

TECHNICAL MANUAL

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# BLUE PAPER LAUFHEY

2024

**ORBEA**

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# 01 INTRODUCTION

This technical manual contains important information about your bicycle, on how to use it, its maintenance and spare parts. Read it carefully.

This document is a supplement to the General User Manual for Orbea bicycles and components, which describes the proper use and adjustment of general bicycle components in greater detail for safe riding and operation. You can view and download the User Manual, as well as the rest of the technical manuals for Orbea products, from our website:

[www.orbea.com/gb-en/support/manuals](http://www.orbea.com/gb-en/support/manuals)

You can consult the relevant information on the use, maintenance and characteristics of the components from other manufacturers that are fitted to our bicycles, such as wheels, handlebars, pedal assist systems, suspension forks, etc., on the website of the manufacturer in question or through their dealer in your country.

## 02 SYMBOL LEGEND

Throughout this manual various symbols are used to detail instructions, warnings or relevant information on use, maintenance and assembly. Pay attention to these symbols to avoid dangerous situations and to ensure the correct use and assembly of all components.

The meaning of these symbols is explained below. In this manual, the symbol may be accompanied only by the relevant instruction for the component it describes. Read the following information carefully to understand its meaning.

### 1 SAFETY INSTRUCTIONS



**DANGER:** Dangerous situation which, if not avoided, will result in serious injury or death



**WARNING:** Dangerous situation which, if not avoided, could result in serious injury or death.



**CAUTION:** Dangerous situation which, if not avoided, may result in minor or moderate injury.

#### NOTICE

Situation not related to physical injury. Relevant information.

The symbols DANGER and WARNING always imply a risk of accident if measures are not taken to avoid the situation they describe. An accident while riding a bicycle can always involve a risk of serious injury or even death. The risk of death will not always be repeated in this manual when these symbols appear, as the risk is detailed here.

### 2 TOOLS AND TIGHTENING TORQUES



FLAT SPANNER



TORX SPANNER



ALLEN KEY



PHILLIPS  
SCREWDRIVER



The tool size to use appears inside the symbol



The indicated tightening torque in Newton.metres is specified under the symbol for the tool to be used.  
10 N.m

Always use the right tools and products for a specific maintenance or repair operation. Unsuitable or poorly maintained tools, or the use of generic products, may cause damage to components that are not then covered by the warranty conditions.

# 03 ORBEA WARRANTY

Our continuous daily effort to provide our bicycles at the highest quality allows us to offer the following warranty coverage and conditions:

## LEGAL WARRANTY

Orbea offers the original owner of the Orbea bicycle, rigid fork or OC component a statutory warranty of 3 years from the date of purchase of the items, or the period stipulated as the statutory warranty period in the country of purchase.

This warranty covers all Orbea products against manufacturing defects and/or failure to meet the standard and guarantees the repair or replacement of the defective product at no cost to the affected customer. Likewise, this warranty also covers paint, varnish and corrosion defects on all frames and rigid forks we fit to our bicycles during the period specified in the previous paragraph of this warranty.

The processing of any guarantee request for components from suppliers external to Orbea must be handled through an authorised distributor for the supplier of the component involved.

This warranty does not, under any circumstances, cover damage as a result of inappropriate use, falls or accidents or the lack of maintenance, as well as the normal wear and tear of consumable parts, such as, by way of example, but without limitation: seals, bearings, handlebar tape, spokes, tyres, saddles, etc.

For a full description of the coverage conditions and the legal warranty, please visit:

[www.orbea.com/gb-en/warranty](http://www.orbea.com/gb-en/warranty)

## ORBEA LIFETIME WARRANTY

In addition to the statutory warranty, Orbea offers the original buyer of the bicycle the Orbea lifetime commercial warranty, which covers the frames and rigid forks that we fit to our bicycles against manufacturing defects and material conformity issues with no time limitation, as long as they have registered their product on the Orbea website within 30 days of its purchase.

This warranty extends the original period of coverage against paint, varnish or corrosion defects on the frames and rigid forks by one additional year after the end of the legal warranty period.

Orbea's lifetime commercial warranty only covers frames and rigid forks, but not OC components.

For a full description of the warranty conditions for the lifetime warranty, please visit:

[www.orbea.com/gb-en/warranty/#orbea-lifetime-warranty](http://www.orbea.com/gb-en/warranty/#orbea-lifetime-warranty)

## REGISTER YOUR BICYCLE

In order to benefit from the Orbea lifetime warranty extension, you must register your bicycle within 30 days of its purchase at:

[www.orbea.com/gb-en/acceso-registro?from=register-plate/](http://www.orbea.com/gb-en/acceso-registro?from=register-plate/)

### 1. REGISTER YOUR ACCOUNT

The screenshot shows a registration form with the following elements:

- Navigation menu: BICICLETAS, VIBRES, PERSONALIZAR, EQUIPAMIENTO, HISTORIAS
- Section: ¿YA FORMAS PARTE DE ORBEA?
  - Text: Acceso para registrar tu garantía y gestionar tu cuenta.
  - Form fields: EMAIL\*, CONTRASEÑA\* (with a link: ¿has olvidado tu contraseña?).
  - Text: \*Campos obligatorios
  - Button: ACCEDER
- Section: REGÍSTRATE EN ORBEA
  - Text: Únete a nosotros y crea tu cuenta en orbea. Completa el formulario con tus datos y disfrutarás entre otros de las siguientes ventajas:
  - List of benefits:
    - GARANTÍA ORBEA: registra el código de matrícula de tu bicicleta y activa la [Garantía Orbea de por vida](#)
    - PERSONALIZACIÓN: en tu área privada podrás guardar las bici que diseñes y recuperar tus diseños favoritos de forma sencilla.
    - NEWSLETTERS: suscríbete a la newsletter de Orbea y estate al día de la información que tu quieras. En tu área privada podrás ajustar todas las opciones de comunicación con nosotros (idioma, frecuencia de comunicación, intereses, oportunidades, etc.)
    - COMPRA ONLINE: gestiona tus compras y consulta el estado de tus pedidos.
    - DEMO: prueba tu bici favorita a través de nuestras acciones de demo y red de distribuidores.
  - Form fields: EMAIL\*, CONTRASEÑA\*, REPETIR CONTRASEÑA\*
  - Text: \*Campos obligatorios
  - Text:  He leído y acepto los [términos y condiciones](#) y la [política de privacidad](#) asociada a la gestión de mi cuenta de usuario.
  - Text:  Quiero suscribirme a los boletines de actualidad de Orbea y he leído y acepto la [política de privacidad](#) asociada a estos boletines.
  - Text: \*Campos obligatorios
  - Button: REGÍSTRAME

### 2. REGISTER YOUR BARCODE

The screenshot shows a registration form with the following elements:

- Section: REGISTRO DE GARANTÍA
  - Text: Registra la matrícula de tu bicicleta para disfrutar de la [Garantía Orbea](#)
  - Form fields: MATRÍCULA\* (with a link: ¿cómo será mi matrícula?), FECHA DE COMPRA\* (with a calendar icon).
  - Section: NIVEL DE SATISFACCIÓN
    - Text: MI NIVEL DE SATISFACCIÓN CON EL PROCESO DE COMPRA ES...\*
    - Text: MI NIVEL DE SATISFACCIÓN CON EL PRODUCTO ES...\*
    - Form fields: Seleccione, Seleccione
  - Text:  Quiero suscribirme a los boletines de actualidad de Orbea y he leído y acepto la [política de privacidad](#) asociada a estos boletines.
  - Text:  He leído y acepto los [términos y condiciones](#) de la garantía Orbea y la [política de privacidad](#) \*
  - Text: Con el fin de hacer un buen uso de tu bicicleta y sacar el máximo partido de ella puedes consultar el [manual de instrucciones y mantenimiento aquí](#).
  - Text: \*Campos obligatorios
  - Button: REGISTRAR MATRÍCULA

### 3. WHERE TO FIND YOUR BARCODE



## WARRANTY CLAIMS PROCESS

All warranty claims must be processed through an authorised Orbea dealer, who will perform the initial diagnosis and send Orbea all the necessary documentation for a complete diagnosis of the claim in question. The dealer will inform the owner about the status of the process and the decision made on the guarantee claim by Orbea.

We recommend that you always go to the dealer from whom you bought your bicycle to process a guarantee claim, or the dealer you chose during the process of buying a bicycle that was delivered directly to your home. If you cannot go to the original dealer, you can check the list of authorised dealers on our website or contact Orbea directly so we can let you know the dealer you should go to.

[www.orbea.com/gb-en/distribuidores/?country](http://www.orbea.com/gb-en/distribuidores/?country)

[www.orbea.com/gb-en/contact/](http://www.orbea.com/gb-en/contact/)

## 04 MAINTENANCE

Orbea products are carefully designed to be long-lasting, efficient and easy to maintain. The carbon and aluminium frames and forks are extremely corrosion-resistant.

However, your bicycle components need regular maintenance in order to ensure that it works properly and safely, and to ensure its longevity.

### KEEPING YOUR BICYCLE CLEAN

Clean your bicycle with mild soap and water on a regular basis to keep it working as new, and check the condition of the frame and its components. Do not use high pressure water, as it could damage components like bearings or the tubes of the frame.

Citrus-based degreasers are biodegradable and very effective in removing grease from the drivetrain components and the chain.



Built-up dirt can complicate the visual inspection of the components and hide damage that could potentially cause malfunctions or accidents.

#### NOTICE

Built-up dirt causes the premature wear of components and can even damage some parts of the bicycle frame such as the bearing housings and moving parts. Damage due to lack of cleaning and maintenance is not covered by the warranty

### KEEP YOUR DRIVETRAIN LUBRICATED

Once you have cleaned your bicycle, lubricate the drivetrain, specifically the chain. Use the minimum amount necessary to lubricate the links, removing any excess to prevent it from attracting dirt, causing the drivetrain to not work properly and the premature wear of the components.



Do not use aerosol lubricants to prevent them from sticking to the brake surfaces. Always check the brakes after lubricating the drivetrain.

### INSPECT YOUR BICYCLE BEFORE EACH RIDE

Perform a quick inspection before each ride to verify that your bicycle is in optimal working order. You may encounter small problems that can turn into major incidents during the ride.

**FRAME:** Inspect the frame and the fork, looking for cracks or other damage. You should not hear any strange noises. If there is any damage to the frame, do not use the bicycle and contact your authorised dealer for inspection.

**CHAIN:** Ensure it's clean and lubricated. The drivetrain should not make any abnormal noises.

**BRAKES:** Check that the brakes operate properly and safely. Check the tightening torques of the components.

**TYRES:** Check for worn tires and look for cuts on the tread or on the sides. If you spot any damage, replace the tyre. Make sure that the tyre pressure is suitable.

**WHEELS:** Make sure that the wheels turn smoothly and that there are no lateral deflections. Pull the wheel slightly sideways to check that there is no lateral play in the bearings. Check for broken or loose spokes. Make sure that the axles and quick-release skewers are tightened securely and to the correct torque.

**HEADSET:** Activate the front brake and move the front part of the bicycle back and forth, applying pressure on the handlebars with the front wheel on the ground. Check for strange noises or movement of the headset, which could indicate that the bearings are worn or the headset has not been correctly tightened. Once the headset is correctly adjusted, check that it turns smoothly.

**SWINGARM PIVOT POINTS:** On full suspension bicycles, check that all the swingarm pivot points rotate smoothly and show no signs of play in the bearings. Pull the swingarm from side to side on the bicycle and pay attention to any noise or play at the pivot points. If the swingarm does not operate smoothly or they show signs of play, this could be a sign that the tightening torques are incorrect or that the bearings are worn or damaged.

**BEARINGS:** The bearings (bottom bracket, swingarm pivot points, headset, wheels, etc.) are elements subject to wear that must be regularly inspected to ensure that they operate correctly. Bearings in poor condition can damage the components in which they are installed. Bad weather speeds up bearing wear. Bearings that have excessive play or that do not turn smoothly must be replaced immediately. If you are in any doubt, consult your authorised dealer.

#### NOTICE

Damage to components like the frame, bicycle wheels, etc. associated with a lack of maintenance and the replacement of the bearings are not covered by the guarantee.



Failure to follow the recommendations outlined in this manual and riding a bicycle that shows any of the symptoms described above may cause accidents and serious injuries.



**TIGHTENING TORQUES.** Always check the tightening torques and install the components described in this manual according to the tightening torque specifications. Follow the tightening torque specifications for components from other manufacturers installed on your Orbea bicycle. Failure to follow these specifications may lead to a malfunction of the components, accidents and even death.

## MAINTENANCE PERIODS

### NOTICE

The component maintenance periods indicated below are for reference, and depend largely on factors such as the weather conditions (adverse conditions considerably reduce the life of the components and maintenance times), cleanliness of the bicycle and its components (components with accumulated dirt wear out more quickly) and use (more demanding use of the bicycle will require shorter maintenance periods).

For components from other brands assembled on Orbea bicycles, you can check the recommended or mandatory maintenance periods on the manufacturer's website or by contacting that brand's dealer in your country.

### NOTICE

Damage to components as a result of failing to follow the recommended maintenance periods could result in damage that is not covered by Orbea's or the manufacturer's warranty.



Failure to comply with maintenance periods could result in damage to the components and lead to malfunctions and accidents.

### HEADSET:

- Inspection of its operation before every ride.
- Manual disassembly and inspection of the bearings after every 6 months of use.

### BOTTOM BRACKET:

- Inspection of its operation before every ride.
- Manual disassembly and inspection of the bearings after every 6 months of use.

### DRIVETRAIN:

- Inspection of its operation before every ride.
- Regular inspection of chain wear every 500 km. A chain that is worn beyond the manufacturer's recommendations must be replaced to prevent damage to the rest of the drivetrain components. Failure to follow the manufacturer's recommendations for wear could necessitate the replacement of the rest of the parts of the drivetrain.

### WHEELS:

- Inspection of its operation before every ride.
- Disassembly and manual inspection of the bearings and all components every 4-6 months.

### SHOCKS AND SUSPENSION FORKS:

- Inspection of its operation before every ride.
- Inspection and full maintenance every 125 hours or once a year (whichever comes first) by the manufacturer's authorised dealer

### DROPPER SEATPOSTS:

- Inspection of its operation before every ride.
- Inspection and full maintenance every 125 hours or once a year (whichever comes first) by the manufacturer's authorised dealer

### PIVOT POINTS ON FULL SUSPENSION FRAMES:

- Inspection of its operation before every ride.
- Disassembly of the frame and manual inspection of all bearings every 125 hours of use or once a year (whichever comes first). These times may be shorter, according to the conditions in which the bicycle is ridden. More demanding use of the bicycle or use in adverse weather or in mud requires the disassembly and inspection of the frame once every 75 hours of use or once every 6 months (whichever comes first). If a bearing does not turn smoothly or has excessive play, it must be replaced immediately.

### GEAR CABLES AND HOUSING:

- Inspection of its operation before every ride.
- Replacement of gear cables every 6 months to 1 year depending on the bicycle's usage conditions.

### BRAKES:

- Inspection of the operation and wear of the brake pads or inserts before each ride.
- Check the wear on disc brakes and the cables or hydraulic lines every 6 months to 1 year depending on the conditions under which the bicycle is used. Flush the hydraulic lines once a year.



Some of these checks and maintenance requirements go beyond the mechanical knowledge of most bicycle users. If you are not qualified to perform the necessary maintenance, always go to an Orbea dealer for the maintenance of your bicycle and its components. Failure to perform proper maintenance can result in malfunctions and accidents with serious consequences.

**NOTICE**

Incorrectly performed maintenance can damage the components, which are not covered by the warranty.

## SPARE PARTS

Always use original Orbea spare parts or those of the manufacturer of the component in question.



The use of non-original spare parts can cause damage resulting in breakdowns and accidents with severe consequences.



The installation of several of the parts shown in this technical manual is beyond the mechanical knowledge of most bicycle users. If you are not qualified to install these parts, always go to an Orbea dealer for your bicycle's maintenance. Failure to install spare parts properly can result in breakdowns, accidents and serious injuries.

**NOTICE**

The installation of non-original spare parts may cause damage to your bicycle that is not covered by the guarantee.

See the full Orbea spare parts catalogue on our web site:

[www.orbea.com/gb-en/gear/spare-parts/](http://www.orbea.com/gb-en/gear/spare-parts/)

## AFTER AN IMPACT OR A CRASH

Falling off the bicycle is inherent to cycling. If you have an accident on your Orbea bicycle, make sure you are okay and seek medical attention if necessary. If you have not suffered any injuries, you should check the condition of your bicycle before continuing.

**INSPECT THE FRAME AND THE BICYCLE COMPONENTS TO SEE IF THEY HAVE BEEN DAMAGED IN ANY WAY.**

If you detect any problem, do not continue to ride the bicycle.

## POINTS TO CHECK

Inspect the frame and the fork to identify whether either of these components have been broken or bent. If you detect any damage or cracks, you must immediately stop using the bicycle. On carbon frames, look for cracks or soft spots in the carbon. If you detect any of these symptoms, you must immediately stop using the bicycle.



The materials used on carbon frames and forks are rigid and strong, but if overloaded or if they suffer an impact, the fibres do not bend, and they will break. A sufficiently strong impact on this material could result in damage that, although not visible at first glance, could lead to material failure in the future. If you have any doubts about the consequences of a fall or accident, contact your Orbea dealer for a correct diagnosis of the materials.

Check the drivetrain and the wheels to make sure that the components operate correctly. If you discover any damage to the components, stop using the bicycle immediately.

Even if you do not notice any damage, pay close attention to the sound of your bicycle when you ride it again. Breakage and other problems may cause unusual noises. If you notice any unusual noise, stop using your bicycle immediately and contact your Orbea dealer for a correct diagnosis of the problem.

## TAKE YOUR ORBEA BICYCLE TO AN AUTHORISED DEALER FOR A PROFESSIONAL INSPECTION

Some of the consequences of a fall or accident can only be detected by completely disassembling the bicycle to check for cracks or other signs of deterioration.



A crash or impact can cause serious damage to your bike and its components, causing them to fail or wear out prematurely. Failures can occur suddenly and without warning, causing loss of control of the bicycle, serious injury or even death.

## 05 LAUFHEY USE WARNINGS

### MAXIMUM TYRE WIDTH

This technical manual specifies the maximum size of the tyres that can be fitted on the frame. Always follow these guidelines when installing tyres on your bicycle.

Check the maximum tyre measurements in the technical specifications table of this manual.

The external measurements of different tyres may vary regardless of the measurement specified by the manufacturer. Radial clearance between the outermost part of the tyre and the seat tube and the lower part of the sheaths must be at least 6 mm. Radial clearance between the outermost part of the tyre and the bottom of the fork bridge and the fork bottles must be at least 6 to 8 mm.

Also check the maximum and minimum tyre width that can be fitted on a given rim depending on its internal width. See the compatibility information in the wheel manufacturer's documentation.

#### NOTICE

Damage to the frame or components due to the use of a tyre that does not comply with these measurements is not covered by the warranty.

### MINIMUM SEATPOST INSERTION



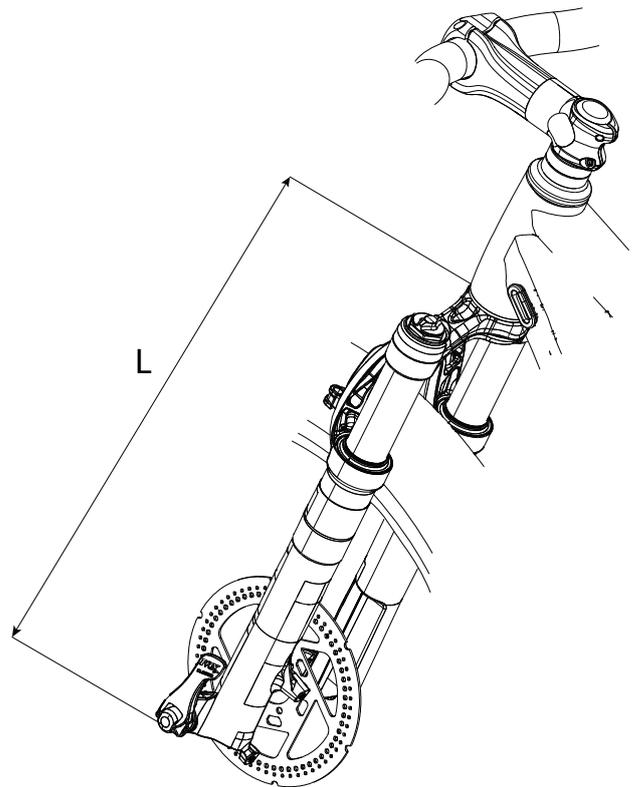
Always follow the minimum insertion indications given for the seatpost to be used or the frame on racing bikes with Orbea exclusive seatposts. Failure to comply with these values can stress the materials beyond the range for which they were designed and cause breakages not covered by the warranty, as well as accidents that can cause serious injuries.

### MAXIMUM FORK LENGTH (AXLE-TO-CROWN)

Always follow the maximum fork length listed in the technical specifications section of this manual. The maximum fork length refers to the distance between the fork axle and the bottom part of the head tube (axle to crown).



Failure to follow this requirement and installing forks with a length greater than the maximum specified can force the frame beyond its design characteristics, possibly resulting in malfunctions of the material that could cause accidents and serious injuries.



### MAXIMUM NUMBER OF HEADSET SPACERS



Never use more headset spacers below the stem than are specified for the frame. See the specifications tables to find the maximum number of headset spacers or the maximum stack that are acceptable for use on an Orbea frame. Installing more spacers than allowed can stress the materials beyond the range for which they were designed, which can cause accidents and serious injuries.

Also see the maximum number of headset spacers allowed under the stem in the specifications table.



The length of the fork's steerer tube must always be suitable for the position of the stem in the fork. The stem must always be installed on the fork's steerer tube so that both fastening bolts in the rear area of the stem are positioned on the fork's steering tube. Never assemble the stem such that the top bolt securing the stem to the steering tube is higher than the top edge of the fork's steering tube. This will force the materials beyond their intended use, potentially causing accidents and serious injuries.

## INTENDED USE



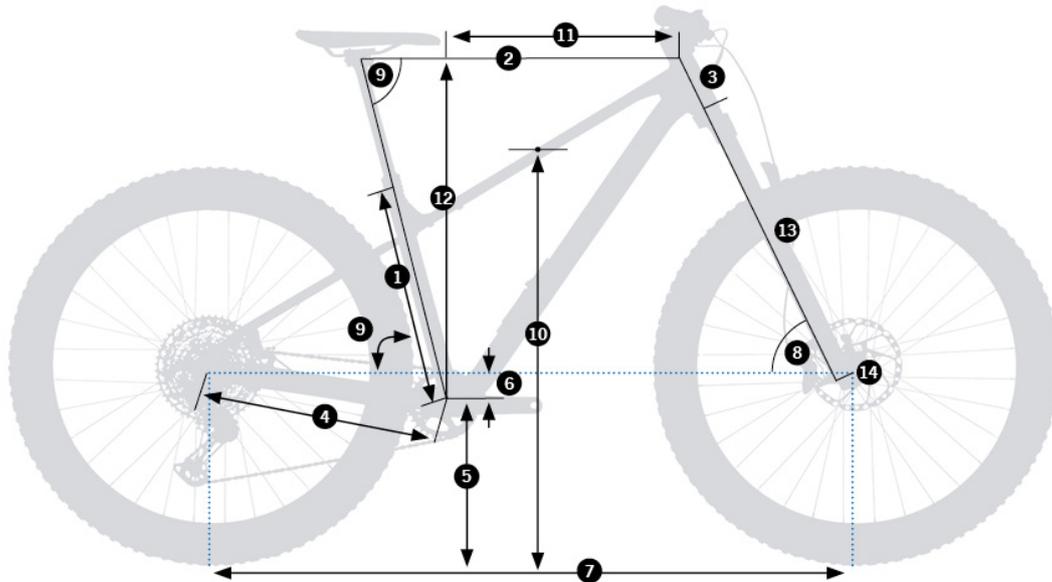
The intended use for all models is ASTM Condition 4, which provides for use under conditions 1, 2 and 3, as well as on technical nature trails with numerous obstacles, with higher gradients and therefore higher speeds. Frequent and moderate jumps and drops.

These models, due to the terrain, must be inspected after each use. Use on this type of terrain requires technical skills and can lead to injury for beginners.

For all ASTM categories, please refer to the user manual.

# 06 LAUFEY SPECIFICATIONS

## GEOMETRY

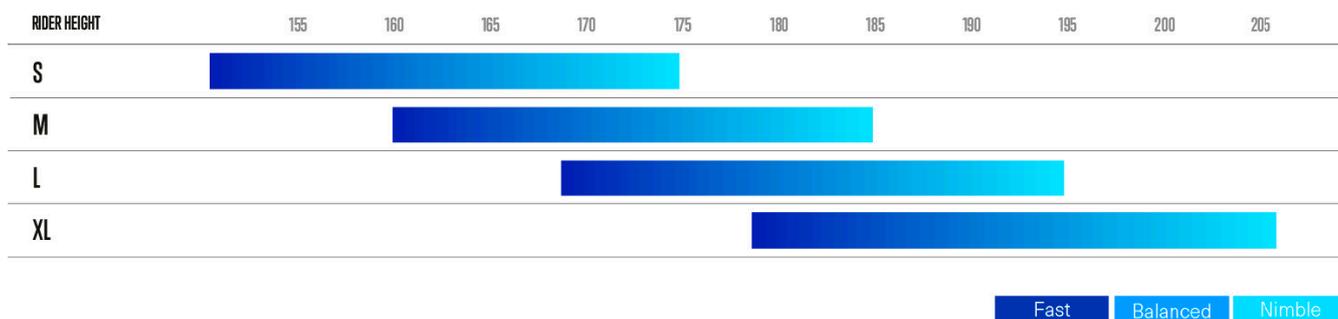


SIZE	S	M	L	XL
1 - Seat tube (C-T)	380 mm	415 mm	430 mm	460 mm
2 - Top tube (EFF)	572 mm	598 mm	625 mm	652 mm
3 - Head tube	95 mm	105 mm	120 mm	130 mm
4 - Chainstay	440 mm	440 mm	440 mm	440 mm
5 - BB height	310 mm	310 mm	310 mm	310 mm
6 - BB drop	65 mm	65 mm	65 mm	65 mm
7 - Wheelbase	1181.8 mm	1210.1 mm	1246.6 mm	1269.9 mm
8 - Head angle	64.5 °	64.5 °	64.5 °	64.5 °
9 - Saddle angle	77 °	77 °	77 °	77 °
10 - Standover	440 mm	440 mm	440 mm	440 mm
11 - Reach	427 mm	451 mm	475 mm	500 mm
12 - Stack	633 mm	642 mm	655.5 mm	664.5 mm
13 - Fork length	554 mm	554 mm	554 mm	554 mm
14 - Fork offset	44 mm	44 mm	44 mm	44 mm

## ERGONOMICS

The Steep'n'Deep seat tube allows the use of long-travel dropper posts on all frame sizes, giving you a wider choice of size while knowing that the seat height will always be correct (see the table of maximum and minimum heights of dropper posts in this section).

A frame with a shorter reach will be more agile and manageable, while a frame with a longer reach will be more stable at high speeds. Choose the size that best suits your needs.



## MAXIMUM AND MINIMUM SADDLE HEIGHTS WITH DROPPER SEATPOST

The following table gives the maximum and minimum saddle heights (in millimetres) with the dropper seatpost in the extended position for each frame size.

Maximum saddle height refers to the height of the saddle with the seatpost installed at its minimum insertion, defined by the seatpost.

Minimum height refers to the height of the saddle with the seatpost installed at its maximum insertion, defined by the frame.

Maximum and minimum heights are only given for the dropper seatpost and saddle options assembled by Orbea for a specific frame. For these dimensions when using a different dropper seatpost, see the seatpost manufacturer’s specifications and refer to the maximum frame insertion measurements in the technical specifications section of this manual.

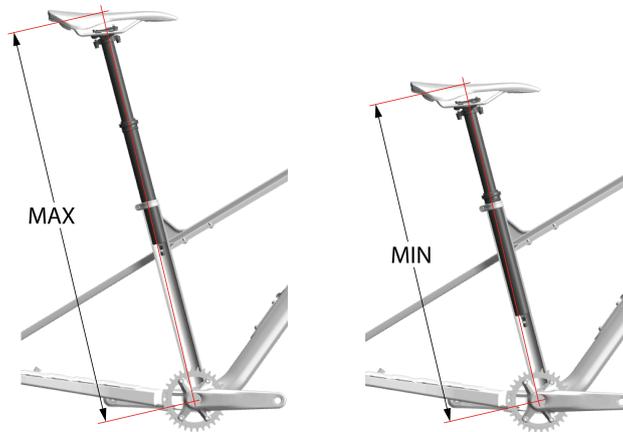
**NOTICE**

The dimensions on the following table define the distance between the centre of the bottom bracket shell and the middle of the upper part of the saddle (saddle models assembled by Orbea).

Different saddles on the market can change the dimensions given by +/-5 mm depending on the height of the saddle model. If your saddle height differs from a given dimension by less than 5 mm, it is possible to adjust this height by installing a different commercially available saddle model.

If your saddle height differs from the given dimensions by more than 5 mm, you should choose a longer or shorter travel dropper seatpost.

[Continues next page >](#)



DROPPER SEATPOST MODEL	SADDLE HEIGHT	FRAME SIZE			
		S	M	L	XL
OC DP-MC21 31.6 125mm	Maximum height	734	769	784	814
	Minimum height	604	639	654	684
OC DP-MC21 31.6 150mm	Maximum height	724	764	779	809
	Minimum height	634	669	684	714
OC DP-MC21 31.6 170mm	Maximum height	744	779	799	829
	Minimum height	654	689	704	734
OC DP-MC21 31.6 200mm	Maximum height	774	809	824	854
	Minimum height	684	719	734	764
OC DP-MC21 31.6 230mm	Maximum height	804	839	854	884
	Minimum height	724	1019	764	794
OC DP-MC20 31.6 125mm	Maximum height	749	779	799	829
	Minimum height	619	654	664	704
OC DP-MC20 31.6 150mm	Maximum height	799	829	849	879
	Minimum height	644	679	694	724
OC DP-MC20 31.6 170mm	Maximum height	839	869	884	914
	Minimum height	664	694	719	744
OC DP-MC20 31.6 200mm	Maximum height	889	919	934	969
	Minimum height	689	724	739	774

## TECHNICAL SPECIFICATIONS OF THE FRAME

MATERIAL	
Frame	Aluminium AL6061 Triple Butted
RECOMMENDED USE	Trail, All Mountain. ASTM Condition 4
SIZES AVAILABLE	S, M, L, XL
WHEEL SIZE	29"
MAXIMUM REAR TYRE SIZE	29 x 2.6"
MAXIMUM FRONT TYRE WIDTH	Depends on the fork 29 x 2.6" on models specified by Orbea
FORK TRAVEL	140 mm
MAXIMUM FORK LENGTH (AXLE-TO-CROWN)	565 mm (554 mm recommended)
FORK OFFSET	44 mm
HEADSET STANDARD	Integrated 1-1/8" - 1-1/2" Tapered
MAXIMUM STACK HEADSET SPACERS	35 mm
MAXIMUM HEIGHT OF HEADSET SPACERS	40 mm
HEADSET SPACER STANDARD	Standard stems: Standard round headset spacers OC MC stems: Spacers HS02-07/08 (5/10 mm)
STEM	Standard or OC Mountain Control stem
BOTTOM BRACKET	BSA 73 (Threaded)
BOTTOM BRACKET SHELL WIDTH	73 mm
CHAINLINE	52 mm Compatible with cranks with 55 mm chainline
DERAILLEUR HANGER	Sram UDH (Universal Derailleur Hanger)
STANDARD REAR DROPOUTS	Boost 12x148 mm
REAR AXLE MEASUREMENTS	12x171 mm
REAR AXLE THREAD PITCH	1.0 mm
REAR AXLE THREAD LENGTH	13 mm
FRONT WHEEL AXLE	Depends on the fork model
SEATPOST DIAMETER	31.6 mm
SEATPOST CLAMP DIAMETER	35 mm
MAXIMUM SEATPOST INSERTION	S: 330 mm M: 365 mm L: 380 mm XL: 410 mm
DROPPER SEATPOST INTERNAL CABLING COMPATIBLE	Yes
FRONT DERAILLEUR	No. Single chainring only
MAXIMUM ROUND CHAINRING SIZE	Cranks with 52 mm chainline: 32T Cranks with 55 mm chainline: 34T

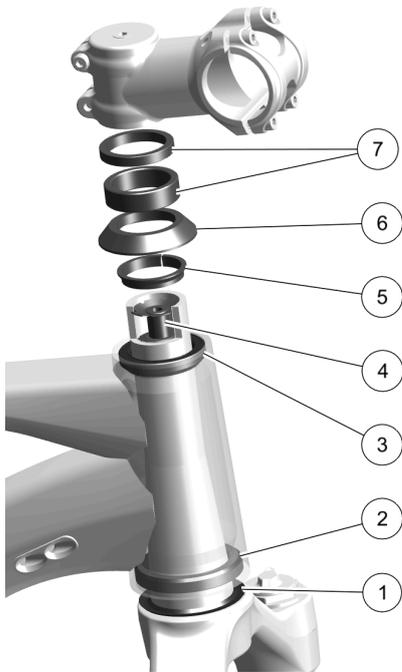
<b>MINIMUM CHAINRING SIZE</b>	30T
<b>MAXIMUM OVAL CHAINRING SIZE</b>	2 teeth less than that specified for round chainring**
<b>MINIMUM Q-FACTOR</b>	178.5 mm
<b>MAXIMUM CRANK LENGTH</b>	175 mm
<b>DRIVETRAIN COMPATIBILITY</b>	11V and 12V (1X). MTB Boost. Chainline 52mm and 55mm
<b>Di2 COMPATIBLE</b>	No
<b>COMPATIBLE SRAM AXS</b>	Yes
<b>SRAM T-TYPE COMPATIBLE</b>	Yes
<b>COMPATIBLE CHAINGUIDE</b>	Yes. ICGS05 (Only 2 bolt)
<b>BRAKE TYPE</b>	Disc. Post Mount*
<b>MAXIMUM REAR BRAKE DISK SIZE</b>	203 mm (with 180–203 mm adapter)
<b>MINIMUM REAR BRAKE DISK SIZE</b>	180 mm
<b>MAXIMUM/MINIMUM FRONT BRAKE DISK SIZE</b>	Depends on the fork model Fox 34: 180–203 mm Marzocchi Bomber Z2: 160–220 mm RockShox recon RL Air: 160–220"
<b>CABLING</b>	<b>Derailleur:</b> Internal through downtube and chainstay. Complete cover
	<b>Rear brake:</b> Internal through downtube and chainstay. Complete cover
	<b>Front brake:</b> External
	<b>Dropper seatpost:</b> Internal in downtube and seat tube. Complete cover
<b>COMPATIBLE REAR LEFT BRAKE CABLING</b>	Yes
<b>BOTTLE HOLDER</b>	2. All frame sizes. On LOCKR cap downtube On bottom of top tube
<b>STORAGE</b>	<b>LOCKR zone</b> Downtube storage. See LOCKR section in this manual
<b>COMPATIBLE RACKS</b>	No
<b>COMPATIBLE WITH FIXED MUDGUARDS</b>	No
<b>CHILD SEAT COMPATIBLE</b>	No
<b>TRAILER COMPATIBLE</b>	No
<b>RECOMMENDED MAXIMUM WEIGHT (cyclist+equipment+luggage)</b>	See the document Orbea Product Maximum Recommended Weights on our website

\*Not all disc and caliper models on the market are compatible with all frames. All the Orbea specified assemblies have been checked. For aftermarket assemblies, check the dimensions and tolerances before purchase.

\*\*Oval chainrings from different manufacturers have different dimensions. Orbea does not guarantee the compatibility of all oval chainrings of the indicated size.

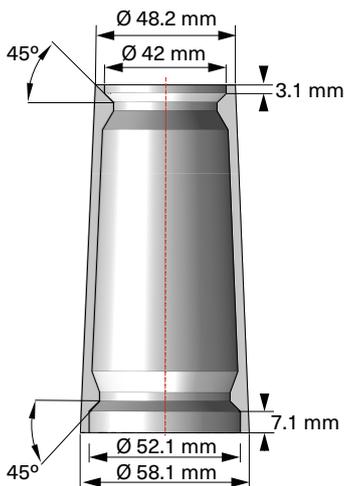
# 07 HEADSET

## HEADSET ELEMENTS



- 1. 1-1/2" fork crown race
- 2. 1-1/2" lower bearing
- 3. 1-1/8" upper bearing
- 4. Aluminium fork tube star nut
- 5. Compression ring
- 6. Headset cap
- 7. Headset spacers 1-1/8" (5/10 mm)

## HEAD TUBE DIMENSIONS



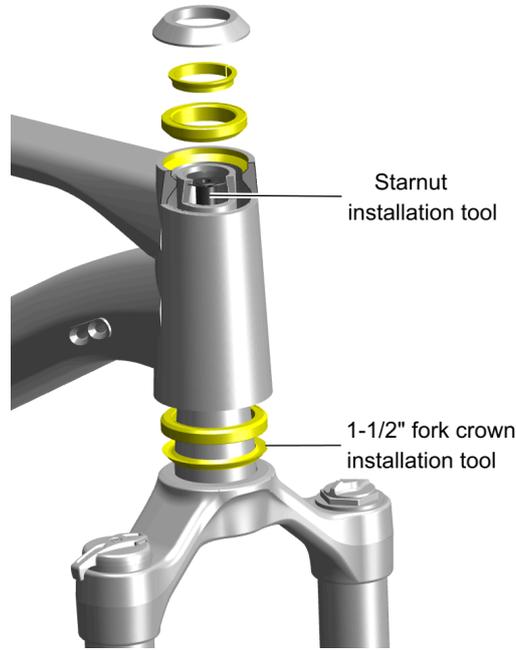
### HEADSET SPECIFICATIONS

	TOP	BOTTOM
<b>TYPE</b>	1-1/8" Integrated	1-1/2" Integrated
<b>ID*</b>	42 mm	52.1 mm
<b>OD**</b>	48.2 mm	58.1 mm
<b>Race angle</b>	45°	45°
<b>Compression ring/fork race angle</b>	36° depending on the headset model	45°
<b>SHIS CODE</b>	IS42/30	IS52/40
<b>Bearing dimensions</b>	41.8 x 30.1 x 8 mm	40 x 52 x 7 mm

\* ID: Head tube internal diameter.

\*\* OD: Head tube outer diameter.

## EXPLODED DIAGRAM, ASSEMBLY COMPOUNDS AND TIGHTENING TORQUES



COLOUR	TYPE OF COMPOUND	DESCRIPTION
	LUBRICATION	GREASE: Assembly grease to avoid creaking and seizing.

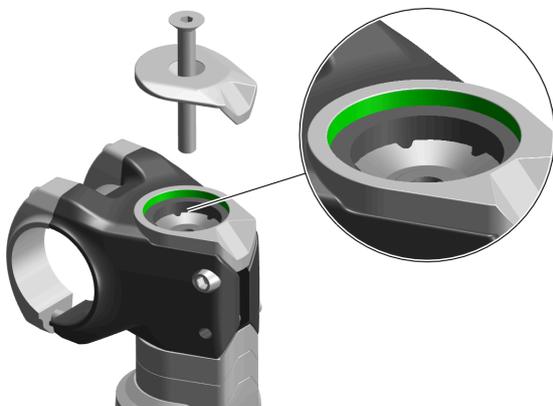
## HEADSET ADJUSTMENT

### NOTICE

This is a general headset adjustment guide. See the specific section for your stem model to find the specific tightening torques, the recommended assembly compounds and their components.

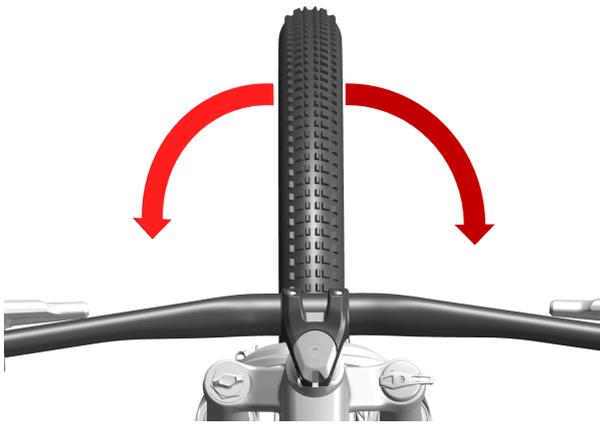
See the stem section to find the assembly compounds to use on the handlebars, depending on their material.

1



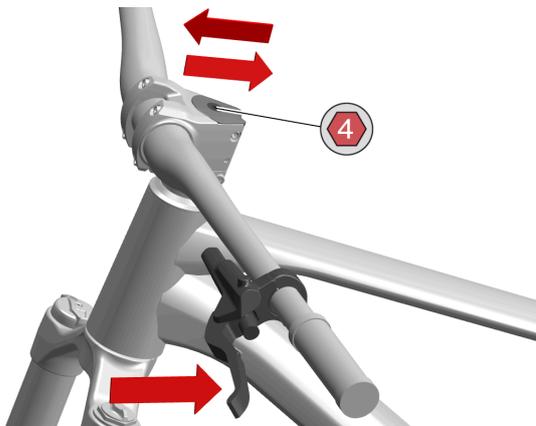
1. Whatever the height of the stem and headset spacers (above and/or below the stem), the length of the fork steerer tube must be correct so that both stem clamping bolts are positioned above the fork tube and there is enough space to install the stem preload cap. If necessary, cut the fork steerer tube or add headset spacers until the proper position is achieved. Install the stem cap and preload bolt without going to the final torque.

2



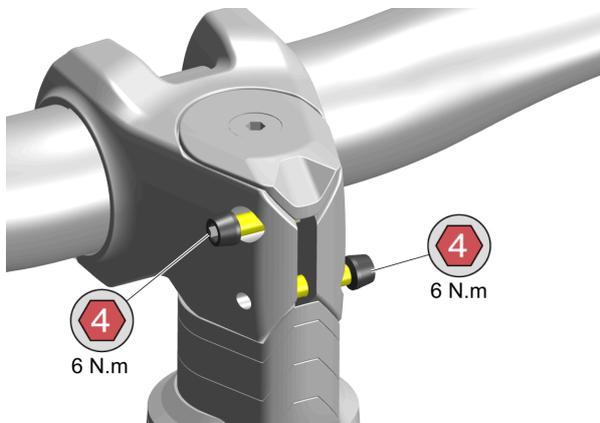
2. With the handlebars fitted to the stem, centre the stem with respect to the front wheel.

3



3. Tighten the stem top cap to the recommended torque. Check that the headset is free of play by applying the front brake and rocking the bike slightly back and forth. Similarly, check that the handlebars rotate smoothly to both sides.

4

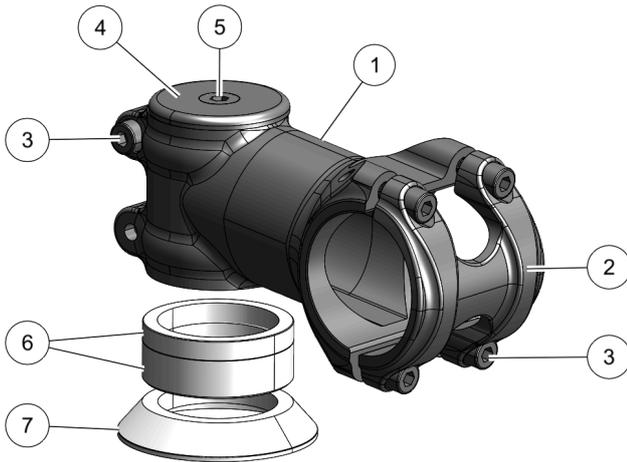


4. Apply assembly grease to the stem clamp bolts and tighten to the recommended torque for your stem model

# 08 STEMS

## ORBEA ALLOY FORGED MTB STEM

### ORBEA ALLOY FORGED 35 MM STEM. ELEMENTS

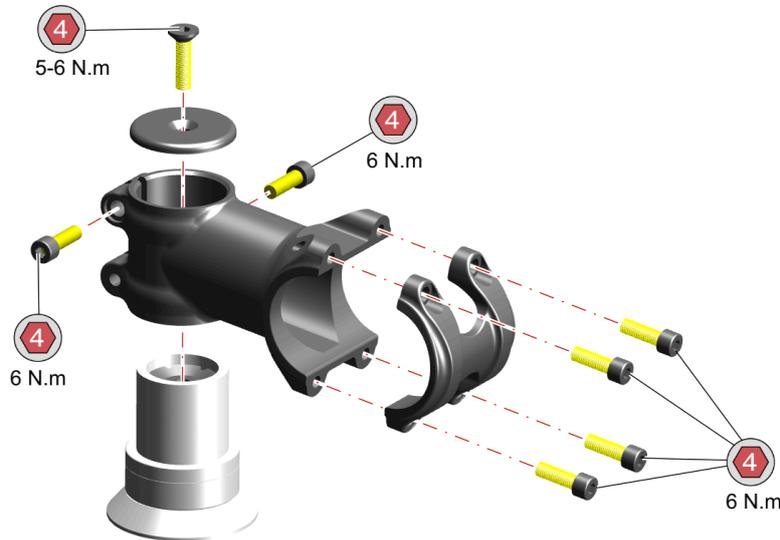


1. Body of the stem
2. Faceplate
3. Fork clamp and faceplate screws
4. Standard round headset cap
5. Headset preload screw
6. Standard round headset spacers 1-1/8" (5/10 mm)
7. Standard round headset cap

### ORBEA ALLOY FORGED 35 MM STEM. TECHNICAL SPECIFICATIONS

MATERIAL	Aluminium
HEADSET STANDARD	Regular 1-1/8"
Ø FORK	1" 1/8
Ø HANDLEBARS	35 mm
CLAMPING HEIGHT IN FORK TUBE	40 mm
INTERNAL CABLING	No
CYCLE COMPUTER ADAPTER	No
AVAILABLE LENGTHS (L)	45, 55 mm Depending on the size of the bicycle
ANGLE (TILT)	-7°
HEADSET SPACERS	Standard round 1-1/8"
TOPCAP	Standard round 1-1/8"

## ORBEA ALLOY FORGED 35 MM STEM. EXPLODED DIAGRAM, ASSEMBLY COMPOUNDS AND TIGHTENING TORQUES



COLOUR	TYPE OF COMPOUND	DESCRIPTION
	LUBRICATION	GREASE: Assembly grease to avoid creaking and seizing. Compatible with carbon and aluminium surfaces.

## OC MOUNTAIN CONTROL STEM

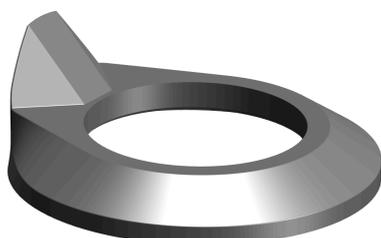
### USING OC MOUNTAIN CONTROL STEMS

**NOTICE**

To mount OC Mountain Control (MC) stems on MTB bikes without HS02 standard headset, (internal cabling through headset), you need to use the 1-1/8"-HS02-17 adapter headset cap. This 1-1/8" headset cap has the appropriate profile on the back for the correct mounting of HS02 components (OC Mountain Control stems and HS02-07/08 5 and 10 mm headset spacers).

Orbea MTB models with 1-1/8" headset that mount OC Mountain Control stems can be fitted with other aftermarket stems without an HS02 mounting profile. It will be necessary to replace the HS02 adapter headset cap with a standard round headset cap to mount aftermarket stems. When replacing the headset cap, it may be necessary to also replace the upper bearing and/or headset compression ring for the new assembly to function properly.

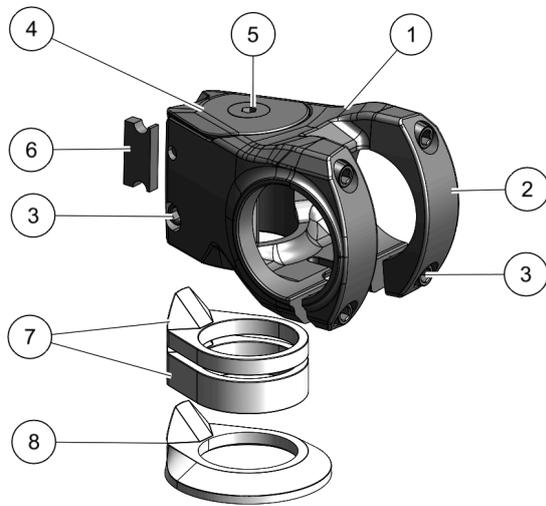
HEADSET CAP 1-1/8" HS02-17



HS02 STEM-HEADSET MOUNTING PROFILE



## OC ST-MC10-MC20 STEMS. ELEMENTS

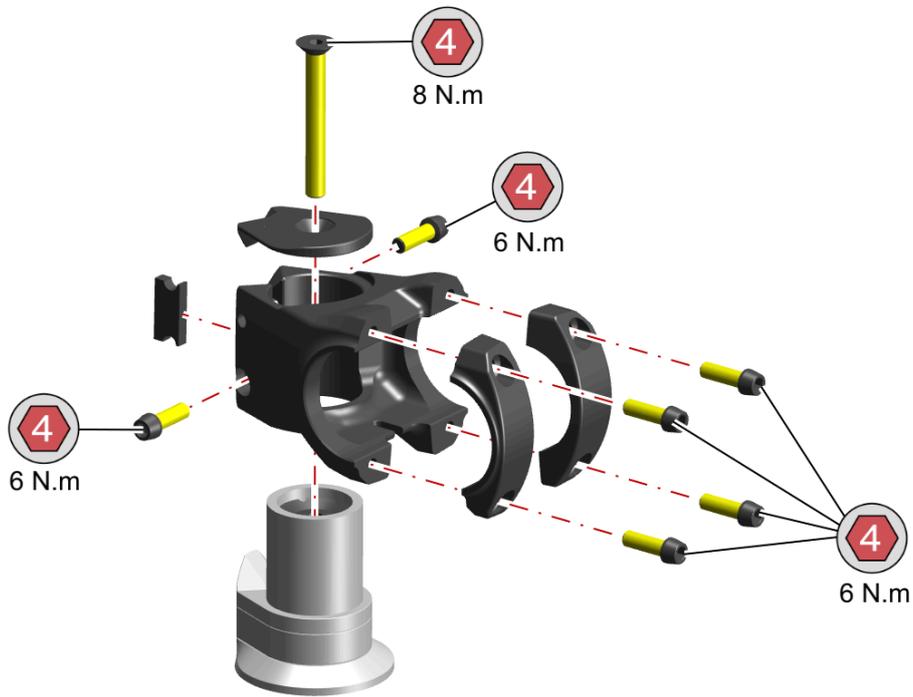


1. Body of the stem
2. Faceplate
3. Fork clamp and faceplate screws
4. Stem cover
5. Headset preload screw
6. Fork area tightening stop
7. HS02-07/08 (5/10 mm) headset spacers
8. Headset cap adapter 1-1/8"-HS02-17

## OC MC10/MC20 STEMS. TECHNICAL SPECIFICATIONS

<b>OC RANGE</b>	Mountain Control
<b>MATERIAL</b>	CNC Aluminium
<b>ORBEA HEADSET STANDARD</b>	HS02 or standard 1-1/8" headset with HS02-17 headset cap
<b>Ø FORK</b>	1" 1/8
<b>Ø HANDLEBARS</b>	35 mm
<b>CLAMPING HEIGHT IN FORK TUBE</b>	40 mm
<b>TILT (ANGLE)</b>	0°
<b>AVAILABLE LENGTHS</b>	35, 40, 50 mm
<b>CABLING</b>	Compatible with internal mechanical cabling: No Compatible with internal electrical cabling: Yes
<b>COMPATIBLE WITH SPINBLOCK FUNCTION</b>	Yes. Only on frames with Spinblock function
<b>COMPATIBLE WITH SIC SYSTEM</b>	Yes. Only on frames with HS02 headset
<b>WEIGHT</b>	ST-MC10: 150 g (40 mm) ST-MC20: 160 g (40 mm)
<b>STEM COVER</b>	HS02-31 (MC10/20) specific cap
<b>COMPATIBLE HEADSET SPACERS</b>	<p>Below the stem: Spinblock HS02-03/04 split separators (5 and 10 mm)</p> <p>Under the SIC HS02 collector</p> <hr/> <p>Above the stem: Spinblock HS02-07/08 round spacers (5 and 10 mm)</p> <hr/> <p>Above and below the stem: Spinblock HS02-07/08 round spacers (5 and 10 mm)</p>
<b>CYCLE COMPUTER MOUNT</b>	OC CM-05. Above the stem. 5 mm

## OC MC10/MC20 STEMS. EXPLODED DIAGRAM, ASSEMBLY COMPOUNDS AND TIGHTENING TORQUES



COLOUR	TYPE OF COMPOUND	DESCRIPTION
	LUBRICATION	GREASE: Assembly grease to avoid creaking and seizing.

## USING HS02 HEADSET SPACERS. OC MOUNTAIN CONTROL STEMS

On Orbea MTB frames with a 1-1/8" upper headset standard that use OC Mountain Control stems (with the corresponding HS02-17 headset cap-adapter), the headset spacers HS02-07 (5mm) and HS02-08 (10mm) can be mounted both below and above the stem.

If you need to lower the stem position, remove the desired number of HS02 headset spacers from under the stem. If you are not cutting the fork tube to match the new stem position, rotate the spacers removed from under the stem 180° to fit them above the stem.

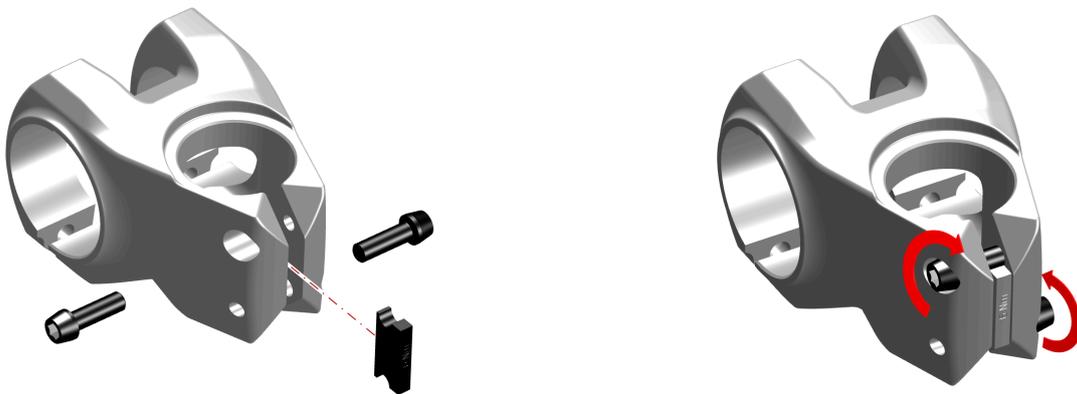


## USING THE TIGHTENING STOP. OC MOUNTAIN CONTROL STEMS

The OC Mountain Control stems compatible with the Spinblock function (regardless of whether or not the frame has this function) have a stop in the area where the stem is attached to the fork to ensure that the recommended torque is not exceeded. The torque stop is specific to each stem model, and comes installed on the stem.

If it is necessary to reinstall the torque stop on the stem, it is necessary to remove the bolts from the area where the stem is clamped to the fork to install the torque stop and then reinstall the stem bolts.

The torque stop is not essential for the use of OC stems. If the torque stop is not installed, be sure to follow the stem bolt torque directions for each OC stem model.



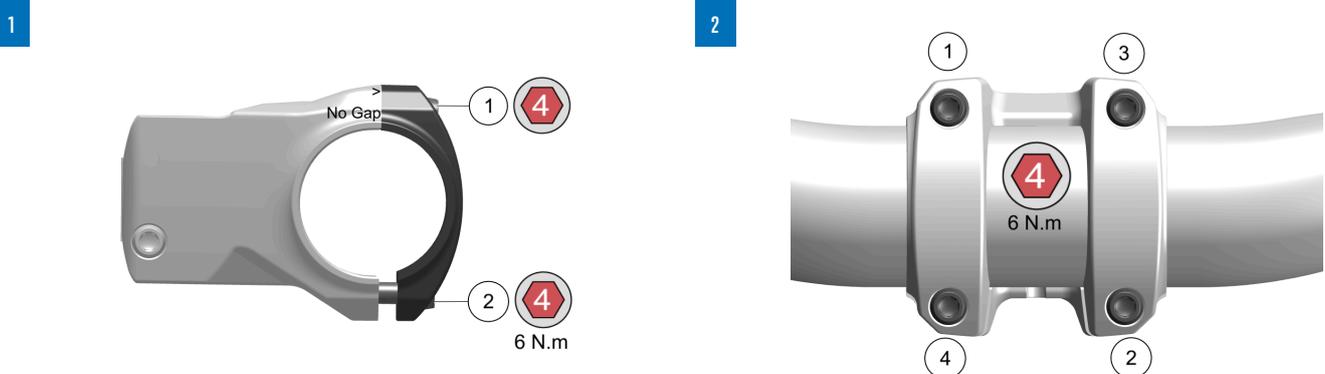
## GENERAL STEM INSTALLATION INSTRUCTIONS

### FIXING THE FACEPLATE ON "NO GAP" MTB STEMS



On stems marked "No Gap" the fastening point bolts marked "No Gap" must first be tightened until the faceplate and stem body make contact. Then tighten the opposite bolts to the final torque given for the stem model

Check the tightening torque of the four faceplate screws in a cross pattern.



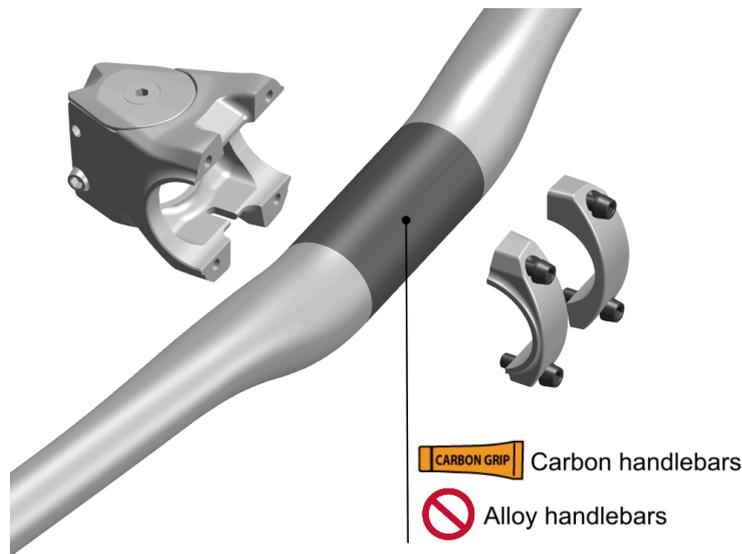
## ASSEMBLY COMPOUNDS FOR HANDLEBARS



On carbon handlebars, apply a light coating of carbon friction compound to the handlebar-to-stem mounting surface.

For aluminium handlebars with aluminium stems, do not apply any assembly compound to the clamping area of the handlebar.

If you are going to use a carbon stem, whether the handlebar is aluminium or carbon, apply a light coating of carbon friction compound to the assembly surface of the handlebar to the stem.



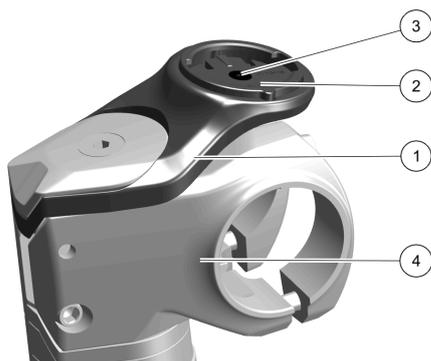
## OC CM-05 GPS MOUNT FOR OC MOUNTAIN CONTROL STEMS

### NOTICE

The OC CM-05 GPS mount is only compatible with HS02 standard OC Mountain Control stems compatible with the Spinblock function (even if the frame does not have a Spinblock function).

To install OC Mountain Control stems on MTB frames with a 1-1/8" headset standard, the HS02-17 headset adapter topcap is required. See the stems section.

### OC CM-05. ELEMENTS



1. Cycle computer support body
2. Adapter for Garmin - Sigma, Wahoo, Bryton
3. Adapter clamping bolt
4. OC Mountain Control stem

**NOTICE**

The OC CM-05 mount has three adapter options for different cycle computer brands: Garmin/Sigma, Wahoo and Bryton.

If you have a device from another brand, check with the manufacturer which mounting standard it uses to see if it is compatible with the CM-05 mount.

## OC CM-05. SPECIFICATIONS

MATERIAL	Polymer
SIZE (MM)	83x44x40 mm.
WEIGHT (G)	13 g
COLOUR	Black
COMPATIBLE OC STEMS	With OC Mountain Control stems
DEVICE COMPATIBILITY	Garmin / Sigma / Bryton / Wahoo

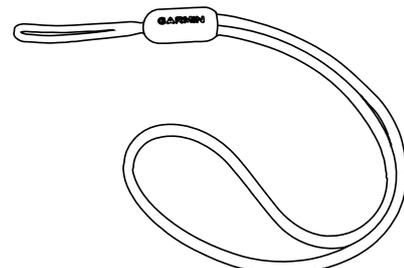
## OC CM-05. ASSEMBLY

### EXPLODED VIEW AND TIGHTENING TORQUES



**NOTICE**

Orbea reminds you of the recommendation of GPS unit manufacturers to use the safety cord supplied with the cycle computers around the handlebars to prevent damage to or loss of the unit in the event of an accident.

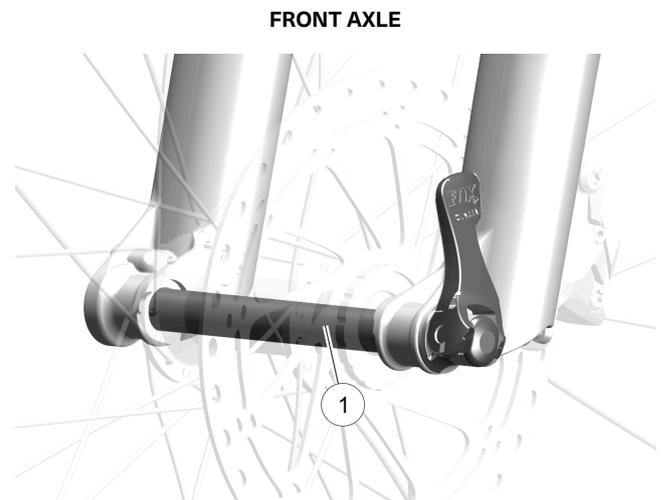
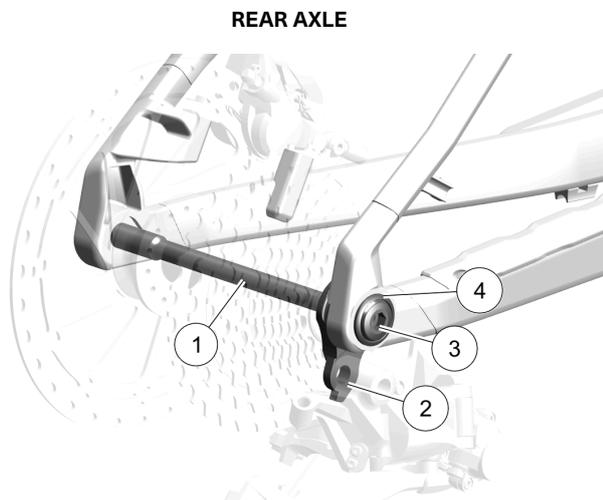


**NOTICE**

With the GPS mount installed above the stem, the fork tube height must be suitable for the height of the stem and the headset spacers and/or the GPS mount fitted. See the Headset section of this manual for more information on headset adjustment.

# 09 AXLES, DROPOUTS AND DERAILLEUR HANGER

## AXLES, DROPOUTS AND DERAILLEUR HANGER. ELEMENTS.



1 Rear thru-axle

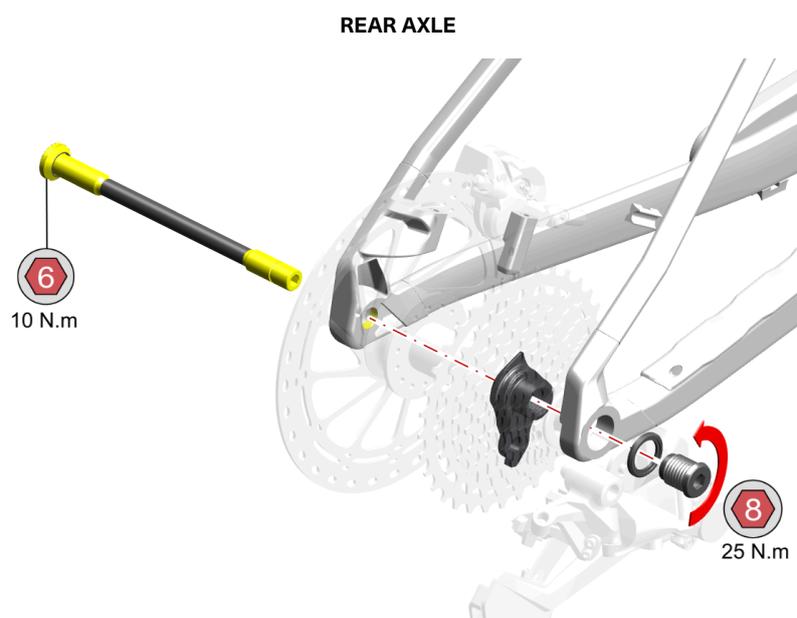
2 Sram UDH derailleur hanger

3 Sram UDH derailleur hanger nut

4 Sram UDH derailleur hanger washer

1 Front thru-axle

## EXPLODED DIAGRAM, ASSEMBLY COMPOUNDS AND TIGHTENING TORQUES



COL- OUR	TYPE OF COMPOUND	DESCRIPTION
	LUBRICATION	GREASE: Assembly grease to avoid creaking and seizing. Compatible with carbon and aluminium surfaces.

**NOTICE**

**SRAM T-TYPE DERAILLEUR COMPATIBILITY:** Laufey, as it uses the Sram UDH derailleur hanger, is compatible with Sram T-Type derailleurs with direct mounting to the frame (without derailleur hanger).

**NOTICE**

**FRONT AXLE:** The specific mounting instructions for the front thru-axle on suspension forks are defined by the fork manufacturer. See the instructions for use in the manufacturer's documentation.

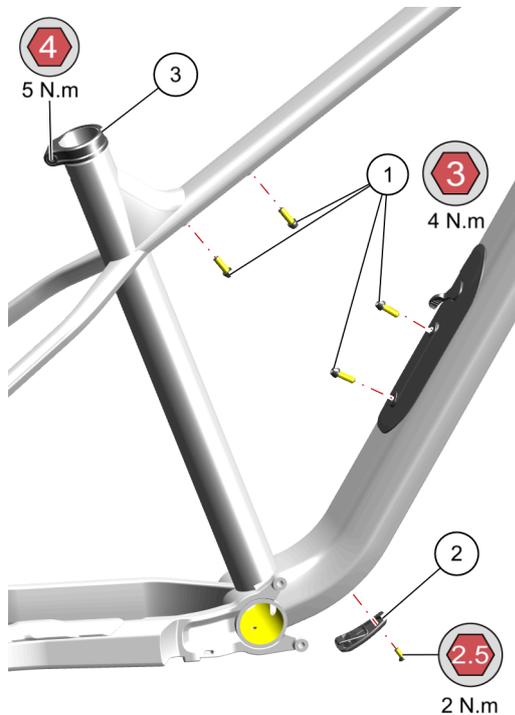
[Fox 15QR axle](#)

[Marzocchi QR axle](#)

[RockShox Thru-axle](#)

# 10 OTHER FRAME HARDWARE

## EXPLODED DIAGRAM, ASSEMBLY, COMPOUNDS AND TIGHTENING TORQUES



1. Seatpost clamp 34.9 mm
2. Downtube cable guide. Rear derailleur and brake
3. Bottle holder bolts

COLOUR	TYPE OF COMPOUND	DESCRIPTION
	LUBRICATION	GREASE: Assembly grease to avoid creaking and seizing.

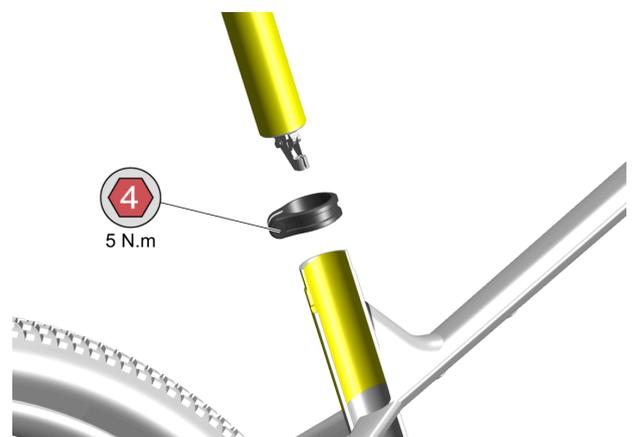
## SEATPOST INSTALLATION

### NOTICE

See the OC Components dropper seatpost manuals on our website:

[www.orbea.com/gb-en/](http://www.orbea.com/gb-en/) > Support > Manuals > Product

For installation instructions for third-party seat posts, see the manufacturer's documentation.



COLOUR	TYPE OF COMPOUND	DESCRIPTION
	LUBRICATION	GREASE: Assembly grease to avoid creaking and seizing.

# 11 LOCKR. STORAGE IN THE DOWNTUBE

Laufey lets you store your tools and spare parts in the frame's downtube thanks to the LOCKR cap, so you can empty your pockets and backpack, knowing that you have everything you need with you.

To protect your tools and spare parts and avoid noise, they must be placed in the OC LK-02-B bag, which is supplied with the bicycle.

LOCKR ZONE CAP



LK-02-B BAG



## USING LOCKR

### OPENING THE LOCKR CAP

To open the LOCKR cap, turn the opening cam upwards. Lift the cap from the top end, then pull it up to release the tab on the bottom of the cap.



### CLOSING THE LOCKR CAP

To close the LOCKR cap, first position the bottom end of the cap on the frame so that the cap tab sits inside the frame. Fit the top of the cap and turn the locking cam down to secure the cap to the frame.



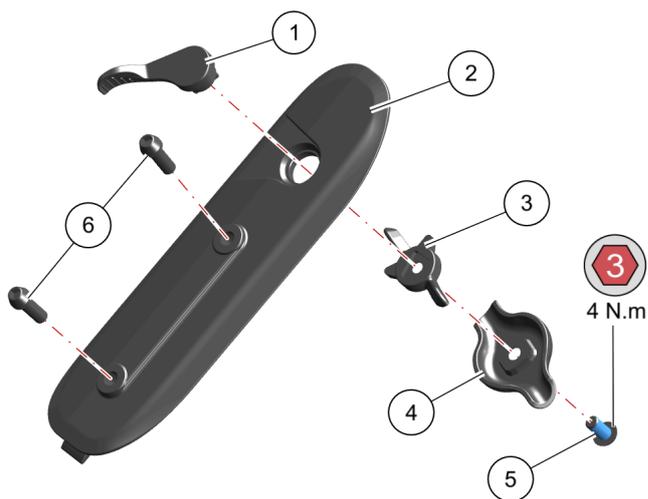
## USING THE OC LK-02-B BAG

See the video linked below to learn what tools you can store in the LK-02-B bag and the best way to do it.

[Click here to watch the video](#)



## EXPLODED VIEW OF LOCKR CAP



1. External lever

2. LOCKR lid Laufey

3. Internal lever

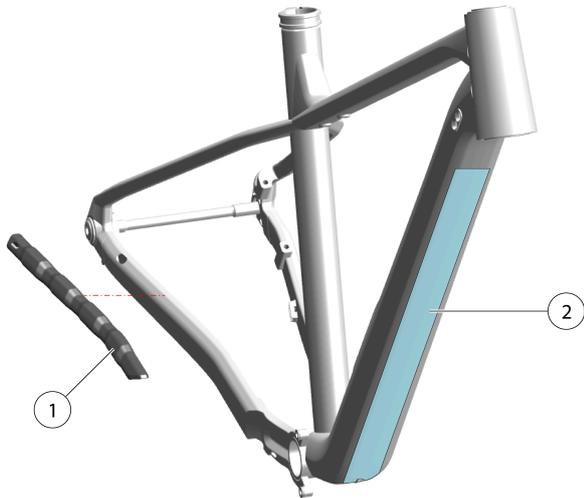
4. Internal lever protector

5. Bolt axle lever

6. Bottle cage bolts

COLOUR	TYPE OF COMPOUND	DESCRIPTION
	RETAINING	THREADLOCK: Medium strength. Loctite 243 type

# 12 FRAME PROTECTORS



1. Right seatstay adhesive rubber protector
2. Downtube adhesive transparent protector

## INSTRUCTIONS FOR FITTING TRANSPARENT PROTECTORS

1. Clean the surface of the frame with isopropyl alcohol with a maximum concentration of 70% beforehand until any dirt and remains of the previous protector are gone
2. Peel off a corner of the protector without touching the glue and fit it to the specific area of the frame adjusting it to its shape
3. Remove any air bubbles by pressing on them and moving them to the sides of the protector

## INSTRUCTIONS FOR FITTING ADHESIVE RUBBER PROTECTORS

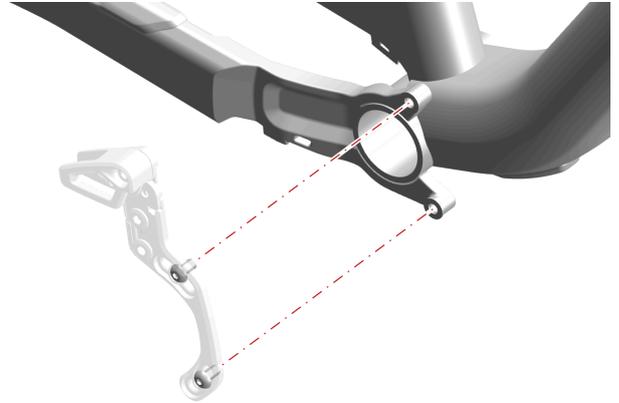
1. For right chainstay protectors with a hole for the rear derailleur outer cable exit, you need to release the gear cable to be able to remove the protector to be replaced.
2. Clean the surface of the frame with isopropyl alcohol with a maximum concentration of 70% beforehand until any dirt and remains of the previous protector are gone
3. Remove the film from the protector adhesive, without touching the glue, and fit it in the specific area of the frame, adjusting it to its shape and passing the derailleur outer cable through the hole in the protector.
4. Reinstall the rear derailleur cable and check that the derailleur is working properly. If you do not have the knowledge needed to carry out this installation and adjustment, ask an authorised dealer to change the protector.

# 13 CHAINGUIDE COMPATIBILITY

Laufey is compatible with two-bolt ICGS-05 mounting standard chainguides.

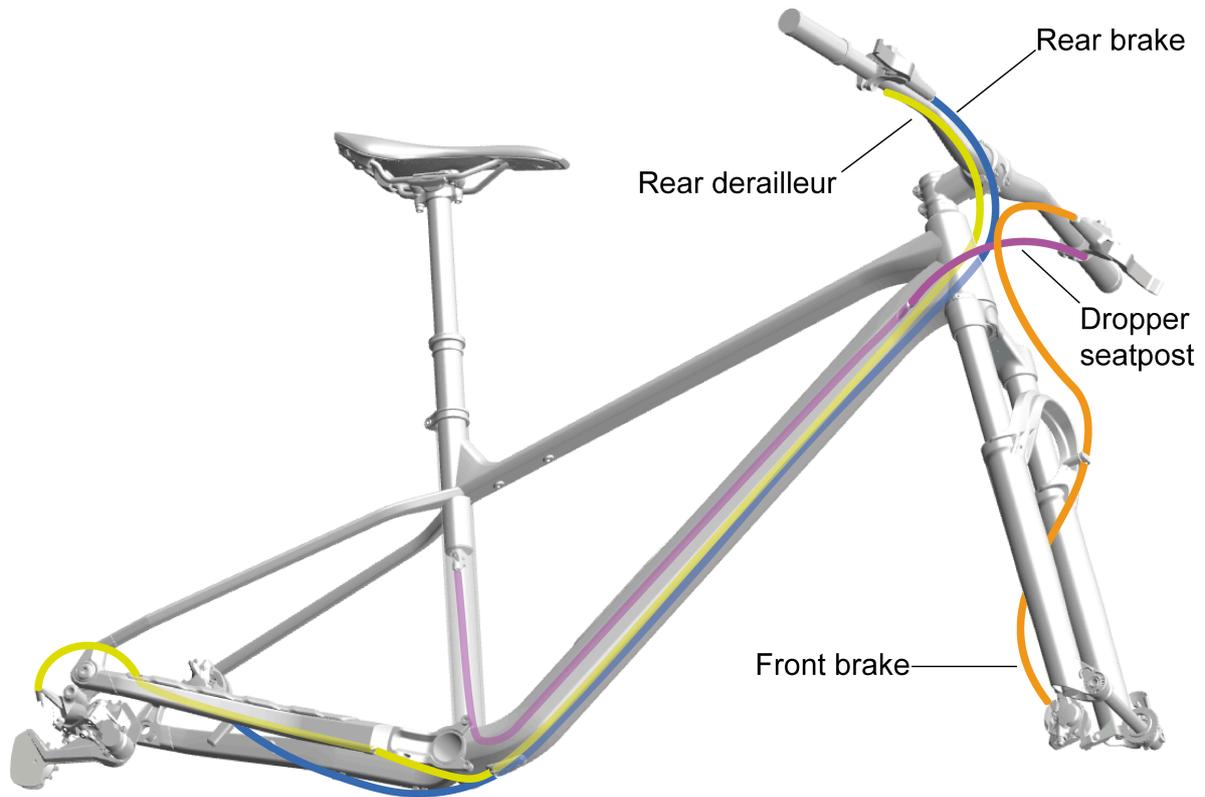
Depending on the chain line of the crank and chainring fitted (Laufey is compatible with 52 and 55mm chain lines), the use of adjustment washers may be necessary for proper installation of the chainguide. These washers are usually included by the chainguide manufacturer.

See the chainguide model's manufacturer's documentation for the assembly instructions (installation of adjustment washers, compatibility, tightening torques, etc.).

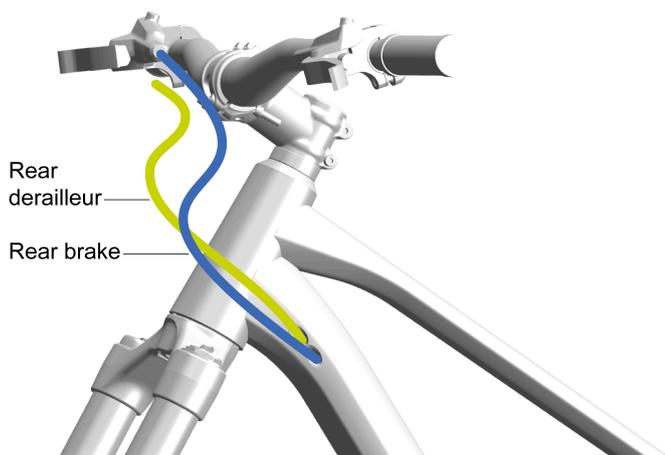


# 14 CABLE GUIDING

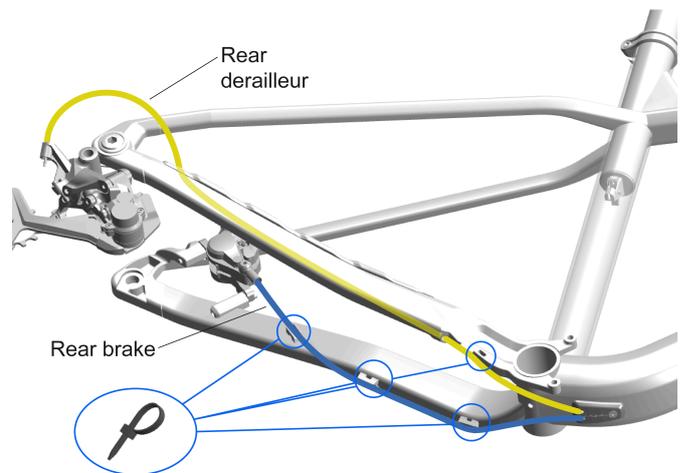
## OVERVIEW OF CABLE GUIDING IN THE FRAME



### LINES ENTRY ON LEFT SIDE



### CABLE GUIDING THROUGH CHAINSTAYS



Continues next page >

**NOTICE****Cable entry in Left Road brake assemblies:**

In setups with the rear brake mounted on the left of the handlebar, the rear brake line enters the frame on the right side of the frame, leaving an unused entry hole on the left side of the downtube.

**DOWNTUBE CABLE CLIPS**

To prevent movement of the cables inside the downtube, guide the lines through their clamps inside the downtube.

Depending on the iteration of the frame, these clamps may be adhesive plastic or brazed metal on the inside of the frame.

If your frame has adhesive clamps, should you need to replace them, remove the film from the back of the clamp to expose the adhesive and stick it to the inside of the downtube through the LOCKR opening.

Place them in the same position as the original clamps. This position makes it easier to insert and remove the LOCKR bag from the downtube.

# 15 SUSPENSION ADJUSTMENT

## SUSPENSION FORK ADJUSTMENT

### 1 FOX FORKS

See the manufacturer's user manual for the suspension forks mounted on the various models.

Click on the following links to access the documentation:

[Fox main manuals page](#)

[Fox 34 Float 2022 Performance Grip 140 mm fork manual](#)

The following tables give approximate values. The values may vary depending on the riding style and terrain characteristics.

#### RECOMMENDED SAG ADJUSTMENT STARTING AIR PRESSURE FOR FOX 34 FLOAT FORKS

Cyclist weight		Air pressure	
(lbs)	(kg)	(psi)	(bar)
120-150	54-68	64-74	4.4-5.1
150-180	68-82	78-83	5.4-5.7
180-210	82-95	92-102	6.3-7.0
210-250	95-113	106-120	7.3-8.3

#### RECOMMENDED SAG MEASUREMENTS

Travel	15% SAG (Firm)	20% sag (Soft)
140 mm/ 5.5 in	21 mm/ 0.8 in	28 mm/ 1.1 in

#### RECOMMENDED REBOUND SETTINGS FOR FOX 34 FLOAT FORKS

The rebound setting depends on the air pressure. The higher the air pressure, the more closed the rebound circuit should be.

Use your fork's final air pressure to find your rebound setting. Turn the rebound dial to the closed position (turn clockwise). Then count as many "clicks" as appear on the table in an anti-clockwise direction.

Cyclist weight		GRIP cartridge rebound clicks
(lbs)	(kg)	
120-130	54-59	13
130-140	59-64	12
140-150	64-68	11
150-160	68-73	10

[Continues next page >](#)

Cyclist weight		GRIP cartridge rebound clicks
(lbs)	(kg)	
160-170	73-77	9
170-180	77-82	8
180-190	82-86	7
190-200	86-91	6
200-210	91-95	5
210-220	95-100	4
220-230	100-104	3
230-240	104-109	2
240-250	109-113	1

**ADJUSTING THE COMPRESSION**

**3-Position Micro Adjustment:** The 3-position adjustment is useful for making quick adjustments and controlling fork performance in situations with variable terrain. The compression lever is used to make adjustments while using the bicycle. Turning the lever completely counterclockwise leaves the compression in Open mode. Leaving the lever in a central position leaves the fork in Medium mode. Turning the lever completely clockwise leaves the compression in Firm mode. The intermediate positions between the 3 modes can be used to adjust the compression in smaller increments. Fox recommends starting with the lever in Open mode.

**ADJUSTING THE COMPRESSION**

Modifying the number of fork air volume reducers lets you further fine-tune the behaviour of the fork.

Fox 34 Float fork reducer configuration		
Travel	Factory fitted reducers	Maximum No. of 10 cc reducers
140 mm	1	5

**2 MARZOCCHI FORKS**

See the manufacturer’s user manual for the suspension forks mounted on the various models.

Click on the following links to access the documentation:

[Fox-Marzocchi main manuals page](#)

[Marzocchi Bomber Z2 fork adjustment manual](#)

The following tables give approximate values. The values may vary depending on the riding style and terrain characteristics.

**RECOMMENDED SAG ADJUSTMENT STARTING AIR PRESSURE FOR MARZOCCHI BOMBER Z2 FORKS**

Cyclist weight		Air pressure	
(lbs)	(kg)	(psi)	(bar)
120-130	54-59	58	65
130-140	59-64	63	70
140-150	64-68	68	74
150-160	68-73	72	80
160-170	73-77	77	85
170-180	77-82	82	90
180-190	82-86	86	96
190-200	86-91	91	101
200-210	91-95	96	106
210-220	95-100	100	111
220-230	100-104	105	116
230-240	104-109	110	121
240-250	109-113	114	126

**RECOMMENDED SAG MEASUREMENTS**

Travel	15% SAG (Firm)	20% sag (Soft)
140 mm/ 5.5 in	21 mm/ 0.8 in	28 mm/ 1.1 in

**RECOMMENDED REBOUND SETTINGS FOR MARZOCCHI BOMBER Z2 FORKS**

The rebound setting depends on the air pressure. The higher the air pressure, the more closed the rebound circuit should be.

Use your fork's final air pressure to find your rebound setting. Turn the rebound dial to the closed position (turn clockwise). Then count as many "clicks" as appear on the table in an anti-clockwise direction.

Cyclist weight		RAIL cartridge rebound clicks
(lbs)	(kg)	
120-130	54-59	13
130-140	59-64	10
140-150	64-68	9
150-160	68-73	9
160-170	73-77	8
170-180	77-82	8
180-190	82-86	8
190-200	86-91	7

Cyclist weight		RAIL cartridge rebound clicks
(lbs)	(kg)	
200-210	91-95	7
210-220	95-100	6
220-230	100-104	4
230-240	104-109	3
240-250	109-113	2

**ADJUSTING THE COMPRESSION**

**2-Position Micro Adjustment:** The 2-position adjustment is useful for making quick adjustments and controlling fork performance in situations with variable terrain. The compression lever is used to make adjustments while using the bicycle. Turning the lever completely counterclockwise leaves the compression in Open mode. Turning the lever completely clockwise leaves the compression in Firm mode. The intermediate positions between the 2 modes can be used to adjust the compression in smaller increments.

**ADJUSTING THE COMPRESSION**

Modifying the number of fork air volume reducers lets you further fine-tune the behaviour of the fork.

Bomber Z2 fork reducer configuration		
Travel	Factory fitted reducers	Maximum No. of reducers
140 mm	0	4

**3 ROCKSHOX FORKS**

See the manufacturer’s user manual for the suspension forks mounted on the various models.

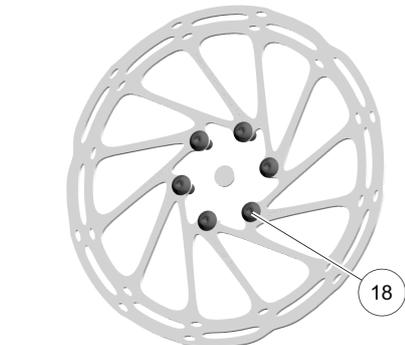
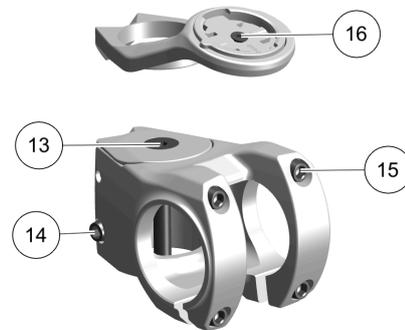
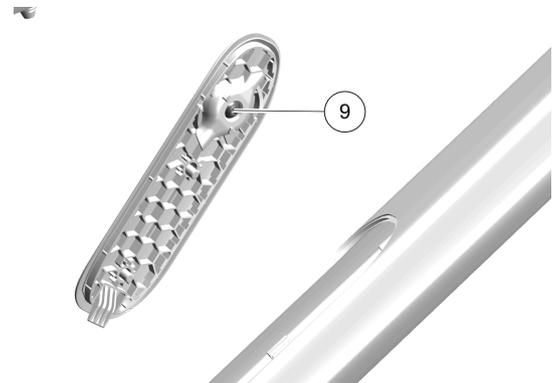
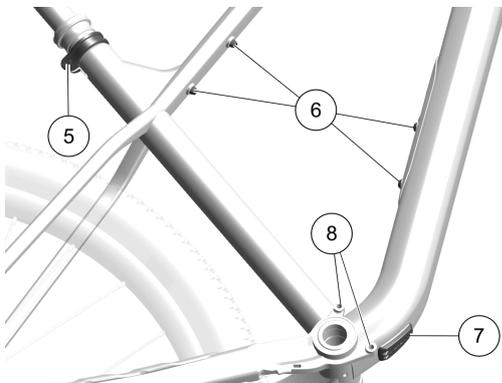
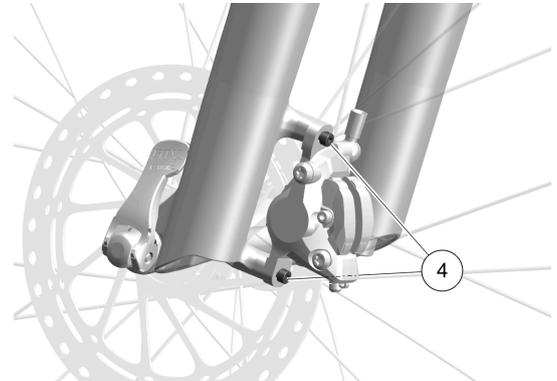
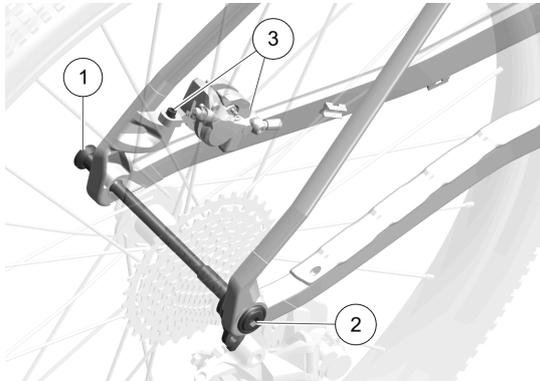
Click on the following links to access the documentation:

[Main Manuals Page for RockShox Recon RL](#)

[Rockshox Fork Owner's Manual](#)

[RockShox fork adjustment manual](#)

# 16 TIGHTENING TORQUES. OVERVIEW



NUMBER	COMPONENT	TOOL	METRICS	TIGHTENING TORQUE
1	Rear thru axle	Allen key	6 mm	10 N.m
2	Sram UDH derailleur hanger screw (reverse thread)	Allen key	8 mm	25 N.m
3	Rear brake caliper fixing screws	Allen key	5 mm	6-8 N.m
4	Front brake caliper fixing screws	Allen key	5 mm	6-8 N.m
5	Seatpost clamp bolt	Allen key	4 mm	5 N.m
6	Bottle holder bolts	Allen key	3 mm	4 N.m
7	Downtube cable guide bolt	Allen key	2.5 mm	2 N.m
8	ICGS-05 chainguide bolts (depends on the chainguide model)	Allen key	4 mm	5 N.m
9	LOCKR cap cam bolt	Allen key	3 mm	4 N.m
10	Orbea Forged MTB stem cap preload bolt	Allen key	4 mm	5-6 N.m
11	Orbea Forged MTB stem fork fixing bolts	Allen key	4 mm	6 N.m
12	Orbea Forged MTB stem faceplate bolts	Allen key	4 mm	6 N.m
13	OC Mountain Control stem cap preload bolt	Allen key	4 mm	6-8 N.m
14	OC Mountain Control stem fork fixing bolts	Allen key	4 mm	6 N.m
15	OC Mountain Control stem faceplate bolts	Allen key	4 mm	6 N.m
16	OC CM-05 mount adapter bolt	Allen key	2 mm	2 N.m
17	Centerlock brake disk lockring	Centerlock-BB Tool	—	40 N.m
18	6-bolt brake disk bolts	Torx	T25	2-4 N.m

# 17 LAUFHEY 2024 SPARE PARTS

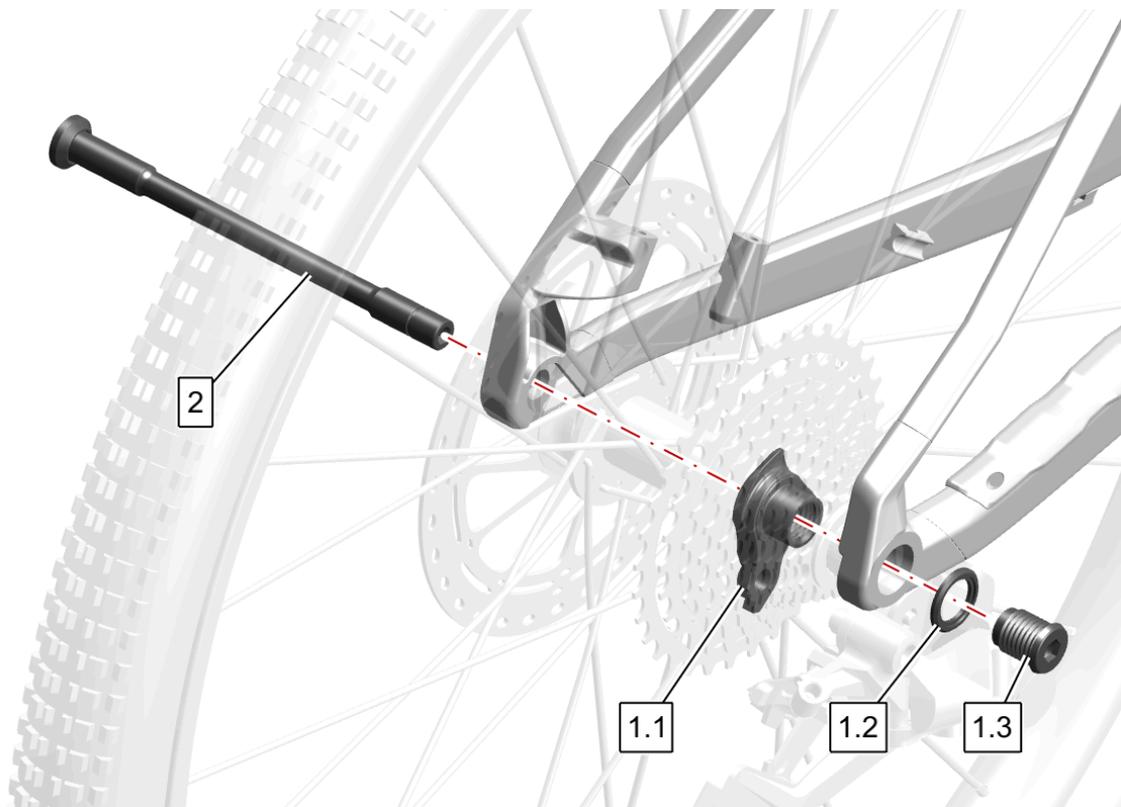
See the full Orbea spare parts catalogue on our web site:

[www.orbea.com/gb-en/gear/spare-parts/](http://www.orbea.com/gb-en/gear/spare-parts/)

Or go to all Laufey spare parts directly:

[Laufey 2024 spare parts](#)

## REAR AXLE



[Click on the part number to buy online](#)

### 1 SRAM UDH X12 DERAILLEUR HANGER. HT OPTION

**PART No.:** X004

**QTY**



1.1\_ Sram UDH X12 derailleur hanger

1

1.2\_ Sarm UDH derailleur hanger washer. HT option

1

1.3\_ Sarm UDH derailleur hanger bolt

1

### 2 WHEEL AXLE 12x171 (1.0X13) LITE

**PART No.:** X032

**QTY**



2\_ Thru-axle wheel 12x171mm (thread 1.0x13mm). Lite

1



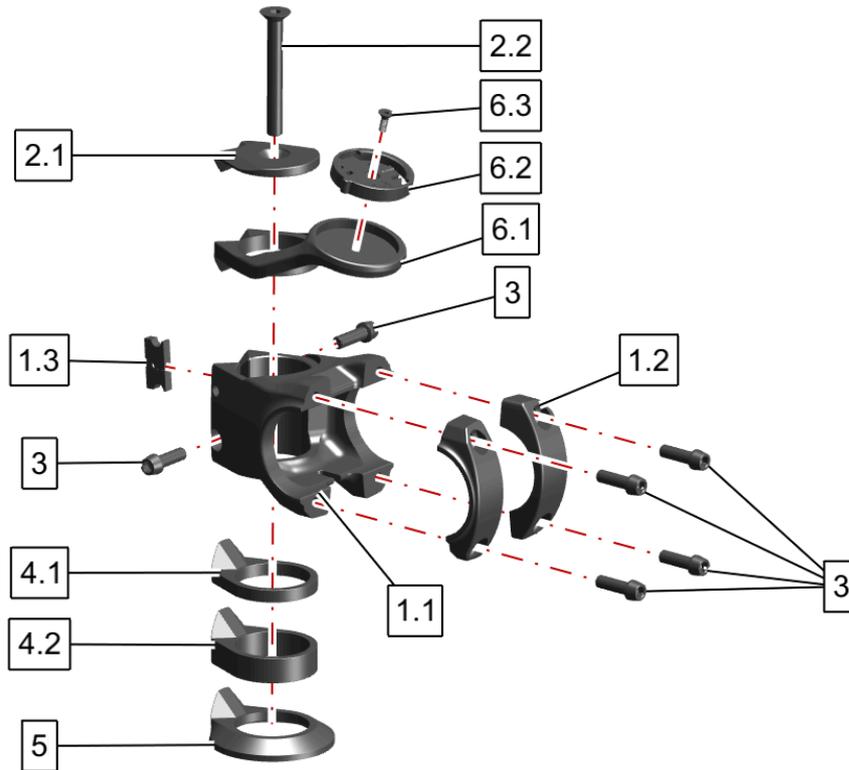
## 2 HEADSET CAP-ADAPTER HS02-17 OC MC STEMS

PART No.: X970		QTY
	2_ Headset cap HS02-17 48mm No SIC No Spinblock	1

## 3 HS02 HEADSET SPACER KIT. ROUND

PART No.: XC58		QTY
	3.1_ HS02-8 headset spacer (10 mm)	2
	3.2_ HS02-7 headset spacer (5 mm)	2

## OC ST-MC20 STEM



[Click on the part number to buy online](#)

### 1 OC ST-MC20 STEM

Includes faceplate, stem cap, preload bolt, tightening stop and bolts.

PART NO.: C026		QTY
	1_ OC ST-MC20 stem (available in sizes 35, 40 and 50 mm)	1

### 2 HS02-31 STEM CAP KIT

PART No.: XC79		QTY
	2.1_ Stem cap MC10/20 HS02-31	1
	2.2_ Preload bolt M6x50 mm DIN7991	1

### 3 OC STEM BOLT KIT

PART No.: XC78		QTY
	3_ M5 x 15 R8 tapered bolt. CrMo	6
	Compatible with all OC stems except ST-RP21	

### 4 HS02 HEADSET SPACER KIT. ROUND

PART No.: XC58		QTY
	4.1_ HS02-8 headset spacer (10 mm)	2
	4.2_ HS02-7 headset spacer (5 mm)	2

## 5 HEADSET CAP-ADAPTER HS02-17 OC MC STEMS

PART No.: X970		QTY
	5_ Headset cap HS02-17 48mm No SIC No Spinblock	1

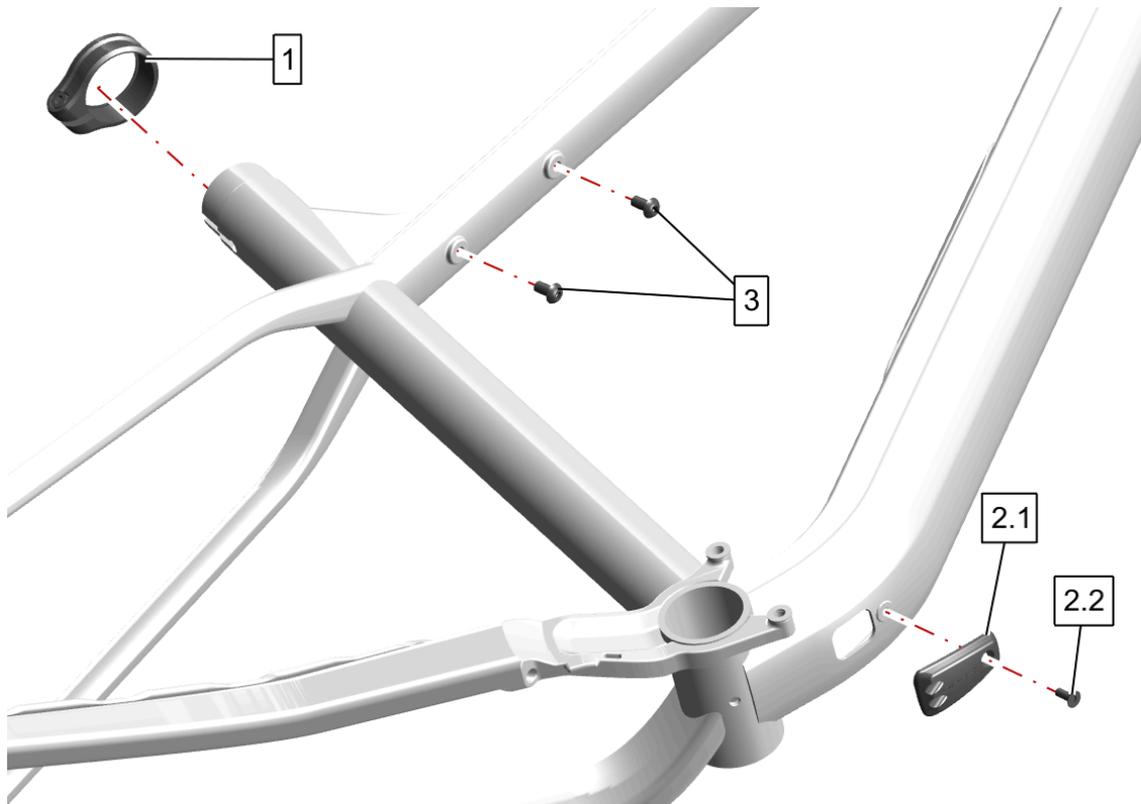
## 6 OC CM-05 GPS MOUNT

PART NO.: C052		QTY
	6.1_ OC CM-05 GPS mount body	1
	6.2_ CT-02 Adapter kit for Garmin/Sigma, Wahoo, Bryton	3
	6.3_ M3 x 8 DIN7991 bolt	1

## 7 OC CT-02 GPS ADAPTERS KIT

PART NO.: C054		QTY
	7_ CT-02 Adapter kit for Garmin/Sigma, Wahoo, Bryton	3

## OTHER FRAME HARDWARE



[Click on the part number to buy online](#)

### 1 SEATPOST CLAMP 34.9

**PART No.:** X202

**QTY**



1\_ Seatpost clamp, 34.9 mm (includes bolt)

1

### 2 LAUFHEY 2024 DOWNTUBE CABLE GUIDE

**PART No.:** X636

**QTY**



2.1\_ Laufey 2024 downtube cable guide

1

2.2\_ M4 x 10 DIN7991 bolt

1

### 3 BOTTLE HOLDER BOLT KIT

**PART No.:** X449

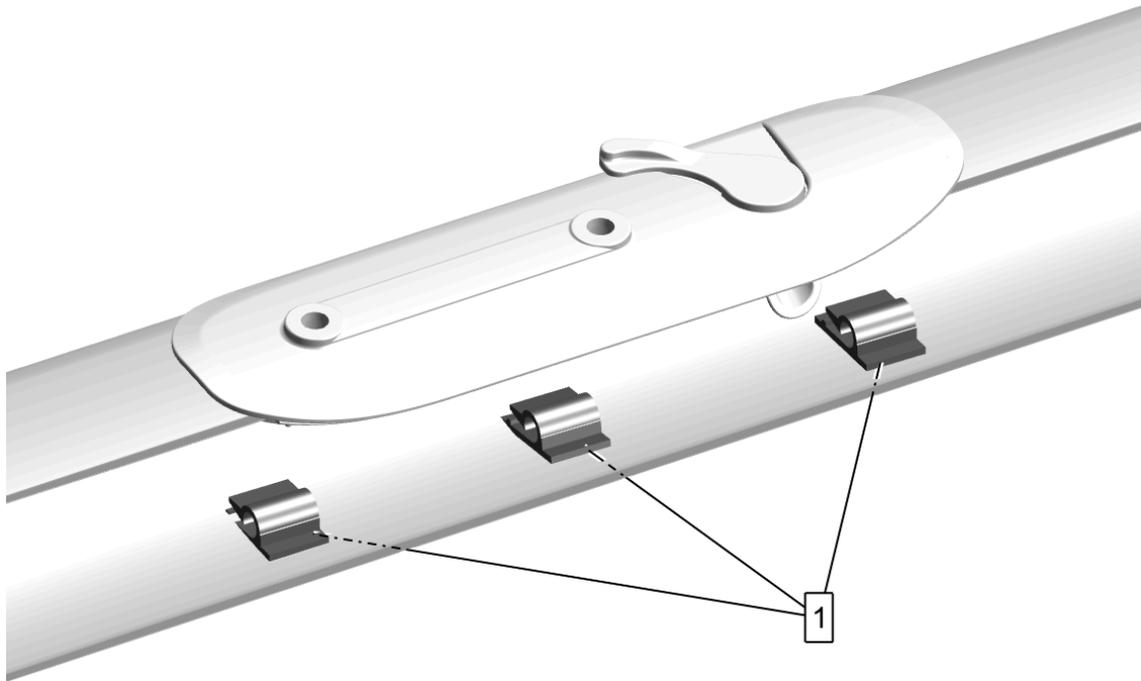
**QTY**



3\_ M5 x 15 bottle holder bolt

2

## ADHESIVE CLAMPS FOR DOWNTUBE CABLES



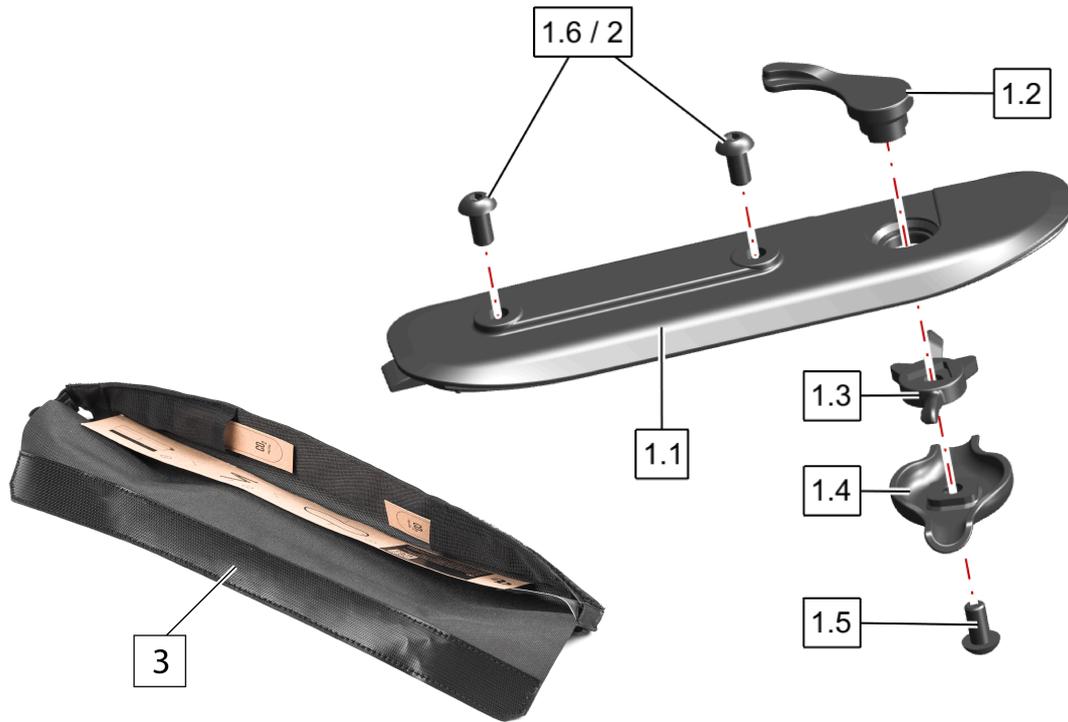
[Click on the part number to buy online](#)

### 1 ADHESIVE CLAMPS FOR DOWNTUBE CABLES KIT

Only used on frame iterations without integrated clamps on the inside of the downtube

PART No.: X637	QTY
	1_ Adhesive internal clamp for downtube cabling
	3

## LOCKR CAP AND BAG



[Click on the part number to buy online](#)

### 1 LAUFEY 2024 LOCKR CAP

**PART No.: X640**

**QTY**



1.1_ Laufey 2024 LOCKR cap	1
1.2_ External aluminium cam	1
1.3_ Internal cam	1
1.4_ Internal cam protector	1
1.5_ M5 x 12 mm ISO7380 bolt	1
1.6_ M5 x 15 bottle holder bolt	2

### 2 BOTTLE HOLDER BOLT KIT

**PART No.: X449**

**QTY**



2_ M5 x 15 bottle holder bolt	2
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### 3 OC LK-02-B LOCKR BAG

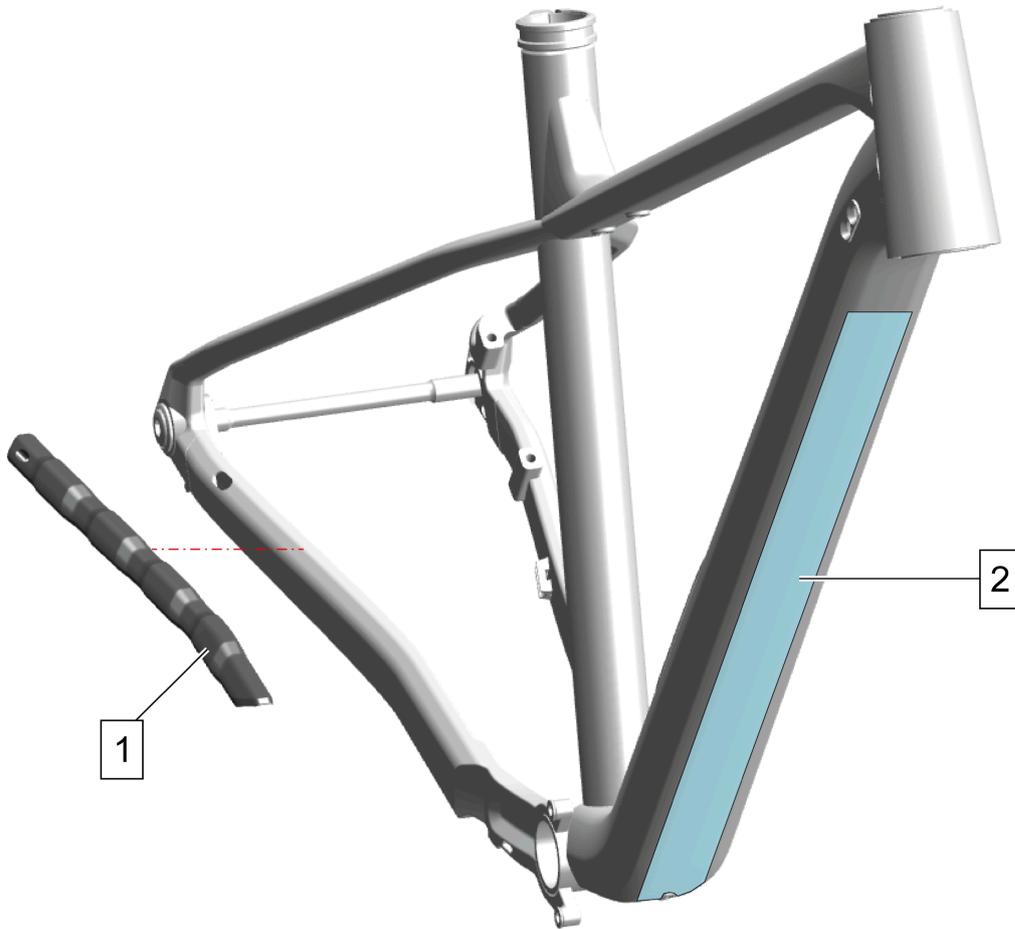
**PART No.: X641**

**QTY**



3_ OC LK-02-B LOCKR bag	2
-------------------------	---

## FRAME PROTECTORS



[Click on the part number to buy online](#)

### 1 LAUFEY 2024 RIGHT SEATSTAY RUBBER PROTECTOR

**PART No.: X639**

**QTY**



1\_ Laufey 2024 right seatstay adhesive rubber protector

1

### 2 LAUFEY 2024 DOWNTUBE TRANSPARENT PROTECTOR

**PART No.: X638**

**QTY**



2\_ Laufey 2024 downtube adhesive transparent protector

1

# 18 ADDITIONAL INFORMATION

Find more information about Orbea on social media

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## YOUTUBE

[www.youtube.com/user/OrbeaBicycles](http://www.youtube.com/user/OrbeaBicycles)

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## ORBEA BLOG

[www.orbea.com/blog](http://www.orbea.com/blog)

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