

Create Speed.

# Teammachine R

Generation 1  
OWNER'S

MANUAL

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# Introduction

The Teammachine R series represents the pinnacle of functional integration, and rider-focused fit. By patiently following these guidelines, the content of this manual will lead to properly fitting and functioning equipment with a high-performance, Swiss Engineered aesthetic.

BMC Teammachine R frame series and components are designed as a system to provide the highest level of performance. The frameset uses all the latest and most high-end technologies that can be found in bicycle manufacturing, including thin-walled carbon fiber composite construction, which should be treated with care by the end user to prevent permanent and sometimes invisible damage.

For the reasons mentioned above, we ask you to carefully follow the instructions provided in this manual.

Incorrect mechanical operation on your bicycle could lead to serious damage, which could cause you to fall and lead to injury or death.


If you do not have the appropriate tools or experience to execute the following instructions, or if you need further information, please contact your official BMC dealer for service of your bicycle.


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## Generalities

### General notes and warnings

You must read and understand the *Safety Instructions* described in the *BMC Owner's Manual* included with your product before proceeding with installation. Improperly installed components are extremely dangerous and could result in severe and/or fatal injuries. If you have any questions about the installation of these components, consult a qualified bicycle mechanic.

 **WARNING:** Indicates a dangerous or hazardous situation. Not respecting the instruction could result in losing control of the bike or having a component fail. Consequences could be: product damage, injury or death.

 **INFORMATION:** Indicates important information.

This manual uses icons and color codes to indicate actions for proper assembly and adjustments.

 Grease	 Torque
 Threadlocker	 Adjust
 Friction Paste	 Measure

## Intended use

The Teammachine R is designed and tested for Road riding.

It complies with Level 1 ASTM Classification.

Please read and refer to the general BMC Owner's Manual for more details.

The structural weight limit for the Teammachine R is 110kg / 242lb.

**⚠ WARNING:** Always make sure to never exceed the structural weight limit with the sum of rider weight, rider's equipment (e.g., helmet, shoes, apparel) and nutrition (e.g., water, energy gels and bars). Exceeding the structural weight limit may impair the structural integrity of the bike and result in component damage or failure.

## Bike registration and warranty extension

BMC provides a voluntary warranty on the frame, and on BMC components and paintwork. By registering your Teammachine R within the first six months after initial purchase on the Bike Registration page ([www.bmc-switzerland.com/pages/bike-registration](http://www.bmc-switzerland.com/pages/bike-registration)), you can extend the warranty on the frame to five years.

You can read the warranty provisions in detail on the Warranty policy page ([www.bmc-switzerland.com/warranty](http://www.bmc-switzerland.com/warranty)).

Keep this information in a safe place for future reference:

Date of purchase: ..... Place of purchase: .....  
Model Year: ..... Model Name: ..... Size: .....  
Reference - SKU: ..... Serial Number: .....  
*printed on the carton box*

## General notes about this manual

Read and keep this manual for your BMC Teammachine R Gen 1. It includes essential safety, performance, and technical details. Refer to it before your first ride and store it in a handy place.

This document is specific to the Teammachine R Gen 1 and should be read with the "BMC Operating manual".

## Before we start

A Teammachine R frameset or complete bike includes proprietary components such as seatpost, head-set, thru-axles, stem ... For each of those components, you will find part numbers, service and assembly instructions detailed in the following chapters of this manual.



# Components compatibility

## Brakes :

- Front: flat mount for 160mm rotor only using using BMC Teammachine R specific front brake adapter.
- Rear: flat mount brake boss 30mm thickness, compatible with Ø140mm / Ø160mm rotor using BMC specific front brake adapter (sizes 47 and 51).

For more details, please refer to “Fork, Headset and Cockpit Preparation”, page 34.

## Headset bearings:

- BMC by FSA, HS-B-13P - standard
- BMC by FSA, HS-B-27P - stainless
- BMC by Ceramic Speed, Headset TM R Mpc - ceramic

For more details, please refer to “Headset assembly”, page 47

## Thru-axles:

- Front: BMC model CTS1048 12x100mm, L 117mm, M12 P1.0
- Rear: BMC model CTS1049 12x142mm, L 161.5mm, M12 P1.0

For more details, please refer to “Wheels and Axles”, page 52.

## Shifting compatibility:

**Chainline:** Designed for road chainlines of 44.5-45mm.

### Electronic groupsets

- Compatible with Shimano 12s Di2, Sram AXS, Campagnolo Wireless
- Not compatible with Campagnolo EPS

### Mechanical shifting groupsets

- Not compatible

For more details, please refer to “Shimano Di2 Electronic Wires Installation”, page 28.

## Tires:

- Optimized for 700x28c tires (28mm measured)
- Min 700x23c
- Max 700x30c: up to 30mm measured (+4mm clearance around the tire)

## Crankset and chainrings:

- Press-fit bottom bracket BB86 (internal diameter of 41mm)
- Chainline 2x road (44.5~45.0mm) and 1x road (45.0 or wide 47.5mm)
- Cranksets either 2x (double) or 1x (single)
  - 1x: maximum 48t.
  - 2x: 52x36 or 50x34.
  - Max chainring size (2x): SHIMANO 56t or SRAM 54t.
  - Min chainring size (2x): SHIMANO 50t or SRAM 46t.

For more details, please refer to “Front Derailleur Installation”, page 33

## Rack:

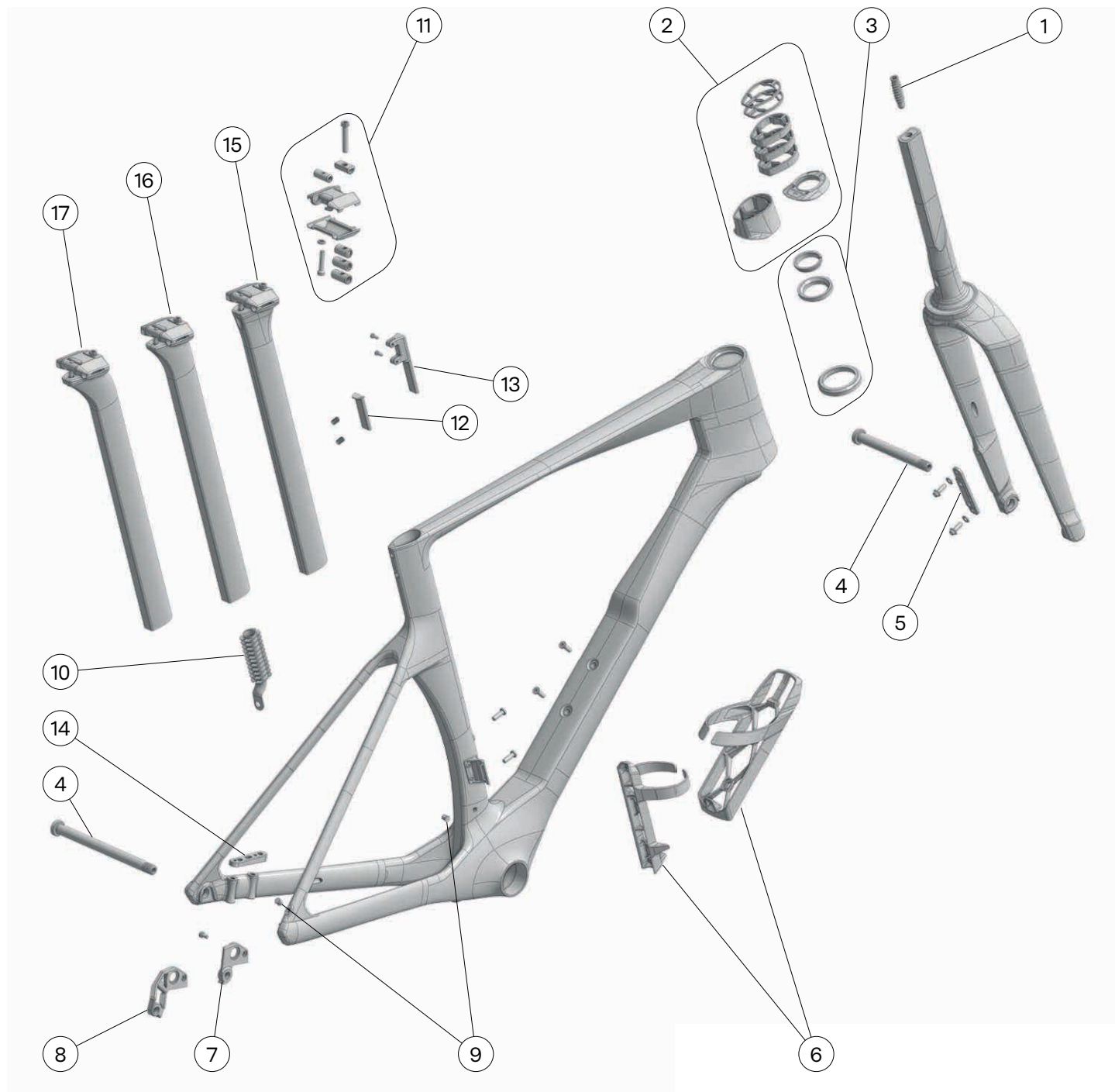
- No rack is compatible with the Teammachine R 01.

## Fenders

- Some fenders with light fastening systems can be fitted onto the Teammachine R (SKS Speedrocker or RaceBlades).

# Special parts details

## Teammachine R 01 - Frameset and parts





## NO. Description/Details

1	30007222	Flat Steerer Expander Bolt, Short, Incl. Top Cap Bolt
2	30001801 30001802 30003256	Topcone Set ICS2 (sizes 47-56), 5mm & 30mm topcones, 3x10mm, 2x3mm spacers
2	30006290 30006289 30006291	Topcone Set ICS2 (sizes 58-61), 5mm & 30mm topcones, 3x10mm, 2x3mm spacers
3	30000704	Headset HS-B-13-P steel headset
3	30007614	Headset HS-B-27-P Stainless headset
3	30007215	Teammachine R Mpc. Ceramic headset
4	30006250	Thru Axle Kit No. 10 (12x100mm + 12x142mm)
5	30006286	Brake Mount Adapter TM R01, Front brake caliper adapter
6	30006281	Aero Shape Bottle Cage Set (WBC AS No. 3)
7	30006287	Dropout No. 81 (Sram/Campagnolo/Shimano classic mount)
8	30006288	Dropout No. 82 (Shimano direct mount)
9	212492	Di2 plug Kit - No 3, Plug diam 6.0 Blind for wireless drivetrain
10	30006280	Seatpost Battery Holder 16x29mm (INT BT ADP No. 4)
11	30007613	Saddle Clamp No. 6 (Titanium Bolts)
12	30006282	Seatpost Clamp Teammachine R 01
13	30006164	Number Plate Holder Teammachine R 01
14	30006907	Rear Brake Mount Adapter Teammachine R01 47/51cm
15	30007897	Teammachine R01 Seatpost (SP AS8, 0, 0-400), 0mm offset, 405mm length
16	30006320	Teammachine R01 Seatpost (SP AS8, 0, 10-400), 10mm offset, 405mm length
17	30006319	Teammachine R01 Seatpost (SP AS8, 0, 25-400), 25mm offset, 405mm length



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## Frame hardware

### Fork Expander



**Article number:**

30007222 FSTR expander bolt, short Flat Steerer Expander Bolt, Incl. Top Cap Bolt

### Top cones and spares sets



**Article number:**

30001801 Topcone Set ICS2 BLACK (sizes 58-61)

30001802 Topcone Set ICS2 RED (sizes 58-61)

30003256 Topcone Set ICS2 WHITE (sizes 58-61)

Top cone #1 (5mm)

Top cone #2 (30mm)

3x10mm spacers

2x3mm spacers

**Article number:**

30006290 Topcone Set ICS2 BLACK (sizes 47-56)

30006289 Topcone Set ICS2 RED (sizes 47-56)

30006291 Topcone Set ICS2 WHITE (sizes 47-56)

Top cone #12 (5mm)

Top cone #13 (30mm)

3x10mm spacers

2x3mm spacers

### Headset Bearings Set



**Article number:**

30000704 HS-B-13-P Standard headset bearings

30007614 HS-B-27-P Stainless headset bearings

30007215 Headset Teammachine R Mpc - Ceramic Speed headset bearings

## Thru-axles



**Article number:**

30006250 Thru Axle Kit No.10

## Front brake adapter



**Article number:**

30006286 Brake Mount Adapter TM R01

## Rear brake adapter



**Article number:**

30006907 Rear Brake Mount Adapter Teammachine R01 47/51cm

required for Ø160mm rotor

## Bottle Cages Set



**Article number:**

30006281 Aero Shape Bottle Cage Set (WBC AS No. 3)

includes 4x extra low head screws  
M5x12



## Rubber grommets and plugs



### Article number:

212492 Di2 plug kit # 3 10pcs Ø6mm rubber plug

## Rear dropout hangers



### Article number:

30006287 Dropout No. 81  
(Sram/Campagnolo/Shimano classic mount)

includes low head screw M4x8

### Article number:

30006288 Dropout No. 82  
(Shimano direct mount)

includes low head screw M4x8

## Seatpost clamp



### Article number:

30006282 Seatpost Clamp Teammachine R 01

includes:

- 2x clamp set screws M6x7

### Article number:

30006164 Number Plate Holder Teammachine R 01

includes:

- 2x clamp set screws M6x7  
- 2x number plate screws M3x8

## Battery Adapter



### Article number:

30006280 Seatpost Battery Holder 16x29mm (INT BT ADP No. 4)  
Required for SHIMANO BT-DN300 battery installation.

## Stems & Cockpit

The Teammachine R frameset is only compatible with ICS type cockpits and stem for internal brake cable routing.

	Teammachine R (flat steerer fork)
ICS 2.0 standard integrated cables	✓
ICS 1.0 standard integrated cables	✓ only for sizes 58 and 61
1 1/8 stems external cables	✗

First generation ICS stems “ICS1.0” is also compatible with Teammachine R sizes 58, and 61. However, you will need to replace the top cone and spacers to ICS1.0 versions.

### Computer Mount for stems



**Article number:**

30000718 COM ICS1 ICS2 Computer Mount | ICS, ICS2, ICS MTT and RSM01 Stems

### ICS 2 Stem



**Article number:**

- 30001784 ST ICS2 80mm
- 30001785 ST ICS2 90mm
- 30001786 ST ICS2 100mm
- 30001787 ST ICS2 110mm
- 30001788 ST ICS2 120mm
- 30001789 ST ICS2 130mm
- 30001790 ST ICS2 140mm

30000718 COM ICS1 ICS2 Computer Mount | ICS, ICS2, ICS MTT and RSM01 Stems

### RSM01 Stem



**Article number:**

- 30007807 ST RSM01, 70 mm
- 30007808 ST RSM01, 80 mm
- 30002072 ST RSM01, 90mm
- 30002073 ST RSM01, 100mm
- 30002074 ST RSM01, 110mm
- 30002075 ST RSM01, 120mm

30007594 RSM01 ICS Kit - Cable Guide And Rear Cover



## Cockpit ICS2 Carbon Aero Gen 2



### Article number:

#### Cockpit ICS Carbon Aero Mpc.

- 30007862 CKP ICS2 CBN AERO Mpc. 90 370/420 BLK
- 30007863 CKP ICS2 CBN AERO Mpc. 100 370/420 BLK
- 30007864 CKP ICS2 CBN AERO Mpc. 110 370/420 BLK
- 30007865 CKP ICS2 CBN AERO Mpc. 120 370/420 BLK

#### Cockpit ICS Carbon Aero Gen2

- 30007867 CKP ICS2 CBN AERO GEN2 80 370/420 BLK
- 30007868 CKP ICS2 CBN AERO GEN2 90 370/420 BLK
- 30007869 CKP ICS2 CBN AERO GEN2 100 370/420 BLK
- 30007870 CKP ICS2 CBN AERO GEN2 110 370/420 BLK
- 30007871 CKP ICS2 CBN AERO GEN2 120 370/420 BLK
- 30007872 CKP ICS2 CBN AERO GEN2 130 370/420 BLK

- 30007873 CKP ICS2 CBN AERO GEN2 140 370/420 BLK

- 30007874 CKP ICS2 CBN AERO GEN2 90 390/440 BLK
- 30007875 CKP ICS2 CBN AERO GEN2 100 390/440 BLK
- 30007876 CKP ICS2 CBN AERO GEN2 110 390/440 BLK
- 30007877 CKP ICS2 CBN AERO GEN2 120 390/440 BLK

- 30007878 CKP ICS2 CBN AERO GEN2 100 410/460 BLK
- 30007879 CKP ICS2 CBN AERO GEN2 110 410/460 BLK
- 30007880 CKP ICS2 CBN AERO GEN2 120 410/460 BLK

## Cockpit ICS2 Carbon EVO



### Article number:

- 30005534 CKP ICS2 CBN EVO 70 400/436 BLK
- 30005535 CKP ICS2 CBN EVO 80 400/436 BLK
- 30005536 CKP ICS2 CBN EVO 90 400/436 BLK
- 30005537 CKP ICS2 CBN EVO 100 400/436 BLK
- 30005538 CKP ICS2 CBN EVO 110 400/436 BLK
- 30005539 CKP ICS2 CBN EVO 120 400/436 BLK

- 30003196 Computer Mount | ICS Carbon and ICS Carbon EVO Cockpits

## Cockpit ICS Carbon Aero



**Article number:**

- 30003720 CKP ICS2 CBN AERO 80 360/420 BLACK
- 30003721 CKP ICS2 CBN AERO 90 360/420 BLACK
- 30003722 CKP ICS2 CBN AERO 100 360/420 BLACK
- 30003723 CKP ICS2 CBN AERO 110 360/420 BLACK
- 30003724 CKP ICS2 CBN AERO 120 360/420 BLACK
- 30003725 CKP ICS2 CBN AERO 130 360/420 BLACK
- 30003726 CKP ICS2 CBN AERO 140 360/420 BLACK

30003730 Computer Mount | ICS Carbon Aero Cockpit

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## Cockpit ICS Carbon



**Article number:**

- 30001767 CKP ICS Carbon 90 400 BLACK
- 30001768 CKP ICS Carbon 100 420 BLACK
- 30001769 CKP ICS Carbon 110 420 BLACK
- 30001770 CKP ICS Carbon 120 420 BLACK

30003196 Computer Mount | ICS Carbon and ICS Carbon EVO Cockpits



## Seatpost

### Seatpost Options

Depending on the frame size, the Teammachine R is delivered with either “0mm offset” or “10mm offset” seatpost providing a standard range of adjustment for road bike fitting.

Seatpost length is sized according to the frame size:

- 330mm on size 47, 51
- 380mm on size 54, 56
- 400mm on size 58, 61

Optional “0mm offset”, “10mm offset” and “25mm offset” seatposts are available for riders who need a more forward or rearward position or to help deal with some particular saddle rails (carbon saddle rails can push the seating area backwards).

Replacement seatposts are offered in a longer 400 mm option. You may have to cut this version depending on your frame size and saddle height.

Please follow the recommended assembly instructions available in this manual “Seatpost assembly”, page 26.



25mm offset seatpost  
(optional)

10mm offset seatpost  
(standard)

0mm offset seatpost  
(optional)



**Article number:**

30007897 Teammachine R01 Seatpost 0mm offset (SP AS8, 0, 0-400)  
offset 0mm, length 405mm

**Article number:**

30006320 Teammachine R01 Seatpost 10mm offset (SP AS8, 0, 10-400)  
offset 10mm, length 405mm

**Article number:**

30006319 Teammachine R01 Seatpost 25mm offset (SP AS8, 0, 25-400)  
offset 25mm, length 405mm

**Article number:**

30007613 Saddle Clamp No. 6 (Titanium Bolts)



TELEGRAPH POST TELEPHONE

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# General Notes About Assembly

## Tools

Bike specific tools are required to perform the assembly of your Teammachine R and its components. We recommend that you have a qualified bicycle mechanic correctly install these components.

Before you start assembling, make sure you are equipped with the following tools:

Standard keys and torque wrench + bits

- Hex / Allen: 2, 2.5, 3, 4, 5, 6 mm

Special tools

- Carbon saw blade Park Tool CSB-1.
- Park Tool IR-1.2 Internal Cable Routing Kit

Grease compounds:


- Grease gun or grease brush
- Fine assembly grease
- Friction paste
- LOCTITE® 243 Blue threadlocker

Operator protection:

- Eye protection
- Hand protection

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## Repair Stand

 **WARNING:** Clamping the frame or its components into a bike repair stand could damage its structure or finish.

 **WARNING:** Never clamp the frame by the top tube, downtube or seat tube.

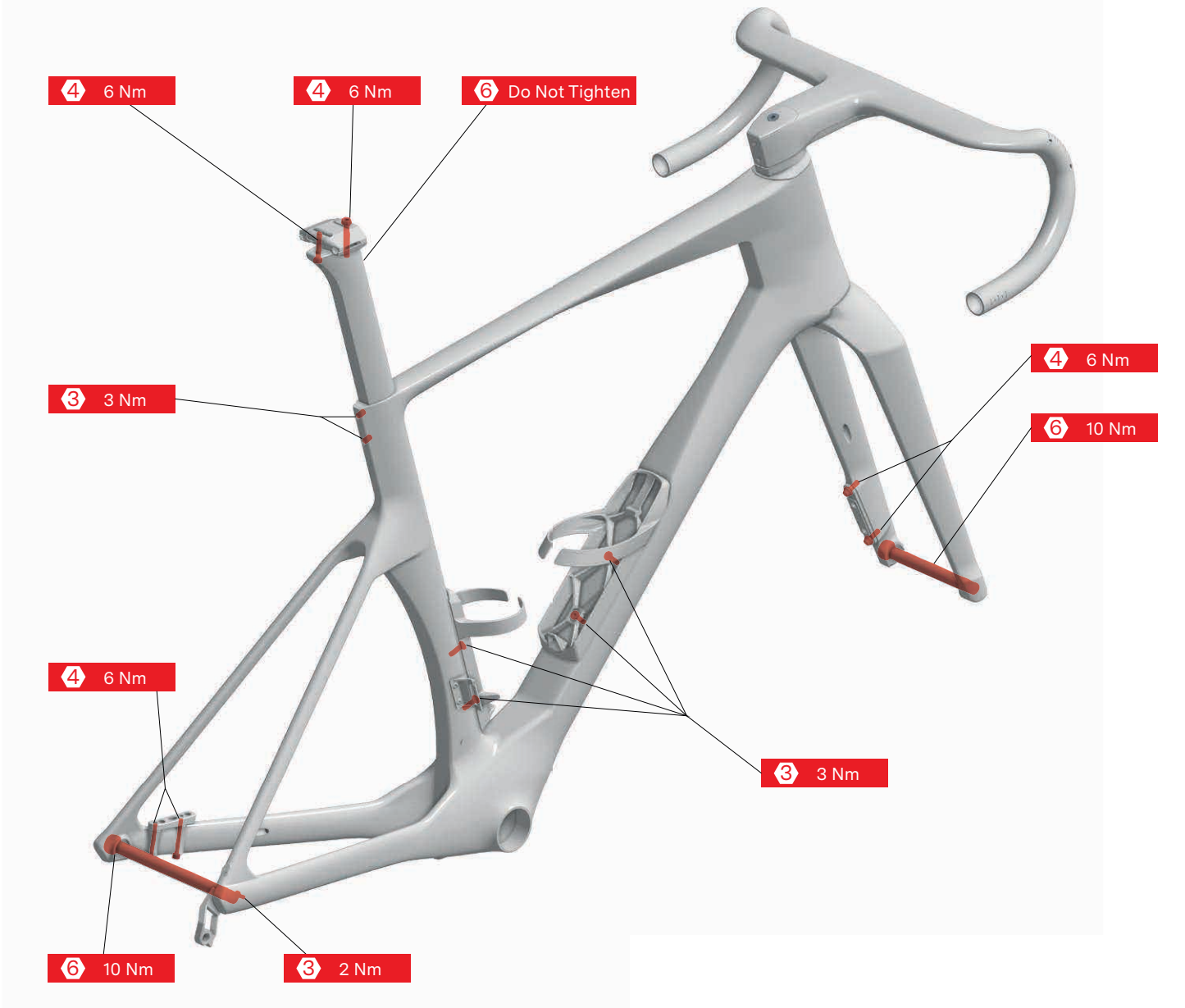
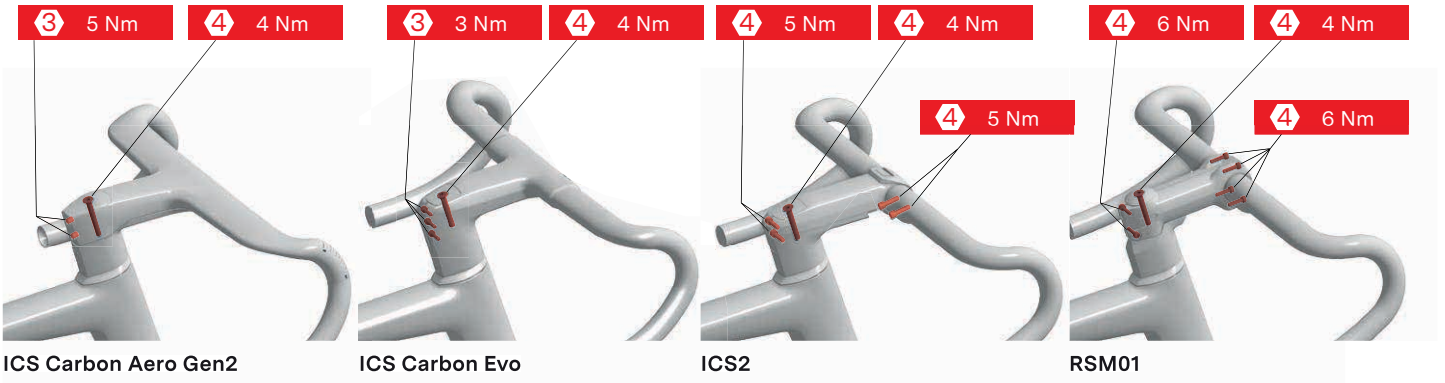
Please use a traditional fork mount stand like the Park Tool PRS-22.2 Team Issue Repair Stand.

## Torque Specifications

**⚠ WARNING:** Respecting and applying the correct torque on fasteners is important for your safety. If too little force is applied the component will not be secure and if too much force is applied the component's thread could deform and break.

Therefore, not respecting the torque specification of any component could result in failure, which can cause loss of control and a fall.

Designation	Specification	Tool	Torque value
Bottle cages	Hex socket head cap screw low head, M5x12mm	Hex 3mm	3 Nm
Seat post clamp	Hex socket set screws, M6x9mm	Hex 3mm	3 Nm
Front brake mount adapter	Button head bolt M5x14mm	Hex 4mm	6 Nm
Rear brake mount adapter	Hex socket head bolt M5x14mm	Hex 4mm	6 Nm
Saddle clamp Nut	M5x24 nut	Hex 6mm	Alignement
Saddle clamp Rear	Hex socket head cap screws, M5x28mm	Hex 4mm	6 Nm
Saddle clamp Front	Special hex socket head cap screws, M6x35mm	Hex 4mm	6 Nm
Headset compression	Hex socket flat countersunk head screw, M6x45mm	Hex 4mm	4 Nm
Thru axle Front	BMC model CTS1048 12x100mm, M12 P1.0	Hex 6mm	10 Nm
Thru axle Rear	BMC model CTS1049 12x142mm, M12 P1.0	Hex 6mm	10 Nm
ICS Carbon Aero Gen2 Cockpit steerer clamp	Hex headless set screw M6x10mm	Hex 3mm	5 Nm
ICS Carbon Evo Cockpit steerer clamp	Hex socket head cap screws, M4x14mm	Hex 3mm	3 Nm
ICS2 Stem face plate bolts	Hex socket head cap screw, M5x16mm	Hex 4mm	5 Nm
ICS2 Stem steerer clamp bolts	Hex socket head cap screw, M5x16mm	Hex 4mm	5 Nm
RSM01 Stem face plate bolts	Hex socket head cap screw, M5x14.5mm	Hex 4mm	6 Nm
RSM01 Stem steerer clamp bolts	Hex socket head cap screw, M5x14.5mm	Hex 4mm	6 Nm



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## Recommended assembly procedure

If you are building a Teammachine R from scratch, the most convenient way is to follow the order and the procedure described below. This is only the general procedure, all the separate steps and recommendations are described one by one in the following pages of this manual.

**i** INFORMATION: Please go through all the instructions before starting. Following this sequence will help you save time and facilitate the assembly.

1. Geometry and Sizing
2. Seatpost Assembly
3. Frame Preparation
4. Fork, Headset and Cockpit Preparation
5. Definition of Steerer Tube Length
6. Brake Calipers Assembly
7. Headset, Top Cone and Spacers Assembly
8. Cockpit or Stem Installation 44
9. Headset Compression and Clamping the Stem
10. Bottom Bracket and Crankset Assembly
11. Bottle Cages
12. Wheels and Axles
13. Fenders

# Sizing and parts selection

## Positioning

A bicycle rider will only perform at their best if they are correctly positioned on their bike. Proper positioning not only enhances your riding experience but also helps prevent strain or injury over time.

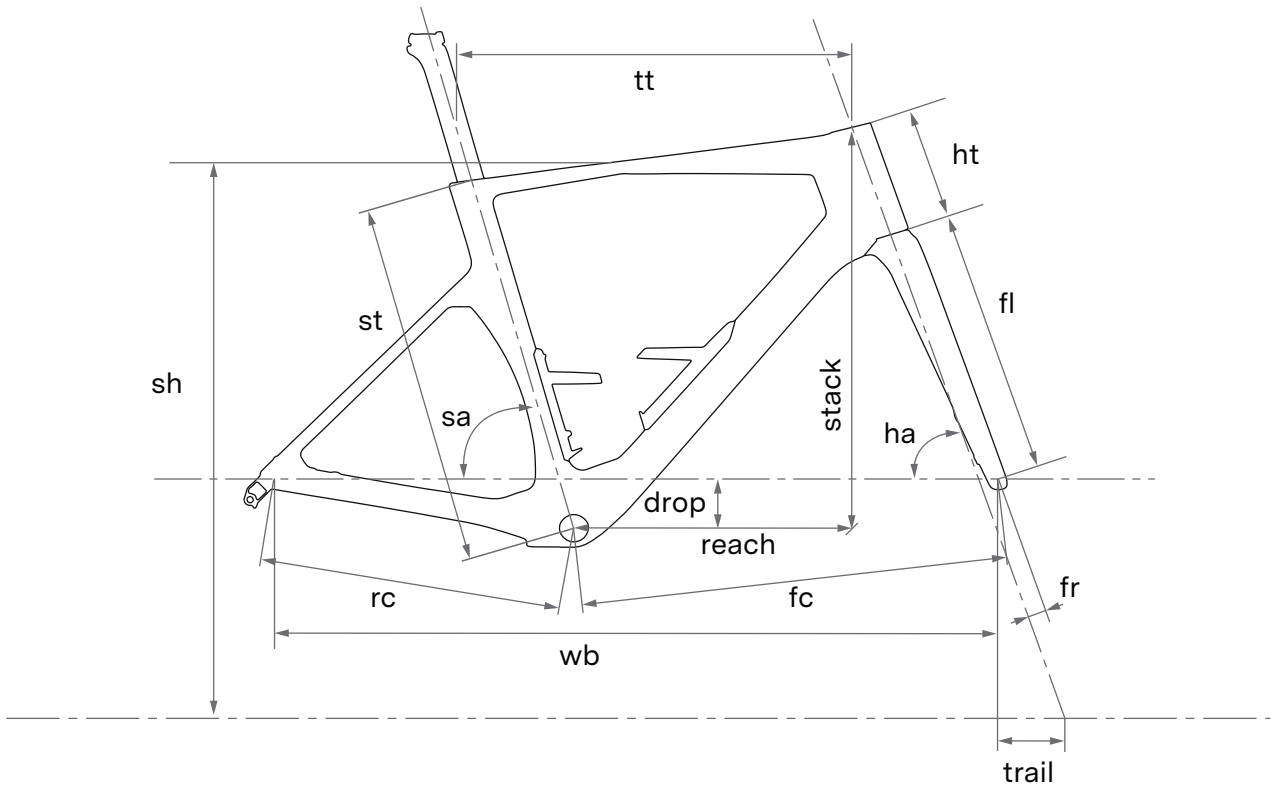
To ensure optimal comfort, performance, and safety while riding, we strongly recommend utilizing a professional bike fitting service when ordering or setting up your new bike. A bike fitter can assess your unique body requirements, riding style, and flexibility to fine-tune your bike's adjustments, such as saddle height, saddle position and handlebar position.

If a professional bike fitting is not immediately accessible, take the time to carefully evaluate your bike's setup to ensure it matches your riding needs and personal measurements. If you are transitioning from a previous bike, it is crucial to confirm that your current bike setup is appropriate for your new bike's geometry and specifications.



# Frame size

## General frame geometry



Size	47	51	54	56	58	61
Rider Height cm	<166	166-174	172-180	178-186	184-192	>190
Stack	504	528	548	563	582	608
Reach	368	378	387	393	402	409
Seat Tube (st)	418	463	499	519	541	570
Top Tube (tt')	515	532	552	562	582	598
Head Tube (ht)	108	133	149	165	184	211
Seat Angle ° (sa)	74	74	73.5	73.5	73	73
Head Angle ° (ha)	71.5	71.5	72.3	72.3	72.3	72.3
Rear Center (rc)	410	410	410	410	410	410
Front Center (fc)	568	586	589	599	614	630
Wheelbase (wb)	968	986	989	999	1015	1030
BB drop (drop)	69	69	69	69	69	69
Fork Length (fl)	367	367	367	367	367	367
Fork Rake (fr)	48	48	43	43	43	43
Trail	63	63	63	63	63	63
Standover Height (sh)	721	755	781	799	813	836
Seatpost Length	335	335	385	385	405	405
Seatpost Offset	10	10	10	10	10	10
Seatpost Max Insertion	130	170	200	220	235	250

# Detailed assembly instructions

## Seatpost assembly

### Seatpost length

The three seatposts compatible with the Teammachine R have a minimum and a maximum insertion depth in the frame.

Size	47	51	54	56	58	61
Seatpost Length	335	335	385	385	405	405
Min insertion	80	80	80	80	80	80
Max insertion	130	170	200	220	235	250

**⚠ WARNING:** Always make sure you are respecting the min insertion length of 80mm.

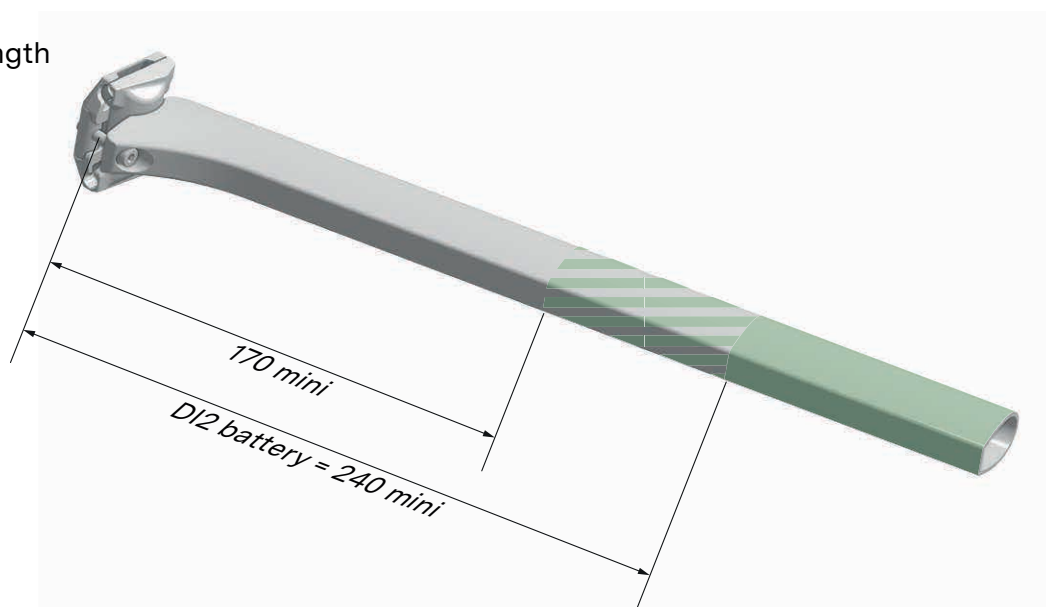
**ℹ INFORMATION:** If the max insertion is too restricting and does not allow a low enough saddle height, you can cut your seatpost to a shorter length to allow you to reach your ideal saddle height.

**ℹ INFORMATION:** Use a saw guide like the Park Tool SG-7.2 Oversized Adjustable Saw Guide and an appropriate carbon specific saw blade such as the Park Tool CSB-1.

**⚠ WARNING:** If cutting the seatpost, make sure to respect the maximum cutting instruction.

**⚠ WARNING:** Minimum seatpost length is limited to 240mm using a D12 battery. This length is not guaranteed and varies depending on manufacturing batch and seatpost type. Please cut the seatpost progressively to ensure proper installation of the battery.

■ Maximum cutting length





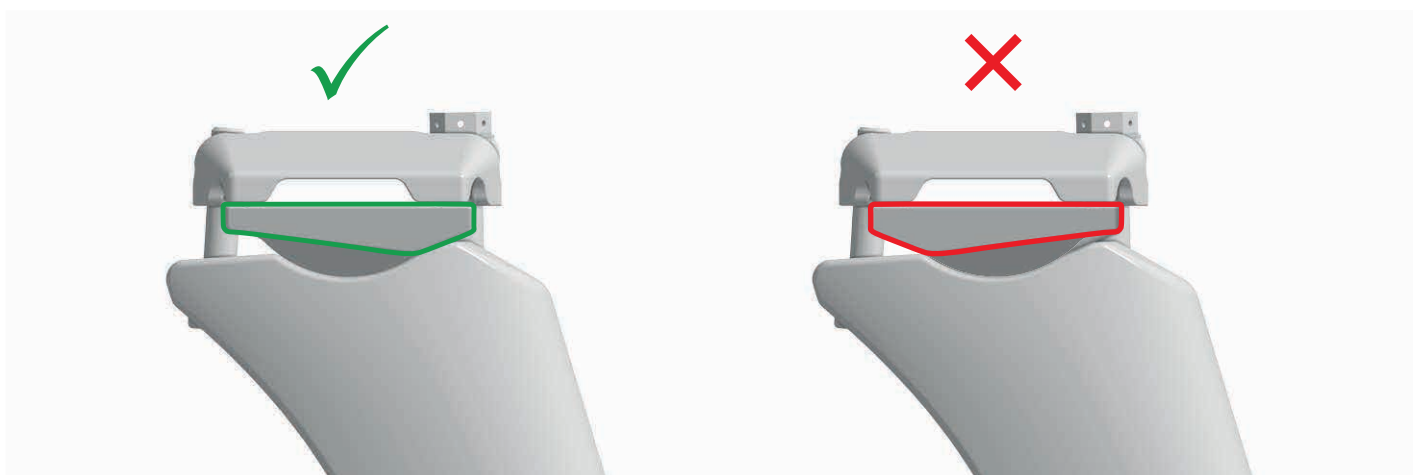
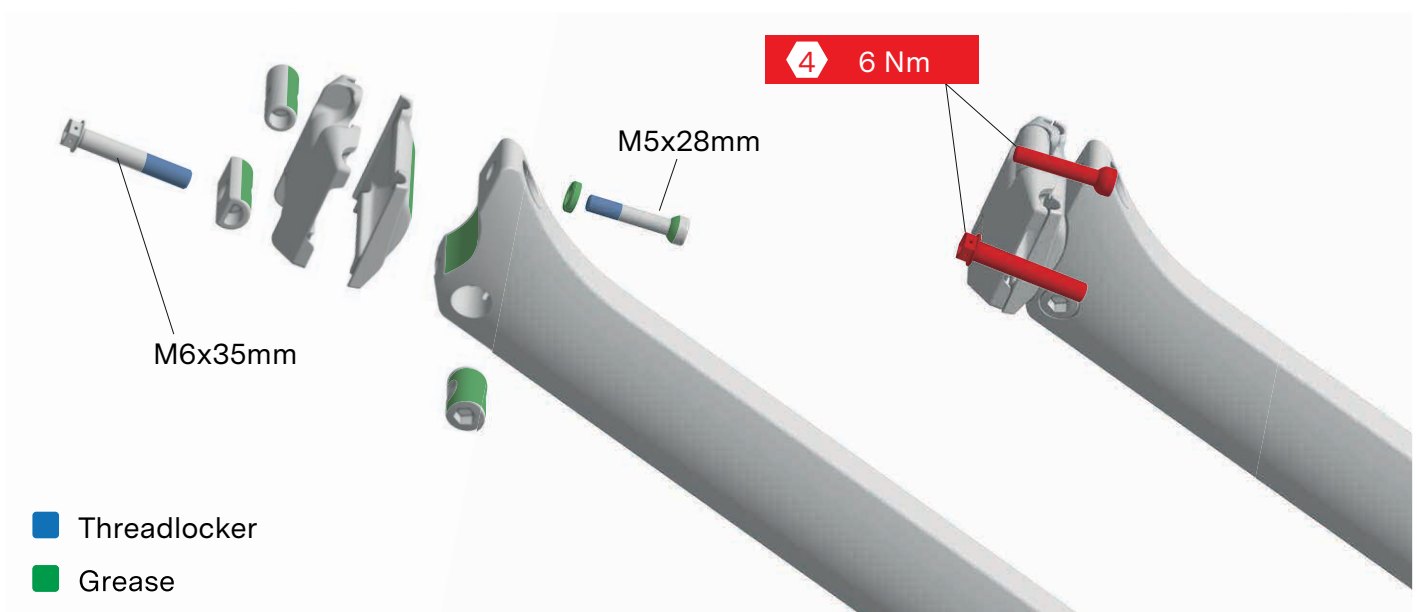
## Saddle Clamp Installation

1. Pre-install the lower clamp, the upper clamp, the 2 barrel nuts and finally pre-install the M6 (front) and M5 (rear) bolts:
  - 1.1. Special Long M6x35 at the front (no washer).
  - 1.2. Short M5x28 + washer at the rear.
2. Install your saddle by clamping the rails between the 2 clamps and adjust the saddle setback and tilt before clamping both bolts.
3. Tighten the rear M5x28 bolt to 6 Nm using a hex 4mm.

**ⓘ INFORMATION:** The front barrel nut features a 4mm hex head, making it easier to turn and simplifying the installation of the front bolt.

**ⓘ INFORMATION:** The special front bolt design allows you to conveniently adjust your saddle tilt using a 4mm Allen key, a 7mm socket wrench, or a small metal rod ( $\varnothing < 1\text{mm}$ ).

**⚠ WARNING:** Always tighten to the correct torque. Not respecting this recommendation may result in the saddle coming loose, losing control of the bike and falling.

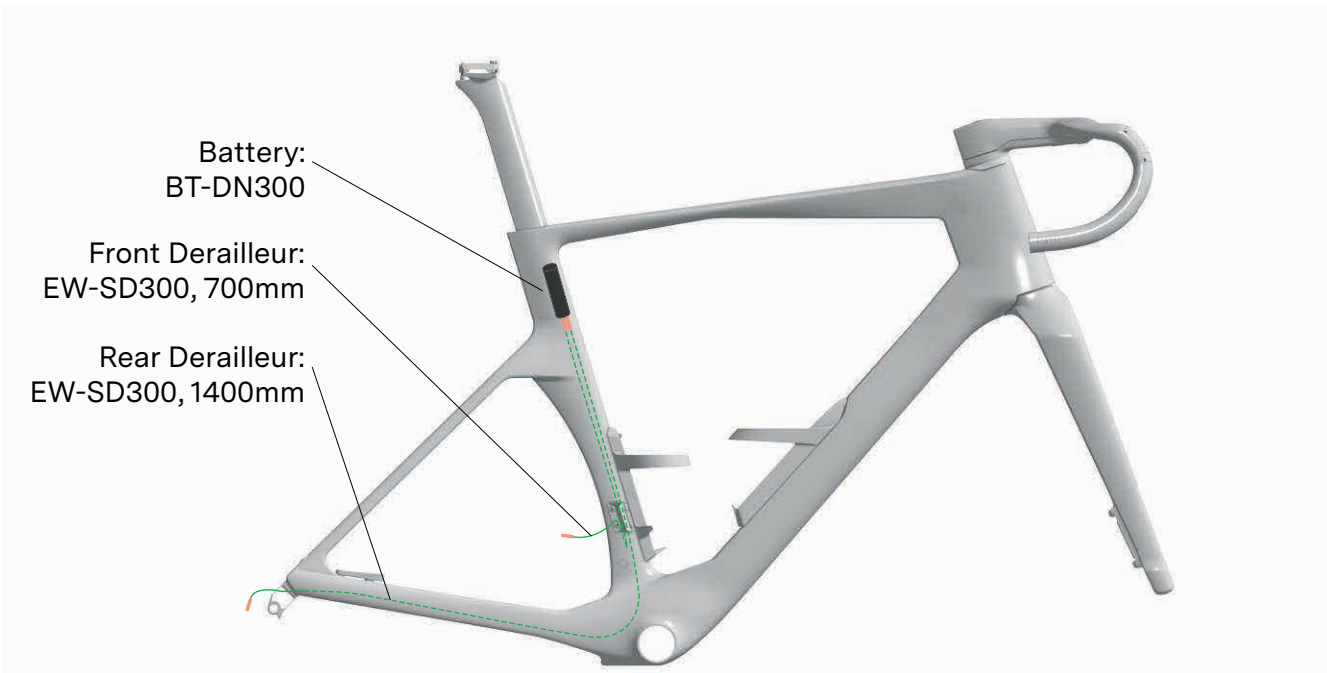


**⚠ WARNING:** Always respect the orientation of the lower clamp as illustrated above.

# Frame preparation

## Shimano Di2 Electronic Wires Installation

**⚠ WARNING:** Please always refer to the latest Shimano product information for your groupset. The following information is a guide with basic principles.



**ℹ INFORMATION:** Install SHIMANO EW-GM300-S rubber grommets to secure the Di2 wire at the frame's cable ports (not included with framesets).

Recommended wire lengths:

Location	Part code	Length
Front Derailleur	EW-SD300	700mm
Rear Derailleur	EW-SD300	1 400mm

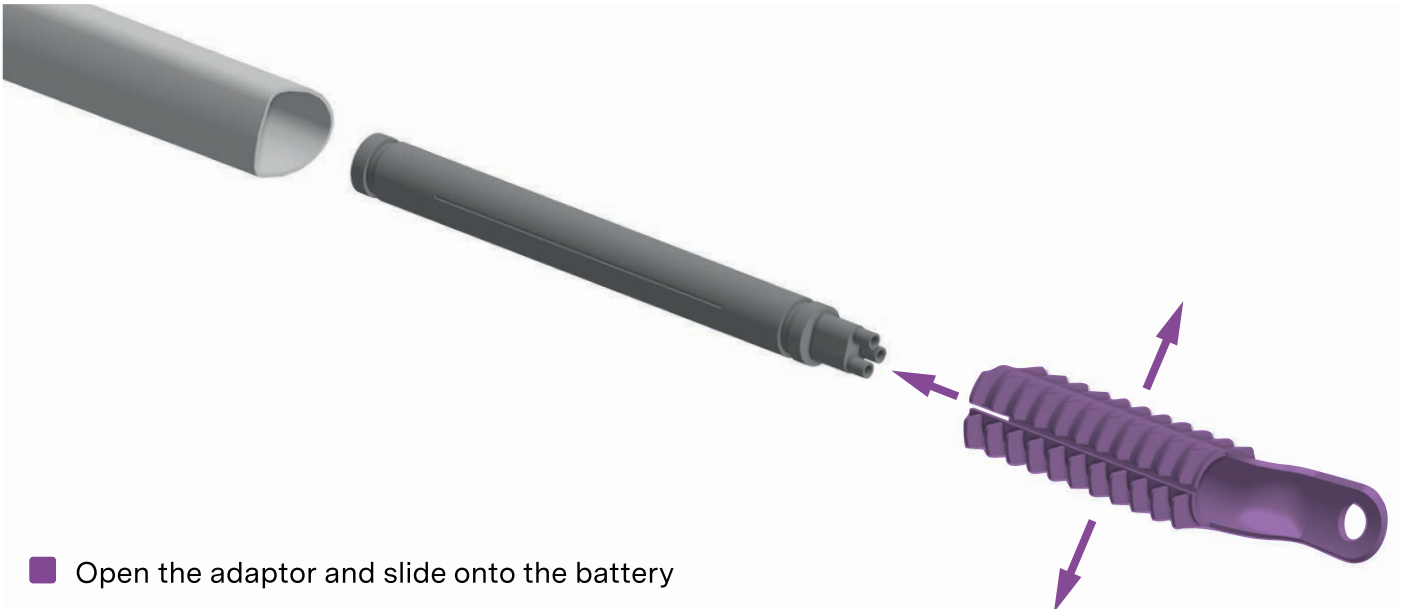
1. Install the different electronic wires into the frame.

**ℹ INFORMATION:** It helps a lot to use a cable routing guiding tool like the Park Tool IR-1.2 Internal Cable Routing Kit

2. Align the marking line on the battery with the opening of the Shimano battery adapter.
3. Install the Shimano battery adapter onto the Di2 battery
4. Position the adapter opening toward the back of the seatpost (flat side).
5. Insert the battery and holder into the seatpost until the adapter head extends approximately 15 mm beyond the end of the seatpost.



■ Align the marking line on the battery with the opening



■ Open the adaptor and slide onto the battery



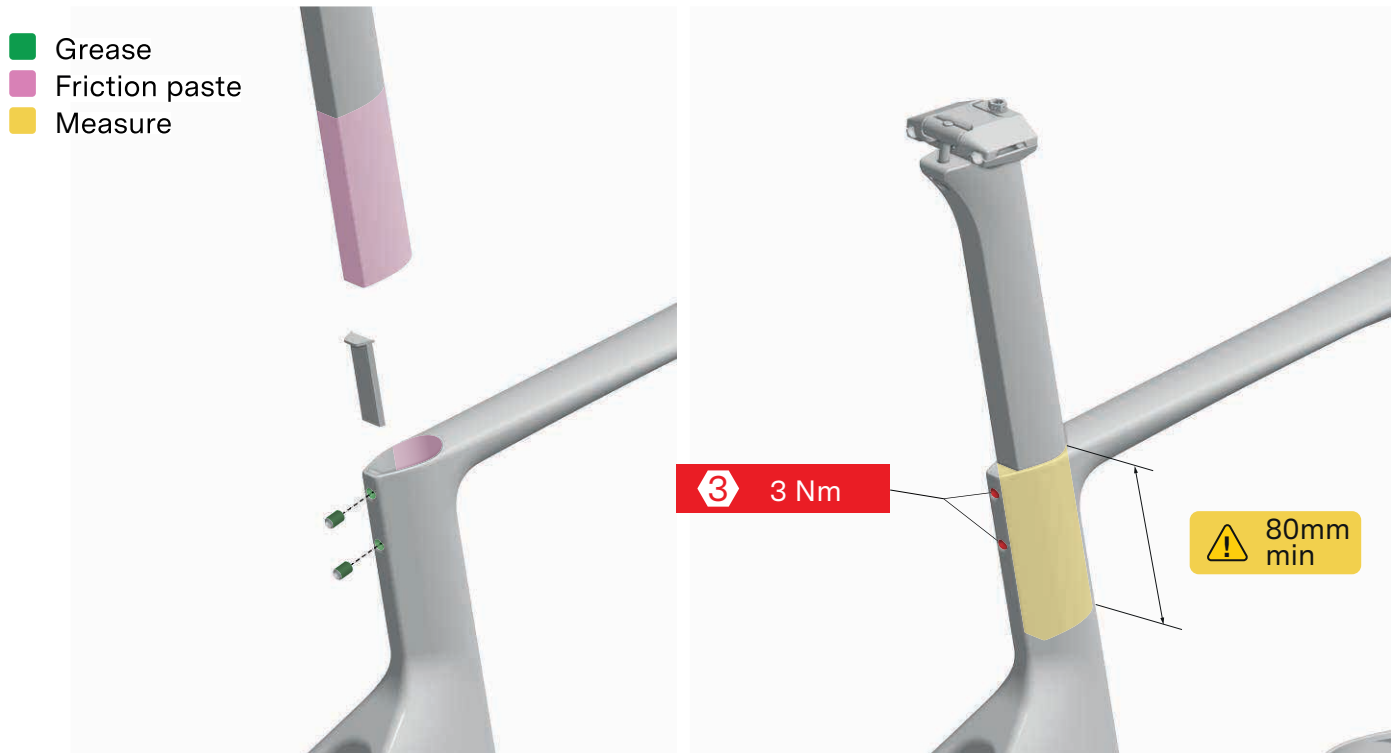
■ Push the adaptor and battery

**ⓘ INFORMATION:** The fit of battery + battery holder into the seatpost is tight. Use talc powder to facilitate the insertion.

## Frame Seatpost Clamp Installation

1. Apply a thin layer of friction paste to the seatpost and the inside of the seat tube.
2. Grease the two M6x9 set screws and engage them into the frame's threaded inserts.
3. Insert the seat clamp plate into the seat tube; its magnet will hold it in place.
4. Slide the seatpost into the frame and adjust it to your desired saddle height.
5. Tighten the M6x9 set screws to 3 Nm using a hex 3mm wrench.

**⚠ WARNING:** Remember to respect the minimum insertion of 80mm. Not respecting the minimum insertion could result in frame or seatpost damage, breakage and injury.



- Tighten the M6x7 set screws evenly to 3 Nm using a hex 3mm wrench.



## Rear derailleur hanger installation

1. Select the right model of hanger depending on your groupset, and the rear derailleur design. You can choose between the standard dropout hanger or the direct mount dropout hanger. The Direct Mount hanger is usually specified for Shimano's or Campagnolo's latest generation of derailleurs.

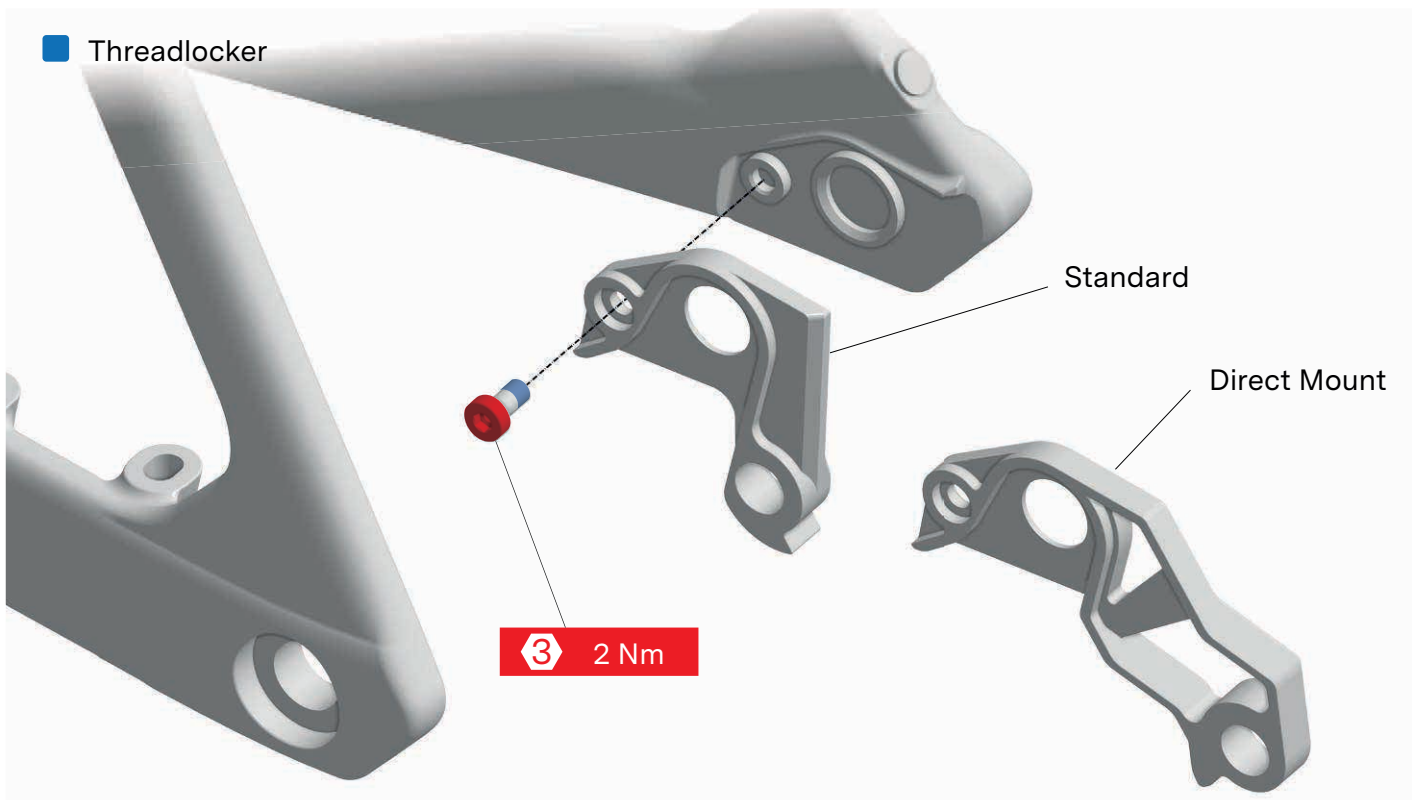
Standard



Direct mount



2. Position the selected dropout hanger on the frame dropout and bolt on the M4x8 bolt using a hex 3mm.
3. Tighten to 2 Nm.

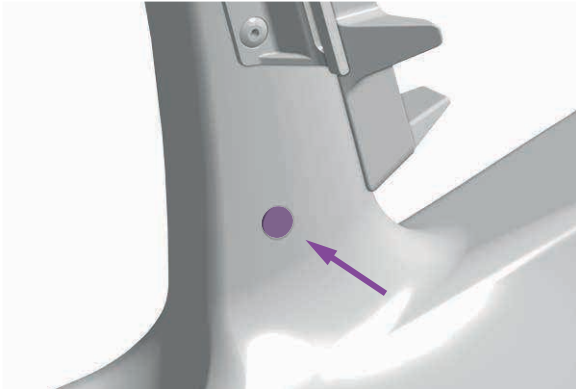


## Rubber grommets Installation

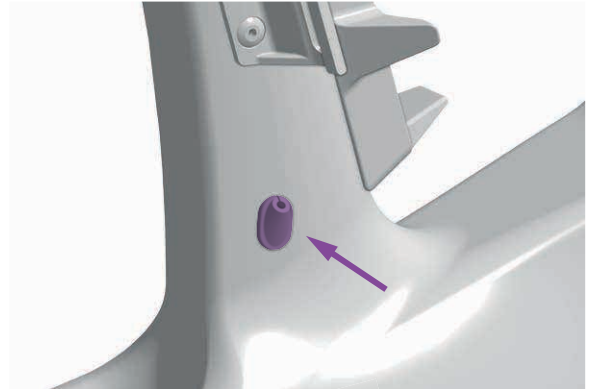
- Select the right model of rubber grommet or plug depending on your groupset and push it into the frame openings.
  - SHIMANO Di2: SHIMANO EW-GM300-S (for EW-SD300 wire and frame port Ø6mm) (not included with framesets).
  - SRAM AXS or CAMPAGNOLO Wireless: Di2 plug kit # 3 (blind plug for frame port Ø6mm)

### ■ Push in the appropriate plug or grommet

Sram AXS

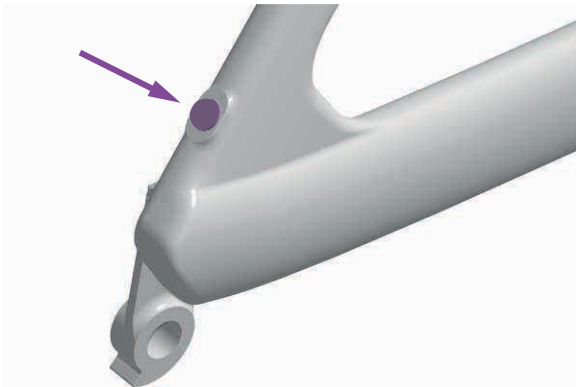


Shimano Di2

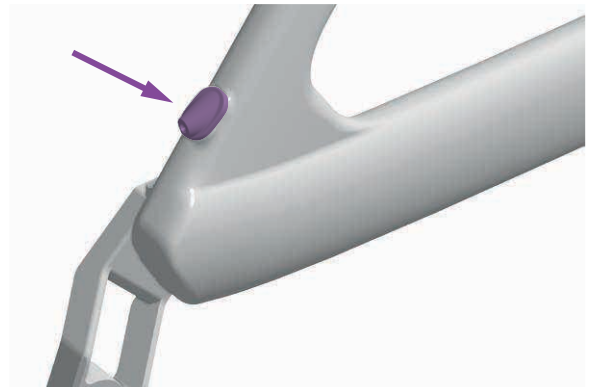


### ■ Push in the appropriate plug or grommet

Sram AXS



Shimano Di2





## Front Derailleur Installation

Teammachine R is designed with a riveted front derailleur hanger that can not be removed.

**ⓘ INFORMATION:** Our Teammachine R frames are designed to accommodate round chainrings of maximum SHIMANO 56 teeth / SRAM 54 teeth and minimum 46 teeth.

**ⓘ INFORMATION:** Our Teammachine R frames are designed for road chainline of 44.5-45.0mm.

**⚠ WARNING:** Chainrings not listed above can not be guaranteed compatible with our frame design. An assembly check is necessary to confirm a 4mm minimum clearance between the chainring, chain and frame.

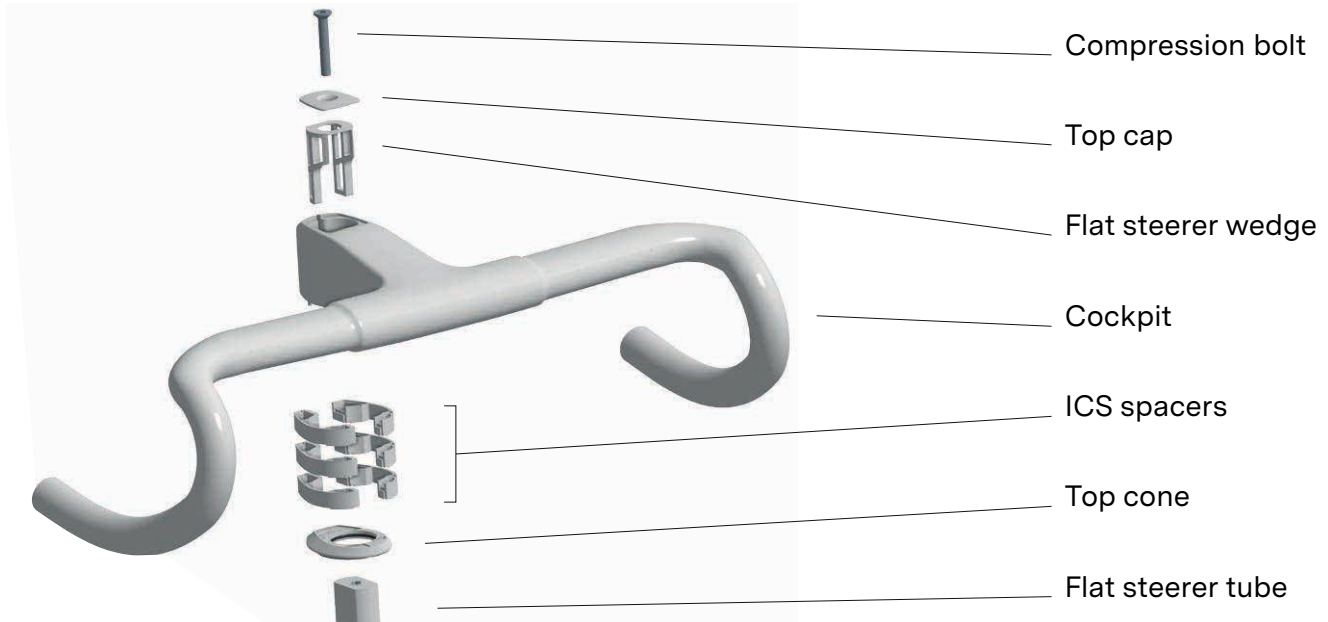
**⚠ WARNING:** Our Teammachine R are not compatible with SRAM 2x Wide transmissions. Please select one of the standard road transmissions.

# Fork, Headset and Cockpit Preparation

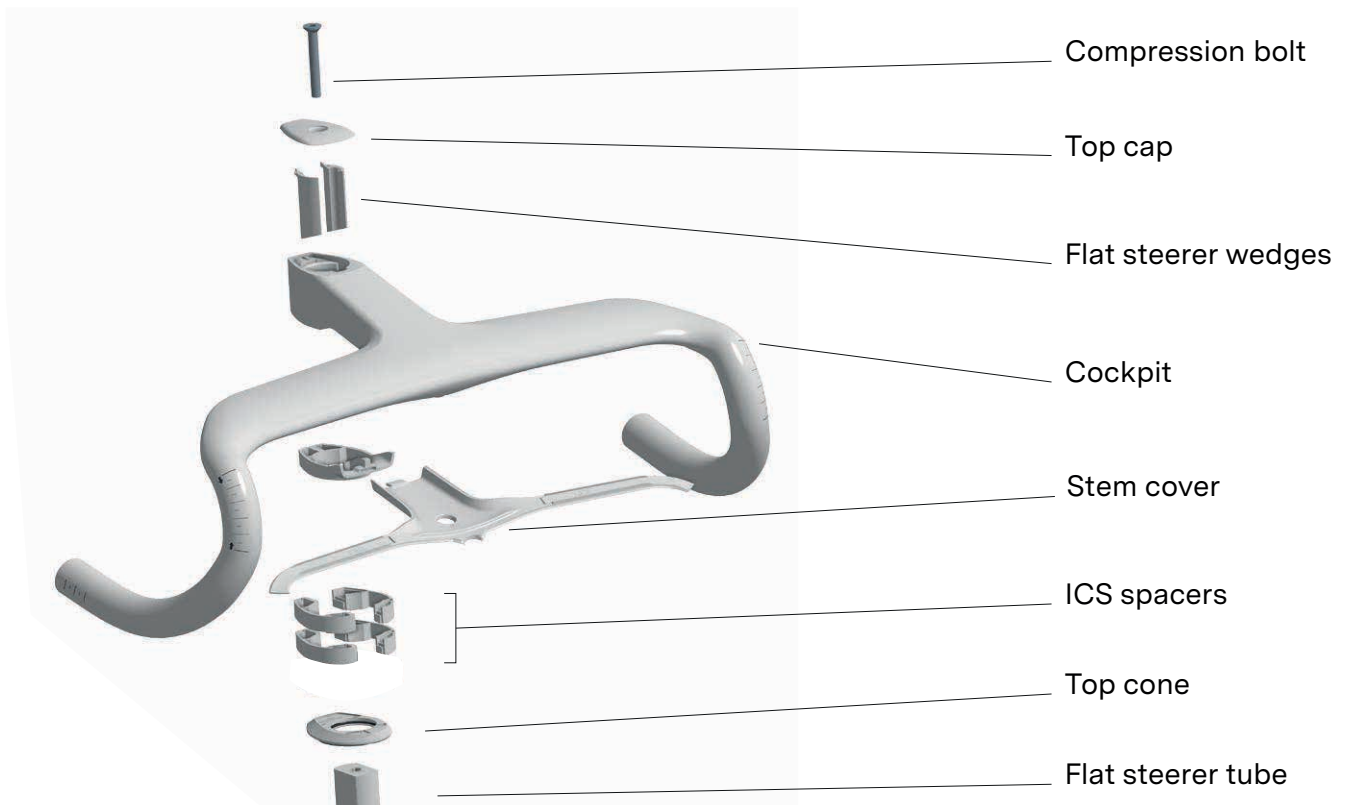
## Cockpits and Stems Parts Selection

1. Refer to the following illustrations to identify each component.

### ICS Carbon Evo Cockpit -and- ICS Carbon Aero Cockpit Gen 1

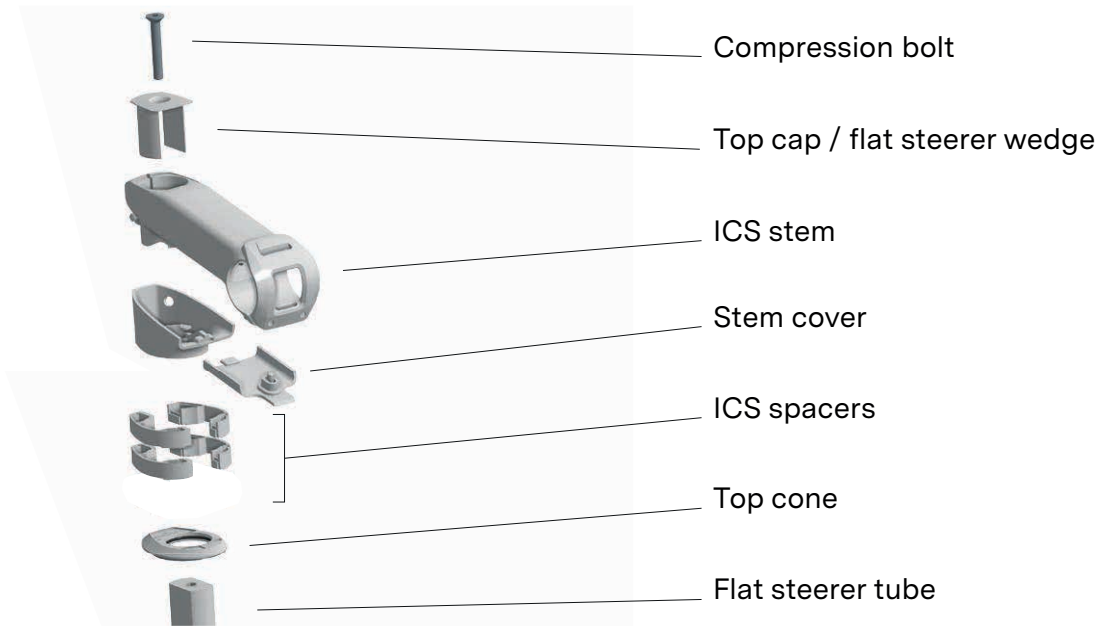


### ICS Carbon Aero Cockpit Gen 2

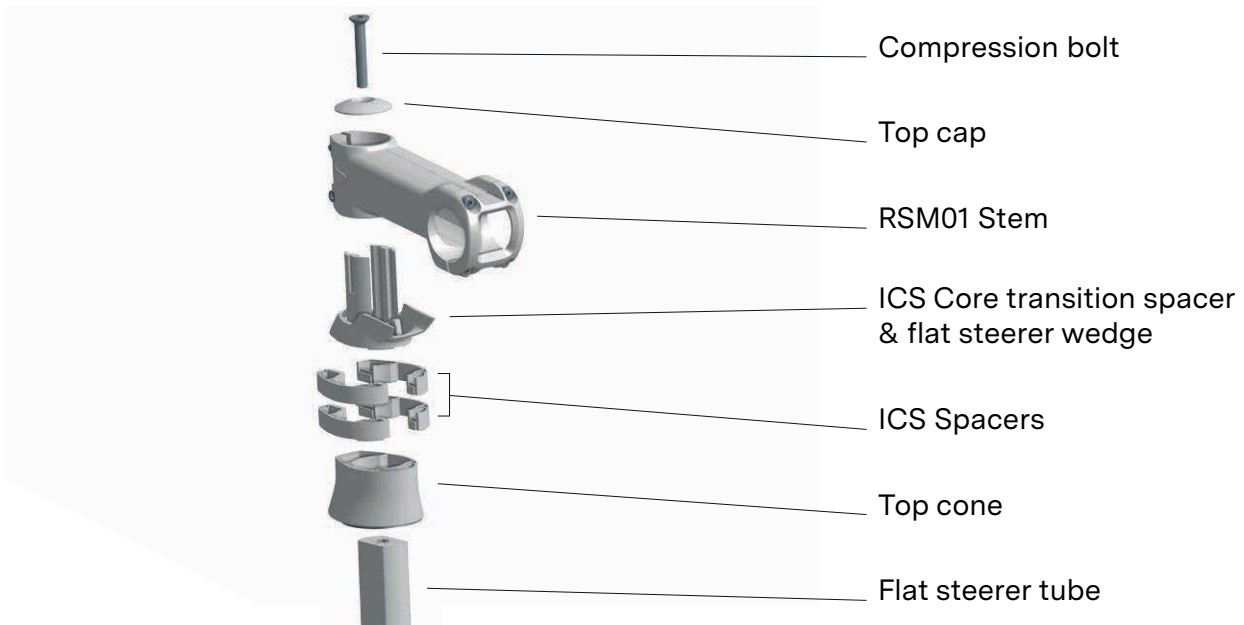




### ICS2 Stem



### RSM01 with ICS Core



## Minimum and Maximum Spacer Stack

2. Determine the stack height based on the rider's initial or desired position.

**⚠ WARNING:** do not exceed the spacer height and spacer count. Failure to follow these recommendations may result in steering issues resulting in losing control of the bike and a potential crash.

	ICS Carbon Aero Cockpit Gen 1 -and- ICS Carbon Evo Cockpit		ICS Carbon Aero Cockpit Gen 2 -and- ICS Stems	
<b>Top cone</b>	#1 Low [or] #2 High		#1 Low [or] #2 High	
<b>Spacer type</b>	ICS		ICS	
<b>Spacer max quantity</b>	3		2	
<b>Stack options</b>	Lowest	Highest	Lowest	Highest
<b>Stack height</b>	5mm	60mm	15mm	60mm
<b>Stem cover</b>			10mm	10mm
<b>Spacers</b>		3x 10mm		2x 10mm
<b>Top cone</b>	#1 Low (5mm)	#2 High (30mm)	#1 Low (5mm)	#2 High (30mm)



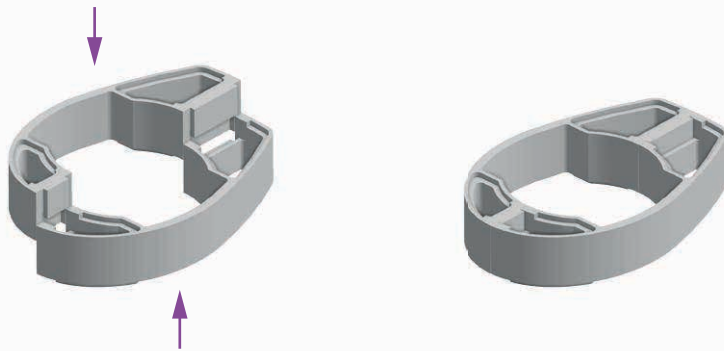


## Definition of Steerer Tube Length

**⚠ WARNING:** The steerer tube must be cut to the correct length to avoid malfunction.

3. Install the headset components to determine the cutting length of the steerer tube:
  - 3.1. Fork
  - 3.2. Lower bearing
  - 3.3. Upper bearing
  - 3.4. Compression ring
  - 3.5. Top cone (high or low)
  - 3.6. Spacers
  - 3.7. Stem cover and stem body [or] cockpit
4. Clip the right and left sides of each spacer by sliding them into place on top of one another.

■ Align and clip



5. Align the different elements to achieve the desired stack.

■ Pre-assemble all components



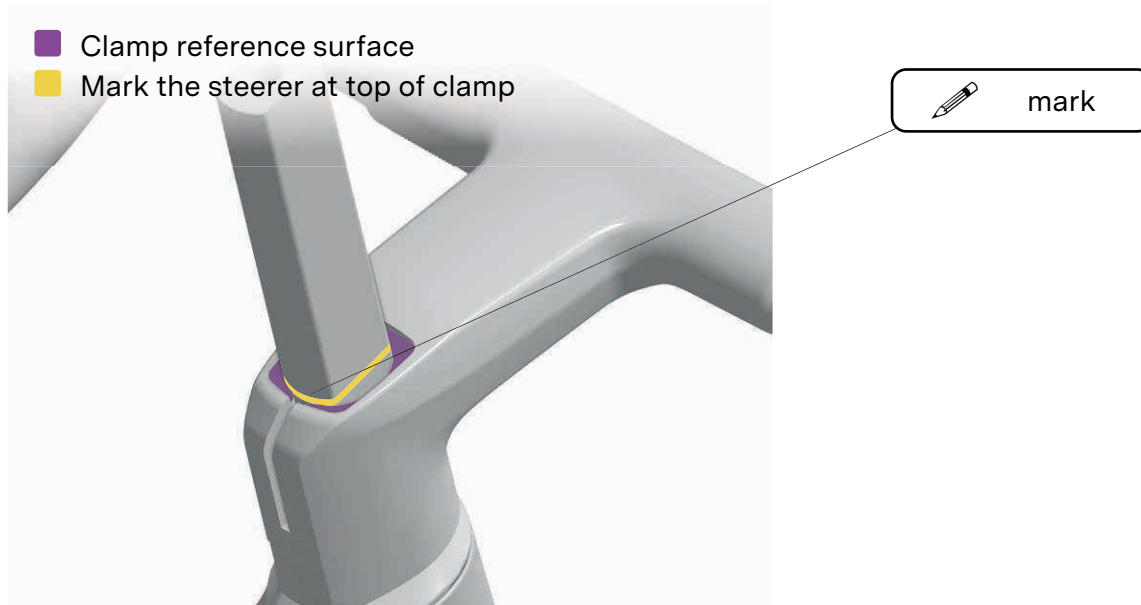
6. Gently compress the system together and tighten lightly the cockpit or stem to the steerer tube.

**i INFORMATION:** Grease is not necessary at this stage.

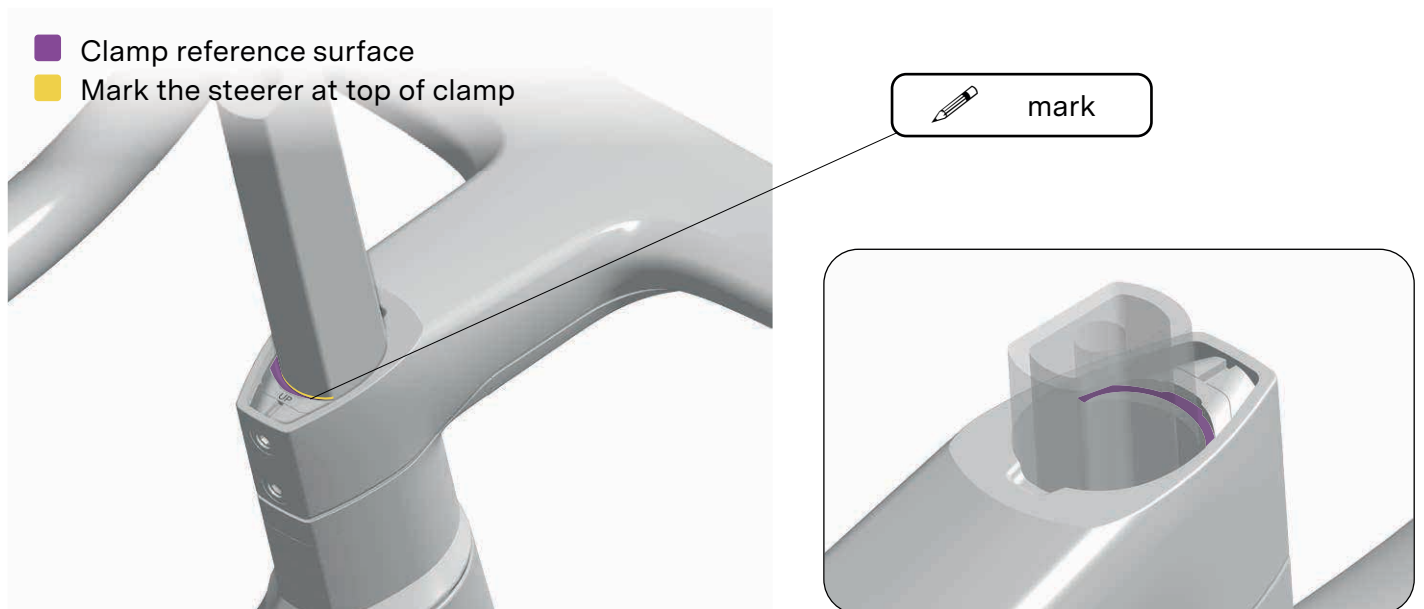
**⚠ WARNING:** At this stage, the ICS wedge is neither required nor recommended. Do not tighten the stem's steerer-clamping bolts. Tightening these bolts without the ICS wedge installed can compromise the integrity of the steerer tube and may lead to failure and serious injury.

- Control the handlebar stack and reach to make sure the setup is matching the original bike fit coordinates.
- Using a silver or white marker pen, make a mark on the steerer tube at the top of the stem.

### ICS Carbon Aero Cockpit Gen 1 -and- ICS Carbon Evo Cockpit

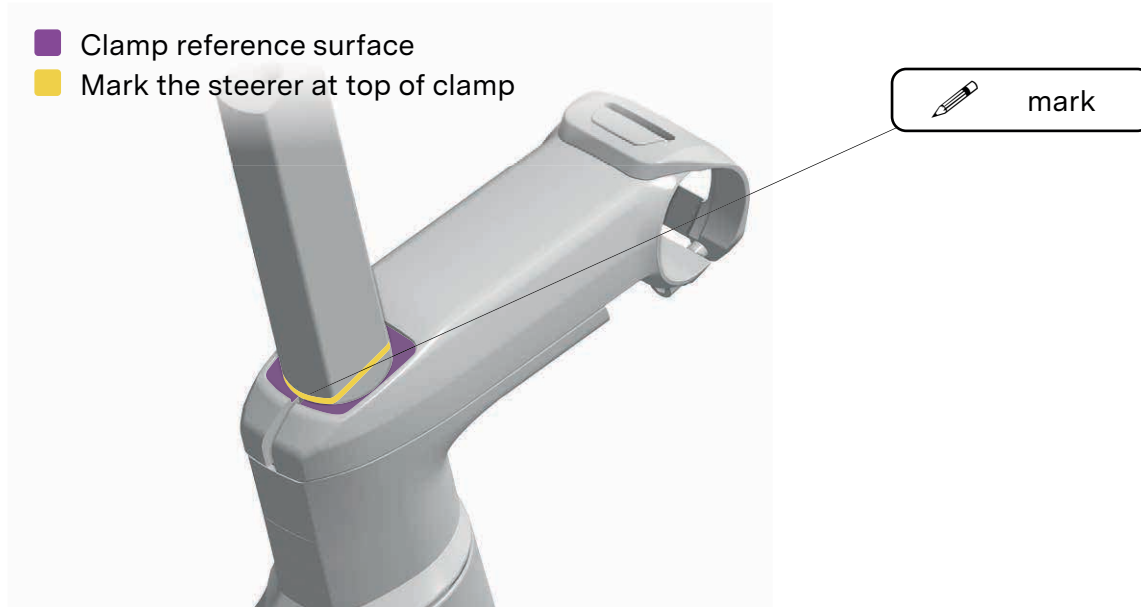


### ICS Carbon Aero Cockpit Gen 2

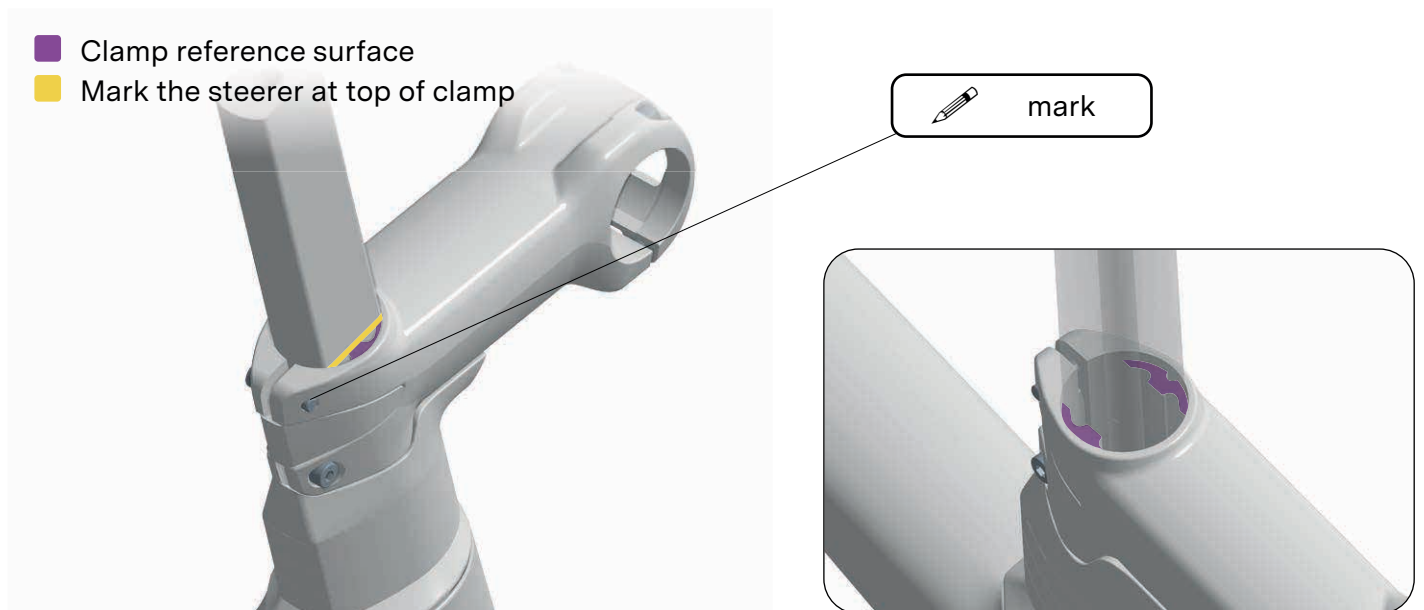




## ICS2 Stem



## RSM01 with ICS Core



9. Uninstall the fork and headset from the frame.

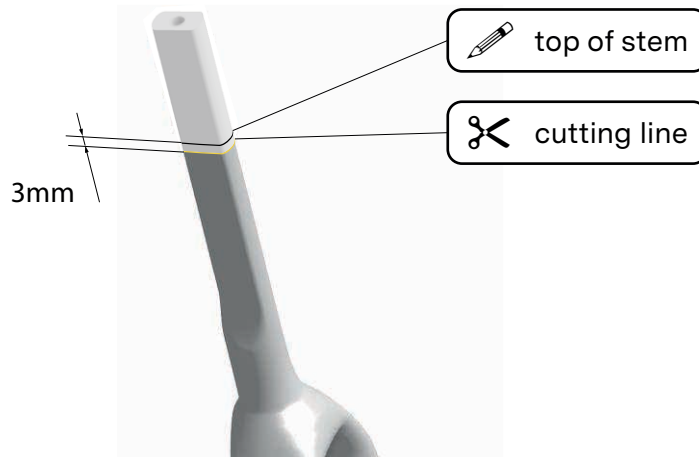
## Steerer Tube Length and Cutting

**⚠ WARNING:** While it is possible to ride with a steerer tube extending above the stem, we strongly recommend cutting it to the appropriate length. This minimizes the risk of injury while riding or in the event of a fall.

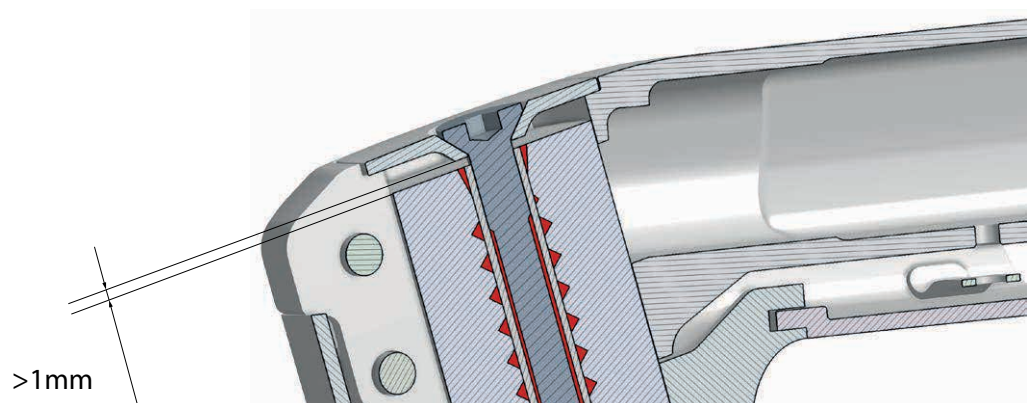
**⚠ WARNING:** Make sure the self-cutting expander bolt is not installed when cutting the steerer tube.

10. From the previously marked line, measure and mark a new cutting line 2 to 3mm lower.
11. Use a carbon saw blade to cut the steerer tube.
12. After cutting, lightly sand the sharp edges of the pivot using a fine abrasive.

■ Report cutting length



**⚠ WARNING:** The steerer tube must be cut to ensure proper headset compression and preload. After assembly, there should be approximately 1 mm of clearance between the top of the steerer tube and the underside of the top cap when the headset is fully compressed.



**i INFORMATION:** Applying tape underneath the cutting line will help guide the saw blade and reduce the risk of carbon delamination.

**i INFORMATION:** Use a saw guide and an appropriate carbon-specific saw blade, such as the Park Tool CSB-1.



## Expander Installation

**i** INFORMATION: Cutting the edge of the flat-steerer foam hole and applying grease to the area will make the expander easier to install.

13. Grease the self-cutting expander bolt to facilitate installation.
14. Push the expander into the flat steerer foam and turn it clockwise while applying downward pressure.
15. Tighten until the expander bolt head is flush with the top of the steerer.

- Grease
- Screw in the self-cutting expander until it's flush



# Brake Calipers Assembly

## Rear Brake

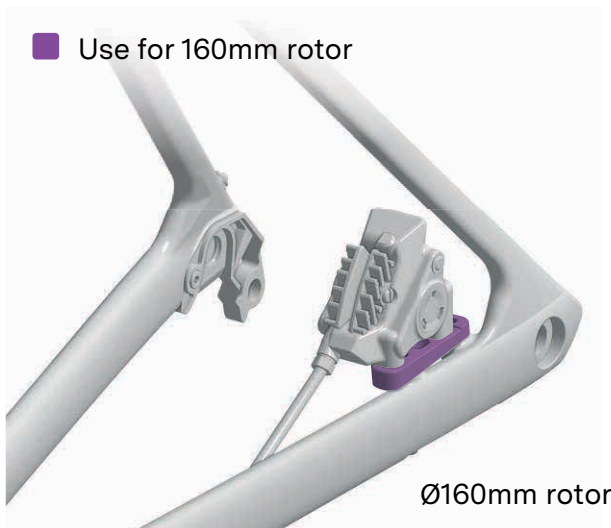
The rear brake must be installed either:

- Directly on the frame brake mount for 140mm rotor compatibility
- Using the Teammachine R 20mm bracket for 160mm rotor compatibility.

**⚠ WARNING:** Teammachine R sizes 47 and 51 require the specific “30006907 - Rear Brake Mount Adapter Teammachine R01 47/51cm” as it allows for SHIMANO Ultegra caliper to avoid contact with the seatstay.

Sizes 54, 56, 58 and 61 are compatible with any Rear Brake Mount Adaptersuch as standard SHIMANO or SRAM models.

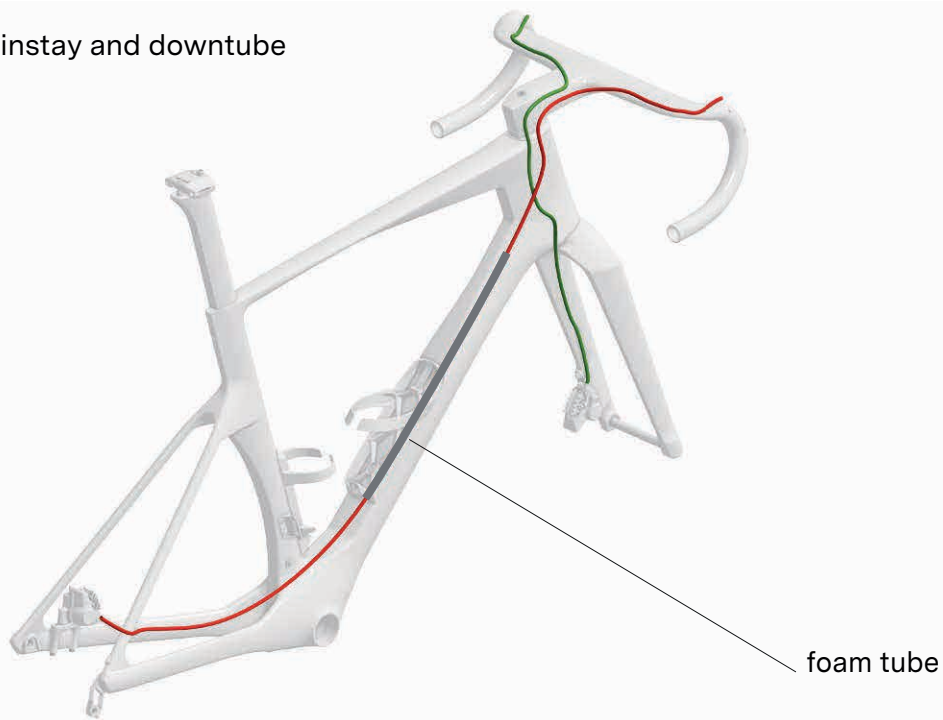
1. Select the rear brake adapter and bolts. Refer to brake caliper’s manufacturer to determine:
  - The correct bolt length for frame mount of 30mm thickness.
  - The appropriate torque value.



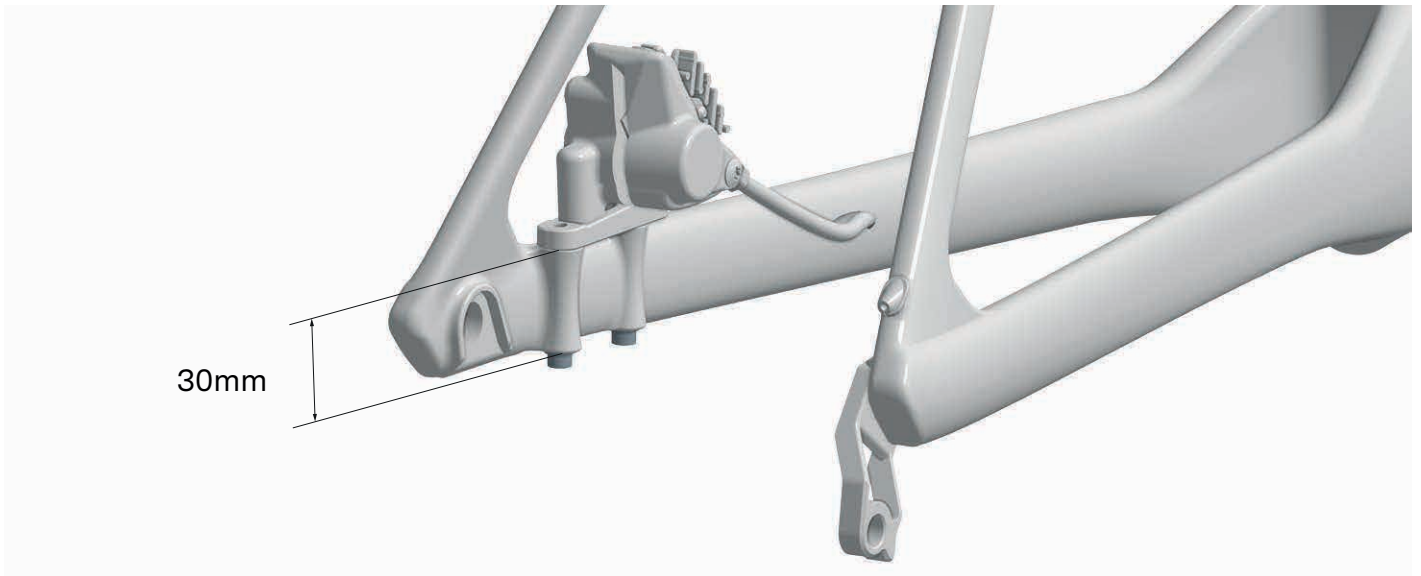
2. Push the rear brake hose from the back to the front inserting it in the left chainstay opening.
3. Guide the hose through the downtube and let the hose exit at the front of the bike.
4. To avoid noise and rattling, install a foam tube over the brake hose and push it so it fits within the middle of the downtube.



■ Route through chainstay and downtube



5. Bolt on the rear caliper on the flat mount brake mount using appropriate bolts and follow brake manufacturer's recommendation for installation (threadlocker and torque)

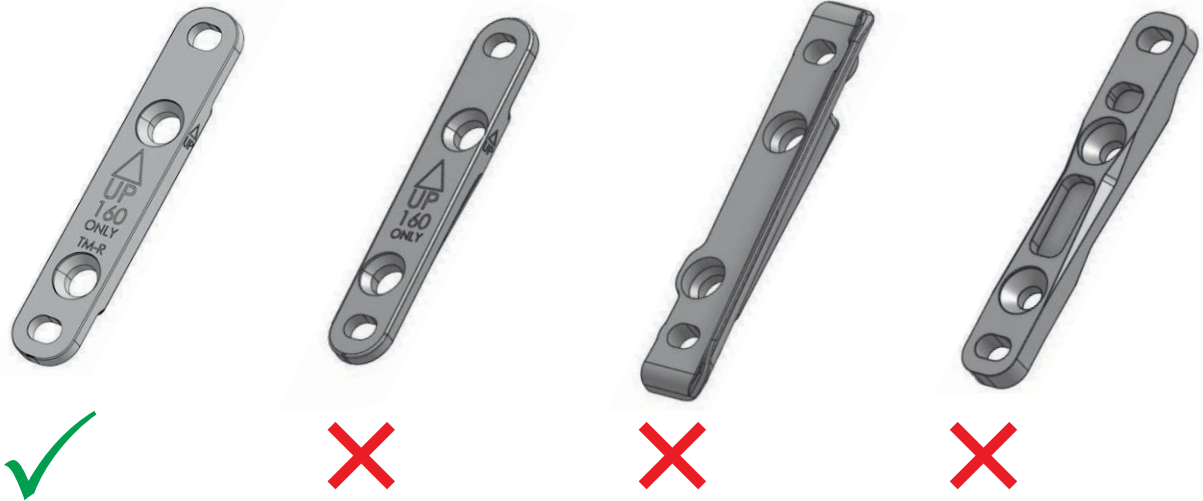




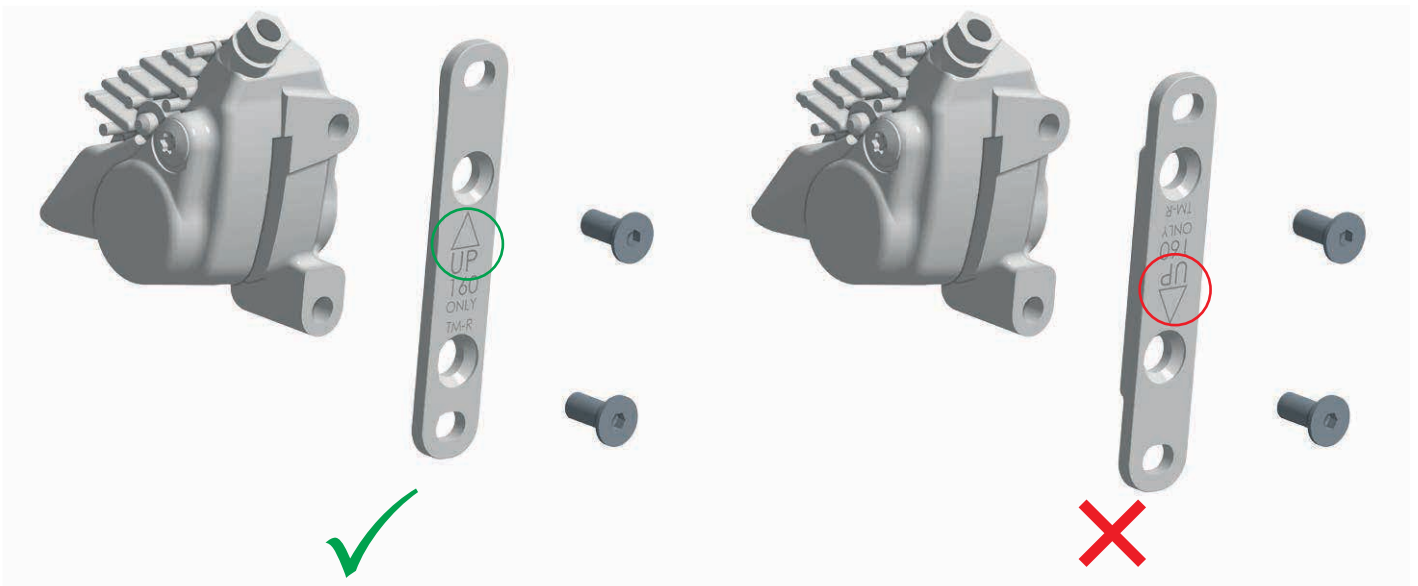
## Front brake

The front brake must be installed directly onto the specific BMC “TM R 01” front bracket adapter. The Teammachine R is designed exclusively for a 160mm front rotor.

**⚠ WARNING:** Several front brake adapter plate designs exist. Make sure to use the plate supplied with the Teammachine R, identified by the ‘ONLY TM-R’ marking.



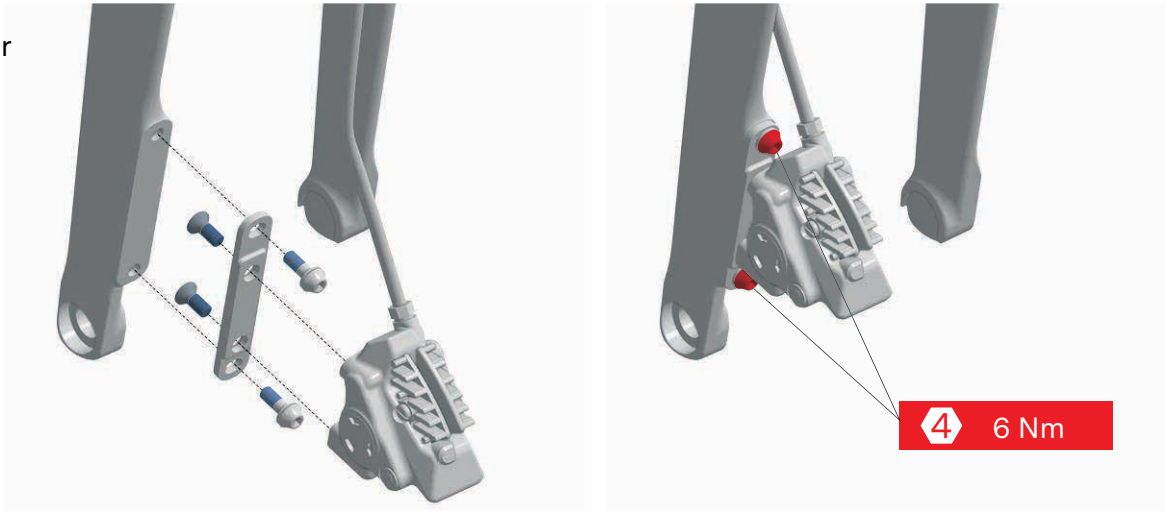
1. Install the front caliper adapter plate onto the front caliper.
2. Ensure the brake mount is in the correct position. The “UP” mark must face upward and outward, as shown in the illustration below.



3. Torque the countersunk bolts according to the brake caliper manufacturer’s recommendations.
4. Route the front brake hose through the fork.
5. Install the front brake adapter to the fork mount using the two M5x14 bolts.

**⚠ WARNING:** remove old threadlocker and apply a new coat of LOCTITE® 243 Blue threadlocker.

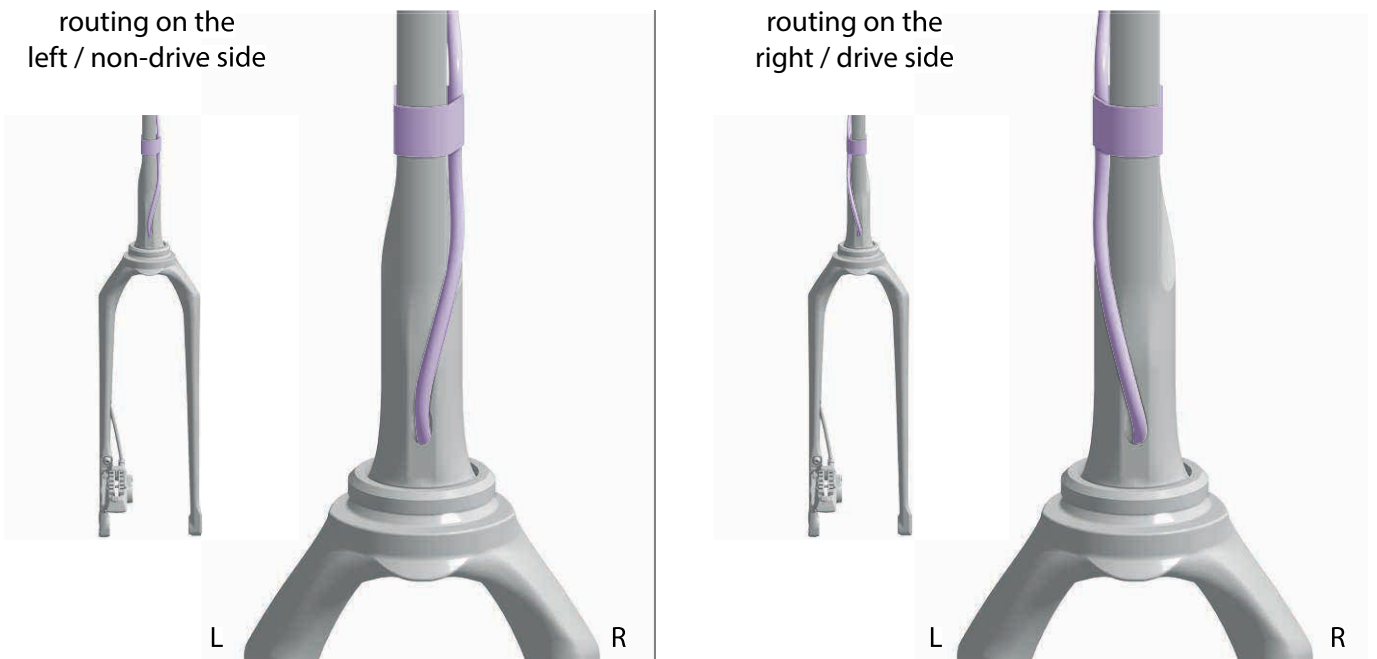
■ Threadlocker



- Tighten to 6 Nm using a hex 4mm wrench.
- Route the front brake hose alongside the flat steerer. Follow the table instruction to place the hose on the appropriate side of the steerer tube.

	Standard setup front brake = left hand	UK setup front brake = right hand
ICS Carbon Aero Cockpit Gen 1 -and- ICS Carbon Evo Cockpit	right drive side	left non drive side
ICS Carbon Aero Cockpit Gen 2 -and- ICS Stems	left non drive side	right drive side

- Hold the brake hose on the flat steerer by wrapping with electrical tape.





# Headset, top cone and spacers assembly

## Headset assembly

Teammachine R 01 is designed to fit and specified with either BMC by FSA, HS-B-13, HS-B-27 bearings set.

Teammachine R Mpc. is specified with Ceramic Speed headset bearings set.

**⚠ WARNING:** Always use the compression ring that matches the headset type.

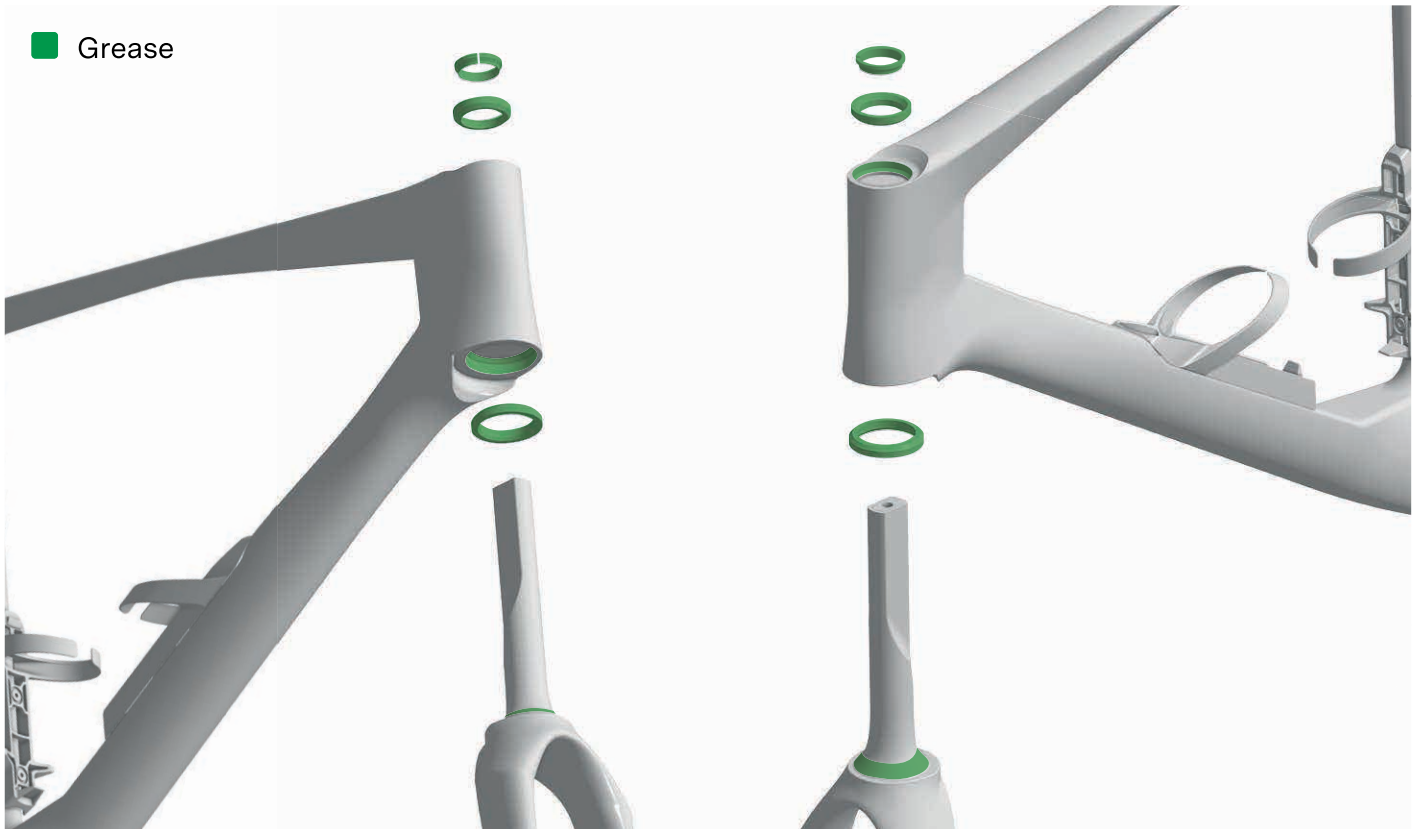
Specifications of these bearings are:

HS-B-13-P	Reference	Dimensions	Nylon (green color) Compression ring H2318
<b>Upper bearing</b>	FSA MR155	30.5 x 41.8 x 7.5 ; 45x45°	Upper bearing MR155 30.5 x 41.8 x 7.5 ; 45x45°
<b>Lower bearing</b>	FSA MR019	40.0 x 51.8 x 7.5 ; 45x36°	Lower bearing MR019 40.0 x 51.8 x 7.5 ; 45x36°

HS-B-27-P Stainless	Reference	Dimensions	Nylon (green color) Compression ring H2318
<b>Upper bearing</b>	FSA MR042S	30.5 x 41.8 x 8.0 ; 45x45°	Upper bearing MR042S 30.5 x 41.8 x 8.0 ; 45x45°
<b>Lower bearing</b>	FSA MR110S	40.0 x 51.8 x 8.0 ; 45x36°	Lower bearing MR110S 40.0 x 51.8 x 8.0 ; 45x36°

Headset TM R Mpc	Reference	Dimensions	Nylon (black color) Compression ring
<b>Upper bearing</b>	Ceramic Speed 111820	30.5 x 41.8 x 8.0 ; 45/45°	Upper bearing 111820 30.5 x 41.8 x 8.0 ; 45/45°
<b>Lower bearing</b>	Ceramic Speed 111954	40.0 x 51.8 x 8.0 ; 36/45°	Lower bearing 111954 40.0 x 51.8 x 8.0 36/45°

**i INFORMATION:** Upgrade of bearings headsets is possible with:  
 30007215 Headset TM R Mpc Ceramic Speed headset bearings  
 30007614 HS B 27 Stainless headset bearings



1. Install the lower bearing on the fork crown, applying grease to the frame bearing race, fork crown contact surface, and bearing surfaces.
2. Route the front brake hose through the head tube, then insert the fork steerer tube through the head tube and headset bearings.
3. As the front and rear brake hoses exit from the top of the head tube, install the upper bearing in the frame head tube, applying grease to the frame bearing race and bearing surfaces.
4. Grease the headset compression ring and slide it onto the steerer tube, ensuring its slot is oriented to either the right or left side.

■ Compression ring orientation




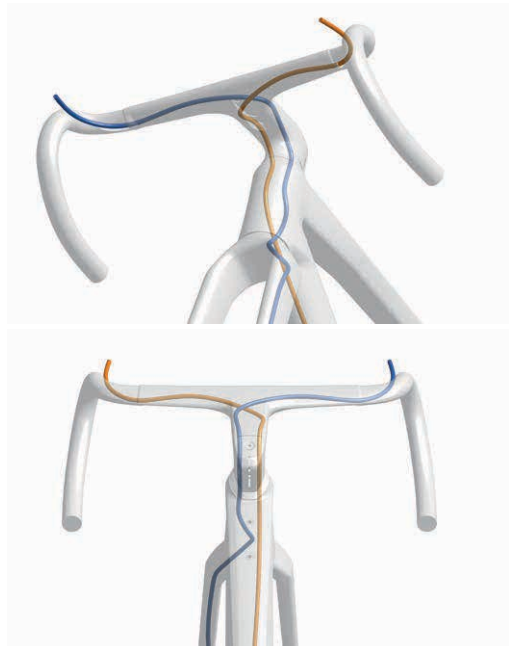
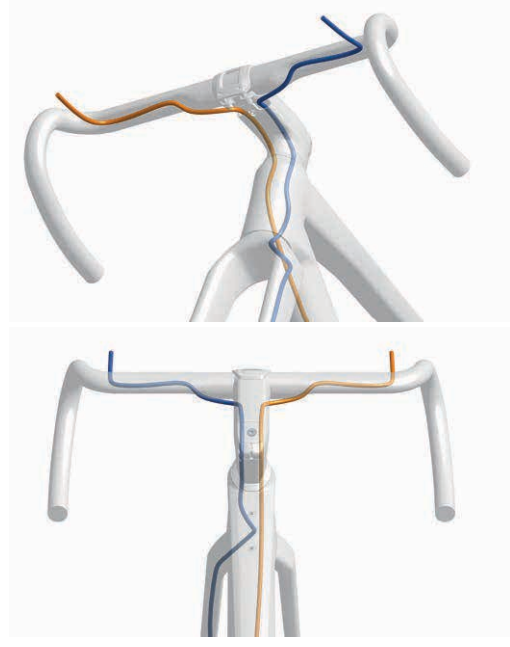
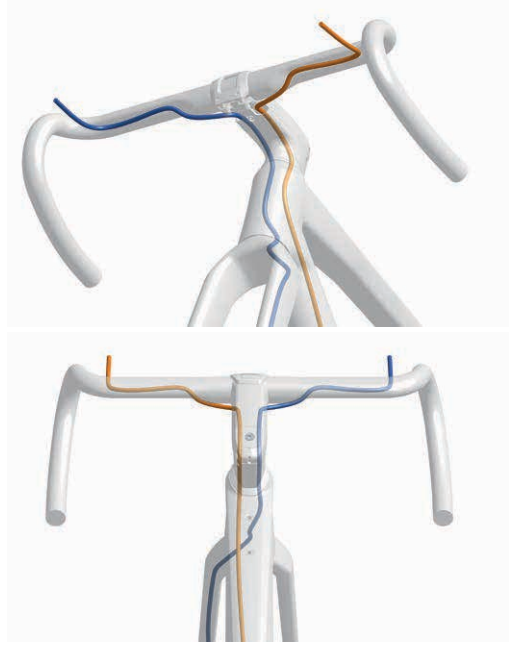
**⚠ WARNING:** Do not orient the compression ring slot straight toward the front or back. Doing so will negatively affect the compression of the headset. Turn it 45° or 90° so it does not touch the steerer tube directly.

**⚠ WARNING:** Do not apply friction paste to the steerer tube or the bearings.



## Cockpit or Stem Installation

- Route front and rear brake hoses through the stem or cockpit. Follow the table instruction to place each hose on the correct side of the stem or cockpit guides.

	Standard setup front brake = left hand	UK setup front brake = right hand
ICS Carbon Aero Cockpit Gen 1 -and- ICS Carbon Evo Cockpit		
ICS Carbon Aero Cockpit Gen 2 -and- ICS Stems		

- Compile the different elements of the stem/handlebar or cockpit as determined in “Fork, Headset and Cockpit Preparation” on page 34.

**⚠ WARNING:** Do not tighten the stem steerer clamping bolts without the ICS flat steerer wedges. Tightening the stem steerer clamping bolts can compromise the integrity of the steerer tube – leading to failure and serious injury.

# Headset Compression and Clamping the Stem

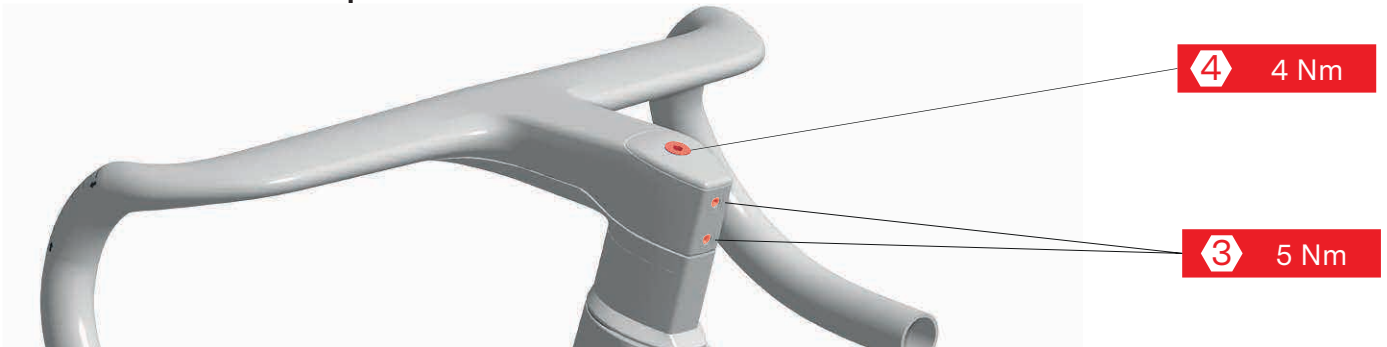
1. Once the frame and fork are assembled with the headset, spacers, stem or cockpit, and top cap, torque the preload bolt to 4 Nm.
2. Refine the handlebar-wheel alignment using the slight rotational freedom provided by the ICS system.
3. Torque the stem/cockpit bolts as indicated on the stem/cockpit or according to the torque values provided below.

**⚠ WARNING:** Correct headset preload is crucial for a safe, play-free steering system.

## ICS Carbon Aero Cockpit Gen 1 -and- ICS Carbon Evo Cockpit



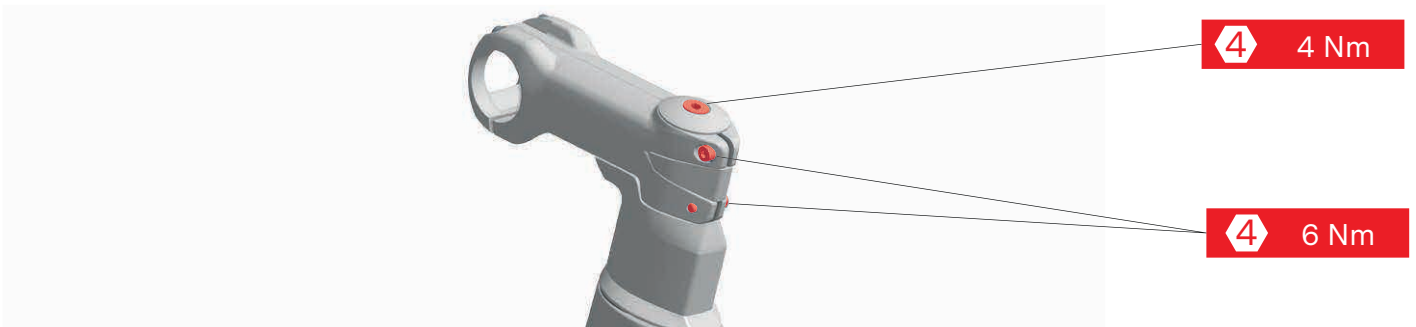
## ICS Carbon Aero Cockpit Gen 2



## ICS Stem



## RSM01 with ICS Core





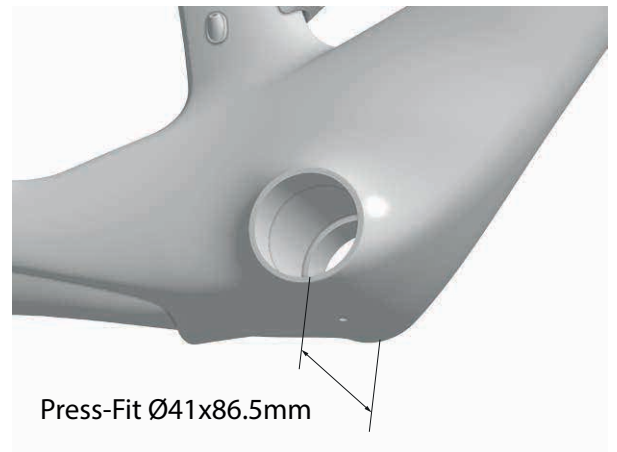
## Bottom Bracket and Crankset Assembly

1. Now that all the cables and brake hoses are installed, you can install the bottom bracket and the crankset.

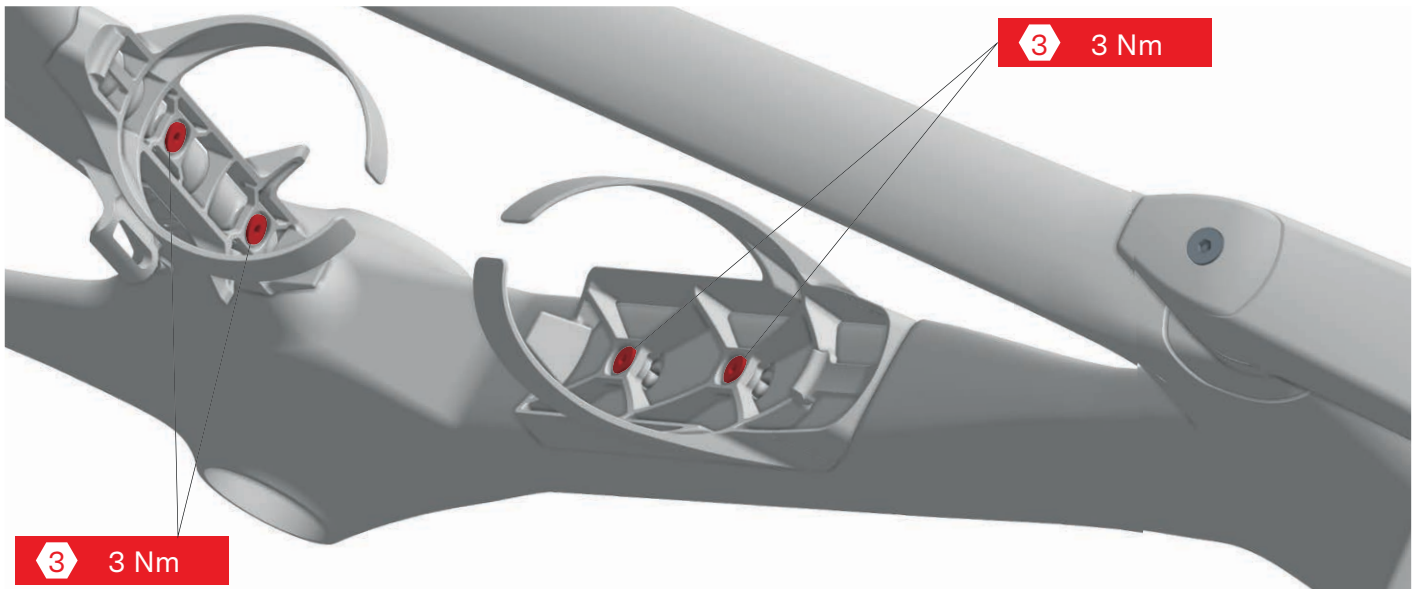
**⚠ WARNING:** Always install the brake hose first.

**ℹ INFORMATION:** The Teammachine R uses a Press-Fit 86.5mm bottom bracket.

**⚠ WARNING:** Please follow the bottom bracket and crankset instructions for installation.



## Bottle Cages



**ℹ INFORMATION:** Teammachine R is designed for BMC Aerocore bottle cages type N°3 (WBC AS No. 3). Teammachine R is however compatible with traditional bottle cages.

1. Install the BMC bottle cages or the bottle cage of your choice.
2. Tighten the 2x M5x12 bolts to 3 Nm using a hex 3mm wrench.

## Wheels and Axles

**⚠ WARNING:** Your bike is delivered pre-assembled with inner tubes for transportation and display. Always setup the wheels following the recommendations and instructions of the wheel and the tire manufacturers:

Some wheels must only be assembled tubeless.

Some wheels must only be installed with specific tires for a tubeless setup (hookless rims).

Even if the wheels are tubeless, some tires assembled on some bike models may not be tubeless compatible.

Please read carefully the tires and the wheels instructions.

**⚠ WARNING:** Make sure tubeless compatibility is guaranteed between your wheels and your tires:

Minimum and maximum tire size measured at riding pressure.

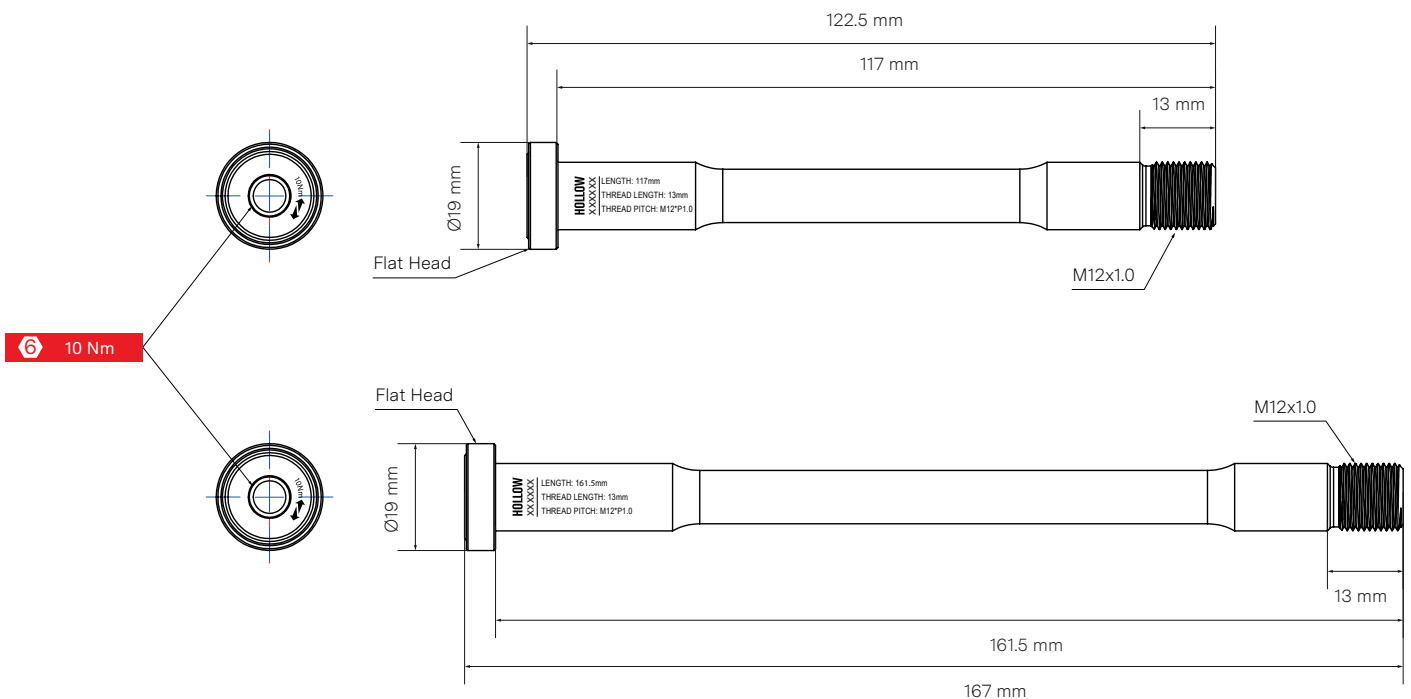
Minimum and maximum tire pressure.

Tire bead design (hooked or hookless).

Rim design (hooked or hookless).

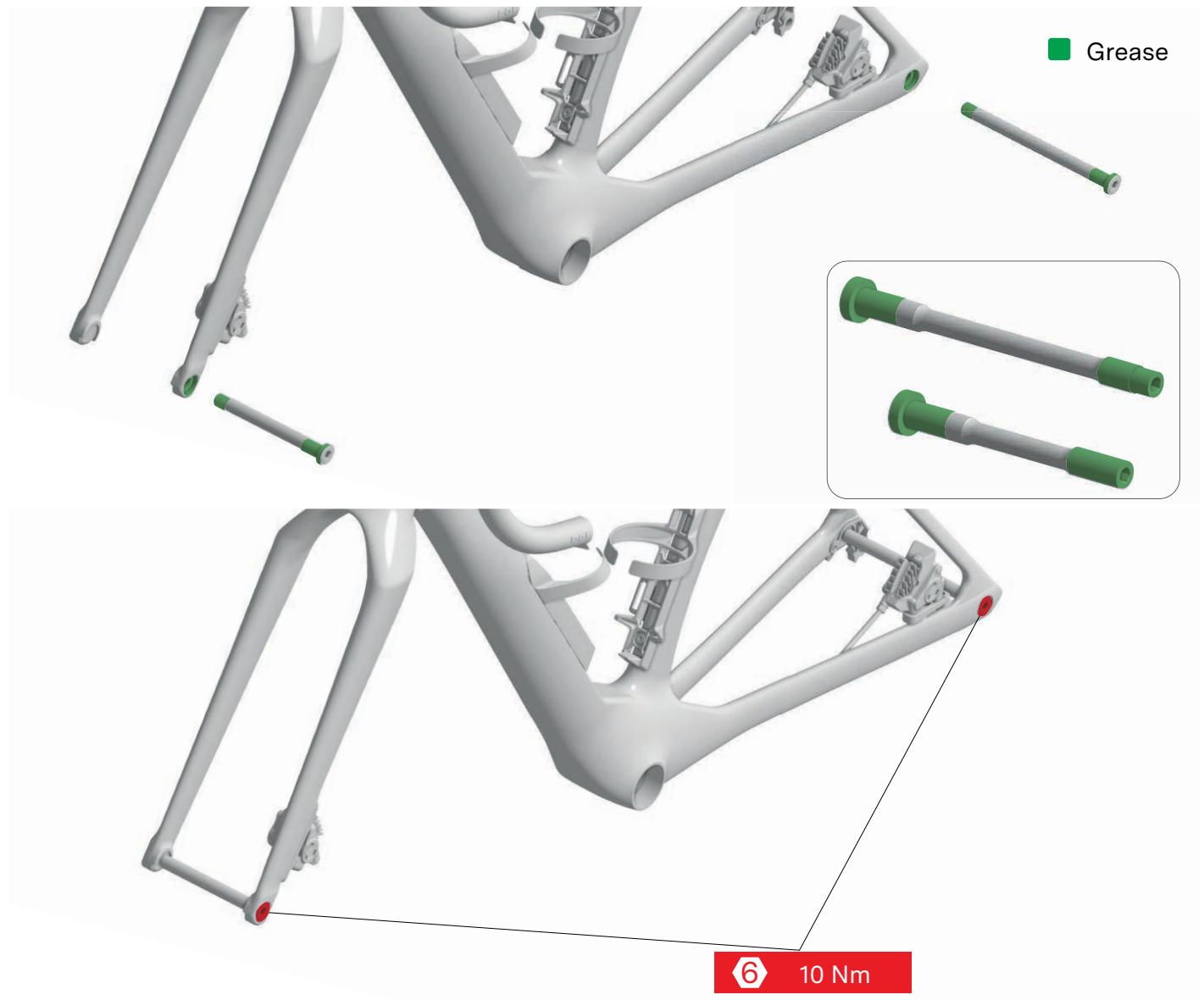
**⚠ WARNING:** Teammachine R features a rear dropout design that is only compatible with BMC specific thru axles No. 10.

Using incorrect thru axles may cause looseness or insufficient mechanical engagement, which can lead to component damage or complete failure.





1. Grease the thread and the head of the thru-axles.
2. Thru-axles must be torqued to 10 Nm using a hex 6mm.



## Fenders

Teammachine R is only compatible with quick mount clip-on third party fenders. Engineered to be the lightest, the Teammachine R does not feature threads and brackets to install classic fenders using stays bolted on the frame and fork.

Examples of quick mount clip-on fenders

- SKS Raceblade Pro
- TOPEAK Tetrafender R1 / R2
- TOPEAK Defender RC1 / RC11

**⚠ WARNING:** You must carefully install your fenders so they don't damage your frame or its components. Road vibrations could cause the fenders to vibrate and rattle causing paint damage and frame structural damage or components damage. Damage may result in component failure and result in loss of control and falling.

**⚠ WARNING:** Avoid fixing systems other than elastic bands or fabric straps and protect the frame by applying protective tape. Clamping with clamps or bolt-on mechanism may damage the frame structure and paint.

**⚠ WARNING:** Lots of fender options are available on the market. Even if their design is optimized for road bikes, you may have to modify their shape.

Always follow the fender manufacturer's recommendation for installation.

**⚠ WARNING:** Tire clearance is affected by the installation of fenders. Always respect a clearance of 4mm all around the tire to guaranty your safety.

Depending on your fender choice and installation, you may have to change your tire size to get the appropriate tire-to-fender clearance.

You can attach the quick mount clip on fenders on limited areas of the fork blades, seat stays, seat tube and seat post.

■ Straps or elastic application zones





# Service Instructions

The BMC Teammachine R is a high-tech, performance oriented product. We ask you to take care of your bike if you want it to deliver its maximum performance over the years.

If you notice parts that are worn out or damaged, do not hesitate to replace the part and or contact your BMC dealer.

## Washing Your Bike

You should never use a high pressure washing device to clean your Teammachine R.

Even with a lot of attention to detail, we cannot build a functional bike resistant to high pressure water.

We recommend using a brush and soft bike soap, and rinse with water at low pressure.

Avoid degreaser and brake cleaners directly on the frame, fork and handlebar area. Composite carbon and painted components could be permanently damaged and made fragile.

## After Washing

If there is water trapped in your frame, it should drain automatically from below the bottom bracket.

If the steering does not rotate freely, check the installation of the headset and stem. If the issue is not solved, it may be that your headset bearings need to be replaced.

If your seatpost makes an unusual noise after washing or riding in wet weather, you need to take the seatpost apart, clean the frame seat tube and the seatpost, and reapply carbon friction paste between frame and seatpost.

# Trouble Shooting

## Noise from the saddle or the seatpost:

- Apply friction paste between the seatpost and the frame seat tube.
- Apply grease on each element of the saddle clamp (bolt, washer, clamps).

## Noise from the drivetrain:

- Check front and rear derailleur assembly and front and rear dropout hanger assembly. Refresh the threadlocker compound on the dropout hanger bolts if necessary and tighten to torque.
- Check rear thru-axle: clean with a degreaser, reapply grease on thru-axle as indicated in this manual and reassemble tightening to the correct torque.
- Check bottom bracket and crankset following instructions from their manufacturer(s).

## Seatpost slipping down:

- Apply friction paste between the seatpost and the frame seat tube
- Disassemble, clean and degrease the seat clamp and grease bolts thread before reassembly.
- Check the torque at the seatpost clamp and at the saddle clamp.

## Play in the headset:

- Remove the top cap and inspect the steerer-tube top and compression screw.
- Loosen the stem, and tighten lightly the headset compression bolt to 4 Nm.
- Tighten the stem back to the manufacturer's recommended torque.

## Friction in the headset:

- Make sure nothing is stuck between head tube and fork or between the headset top cone the head tube.
- Check the headset bearings and replace them if necessary.

## Play in the stem/handlebar area:

- Do not ride with play in the cockpit or stem/handlebar assembly.
- Check the torque settings of every single bolt.
- Apply grease, thread lock and friction paste as indicated in this manual.
- Check that none of the stem bolts are damaged.



# Notes

A series of horizontal dotted lines spanning the width of the page, intended for taking notes.

