ARGON 18

SUM PRO

VALID FOR MODEL YEAR 2022 REVISION
4.0 / 10-20-2021

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TABLE OF CONTENTS

1. Tools needed & Spare Parts Kit 5
2. Troubleshooting / Tips & Specifications 6
3. Frameset Inspection 7
4. Frameset Skus & Descriptions 8-9
5. SeatPost Min. & Max. Insertion 10
6. SeatPost Assembly 11-12
7. Rear Derailleur Hanger Installation 13
7.1. Front Derailleur Hanger Installation 14
8. 3D Headset Assembly 15
9.1. Frame routing - Mechanical 16
9.2. Frame routing - eTap 17
9.3. Frame routing - Di2 18
10.1. Front Brake Routing 20
10.2. Rear Brake Routing 21
11. Fork Assembly 22
12. Bottom Bracket Cover Installation 23
13.1. Routing - ACR Integrated Cockpit System 24
13.2. Routing - Token Integrated Cockpit System 25

For the warranty to be valid, the bicycle must be fully assembled by an authorized Argon 18 dealer. High-end components, such as carbon parts, require extra care during assembly.

These components must be installed using a torque wrench to ensure each bolt is at the specified torque setting to prevent damage.

MY SUM

Date of Purchase: _____

Retailer: _____

Size: _____

Serial Number: _____

I. TOOLS NEEDED & SPARE PARTS KIT

1. Hydraulic Hose Cutter

2. Set of Allen Key

3. Flush Cut Plier

4. Carbon Paste & Grease

5. Utility Picks

6. Clean Rag

7. Derailleur Hanger Alignement Gauge

8. Cables and Housing Cutter

9. Medium-strength Thread Locker

10. Isopropyl Alcohol

11. Torque Wrench

12. Cassette Lockring Tool

13. 8mm Wrench

13. Bleed Kit

14. Set of Torx Key

15. Mineral Oil

16. Headset Press

SPARE PARTS KIT

IMPORTANT:
Essential parts to always have on hand IN CASE OF EMERGENCY... THIS MIGHT SAVE YOUR RIDE!

1. Seat Post Clamp

100158

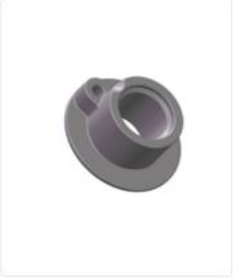
2. Rear Derailleur hanger

100148

3. Rear Derailleur hanger Direct Mount

100149

4. Drive Side Rear Dropout



100147

2. TROUBLESHOOTING / TIPS & SPECIFICATIONS

Brakes

Rear brake - 140/160mm disc rotors
Front brake - 140/160mm disc rotors

Tire Clearance

The biggest tires that can be installed are 700x30c, they must be no wider than 32mm, for the front and rear wheels.

Seat Post

Argon 18 exclusive D shape seatpost is only compatible with the SUM frame.

Saddle Clamp

The saddle clamp is compatible with both Ø 7mm round and oval saddle rail.

Bottom Bracket

BB86 (Press-fit)

Headset

Top Bearing: MR127 - 1 1/2", 36° x 45° Stainless Steel
Bottom Bearing: MR127 - 1 1/2", 36° x 45° Stainless Steel

Chainring

The SUM family is designed to work with round or oval chainring with 50 to 57 teeth and the equivalent max OD of a 57T chainring.

AR18-SUM
UCI
FRAMESET • 44013

Please contact customer service at info@argon18.com for any further inquiries.

Seat Post Collar

Argon 18 exclusive, SUM seatpost clamp is **NOT** the same as the Nitrogen, E-117 and E-119 or any other seat clamp model.

Power Meter

The SUM is designed to work with the majority of the powermeters available on the market.

*For **Hub/Wheel** based power meters:*
The system must be compatible with a 12mm x 142mm rear thru-axle.

Please contact your local Argon 18 authorized retailer for confirmation before purchasing.

Always clamp the bike by the **seatpost**. Clamping it by any other tube might damage the frame and could cause an accident and/or injury

3. FRAMESET INSPECTION

Before assembling your new SUM, please :

1. Check you parts against the frameset parts checklist (see p.8)
2. Inspect the frame for cosmetic defects (scratches, bumps, cracks, paint defects, etc.)
3. Record serial number on p.4 for reference.
4. Make sure you have all the necessary bolts (refer to frameset parts, p.8).
5. For optimal shifting performance, use a derailleur alignment gauge to make sure that the derailleur hanger is straight.

Some of the following parts are already assembled on the frame. When assembling the bike, you will need to adjust these parts according to their torque specifications and fastener conditions when necessary.

No.	A18 SKU#	Function	Description	Screw Type	Torque	Detail	Qty
1	81248	Front derailleur hanger screw	M5 x 16mm Screw	Flat head	3 Nm	Grease	2
2	100150	Rear derailleur hanger screw	M3 x 8mm Screw	Flat head	2 Nm	Loctite	1
3	100158*	Seat post clamp top screw	M8 x 10mm Screw	Set screw	5.5 Nm	Grease	1
4	100158*	Seat post clamp bottom screw	M3 x 6mm Screw	Button head	Hand Tighten Slack	Loctite	1
5	100154*	Saddle clamp screw	M5 x 40mm Screw	Socket head	6 Nm	Grease	2
6	80807	Water bottle screw	M5 x 18mm Screw	Socket head	3 Nm	Grease	4
7	100161	Front Thru Axle	M12 x P1.5 x 119mm Axle	-	15 Nm	Grease	1
8	100160	Rear Thru Axle	M12 x P1.5 x 161mm Axle	-	15 Nm	Grease	1

* Included With

Torque Value

Allen key size

Apply **carbon paste** on the indicated surfaces.

Apply **threadlocker** on the indicated surfaces.

Apply **grease** on the indicated surfaces.

IMPORTANT:
Indicates special precautions and important steps that must be taken to avoid damages and/or injuries.

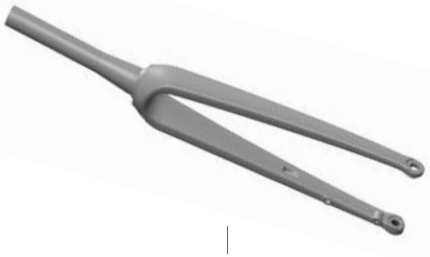
For troubleshooting and FAQ, please visit :
https://www.parktool.com/blog/repair-help

4. FRAMESET SKUS & DESCRIPTIONS

NO.	NAME	AI8 SKU#	QTY
1	SUM Pro Frame -OR- SUM Frame	-	1
2	SUM Chain Suck Guard	100145	1
3	SUM Bottom Bracket cover	100146	1
4	SUM Drive Side Rear Dropout	100147	1
5	SUM Rear Derailleur Hanger	100148	1
6	SUM Rear Derailleur Hanger direct mount	100149	1
7	Front Derailleur Hanger removable	81238	1
8	Front Derailleur Plug	81240	1
9	Front Derailleur Cable Stopper	81242	1
10	Long Grommet Mech	80985	2
11	Long Plug	80804	3
12	Long Grommet Di2	80805	2
13	Oblong Cable Guide	80551	1
14	Watter Bottle Screw - M5 x 18mm	80807	4
15	Plastic Plug M5	80264	1
16	SUM Pro Fork (S-M-L-XL), 44mm rake / SUM Pro Fork (XXS-XS), 48mm rake -OR- SUM Fork (S-M-L-XL), 44mm rake / SUM Fork (XXS-XS), 48mm rake	FK.SUMP.S-XL.352A / FK.SUMP.XXS-XS.352A -OR- FK.SUM.S-XL.353A / FK.SUM.XXS-XS.353A FK.SUM.S-XL.353B / FK.SUM.XXS-XS.353B	1
17	SUM Pro / SUM seatpost assembly	-	1
18	SUM Seatpost shaft monocoque carbon (valid for 352A, 353A, 353B)	100151	1
19	SUM Seatpost cradle + top clamp	100153	1 kit
20	SUM Seatpost saddle hardware (Barrel+Bolts)	100154	1 kit
21	SUM Battery Holder set	100155	1 kit
22	3D Headset Column IST2	100156	1
23	3D Headset Column 25mm	100361	1
24	3D Headset Column 15mm	100362	1
25	SUM Seatpost wedge assembly	100158	1
26	Axle GW Rear 161x12 - SB-02 LITE & HOLLOW	100160	1
27	Axle GW Front 119x12 - SB-02 LITE & HOLLOW	100161	1
28	Removable lever for GW thru axle 12mm	81054	1
29	Foam liner for hydraulic hose	80811	3

4.1 FRAMESET PARTS

SUM Pro / SUM Frame
*Not available seperatly



FK.SUMP.S-XL.352A / FK.SUMP.XXS-XS.352A
-OR-
FK.SUM.S-XL.353A / FK.SUM.XXS-XS.353A
FK.SUM.S-XL.353B / FK.SUM.XXS-XS.353B

100151

100153

100154

100156

100362

100361

100158

100155

80811

81238
& 81248 (screws)

100145

100147

100148

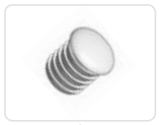
100149

81240

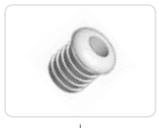
100146

100161

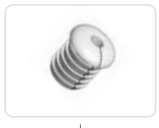
81242



80804

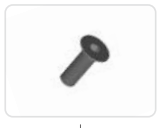


80985



80805

80264



100150

80807

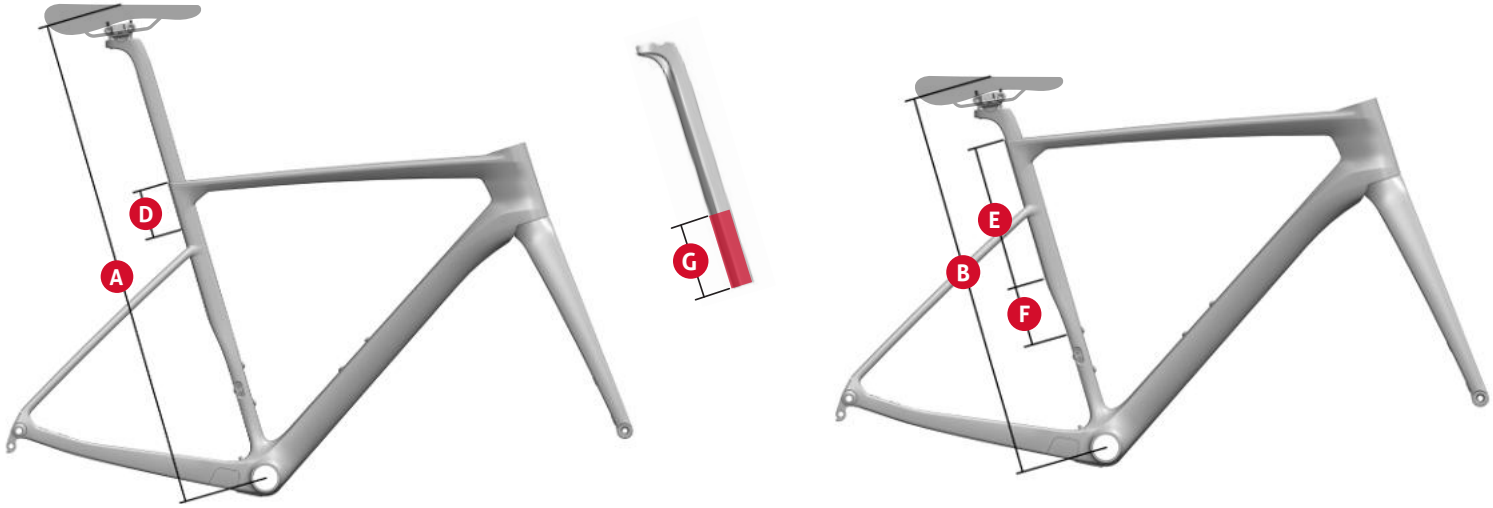
80551

100160

81054

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

5. SEATPOST MIN. & MAX. INSERTION



Refer to the adjacent table for details on saddle height and seatpost insertion limits:

i. The correct frame size must be determined according to the saddle height limits.

A. Maximum Saddle Height.
B. Minimum Saddle Height.

ii. Depending on the size of the frame and the desired saddle height, the seatpost might need to be cut.

If the desired saddle height is lower than value “C”, Calculate the required cutting lenght “G” as follow:

G = C – “Desired saddle height “ + 10mm (to allow adjustment)

Example: For a desired saddle height of 650mm on a Small frame, the required minimum seatpost cut length (G) is:

G = 686 - 650 + 10 = 46 mm

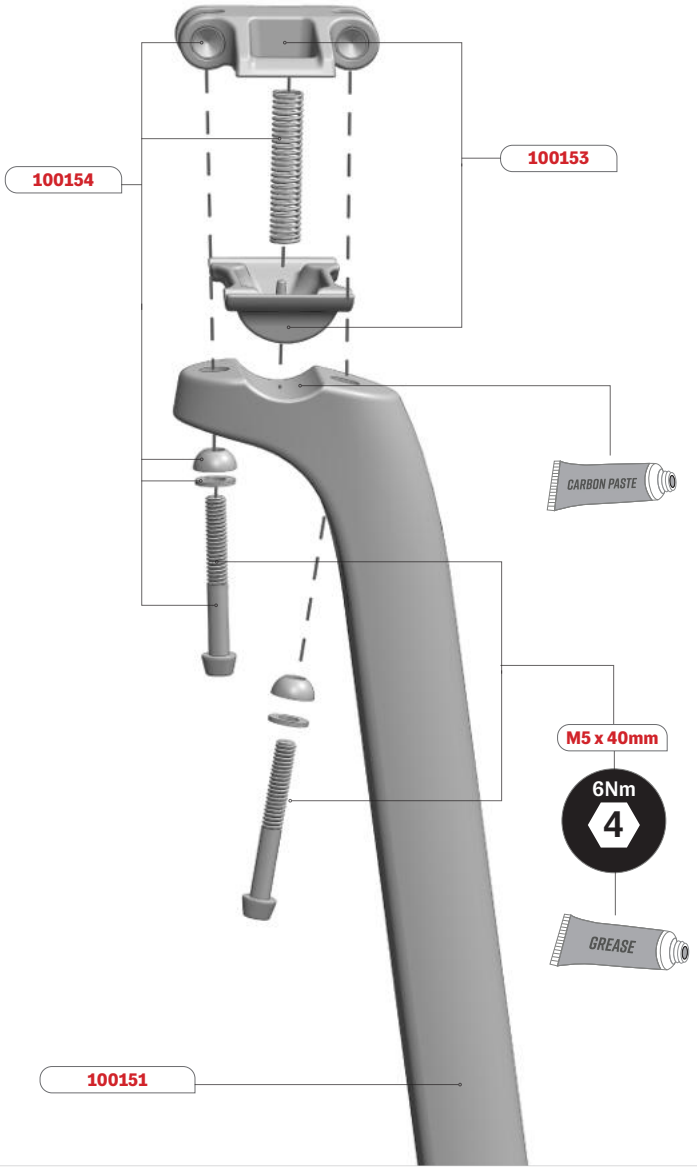
Important: In any case the saddle height can be lower than value “B” .

SADDLE HEIGHT LIMITS (MM)

SIZE	Max Saddle Height	Min Saddle Height	Min Saddle Height (Without cut)	Min Seatpost Insert	Max Seattube Insert	Max Seat-tube Cut
	A	B	C	D	E	F
XX-SMALL	715	565	636	80	150	71
X-SMALL	745	595	670	80	155	75
SMALL	780	630	686	80	174	56
MEDIUM	825	675	688	80	217	13
LARGE	870	720	720	80	263	0

Based on saddle with 50mm between center of rail to top.

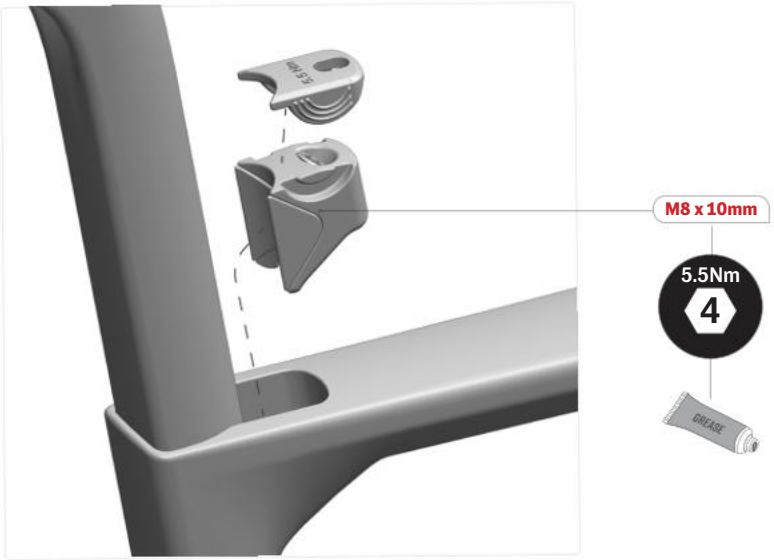
6. SEATPOST ASSEMBLY



The seat post is supplied fully assembled*

1. Loosen the two M5 x 40mm screw to allow the seat post head assembly to move.
2. Apply a drop of blue Threadlocker (n. 242) on the M5 x 40mm screw thread.
3. Apply Carbon paste on the curved face of the seatpost shaft
4. Install the saddle rails into the seatpost clamp.
5. Adjust the angle of the saddle
   and tighten the M5 x 40mm screw at 6Nm.

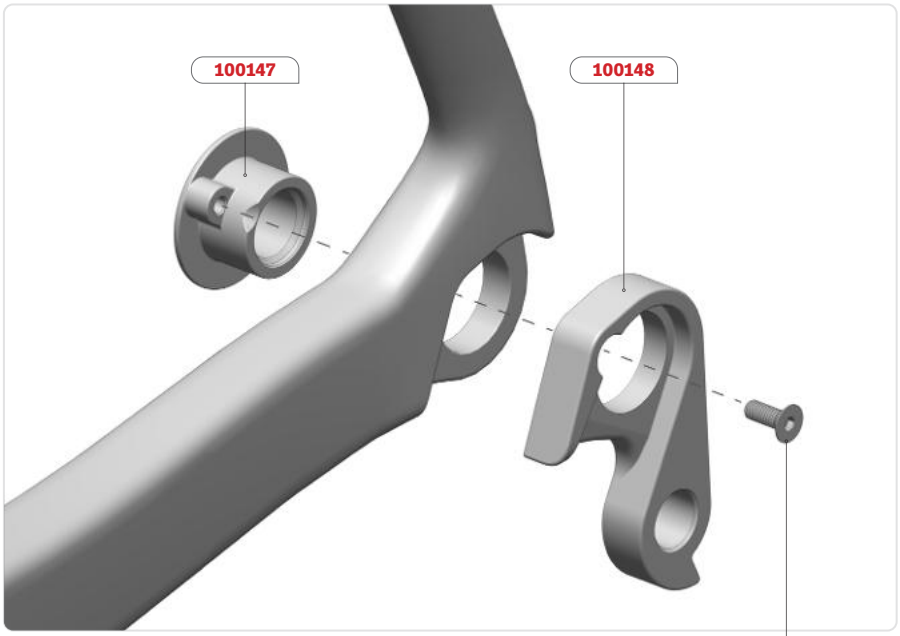
6.1 SEATPOST INSTALLATION



IMPORTANT:
Refer to p.10 for seatpost **MIN** and **MAX** insertion limits.

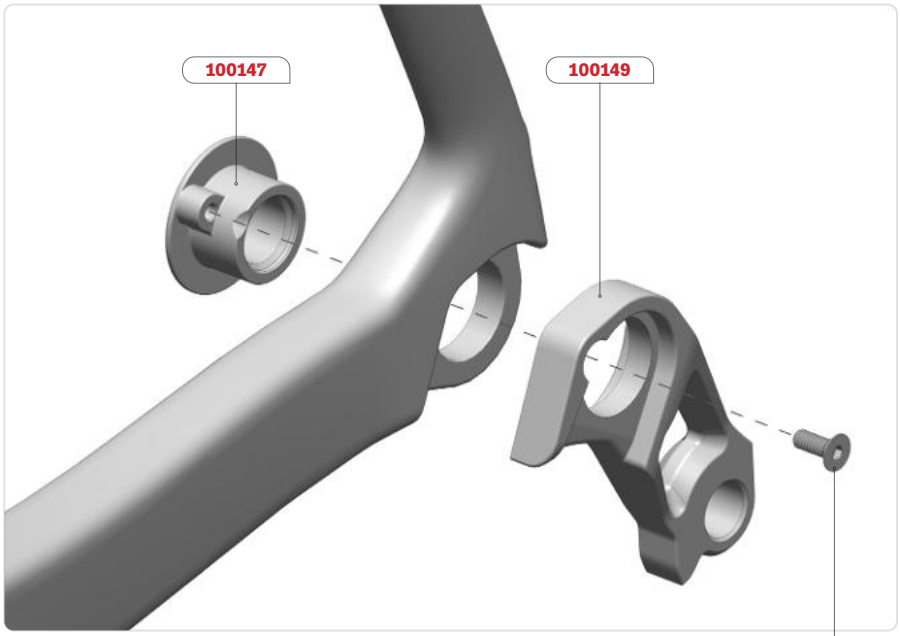
1. Apply grease on the lower angle surface of the seat post collar.
2. Apply a drop of blue Threadlocker (n. 242) on the M3 x 6mm screw thread.
3. Hand tighten the M3 x 6mm screw and make a 1/4 turn back, making sure the wedge (a) is allowed to slide.
4. Apply grease on the thread of the M8 x 10mm set screw.
5. Screw the M8 x 10mm set screw in place.
6. Slide the rubber cover onto the wedge assembly.
7. Adjust the angle of the seatpost wedge cover to make it flush with the frame surface.
8. Adjust the seatpost at the desired height. Make sure to follow the seatpost min and max insertion. (p. 10)
9. Insert the wedge assembly into the frame.
10. Tighten the M8 x 10mm set screw of the seat post clamp to 5.5Nm.

7. REAR DERAILLEUR HANGER INSTALLATION



Assembling with a regular hanger:

1. Assemble the rear derailleur hanger on the frame with the Dropout DS.
2. Apply a drop of blue Threadlocker (n. 242) on the M3x8mm screw threads and tighten to 2Nm.
3. Use a rear derailleur hanger alignment gauge to align the rear derailleur hanger. (If necessary)

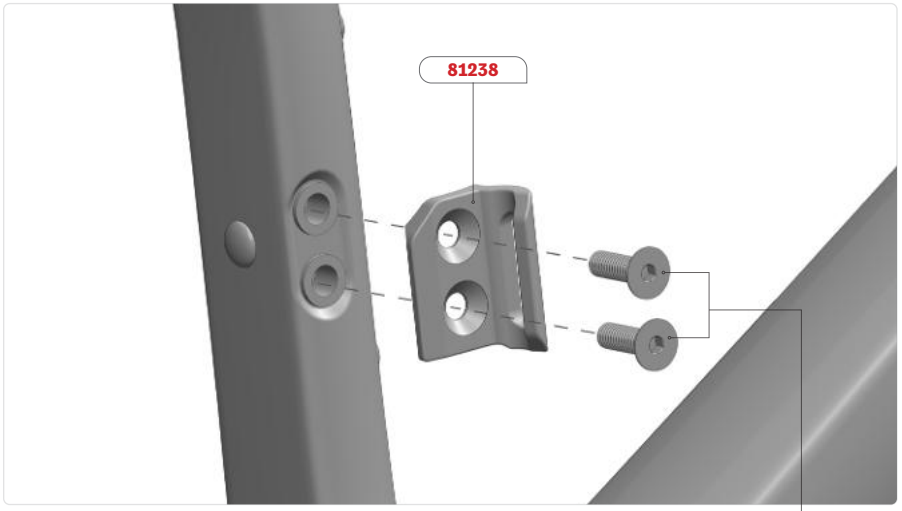


Assembling with a direct mount hanger:

1. Assemble the rear derailleur hanger (SKU: 100149) on the frame with the Dropout DS.
2. Apply a drop of blue Threadlocker (n. 242) on the M3 x 8mm screw threads and tighten to 2Nm.
3. Use a rear derailleur hanger alignment gauge to align the rear derailleur hanger. (If necessary)

For assistance, visit Park Tool's website at:
https://www.parktool.com/blog/repair-help/rear-derailleur-hanger-alignment

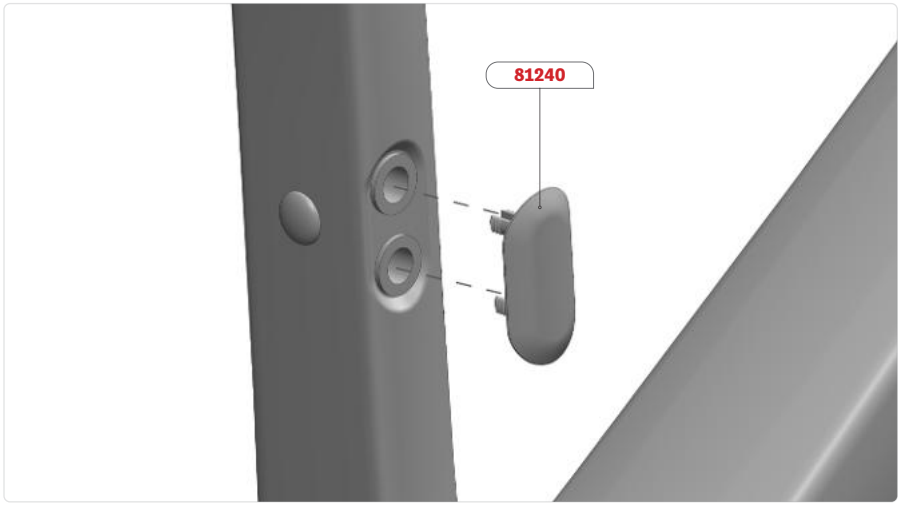
7.1 FRONT DERAILLEUR HANGER INSTALLATION



Using a Double Chainring Set-Up:

1. Apply grease on the thread of both M5 x 16mm screws.
2. Assemble the front derailleur hanger (SKU: 81238) on the frame with the two bolts.
3. Tighten the two M5x16mm screws to 3Nm.

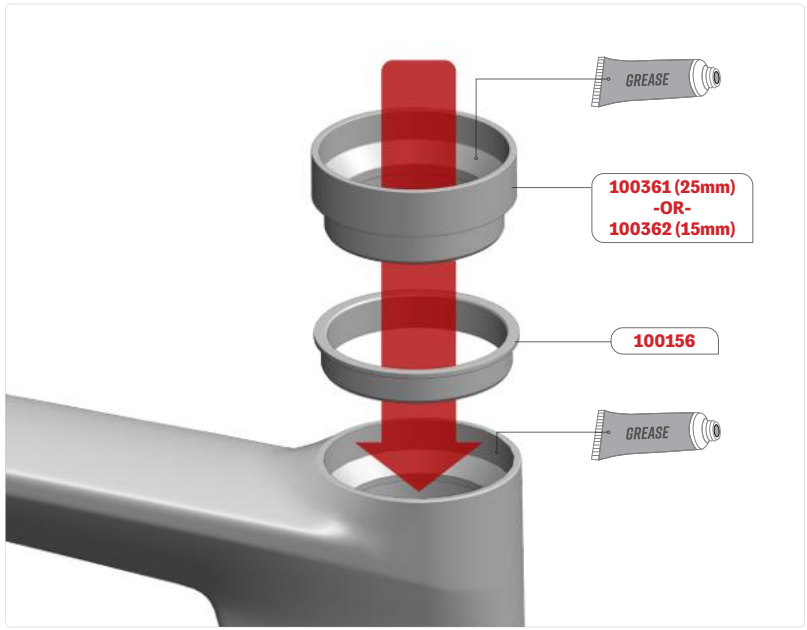
Note: The Front derailleur hanger has been designed to work with 50 to 57 teeth round chainrings or oval chainrings with an equivalent max OD of a 57T round chainring.



Using a Single Chainring Set-Up:

1. Insert the plastic plug (SKU: 81240) onto the front derailleur hanger inserts.

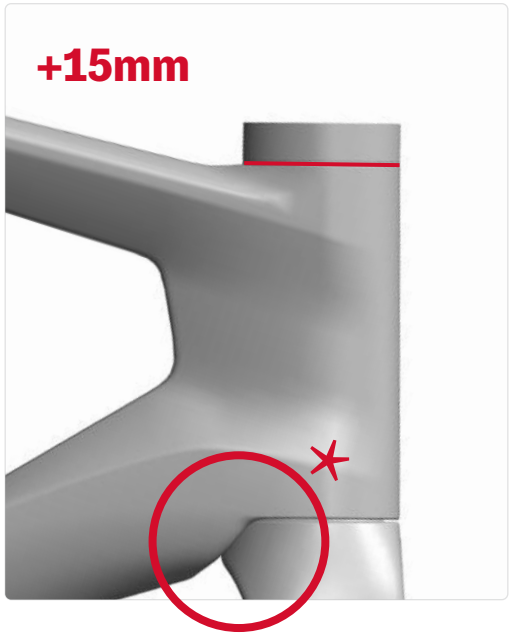
8. 3D HEADSET ASSEMBLY

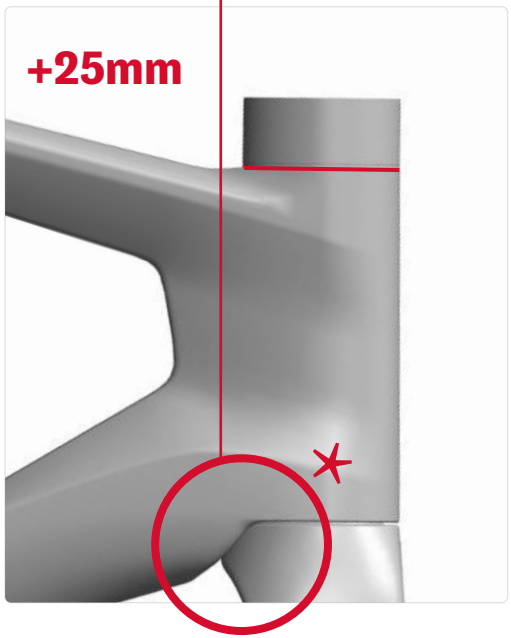


Assembling 3D headset (+15mm & +25mm)

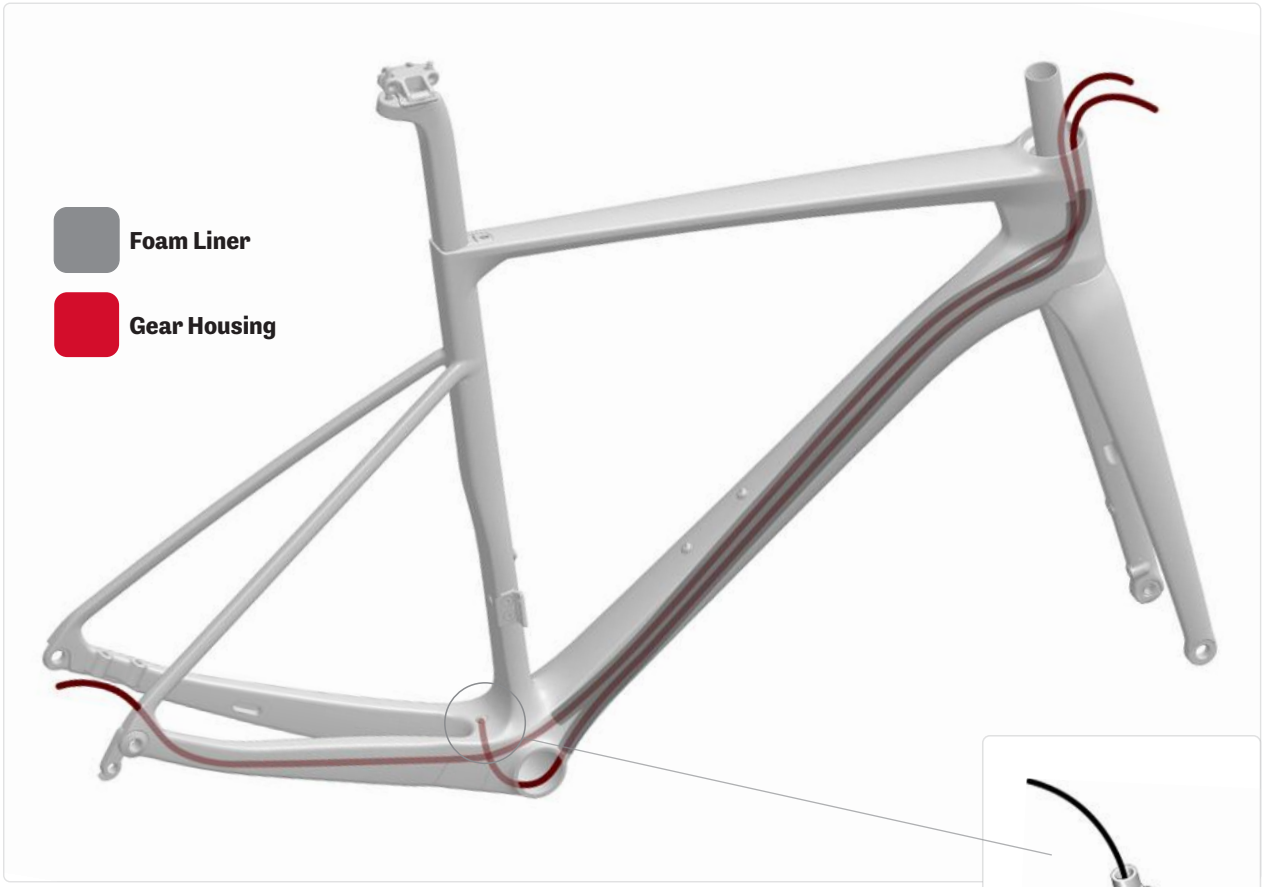
1. Insert the plastic column onto the 3D headset cup. (SKU: 100156)
2. Sit the 3D headset (SKU: 100361 or 100362) perfectly straight on the headtube opening.
3. Slowly press the cups into the frame using a **headset press + adaptor** until it sits flush with the frame.

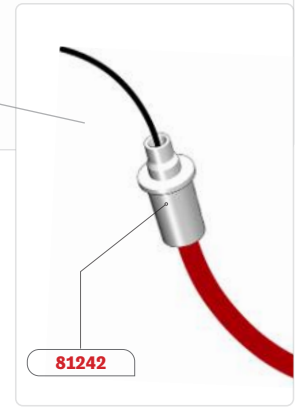
IMPORTANT:
Make sure to use a **headset press adaptor** to proctect the frame.

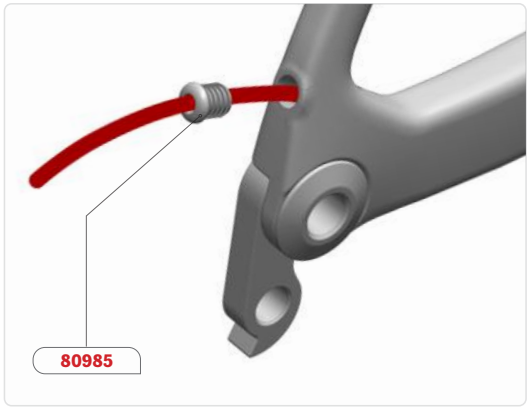




9.1 FRAME ROUTING - MECHANICAL



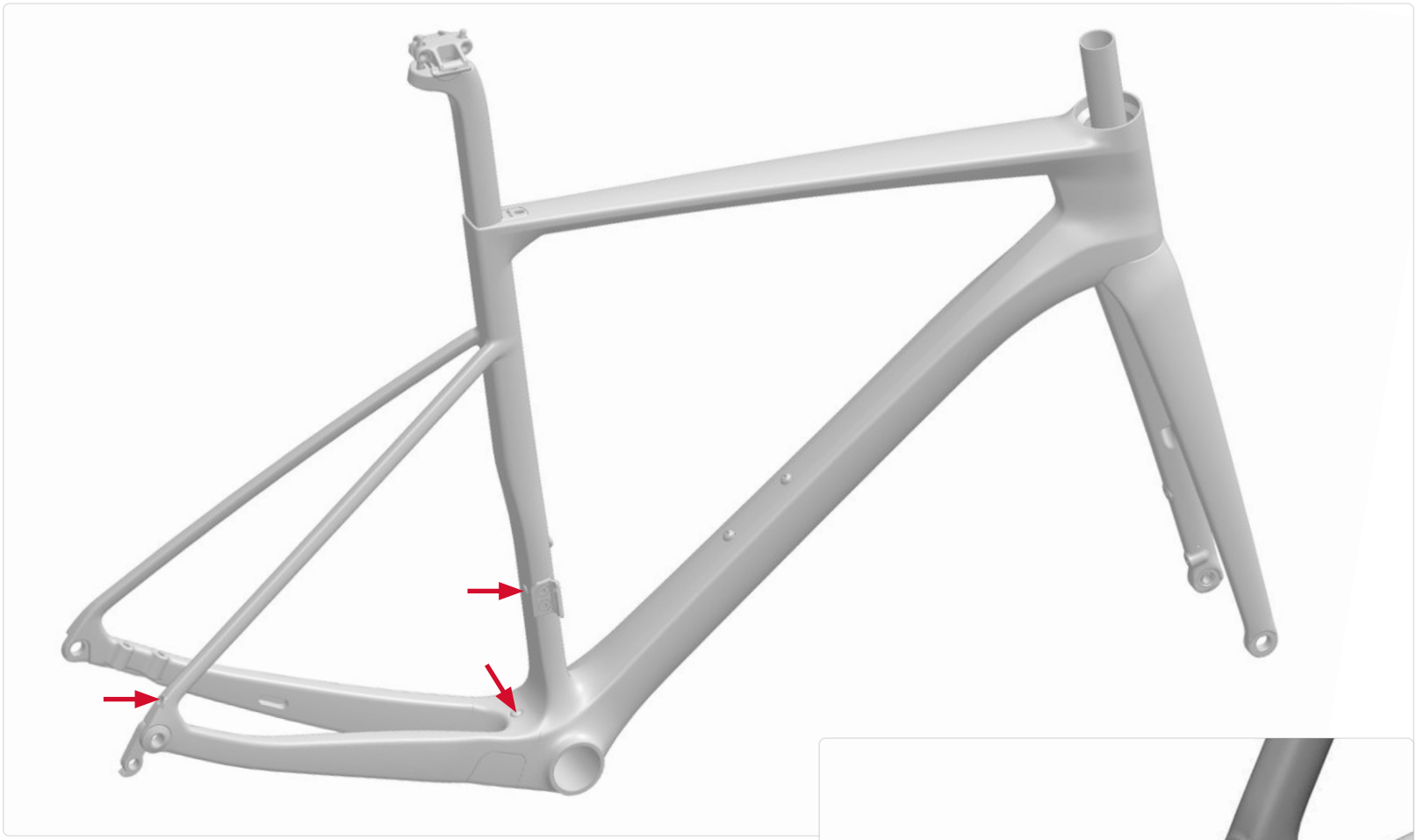




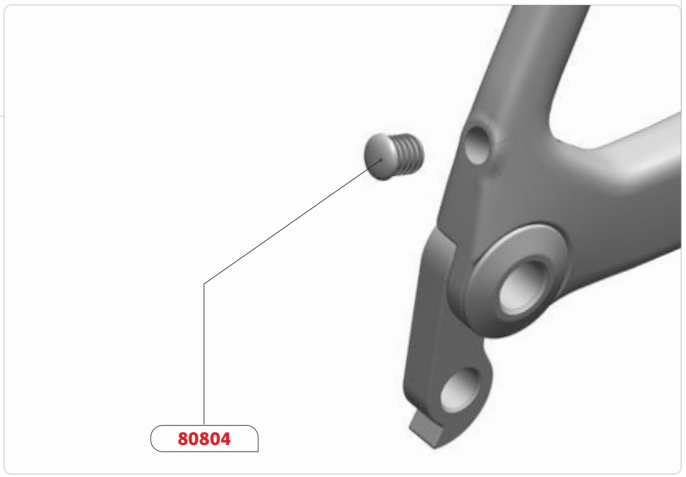
1. Guide the rear cable housing starting through the hole in the rear right chainstay all the way up to the headset opening. Pass the hausing **above** the bottom bracket shell.
2. Guide the front cable housing starting through the headset opening all the way down to the bottom bracket opening **under** the bottom bracket shell. Let the housing hang out the frame.
3. Install the housing end and the cable stopper (81242) onto the housing.
4. From inside stick the head of the cable stopper into the frame hole.
5. Slide foam liners (80811) onto both housing until they reach the bottom bracket shell.

IMPORTANT:
The front derailleur can also be routed **full housing** with a cable stop integrated front derailleur. (Shimano only) Use another mech. grommet (80985)

9.2 FRAME ROUTING - ETAP

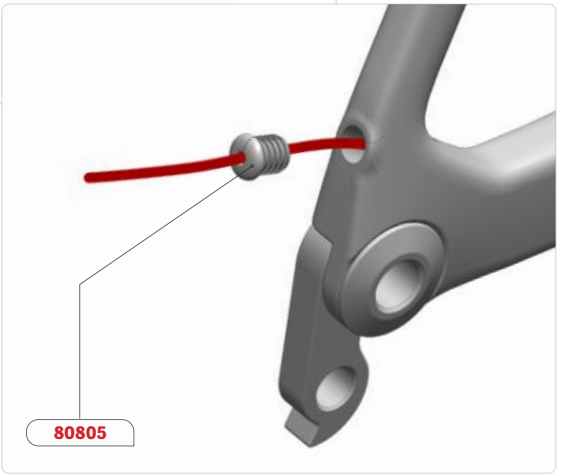


1. Insert the three plug grommets onto front (2x) and rear (1x) derailleur cable holes. (80804)

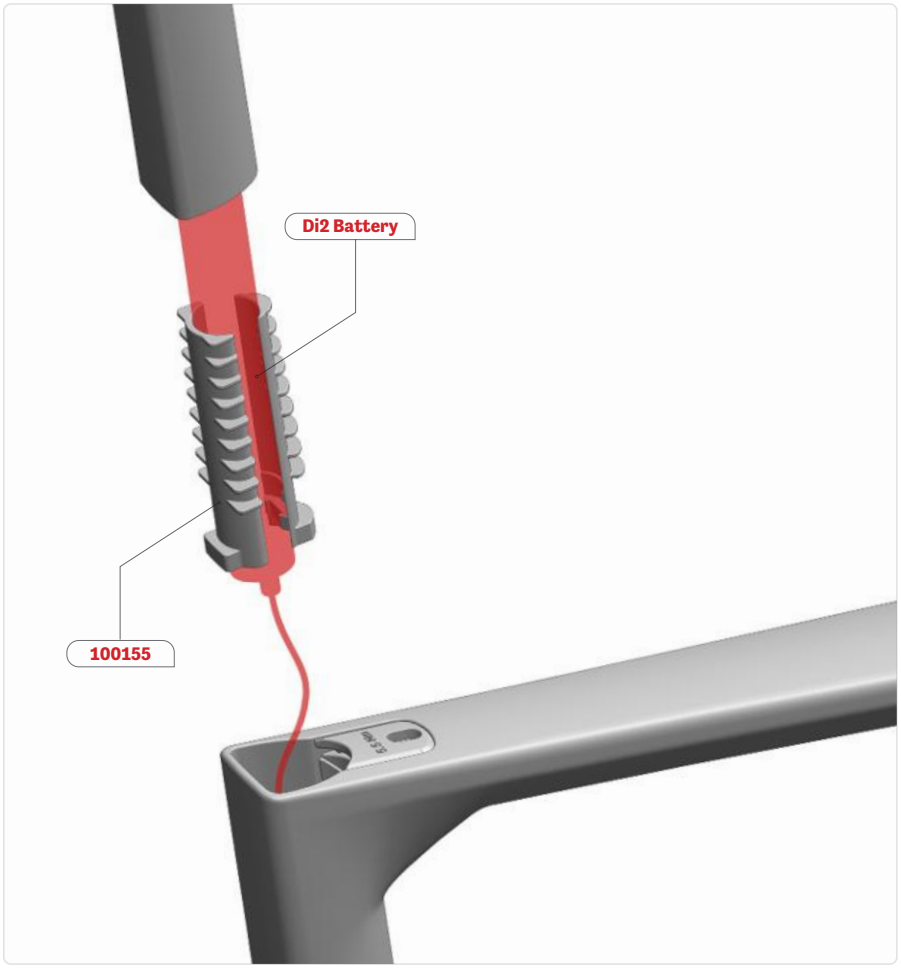


9.3 FRAME ROUTING - DI2

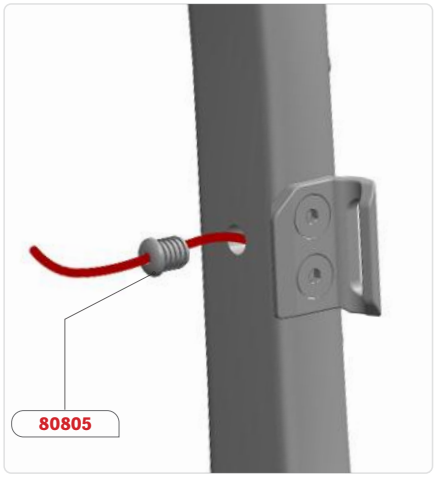
1. Using as fishing cable*, guide all four Di2 wires from their respective opening to the bottom bracket opening (under the frame). Pass all the wires **behind** the bottom bracket shell and let them hang out the frame by the opening.
2. Connect all the wires to the JC-41 junction box and gently push the box into the frame.



9.3 FRAME ROUTING - DI2

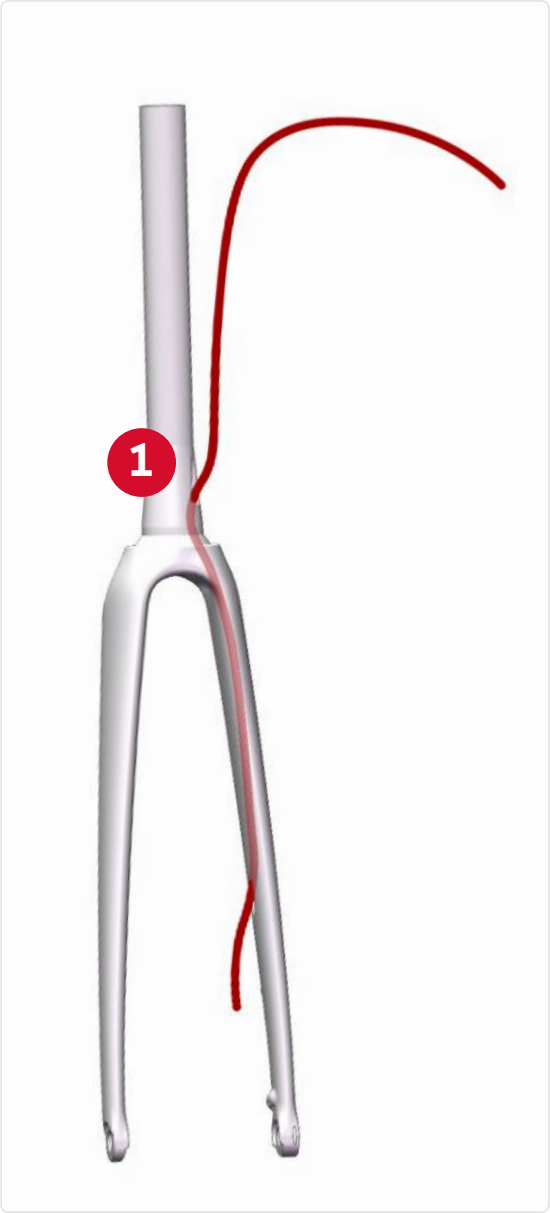


TIPS:
Use a gear cable and a metal cable end to fix and pull the Di2 wires through the frame.



1. Wrap the battery holder around the Di2 battery.
2. Connect the battery to the system.
3. Insert the battery inside the seatpost shaft until the lips sits on the bottom of the shaft.
4. Insert the Di2 grommets onto front and rear derailleur wires. (80805)

10.1 FRONT BRAKE ROUTING



IMPORTANT:
You have to route the front brake accordingly to which integrated headset you install.

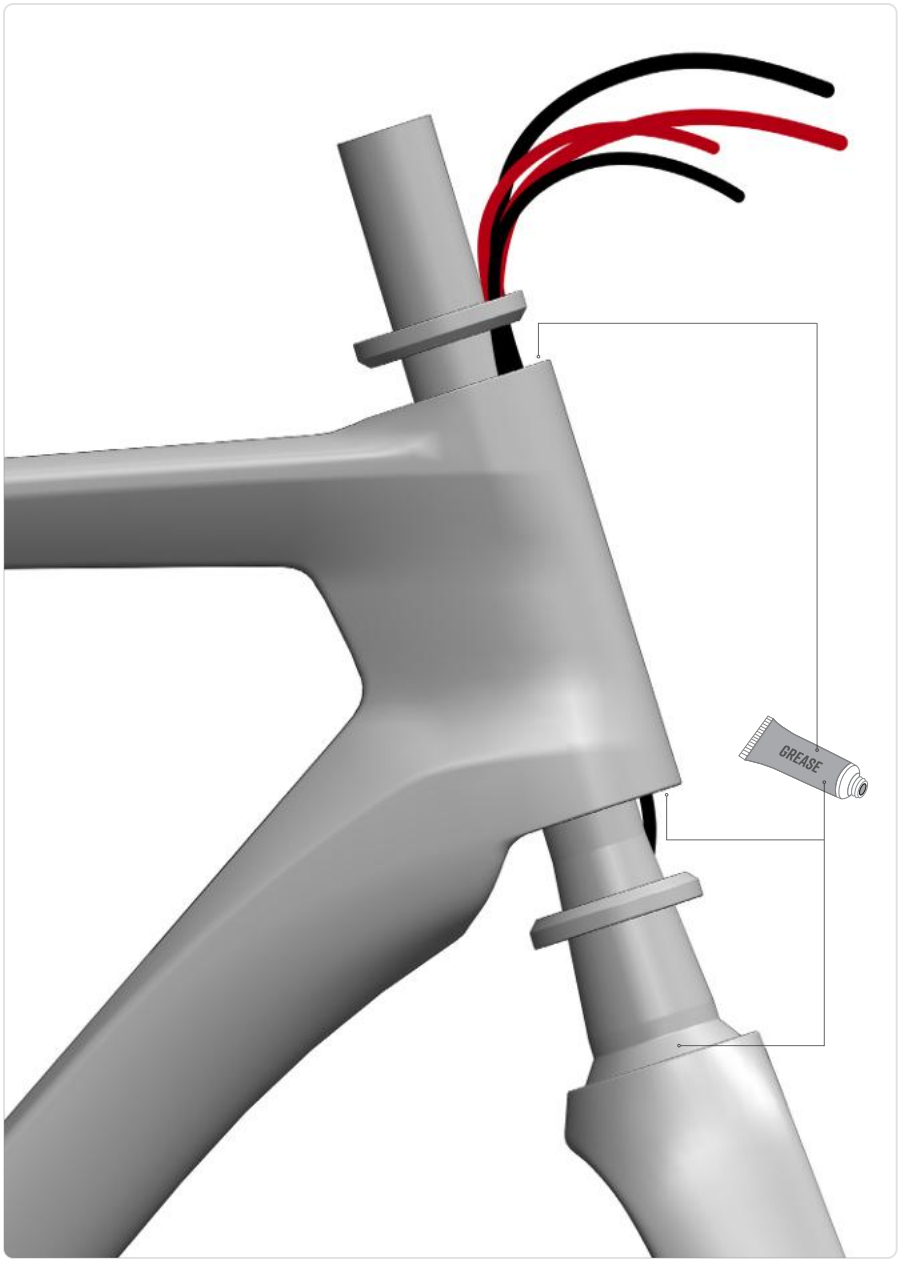
1. Guide the hydraulic housing through the hole in the fork's brake mount recess and pull it out from the **steerer bottom hole**.
2. Guide the hydraulic housing through the hole in the fork's brake mount recess and pull it out from the **steerer column top.**

Front Brake

10.2 REAR BRAKE ROUTING

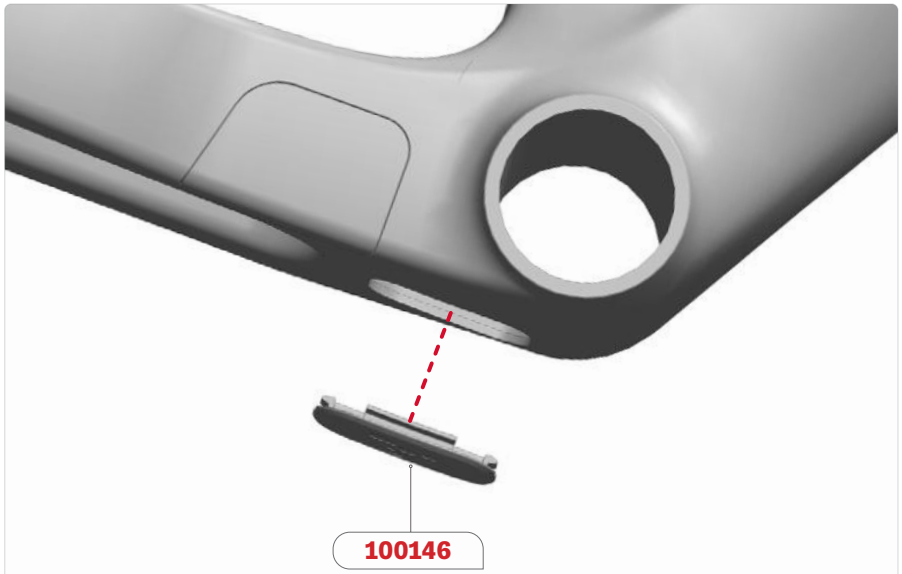
1. Guide the rear brake housing starting through the hole in the rear left chainstay all the way up to the headset opening. Pass the housing **under** the bottom bracket shell.
2. Slide foam liners (80811) onto the brake housing until it reach the bottom bracket shell.

II. FORK ASSEMBLY



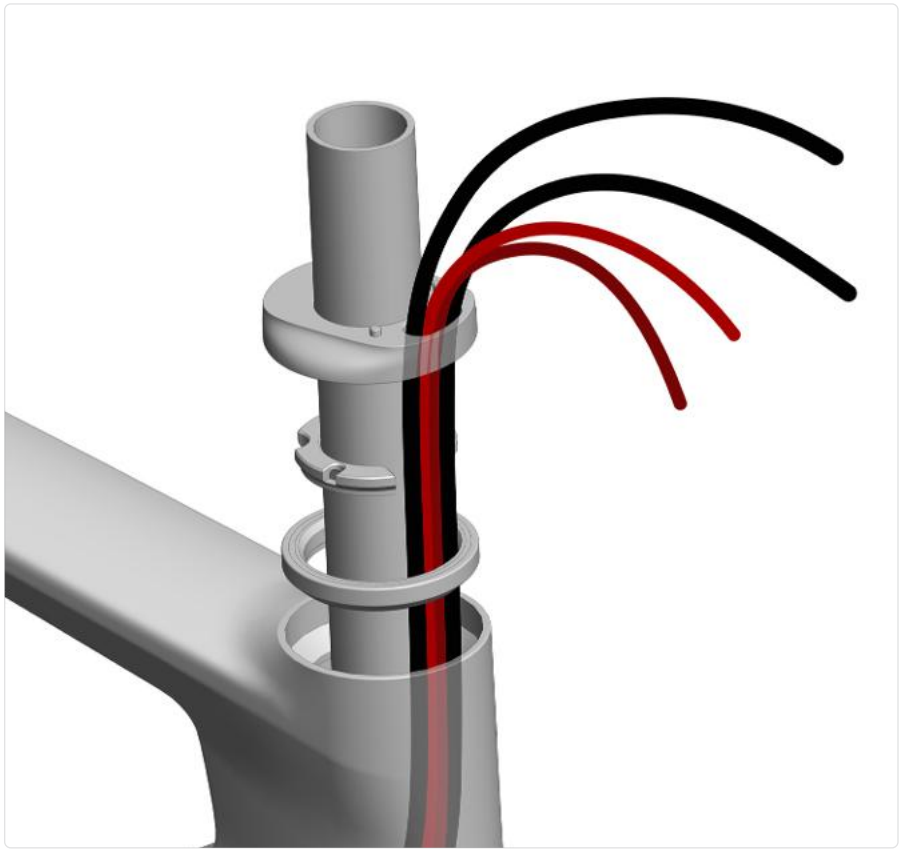
1. Apply grease onto all the surfaces where bearing sit (frame & fork)
2. Insert the fork steerer and front brake housing **through** the bottom bearing (MR127).
3. Slide the fork steerer into the frame headtube.
4. Insert the top bearing (MR127) onto the steerer and into the frame.
5. Pass every housing and/or wires **through** the top bearing.

12. BOTTOM BRACKET COVER INSTALLATION



1. After installing all the cables routing, insert the bottom bracket cover.

/3.1 ROUTING - ACR INTEGRATED COCKPIT SYSTEM



Mechanical

Di2

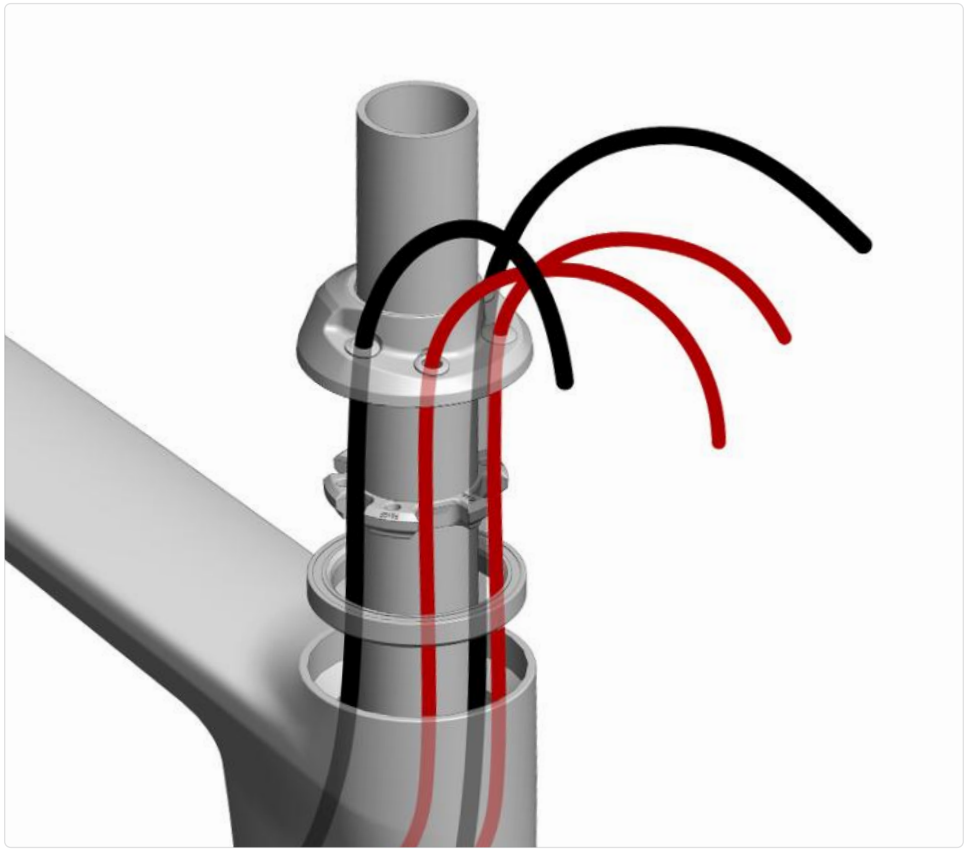
eTap

Gear Housing

Brake Housing

*Integrated headsets are not included in the frameset.

I3.2 ROUTING - TOKEN INTEGRATED COCKPIT SYSTEM



Mechanical

Di2

eTap

Gear Housing

Brake Housing

***Integrated headsets are not included in the frameset.**