

ORBEA

USER MANUAL

www.orbea.com

INTRODUCTION

This user manual contains information needed to ride your Orbea bicycle safely and get the most out of it. The failure to follow the instructions or warnings contained in this manual is the responsibility of the rider or the corresponding guardian, in the case of a minor.

In any case, safety also depends on factors that go beyond the bicycle, which are not covered in this user manual. E.g.: The skill of the user, knowing and obeying traffic regulations, the conditions of the route, personal conditions, etc. all have an influence. Controlling these factors reduces the danger, but you must be aware that the likelihood of falling or suffering other types of injuries cannot be completely eliminated. In other words, the risk of an accident is part of the sport of cycling. Always obey the traffic regulations in force, and always wear a helmet and protective glasses when riding a bicycle.

For more information aimed at getting the most out of each model of ORBEA bicycle, visit the web support section at <http://www.orbea.com/es-es/soporte/>

and our YouTube channel <https://www.youtube.com/user/OrbeaBicycles>.

We recommend visiting an ORBEA dealer if you do not clearly understand anything in this manual or if you lack the proper tools. At <http://www.orbea.com/es-es/distribuidores> you will find the ORBEA dealer nearest you.

For issues related to purchases made on our website, www.orbea.com, please call 902 04 29 29 (available Monday-Friday).

For any other question not answered through the channels mentioned above, please contact us directly.

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SYMBOLS

Pay attention when you see the following symbols in this manual.



They are used for additional non-safety related information that might be useful.



Indicates required measures to prevent a potential hazard that could result in property damage.



Indicates actions that must be taken to prevent a potential hazard that could jeopardize the physical wellbeing and even the life of the rider, in addition to property damage.

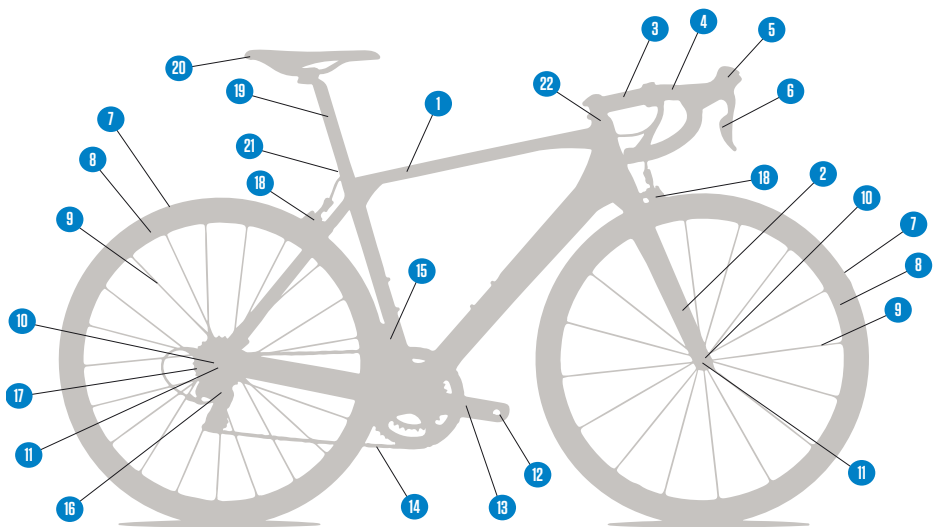
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EXPLODED VIEW

ROAD (Rim Brake)

The diagram below shows the position of each of the components of an **ORBEA road bike with caliper or rim brakes**. Even though the bicycle model shown in the diagram may not exactly match the bicycle you purchased, the main components indicated are the same for both.



1. Frame

- 2. Fork
- 3. Stem
- 4. Handlebar
- 5. Brake lever
- 6. Gear change
- 7. Tire

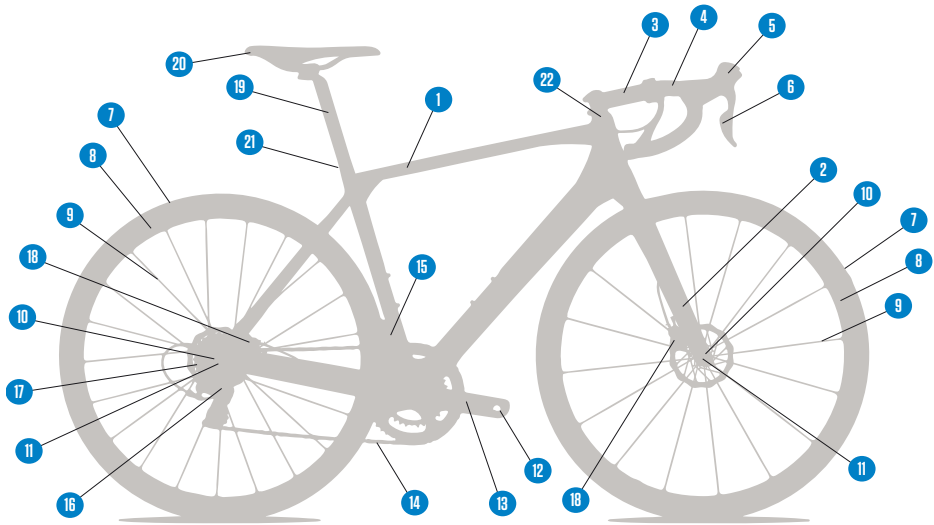
- 8. Rim
- 9. Spoke
- 10. Hub
- 11. Skewer
- 12. Pedal
- 13. Cranks

- 14. Chain
- 15. Front Derailleur
- 16. Rear Derailleur
- 17. Cogs
- 18. Brakes
- 19. Seatpost

- 20. Saddle
- 21. Seat latch
- 22. Head tube

ROAD (Disc Brake)

The diagram below shows the position of each of the components of an **ORBEA road bike with disc brakes**. Even though the bicycle model shown in the diagram may not exactly match the bicycle you purchased, the main components indicated are the same for both.

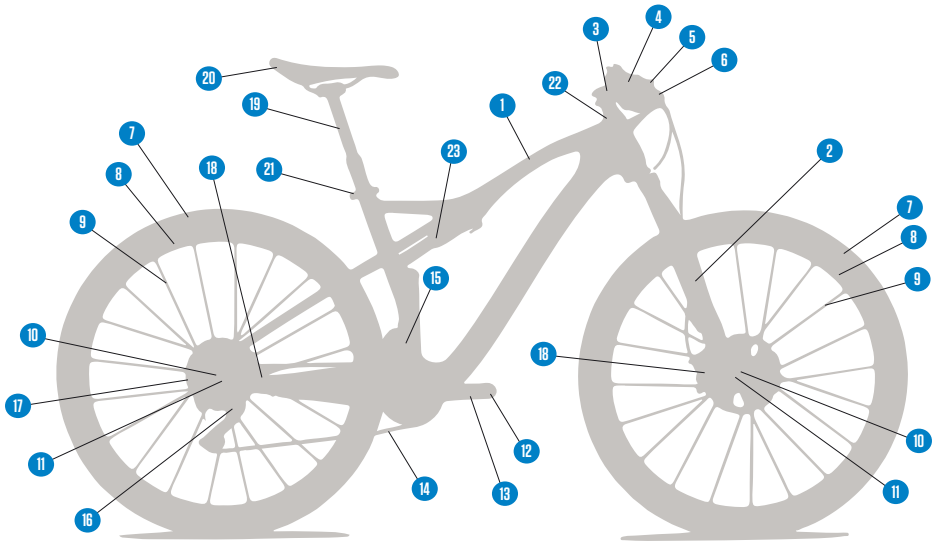


1. Frame

- | | | | |
|----------------|-----------------|----------------------|----------------|
| 2. Fork | 8. Rim | 14. Chain | 20. Saddle |
| 3. Stem | 9. Spoke | 15. Front Derailleur | 21. Seat latch |
| 4. Handlebar | 10. Hub | 16. Rear Derailleur | 22. Head tube |
| 5. Brake lever | 11. Wheel latch | 17. Cogs | |
| 6. Gear change | 12. Pedal | 18. Brakes | |
| 7. Tire | 13. Cranks | 19. Seatpost | |

MTB

The diagram below shows the position of each of the components of an **ORBEA mountain bike**. Even though the bicycle model shown in the diagram may not exactly match the bicycle you purchased, the main components indicated are the same for both.

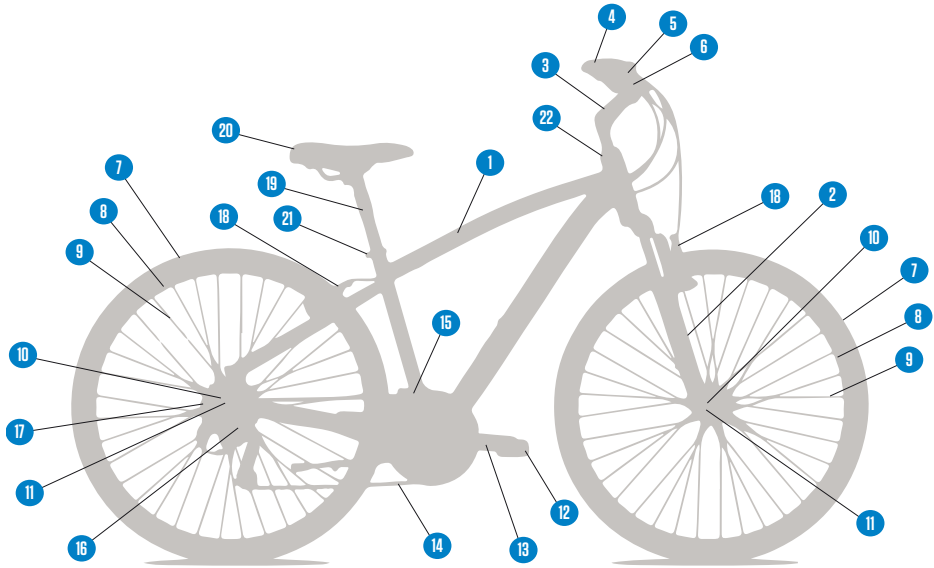


1. Frame

- | | | | |
|----------------|------------|----------------------|---------------------|
| 2. Fork | 8. Rim | 14. Chain | 20. Saddle |
| 3. Stem | 9. Spoke | 15. Front Derailleur | 21. Seat latch |
| 4. Handlebar | 10. Hub | 16. Rear Derailleur | 22. Head tube |
| 5. Brake lever | 11. Skewer | 17. Cogs | 23. Rear suspension |
| 6. Gear change | 12. Pedal | 18. Brakes | |
| 7. Tire | 13. Cranks | 19. Seatpost | |

ALL-USE

The diagram below shows the position of each of the components of an **ORBEA general use bike**. Even though the bicycle model shown in the diagram may not exactly match the bicycle you purchased, the main components indicated are the same for both.



1. Frame

- 2. Fork
- 3. Stem
- 4. Handlebar
- 5. Brake lever
- 6. Gear change
- 7. Tire

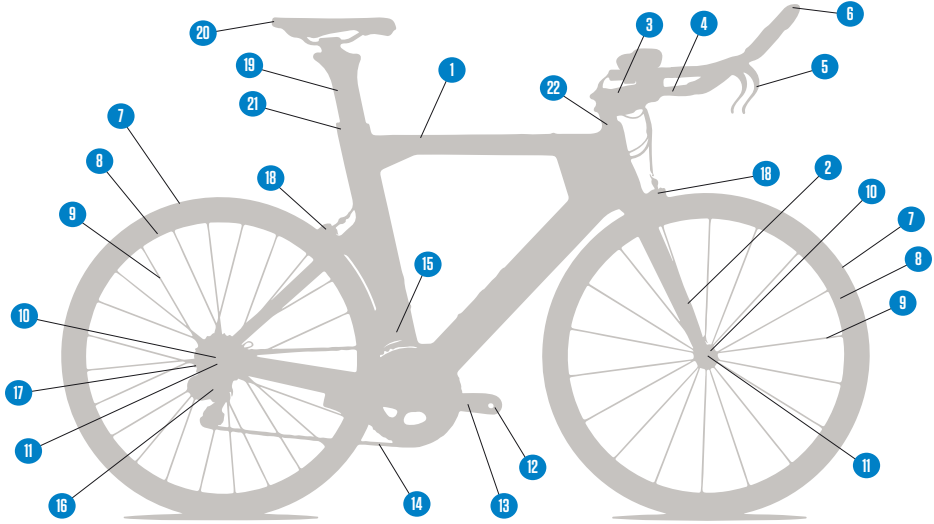
- 8. Rim
- 9. Spoke
- 10. Hub
- 11. Skewer
- 12. Pedal
- 13. Cranks

- 14. Chain
- 15. Front Derailleur
- 16. Rear Derailleur
- 17. Cogs
- 18. Brakes
- 19. Seatpost

- 20. Saddle
- 21. Seat latch
- 22. Head tube

TRI

The diagram below shows the position of each of the components of an **ORBEA triathlon bike**. Even though the bicycle model shown in the diagram may not exactly match the bicycle you purchased, the main components indicated are the same for both.



1. Frame

- | | | | |
|----------------|------------|----------------------|----------------|
| 2. Fork | 8. Rim | 14. Chain | 20. Saddle |
| 3. Stem | 9. Spoke | 15. Front Derailleur | 21. Seat latch |
| 4. Handlebar | 10. Hub | 16. Rear Derailleur | 22. Head tube |
| 5. Brake lever | 11. Skewer | 17. Cogs | |
| 6. Gear change | 12. Pedal | 18. Brakes | |
| 7. Tire | 13. Cranks | 19. Seatpost | |

TERMS OF USE



Each model of bicycle is designed and manufactured for a specific use. Using a bicycle for a use other than the one it was designed for can be dangerous for several reasons. Contact an ORBEA dealer to identify or confirm the model of bicycle appropriate for a specific use.

The standard F-2043-13 from ASTM International specifies five levels of terms of use. Below are the characteristics of each level and the correlation with each ORBEA family.

CONDITION 1



Riding limited to paved roads with tires in constant contact with the road surface. (condition 1 of ASTM standard F-2043-13).

Not designed for use with luggage carriers, child seats or trailers.

Maximum cyclist weight: 115 kg
ORBEA bicycle models: Orca, Avant and Ordu.

CONDITION 2



Riding on paved or gravel roads or on unasphalted trails in good condition, as well as bike lanes (condition 2 of ASTM standard F-2043-13, in addition to the conditions indicated in condition 1).

Not designed for use with luggage carriers, child seats or trailers.

Maximum cyclist weight: 115 kg
ORBEA bicycle models: Katu, Carpe, Urban, Folding and Comfort.

CONDITION 3



Riding on irregular and rough terrain, with jumps of less than 61cm (condition 3 of ASTM standard F-2043-13, in addition to the conditions indicated in conditions 1 and 2).

Not designed for use with luggage carriers, child seats or trailers.

Maximum cyclist weight: 115 kg
ORBEA bicycle models: Mx and Sport.

CONDITION 4



Riding on technically difficult terrain, with jumps and extremely rough terrain (condition 4 of ASTM standard F-2043-13, in addition to the conditions indicated in conditions 1, 2 and 3).

Not designed for use with luggage carriers, child seats or trailers.

Maximum cyclist weight: 115 kg
ORBEA bicycle models: Alma, Oiz, Loki and OccamTR.

CONDITION 5



Riding on extreme terrain at high speed; extreme caution is recommended (This bicycle is no excuse to try just anything!).

Not designed for use with luggage carriers, child seats or trailers.

Maximum cyclist weight: 115 kg
ORBEA bicycle models: Rallon and OccamAM.

The failure to use the bicycle under these specified terms of use would represent restrictions in the warranty.

Regardless of the terms of use corresponding to each type of bicycle, it is recommended to always obey current traffic laws, wear a helmet and protective goggles and check the brakes, wheels and steering, etc., beforehand, as indicated in the Chapter "Safety Checks".



With regard to children's bicycles, the terms of use require the supervision of an adult who accompanies the child at all times, preventing them from riding near slopes, curbs, stairs, swimming pools or areas with motor vehicle traffic.



If the bicycle is made from composite materials (carbon) it cannot be exposed to temperatures above 50 °C, either in use or while at rest.

SERVICE LIFE

Like all mechanical components, the bicycle is subject to wear and mechanical stress that limits its service life. The service life will depend on the design, material and manufacturing, as well as the conditions of use, such as the cyclist's weight, the frequency of use, the aggressiveness of riding, cleaning and maintenance, environmental conditions, etc. and so its limit cannot be calculated prior to use. Therefore, and given that exceeding the service life of the bicycle could result in an accident that causes injury to the cyclist, it is recommended to periodically inspect your bicycle and consult an ORBEA dealer whenever you have any doubts in this regard. Excessive bending, anomalous operation, cracks or change in color in high mechanical stress areas may be symptoms that the bicycle or a specific component have reached the end of their service life and must be replaced.

BEFORE FIRST USE



It is extremely important to perform the following checks and adjustments and go through a process of adaption before using the bicycle for the first time. The following guidelines also apply to those cases in which you intend to use a bike with an unknown condition.

Before the first use, in addition to the following instructions, perform all the checks indicated in the chapter "Safety checks".



Ergonomic adjustments affect the control, comfort and performance of the cyclist-bicycle system. Its correct adjustment can vary the factors significantly, increasing or reducing the safety and enjoyment to a large extent.

The following adjustment instructions consist of a series of basic notions that aim to cover all the minimal requirements in this regard. For more information in this regard, please consult an ORBEA dealer or a biomechanical specialist.



When performing the adjustments, there is a specific risk of entrapment.

SIZE CHECK

Having a bicycle that matches the measurements of each cyclist is essential for obtaining the greatest comfort, performance and safety when riding a bicycle. For this reason, the website <http://www.orbea.com/es-es/calcula-talla/tipo/> recommends the most appropriate size in terms of the measurements of each cyclist, according to the basic data on the cyclist.



If you wish to get the best performance from your bicycle fit, we recommend having a complete fitting with experts.

SEAT ADJUSTMENT

The seat adjustment is the most important in terms of performance and comfort.

Seat height: To adjust the height of the seat, use a person or a roller to hold the bicycle while the rider mounts it. Once mounted and seated on the seat, rest your heels on the pedals and pedal backwards. The recommended seat height is that required to completely extend the knee to reach the pedal at its lowest point. If you need to balance with your hips to reach the pedal at its lowest point, then the seat is too high.



If when pedaling with great intensity, you notice an improvement when sliding back on the seat, it is likely that the seat is too low. If, on the other hand, the need is detected to move towards the tip of the seat to pedal, it is likely that the seat is too high.

To release and lock the seat, use the quick latch (instructions can be found in "Safety checks / Wheels"), or otherwise, use the corresponding screws), applying the recommended tightening torque.



When raising the seat post from the minimum level, it should always remain hidden within the frame.

If it were necessary to raise the seat post beyond the minimum insertion mark, it would be necessary to review the size of the frame or replace the seat post with a longer model, under the supervision of an ORBEA dealer.



Seat angle: To adjust the seat angle, adjust the tightening mechanism located on the top of the seat post. Consult the user's manual from the seat provider and follow the instructions to adjust it.



A seat that is not adjusted horizontally (parallel to the ground) causes the rider to have a very unrelaxed pedaling position. The seat should never be tilted backwards.

Moving the seat forward/backwards: To adjust the forward/backward position of the seat, adjust the tightening mechanism located on the top of the seat post. Consult the user's manual from the seat provider and follow the instructions to adjust it.



This adjustment is used to position yourself correctly on the bike and ensure a comfortable, efficient pedaling. For this reason, it is recommended to visit an ORBEA dealer for a precise adjustment.

HANDLEBAR ADJUSTMENT

The height of the handlebar and its angle are adjustable for greater comfort, efficiency and better balance of the rider on the bicycle.

To change both the height and the angle of the handlebar, adjust the stem.

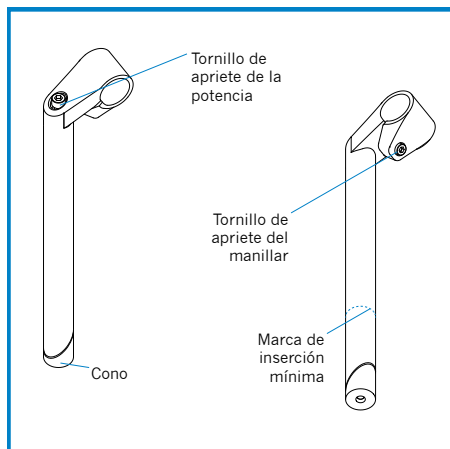
There are two types of stems:

- **Traditional stem:** has a tube that is attached inside the fork by means of a cone and a stem tightening bolt.
- **Ahead stem:** attached to the outside of the head tube.



It is also possible to replace the stem and handlebar with components with different geometries that help adapt the bicycle to the cyclist.

Height of the handlebar on the traditional stem:



Loosen the tightening bolt, turning it twice in a counterclockwise direction.

Strike the bolt gently with a wooden or plastic mallet to unblock the steering cone. Then position the stem at the desired height.



! When raising the stem, the minimum insertion mark should always remain hidden within the frame.

If it were necessary to raise the seat post beyond the minimum insertion mark, it would be necessary to review the size of the frame or replace the stem with a longer model, under the supervision of an ORBEA dealer.

Retighten the bolt, making sure that the handlebar are perpendicular to the front wheel.

⚡ Do not overtighten the bolt; it could break and seriously jeopardize your safety.

To make sure that the entire assembly has been completed correctly, please see the chapter "Safety checks".

Angle of the handlebar on the traditional stem: Loosen the tightening bolt on the handlebar located on the stem until the handlebars can be turned.

Position the handlebar at the desired angle and center the handlebar with regard to the stem before retightening the tightening bolt on the handlebar, located on the stem.

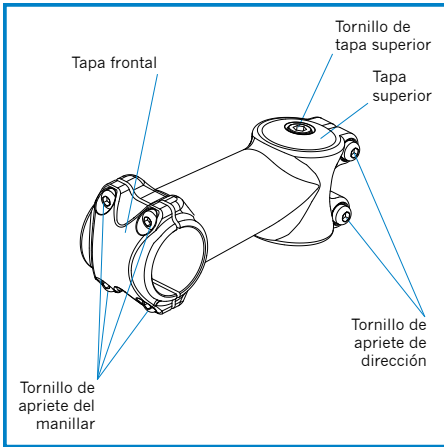
⚡ Do not overtighten the bolt; it could break and seriously jeopardize your safety.



i In the case that the stem has an angle adjustment bolt, the position of the handlebar can be adjusted more precisely; this can be done with the angle adjustment bolt.

To make sure that the entire assembly has been completed correctly, please see the chapter "Safety checks".

Height of the handlebar on the ahead stem: To adjust the height of the handlebar, in this case the stem can be inverted or we can move the headset spacers.



To invert the stem, separate the handlebar from the stem, removing the front cover from the stem.

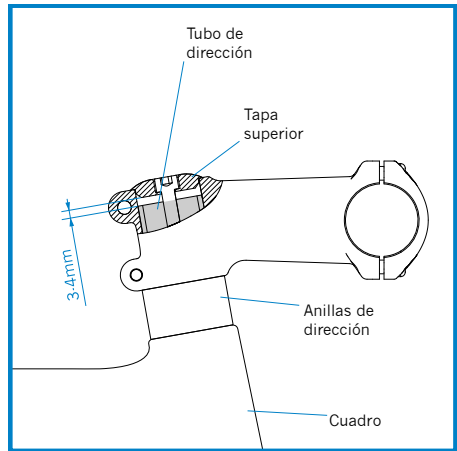
Then remove the top cover from the stem and remove the screws from the stem that fasten it to the head tube.

Pull up on the stem to separate it from the head tube, turning it on its own axis and reinsert it once again in the head tube, keeping the headset spacers in their original position.

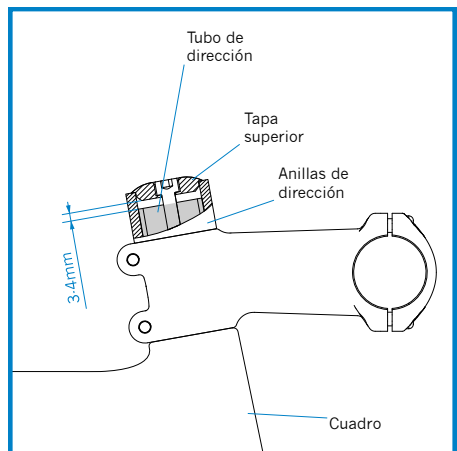
Finally, reattach the stem and the handlebar in the following order. **1.**-Mount the top cover and turn the screw until eliminating any play in the steering. **2.**-Attach the centered handlebar in the stem and at the desired angle. **3.**-Position the handlebar perpendicular to the front wheel. **4.**-Attach the stem in the head tube.

To raise or lower the handlebar moving the spacers, first remove the top cover and loosen the bolts on the stem that fasten it to the head tube and then separate the stem from the head tube. If we want to lower the handlebar, move the headset spacers from below the step to above it. And the other way around, if we want to raise the handlebar, move the headset spacers from above the stem to below it. Unless the head tube is cut, we should always keep all the spacer included in the initial assembly.

! Make sure that the top cover never touches the head tube, so the spacer should extend at least 3 mm above the end of the head tube.



⚡ If all the spacers are below the stem, it must extend 3 to 4 mm above the end of the head tube.



⚡ Do not overtighten the bolts; they could break and seriously jeopardize your safety.

If more spacers are mounted under the stem to raise it and it extends more than 3-4 mm beyond the end of the head tube, it would be necessary to review the size of the frame or replace the stem with a model with a greater angle, under the supervision of an ORBEA dealer.



By increasing the spacer distance, we increase the bending of the head tube, which means a loss of performance and an increased chance of fatigue-related breaking. The greater the bending in a part, the shorter its service life will be. For this reason, NEVER exceed 30 mm of headset spacers between the stem and the frame.

To make sure that the entire assembly has been completed correctly, please see the chapter "Safety checks".

Angle of the handlebar on the ahead stem:

Loosen the tightening bolts on the handlebar, located on the stem, until the handlebar can be turned.

Position the handlebar at the desired angle and center the handlebar with regard to the stem before retightening the tightening bolts on the handlebar, located on the stem.



Do not overtighten the bolts; they could break and seriously jeopardize your safety.

To make sure that the entire assembly has been completed correctly, please see the chapter "Safety checks".

BRAKE LEVER ADJUSTMENT



The positioning of the front and rear brake levers on the handlebar can change side, depending on the country. It is important to identify each brake lever before first use.

For safety reasons, the index fingers have to be able to reach the brake levers easily. For this purpose, many brake lever manufacturers include

a screw to regulate the position of the brake lever. If necessary, consult the user manual for the brake lever model in question or consult an ORBEA dealer.



SUSPENSION ADJUSTMENTS

All suspensions, regardless of their technology or whether it is a front or rear suspension, are made up by a mechanism resisting compression (blue) and a rebound mechanism (red) that are intended to maintain the greatest possible contact between the tire and the ground.

The compression mechanism is in charge of absorbing the impact. If its adjustment is too rigid, the suspension will not absorb the irregularities of the terrain, and just the opposite, if the adjustment is too soft, the suspension will reach the end of its stroke too soon, thus losing part of the effectiveness of the suspension.

Its rebound is the mechanism that is responsible for returning the suspension to its original position. If the rebound adjustment is too slow, the suspension cannot reach its original position after a bump on the terrain, and as a result, it would not have its full stroke available for the next one. If, on the other hand, the rebound were set too fast,

the wheels could “jump,” losing contact with the ground.

For more information on these adjustments, consult the user manual for the model of suspension in question or consult an ORBEA dealer.

ADAPTATION

Before using the bike for the purpose for which it has been purchased, it is recommended to allow yourself a period of adaptation, testing out all the adjustments that have been made. Select an open space, free of obstacles and any sort of external factor that might pose a hazard. Ride the bicycle and test the steering, the effectiveness of the brakes, the gear operation and the suspensions (if any). Perform the tests progressively, gradually increasing the speed and the difficulty of the ride.



If the bicycle adaptation test is less than satisfactory, or if you do not know how to resolve the situation, please contact an ORBEA dealer.

SAFETY CHECKS

Before each ride, it is necessary to do a quick check of the safety systems and latches on the bicycle. These may have become loose on the previous ride or were not properly fastened when the bicycle was remounted.

Each of the bolts and nuts on the bicycle has a specific tightening torque, so we cannot use a generic value for all of them. Normally, the tightening torque for each thread is found indicated on the component in question. If this were not the case, consult the user manual of the component in question or the chapter on "Tightening torques" for torques pertaining to the frame.

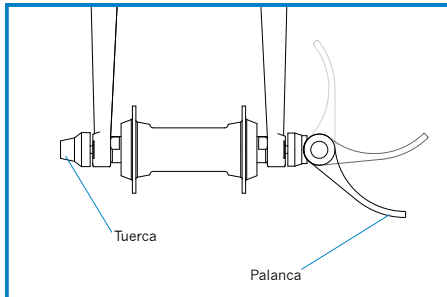


If during the inspection, any of the parts is found not to meet operating requirements, do not ride the bicycle until said malfunction has been repaired or replaced by an ORBEA dealer.

WHEELS

Fastening: (Frequency: Before each use) Before anything else, check that the wheel has been properly mounted.

Most bicycles use quick latches on both wheels.



The quick latches have a nut on the opposite side of the lever. This nut may be a separate element or part of the frame/fork and it is used to give the initial tension to the system. To do this, before closing the lever that completely fastens the wheel, the shaft must be screwed in said nut, or vice versa. Screw it in until the lever can be closed with a certain amount of force (the force is considered

to be sufficient when the lever remains marked in your hand after closing it). The lever should never remain loosely tightened, not should it be screwed on as if it were a simple nut/screw mechanism.



If the bicycle is not equipped with quick latches, the wheel must be fastened by tightening both sides of the nut/bolt system in a clockwise direction.



The tightening torque for the front and rear wheel with the nut/bolt fastener must be 12-15 Nm



In both cases, it is important to make sure that the wheel axle is well seated on the frame before attaching the wheel and that the latches are completely closed, since they are responsible for fastening the wheel to the frame and the fork..

Alignment: (Frequency: Before each use)The wheel alignment is checked by lifting the bicycle and turning each wheel by hand. Check that the wheel maintains a uniform circular movement and does not make any lateral or vertical movements. It is also very important to check by feel the tension of the spokes, and make sure that there are no broken, bent or loose spokes.

Clearance: (Frequency: Before each use) Shaking both wheels hard in a crosswise direction to the direction of travel, check for any type of clearance around the hub.

Pressure: (Frequency: Before each use)Check whether the pressure of the tires is ideal. This is indicated on the side of each tire.



The maximum inflation pressure of a

conventional or tubular tire must be the lowest value from among the maximum pressures recommended on the rim and tire. Exceeding the maximum recommended pressure can cause the tire to come out of the rim.

Tire condition: (Frequency: Before each use) The tires must be inspected to check for wear or damage. They must be free of any type of cuts or tears and the tire cloth under the layer of rubber must not be visible.

Rim wear: (Frequency: Twice a year) To check for rim wear, look at the wear indicators located on both sides of the rim. When these indicators in the form of an intermittent or linear depression are left with little depth, it means that the rim in question has reached the end of its service life and must be replaced.



For composite (carbon) rims, wear is more difficult to assess. Visit an ORBEA dealer to correctly evaluate the conditions of your rims.



Bicycles in the ORBEA catalog do not have the option to mount tubular tires. If tubular tires are mounted, we recommend visiting an ORBEA dealer for their care.

BRAKES



For road bikes with aerodynamic extensions on the handlebar, cyclists must bear in mind that the effectiveness in braking can be slowed down and negatively affected by the use of this type of aerodynamic extension on the handlebars.

To check the condition of the braking system: (Frequency: Before each use) Both brake levers must be activated as far as possible while the bicycle is stopped. Once this is done, it must be observed that in this position, the shortest distance between the brake lever and the handlebar must be greater than 25 mm.



Try to move the bicycle while the brakes are activated. Both wheels must remain locked.



Check the condition of the brakes on a regular basis, as it is vitally important.

BRAKE CALIPERS

Jackets, cables and their tightening mechanism: (Frequency: Twice a year) The brake cables and jackets must not be scratched, bent, cut or worn. The brake cables must be fastened in the groove provided for this purpose and completely surrounding the cable.

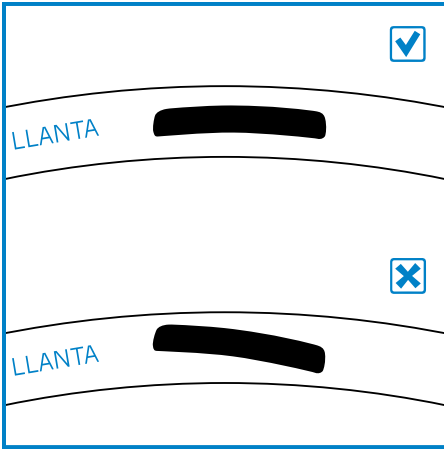



Correct mounting of the braking system: (Frequency: Twice a year) Check to see if they are mounted correctly, pulling by hand on the brake from in front of the front brake and from behind the rear brake.

The brakes must not move and the mounting point should not show any play.

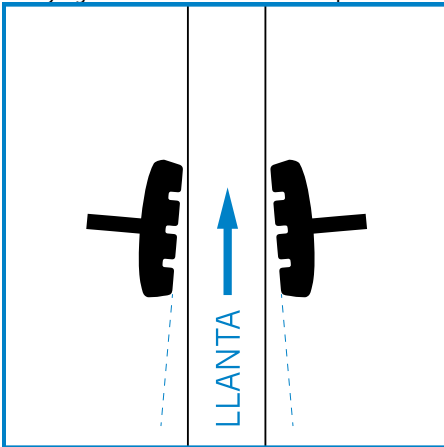


Position of the brake shoes: (Frequency: Every time the brake shoe is replaced) Brake shoes must be aligned in the center of the flank of the rim, approximately 1-2 mm from the top edge of the wheel.



 The brake shoes must not ever touch the tire, not even when the brake is not activated. If the brake shoes scrape the tire, this could tire, this could pop them as the result of wear or overheating.

The brake shoe must be slightly at an angle, in the direction of rotation of the wheel. Otherwise, the braking would be deficient and could produce annoying noises when the brakes are pressed.




Brake shoe wear: (Frequency: Once a month) The brake shoes have grooves on them that must always be visible.



Symmetry between both brake shoes: (Twice a year) The brake shoes must have the same distance from the rim on both sides.

DISC BRAKES

 With disc brakes, you have to be careful not to damage the disc, calipers and pads when mounting/removing the wheel. In the case of hydraulic brakes, never activate the brake lever without the wheel mounted on the bike.

Correct mounting of the braking system: (Frequency: Twice a year) Pull on the brake caliper in all directions; it should not move.



Jackets, cables and their tightening mechanism: (Frequency: Twice a year) The brake cables and jackets must not be scratched, bent, cut or worn. The brake cables must be fastened in the groove provided for this purpose and completely surrounding the cable.

Airtightness of the hydraulic system: (Frequency: Before each use) While the bicycle is stopped, the brake lever is operated and keeping it pressed, check that no brake liquid comes out anywhere along the hydraulic circuit, from the brake lever, through the jackets, to the brake calipers and that the jacket is not broken or twisted.

Condition of the brake pads: (Frequency: Once a month) When turning the wheel without operating the brake levers, the pads must slow down the wheel.



The brake pads must be replaced when they have a thickness of less than 1 mm.

Condition of the brake disc: (Frequency: Before each use) For the brake disc to operate properly, it must not have any marks, breaks, deep scratches or other mechanical damage on the disc.



Dirty brake discs (with oil, grease or dirt) can considerably reduce the braking power and even irreversibly damage the brake pads.



To clean them properly, remove the wheel to clean the dirt, using a degreasing cleanser. Rinse with plenty of water and dry.

SEAT

The bicycle seat is mounted on the top of the seatpost, which is attached on the bottom to the frame of the bicycle.

Mounting of the seatpost on the frame: (Frequency: Once a year) The seatpost attachment mechanism must be checked to make sure it is properly closed, either with a quick latch system or a bolt.

To see if the seatpost is well fastened, try to turn the seat with your hand. The seat and the seatpost must not turn as compared to the frame.



For more information on the operation of the quick latch system, see the chapter on "Safety checks/Wheels".

Mounting of the seat on the seatpost: (Frequency: Once a year) Also check that the seat is correctly attached to the seatpost. To do this, try to move the tip of the seat up and down with your hand, making sure that the attachment mechanism under the seat does not move.



If the seat moves with respect to the seatpost, follow the instructions on the corresponding seatpost manual to attach it correctly.



ORBEA does not use seats with springs and recommends that users not use them if they are going to use child seats, as they pose a finger entrapment hazard.

HANDLEBAR AND STEM

The handlebar and the stem are the most important set of components in terms of safety, since control over the bicycle depends entirely on them.



It is vitally important for them to be properly mounted and for them to be free of any dents, cracks or signs of fatigue.

The stem must be positioned parallel to the front wheel rim and the handlebar must be centered as compared to the stem.

Mounting of the stem on the head tube. (Frequency: Twice a year) To do this, hold the front wheel between your legs, grasp the handlebar on both ends and try to pull and push the ends forwards and backwards, checking that the stem does not move with respect to the head tube and that you do not hear any sort of noise or clicking sounds as you do it.



Mounting of the handlebar on the stem: (Frequency: Twice a year) To do this, hold the front wheel between your legs, grasp the handlebar on both ends and try to turn the handlebar on their own axis in both directions, making sure that the handlebar do not turn with respect to the stem, and that you do not hear any sort of noise or clicking sounds as you do it.



It is a good idea to also check that the components mounted on the handlebar, such as the brake levers, gear shifts, jackets, horns or triathlon attachments are firmly fastened.

HEADSET

The correct assembly and operation of the headset is almost as critical as the correct arrangement of the handlebar-stem set.

The handlebar must turn both ways without the headset providing any resistance and without there being any clearance.

Clearance: (Frequency: Twice a year) To check that there is no clearance of any type in the headset assembly, grasp the bicycle by the handlebar with both hands and applying the brake to the front wheel, move the bicycle with sharp forward and backward movements. The headset must not show any clearance or play between the fork and the stem, nor should you hear or notice any type of clicking, cracking or scraping.



If after performing this check, you identify clearance in the front suspension bars, visit an ORBEA dealer.



Excessive tightening: (Frequency: Twice a year) To check that the headset is not fastened too tight, suspend the bicycle so that the rear wheel is higher than the front one. Move the handlebar back and forth and then release them to check that the rear wheel and the handlebar return to their initial position without providing any sort of resistance.



If the headset has any clearance or is too tight, visit an ORBEA dealer.

FRONT SUSPENSION

For the system to operate properly, it is very important for the different components to be properly mounted and the suspension fork to be adjusted according to the weight of the cyclist, the way of riding and the type of terrain where you normally ride.



For more information on the adjustment, see the chapter on “Suspension adjustments” or consult the user manual for the suspension in question.

Sliding: (Frequency: Once a month) To check that the suspension fork retracts and expands correctly, keep the front brake activated and rest your weight on the handlebar so that the suspension fork contracts and expands. The fork must move up and down smoothly, without any clicking or cracking noises.



Clearance: (Frequency: Once a month) Holding the front wheel between your legs and try to lift the bicycle by the handlebar. The vertical bars must not move or come loose (apart from the contraction and expansion movement) from the insert bars or the fork plate.



If the suspension fork shows any clearance, does not slide well or has any other anomaly, see an ORBEA dealer.

REAR SUSPENSION

For the system to operate properly, it is very important for the different components to be properly mounted and the rear shock to be adjusted according to the weight of the cyclist, the way of riding and the type of terrain where you normally ride.



For more information on the adjustment, see the chapter on "Suspension adjustments" or consult the user manual for the suspension in question.

Clearance: (Frequency: Once a month) Sitting on the bicycle and pressing down on the rear part of the bicycle with sharp movements, the rear suspension must contract and expand easily, and without any clicking or cracking noises in the shock area or on the rear triangle pivots of the bike.



If the rear suspension or the rear triangle pivots have excess clearance, or any other problem, consult the manual from the rear suspension provider or an ORBEA dealer.

PEDALS

The pedals are the point of contact on the bicycle that bear the most weight; control and safety on

the bicycle also depend on the stability of the contact between the foot and the pedal.

Orbea bicycles can use different types of pedals. They can be divided into two large families: Automatic pedals, that mechanically fasten to the cleats on the bottom of a cycling shoe or conventional pedals with no type of fastener.

Check the condition of the pedals: (Frequency: Twice a year) Make sure that the pedals are firmly fastened to the cranks, i.e., totally screwed onto them.



The right pedal has a right thread (conventional) and the left pedal has a left thread (in the opposite direction, counterclockwise).

To check that the pedals turn without any problems, check the condition of the internal bearings. To do this, turn the pedal as if pedaling backwards and observe that nothing seems loose or too rigid. Otherwise, see and ORBEA dealer.



There is the risk of entrapment with the transmission system during the check, maintenance or normal use of the bicycle.



Regularly check that the reflectors on the pedals are clean and correctly positioned.

Automatic pedals: Before use, it is a good idea to clean both the cleats and the pedals, since dirt can interfere with the correct functioning of the mechanism.



Given the wear they are subjected to, the automatic pedal cleats have a relatively short service life. Therefore, their condition should be checked on a regular basis. To do this, consult the user manual for your specific pedal model or consult an ORBEA dealer. A cleat that is used beyond its service life can cause the total loss of control over the bicycle.



On road bicycles, caution must be taken when modifying the cleats, tires and cranks, since they can interfere between the wheel and the user's foot.

SAFETY EQUIPMENT



The cyclist is responsible for knowing current laws and regulations regarding bicycle use. The rider must obey them and must be aware of the penalties that are levied for their violation.

Reflectors: The reflectors on the bicycle reflect the light, which illuminates them, making the cyclist visible to other vehicles in conditions of poor visibility. They are therefore a crucial part of the safety system and must not be removed.

Regularly check that all the reflectors (front, rear, on the pedals and on the wheels) are correctly positioned and attached. Missing reflectors must be replaced as soon as possible.



Lights: Reflectors are not to be considered substitutes for lights, but rather complements to them. Riding at night, in the fog, rain or in any other situation with poor visibility is dangerous, and therefore both lights and reflectors must be used.



Helmet: All cyclists are recommended to wear a helmet, regardless of the type of cycling they do. The helmet is the most important safety accessory. The helmet must worn correctly and it

must be ensured that the strap is properly closed.



Helmet use reduces serious injuries and even death.

Goggles: The use of glasses is recommended when riding a bicycle. The cyclist's eyes are exposed to air, which can cause discomfort and even loss of visibility at moderate speeds. In addition, glasses will protect us from possible impacts from insects or solid particles in suspension, which can cause an accident with fatal consequences.



MAINTENANCE

The preventive maintenance of our bicycle is key to achieving better performance and durability of the bicycle.



Improper maintenance could lead to malfunctions or imperfections in the bicycle components, with serious consequences.

The details indicated below are based on normal use. If the bicycle is used in extreme conditions of rain, snow, salinity or you ride on irregular terrain, maintenance must be performed more regularly.

In any case, it is recommended to bring the bicycle in to an ORBEA dealer for inspection once a year.



In the case that any component needs to be replaced, always use the spare parts indicated in this manual.



Consumables such as inner tubes, brake pads, etc. must be appropriate for the specific bicycle model in question.

CLEANING

There are many methods to clean a bicycle. Below is a suggested cleaning method, proven to work for a very dirty bicycle.

Remove the most caked dirt, such as soil, gravel, sand, mud, etc. with a gentle stream of water.

Spray the entire bicycle with a suitable detergent and rub with a sponge.



Some cleaning products can be too harsh and can even damage the bicycle (paint, rubber, plastic or metal parts). For this reason, it is very important to follow the instructions provided by the manufacturer of the cleaning product and only use those products that are expressly suitable for bicycles.



In the case of disc brakes, special care must be taken so that the detergent, degreasing agent or oils do not reach either the discs or inside the brake caliper, since they can considerably reduce the braking power.

For the chain, cogs and gears, a liquid degreaser can be used to facilitate the removal of built-up grease.

Rinse the bicycle with a gently stream of water and let it dry.



The rinsing and drying of the components is key to improving the effect and the duration of the lubricant.



Do not use pressurized water and prevent water from entering areas like the headset, hubs or bottom bracket box, thus preventing the water from removing the grease deposited inside these components.

LUBRICATION

For the effect of the lubricant to be the most effective, it is recommended to always clean the bicycle before lubricating it. Likewise, every time you clean your bicycle, it is recommended to lubricate it once it has dried. If it is not possible to clean the bicycle, it is preferable to lubricate it than not to do so.

The lubrication must be proportional to the frequency of use, the need for cleaning and the salinity of the environment. It is important to pay special attention to the lubrication and cleaning in coastal areas or in conditions with a lot of sweat.

The lubrication of the following components is key to:

- Prolonging the service life.
- Ensuring proper working condition.
- Ensuring maximum performance.

For greater details on the type of lubricant recommended, consult the manual provided by the manufacturer of the component in question.

For internal bearings that require specific wrenches

and skilled labor, please visit an [ORBEA dealer](#).

In order of most to least frequency of lubrication:

Chain: This is the element that requires the greatest frequency of lubrication. It is recommended to use lubricating oils.

Using a rag to ensure that the oil does not get on other components, move the pedals and apply oil along the entire chain. Finally, use wrap the same rag around the chain and continue to move the pedals so that the chain deposits the excess oil on the rag.



A chain with too much oil will accumulate more dirt and could get the other bicycle components, such as the brake pads, dirty and even damage them.

Suspensions: The surface of the bars on both the fork and the rear suspension must always be kept clean and lubricated. It is recommended to lubricate whenever you clean the bike, applying a few drops of oil on the bars and using a rag to extend it over the entire surface. The bars must be lubricated, but be careful not to apply too much lubricant, as this contributes to dust and dirt deposits.



For more information on lubrication and maintenance of the suspensions, consult the

manual from the manufacturer of the suspension in question.



Front Derailleur: At least once a year, it is recommended to lubricate the pivots of the front derailleur, applying a few drops of lubricating oil on each of the pivots and cleaning the excess oil with a rag.

Seatpost and stem: At least once a year, to prevent seizing and to increase the friction between the components, it is recommended to use friction paste on the contact point between the seatpost and the frame, the stem and the handlebar and the stem and the head tube. This is especially important for carbon components, since friction paste makes it possible to use lower tightening torques that do not damage the carbon parts.



Cranks: Every time they are dismantled, it is recommended to apply some type of anti-seizing grease on both the point where the bottom bracket is attached, as well as where the pedal is screwed on, to prevent them from locking up.

Pedals: The pedal lubrication depends on the model. Certain models require it and it is NOT recommended for others. It is recommended to consult the manual from the manufacturer of the

model in question.

STORING THE BICYCLE FOR A PROLONGED PERIOD OF TIME

When you are not using the bicycle, it must be protected from the rain, snow, sun or any adverse weather conditions.



Snow and rain can damage the metal parts of the bicycle and the sun can deteriorate the plastic parts, paint and even components made of composite materials, such as carbon.

To store the bicycle for a long period of time, it is recommended to lubricate it and cover it, with the tires at half their normal pressure.

WARRANTY

Orbea develops new services so our customers feel safe and know that they can count on us. The activation of the warranty will provide customers quick and easy access to Orbea.

EXTENDED WARRANTY

Orbea offers its extended warranty on the frames and rigid forks we mount on our bicycles (3 years for painting defects), once the country's warranty period has ended.

This warranty will be subject to registration of the bicycle serial number within a period of 30 days after the date of purchase and the presentation of the purchase invoice.

To register and see more details, visit: www.orbea.com/warranties

NEW ACCIDENT POLICY

In the case of a broken or cracked frame or rigid fork resulting from an accident unrelated to manufacturing defects, we offer a discount on a new, similar frame, according to the following conditions:

- **0-12 months:** 50% discount off the RRP in the country.
- **13-24 months:** 40% discount off the RRP in the country.
- **25-36 months:** 30% discount off the RRP in the country.

This service is provided on models with OME, OMP and OMR-quality frames and Rallon models.

This warranty will be subject to registration of the bicycle serial number within a period of 30 days after the date of purchase and the presentation of the purchase invoice.

To register and see more details, visit: www.orbea.com/warranties

SERVICE CONDITIONS

- The replacement under the extended warranty or purchase option pertains to a frame that is similar or equivalent to the broken frame.
- The user is responsible for the labor costs associated with the assembly of the frame or fork on the bicycle.
- Orbea will be responsible for transporting the frame. • If the dealer is not the original dealer, Orbea reserves the right not to cover transport costs.
- The purchase option will be made available after the broken frame has been returned.
- Peripheral components are not included.
- The term of the accident policy will always be as of the date of purchase of the first frame. Orbea offers this service for a maximum of 2 times for the same original frame purchased.
- The term of coverage will always be as of the date of purchase of the first frame. Orbea offers this service for a maximum of 2 times for the same original frame purchased.
- To opt for the new extended coverage, payment can only be made online at www.orbea.com.

All ORBEA bicycles have a serial number or reference code so they can be identified if stolen.



Orbea bicycles meet the following safety standards:

ISO 4210-2 for bicycles:

- touring
- young adults

- mountain
- road

EN 15194, for assisted pedaling bicycles. EPAC bicycle.

Since 1995, Orbea has complied with Quality assurance standard ISO 9001 and IQNET.



Since March 2004, Orbea has complied with environmental standard ISO 14001.



For more information on the warranty conditions, consult the corresponding section on the website at www.orbea.com/es-es/garantía or contact an ORBEA dealer.

DECLARATION OF CONFORMITY

**The manufacturer:**

Orbea S. Coop. Ltda
Polígono Industrial Goitondo s/n
48269, Mallabia (Bizkaia) - Spain

Declares that the following products:

Descripción / Description

Marca/ Make: ORBEA

Modelos / Mode/s: GAIN, KATU, KERAM, OPTIMA
and WILD

Año de construcción / Year of manufacture

EPAC: 2017 and 2018

Comply with the following European Directives:

- Directiva 2006/42/CE / Directive 2006/42/EC
- Directiva 2004/108/CE / Directive 2004/108/EC
- Directiva 2011/65/CE / Directive 2011/65/EC

The following harmonized standards have been applied in full:

De acuerdo con la Directiva 2006/42/CE / According to Directive 2006/42/EC

- EN 12100

De acuerdo con la Directiva 2004/108/CE / According to Directive 2004/108/EC

- EN 61000-3-2
- EN 61000-3-3
- EN 61000-6-1
- EN 61000-6-3
- 61000-4-2

The following national standards and other specifications (or parts thereof) have been applied:

- EN 15194
- EN 14764

Person authorized to draft the technical file:

Name: Aitor Juaristi (Quality Manager)

Address: Polígono Industrial Goitondo s/n
48269, Mallabia (Bizkaia) - Spain

Orbea S. Coop. Ltda
11/30/2017



Aitor Juaristi

Quality Manager



The manufacturer:

Orbea S. Coop. Ltda
Polígono Industrial Goitondo s/n
48269, Mallabia (Bizkaia) - Spain

Declares that the following products:

Description: Bicycle

Brand: ORBEA

Models: ALMA, AVANT, CARPE, COMFORT, DUDE,
GROW, KATU, LOKI, MX, 012, ORCA, ORDU,
OCCAM,
RALLON and SPORT.

Year of manufacture: 2017 and 2018

Comply with the following European Directives:

- Directive 2001/95/CE
- Decision of the European Commission 2015/681/EC

**Complies with the requirements of French Decree
No. 0 95-937 of 1995/08/24**

**Complies with the requirements of Spanish Decree
No. 339/2014 of 2014/05/09**

Complies with the following international standards:

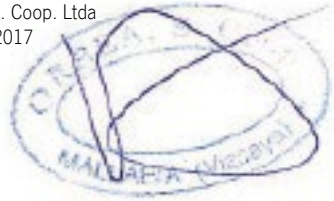
- EN ISO 4210 (1-9):2014

Person authorized to draft the technical file:

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Orbea S. Coop. Ltda
11/30/2017



Aitor Juaristi
Quality Manager

SUPPLEMENTARY NOTES

1. **Lubrication.** Every **1,000 km of use or every six months** (if it has less than 1,000 km of use), it is recommended to grease the chain, the chainwheel hub and the cogs. The use of **lubricants specifically for bicycles or motorbikes** is recommended.
2. **Spare Parts.** Only use **original spare parts identical** to those on your bicycle. The replacement of components with other similar components can jeopardize the rider's safety. These spare parts must be replaced by staff who have been trained to do so.
3. **The use of a seatpost with a sprint is not permitted** on these bicycles. The use of seatposts with springs poses the risk of pinching children's fingers if they ride in child seats on the rear of the bicycle.
4. **Racks, saddlebag supports and child carriers** must be mounted according to the instructions provided by the manufacturer of said component and **must never bear a weight of more than 15 kg** on each of them. If more than one of these components is mounted on the bicycle, for example, a luggage rack and another rack, the maximum weight of the load **on each component will be 7.5 kg**.
5. **The manual must be read and understood before using the bicycle.** Any doubts must be clarified at the bicycle's point of sale or Orbea's network of stores. The rider must not modify the bicycle or replace parts with other similar parts, as this may jeopardize safety.
6. **Orbea accepts no responsibility for modifications that the rider may make to the bicycle.**
7. The weighted emission sound pressure level in the rider's ears is less than 70 dB (A).
8. Follow the instructions for the battery chargers.

ADDITIONAL INFORMATION

ORBEA actively participates on Facebook and Twitter, along with our fantastic global community of cyclists. Looking for places to ride or cycling vacations? Somebody will have the answer:



www.facebook.com/OrbeaBicycles



www.twitter.com/Orbea



Visit our ORBEA YouTube channel to see a wide variety of useful videos on adjustments and techniques.

www.youtube.com/user/OrbeaBicycles



www.instagram.com/orbeabicycles

ORBEA CONTENT

See and download photos, videos and documents.

<http://content.orbea.com>

YOUR ORBEA DEALER

Find your nearest ORBEA dealer who can provide all the ORBEA solutions you need at:

www.orbea.com/distribuidores

AFTER-SALES SERVICE

Our technical service is ready to answer any question you might have about your ORBEA bicycle:

<mailto:Orbea@Orbea.com>

