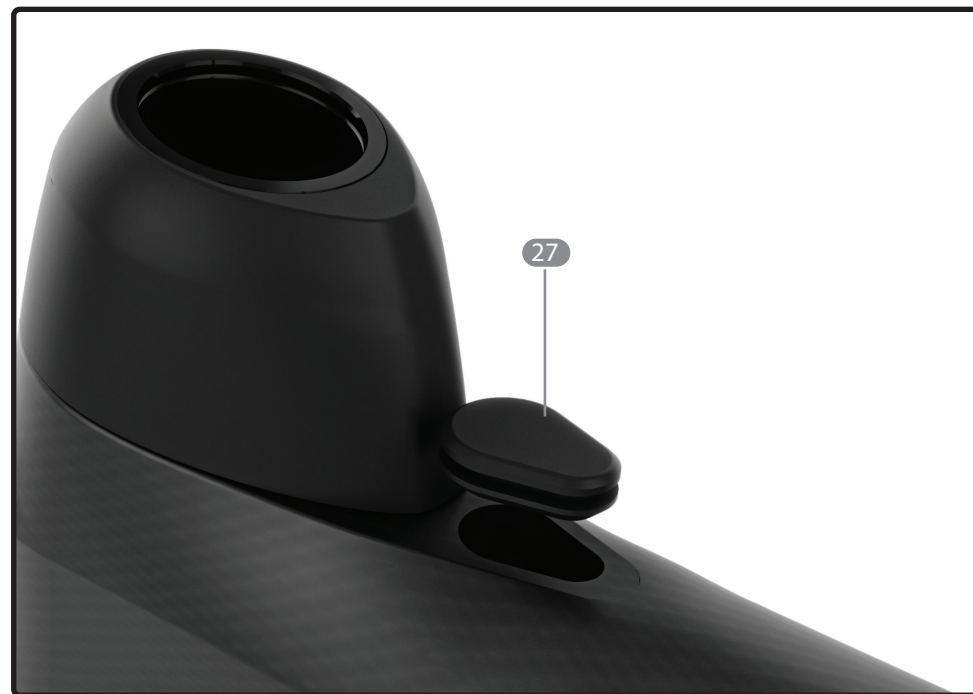
When using an electronic drive-train, use the grommet (13) to fix the front derailleur cable.

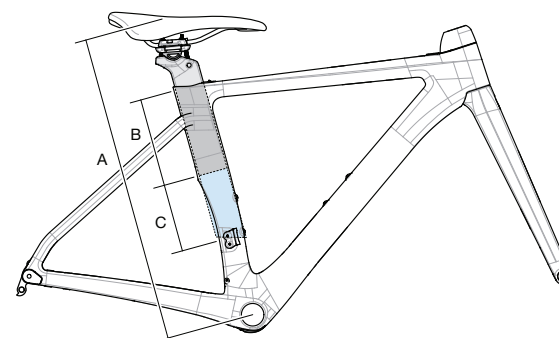
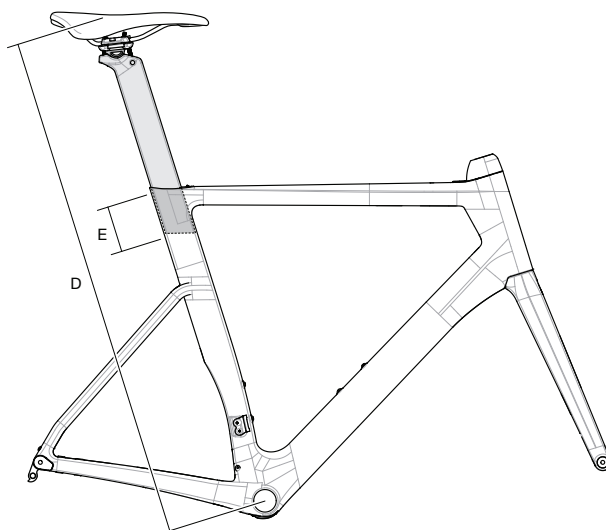


The Di2 battery is hidden in the seatpost; use the Di2 battery holder (20) to fix the battery correctly. Apply a slight amount of grease on both parts.



In the wireless groupset configuration, use the TT Di2 Plug (27) to plug the top tube hole, and the Round Plug (30) to plug the chain stay hole.





Refer to the tables below for details on Saddle Height and SeatPost insertion limits.

- i. The correct frame size must be determined according to the saddle height limits.
 - A. Minimum Saddle Height
 - D. Maximum Saddle Height
- ii. Depending on the size of the frame and the desired saddle height, the SeatPost might need to be cut.

B. Maximal insertion depth in the Frame's SeatTube.

C. Required SeatPost cut length to be able to adjust the Saddle Height at the Minimum position.

- Adjust the SeatPost cut length in accordance with your desired Saddle Height.

Required minimum SeatPost Cut length = C - ("desired Saddle Height" - A)

- Example: - For a desired Saddle Height of 600mm on a XS-Nitrogen Frame

- The required minimum SeatPost Cut length is: $135 - (600 - 530) = 65\text{mm}$

E. Minimal insertion depth in the Frame's SeatTube.

Saddle Height Limits			Nitrogen Disc		
Size	Saddle H Min	ST Max Insert	SP Cut	Saddle H Max	SP Min Insert
	mm	mm	mm	mm	mm
	A	B	C	D	E
X-Small	530	165	135	750	80
Small	585	220	80	805	80
Medium	615	200	100	835	80
Large	665	300	0	885	80
X-Large	695	300	0	915	80