



USER AND MAINTENANCE MANUAL

EN

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0. INTRODUCTION

Thanks!

Thank you for choosing one of our bikes and congratulations on your purchase!

You have purchased a reliable and quality bicycle, the result of careful technical research and punctual checks that will ensure you will enjoy using your new bicycle. Read this manual carefully.

How these instructions are structured:

Your safety first! Always use a homologated bicycle helmet.

Pay attention to all Warnings, divided in 3 typologies as per:



ATTENTION: Pay attention to understand and control dangerous situations.



WARNING: Pay attention to understand and follow indications to avoid further danger.



DANGER: Pay a lot of attention, follow instructions strictly, serious injuries even death can occur.

To facilitate the reading and to offer you a logical and easy way to find the information, these instructions are divided into the different systems / chapters that act on the bicycle as per:

0. Introduction - 1. Frame system - 2. Fork system - 3. Steering system - 4. Braking system - 5. Transmission system - 6. Pedals - 7. Wheel system - 8. Accessories system - 9. Lights - 10. Maintenance for correct use - 11. Warranty

Inside the chapters you will find the information divided in these subsections:

Function - How its made - User adaptation - General warnings - Tightening torques and periodic controls - What to control before each use - General maintenance - Transportation recommendations

General notes - Please read carefully:

We would like to remind you that, within the context of technical advances, the manufacturer reserves the right to make changes to the components, details or to the supply of accessories.

The figures, descriptions and data are, therefore, not to be considered binding.



ATTENTION: Technological progress has made our bicycles and their components increasingly complex. It is therefore impossible to provide within this manual all the information necessary for the correct repair and/or maintenance of your bicycle. In order to minimize the probability of an accident or personal injury, it is essential that any repair or maintenance that is not described in the manual is carried out by a professional mechanic. Consult your own professional mechanic to determine the maintenance requirements.

Correct and regular maintenance will increase the lifetime and reliability of your bike. **It is essential to perform the first check within 8 working days of purchase**, as the parts of your bicycle settle during the running-in period.

This is inevitable during the “breaking in” period and an initial inspection will improve the future performance and durability of your bike. With this in mind, please do not forget to organize the first “service” with your dealer.

The frequency and type of interventions on the bike depend on the climate, the type of use, the conditions of the ground, the weight of the person that is using it, etc.

This program is valid for normal use. In case of above average use, it is necessary to perform maintenance on the vehicle more frequently.

If a component or part of the vehicle seems faulty or abnormal, check it immediately and have maintenance performed on it by a specialist technician.

We recommend that you use maintenance products such as: grease, oil, degreaser, polish and anything else that is BIODEGRADABLE. Preserving the environment and nature is an obligation for everyone and for us as cyclists it is a mission.

Your bike selection

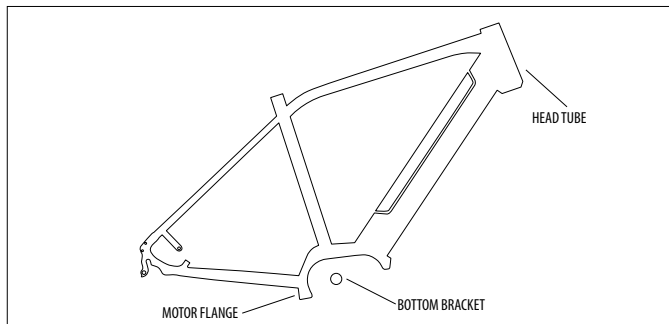
As you can see in *Diagram 1C*, different types of bicycles exist and can be organized as follows:

The typology of the frame will define your bike, use and possible modifications and adaptations. The frame is the structure that allows the assembly of all other systems and supports their interactions.

Bicycle main categories and typologies				
By frame material	By terrain use	By suspension	By transportation	By energy/standard
Alloy	Mountain Bike	Rigid	Folding	Muscular
Steel	City Bike	Hardtail	No Folding	EPAC
Composite	Trekking / Gravel	Full Suspended		Kid
	Road Bike			

Diagram 1C

Possible serial number location



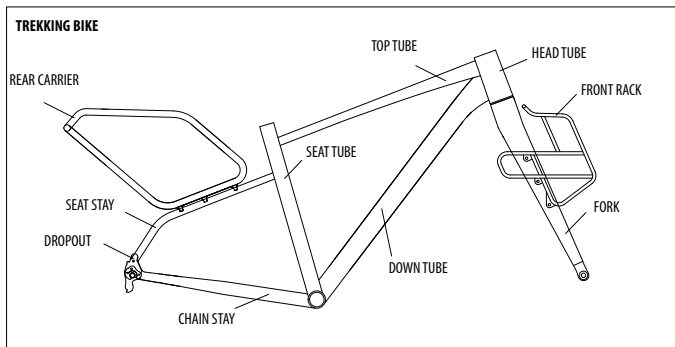
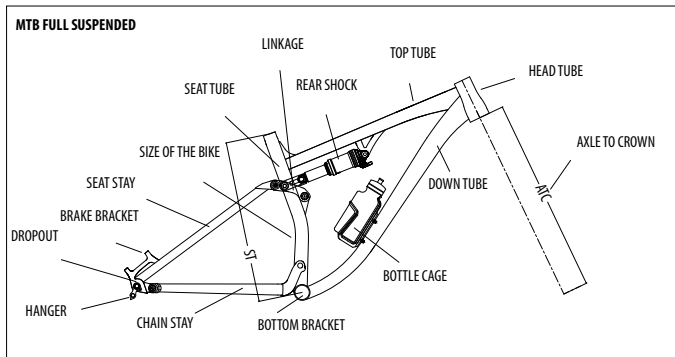
1. FRAME SYSTEM

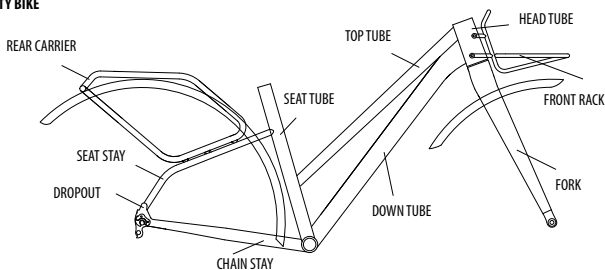
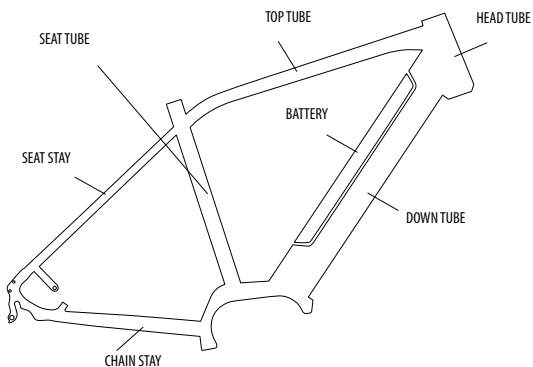
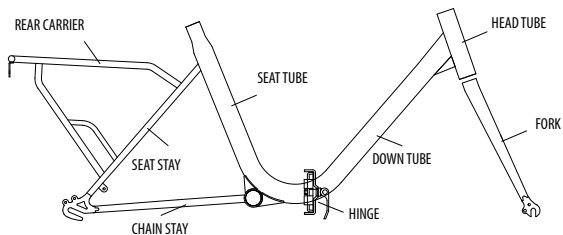
Function

The frame is the structure that allows the assembly of all other systems and supports their interactions. Frames can be divided as per bike typology (see introduction *diagram 1C*), and they can also be subdivided by materials of the frames: metallic (aluminium, steel, etc) and composite (carbon/kevlar fiber).

How its made

In the following pictures you can see the main parts of generic frames.



CITY BIKE**E-BIKE****FOLDING BIKE**

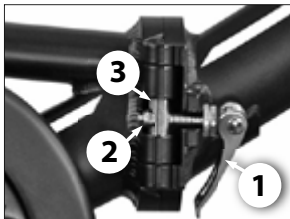
Folding bike lock

The bicycle frame is supplied with a quick-lock device, allowing the frame to be folded with ease.

TYPE 1

To fold the frame, simply release the quick-lock system, located in the centre of the frame, and push the front of the bicycle while firmly holding the rear.

- 1 - Lever
- 2 - Adjusting nut
- 3 - Hinge pin



⚠ DANGER: Once the bicycle has been opened, always check that the quick-release system is secure before riding the bicycle.

⚠ WARNING: Quick release mechanisms are designed to be operated manually. To avoid damaging the mechanism, never use tools to lock or unlock it. To adjust the clamping force, use the adjusting nut located in front of the lever and do not rotate the quick release lever.

To lock or unlock the system, open the locking lever and manually turn the nut opposite the clamping screw to loosen the system. Then use the lever to pull out the clamping screw. Press the hinge pin button at the top and pull the lever upwards to unlock the folding mechanism. Pull the front part of the frame to fold the bike. Repeat the same process in reverse to fold the frame.

⚠ DANGER: Make sure you tighten the device before riding the bike. If the lever can be operated with a little manual pressure, it is not sufficiently tightened. It is therefore necessary to retighten the adjusting nut without using tools.

ⓘ ATTENTION: In some cases, the lock/unlock procedure may vary.

TYPE 2

To fold the frame, simply pull the locking lever (1) located on the locking lever (2) to unlock the locking system in the middle of the frame, open the locking lever, push the bike forward while holding the rear part to fold the frame (see sidebar for locking/unlocking modes). After unfolding the bike, always check that the quick release system is secure before using the bike. Repeat the same procedure in reverse order to fold the frame.



ⓘ ATTENTION: Quick release mechanisms are designed to be operated manually. To avoid damaging the mechanism, never use tools to lock or unlock it. To adjust the locking force, use the adjusting nut in front of the lever and do not rotate the quick-release lever.

User adaptation

Frame will be one of the most important components to choose when buying your bike. Frames can be projected in different sizes with specific lengths (see *Image 1c*: frame size). The bike can be adapted to your body phisonomy by means of frame size (fixed) and the assembled components. Choosing the correct frame size is very important, in any case the correct adaptation to your phisonomy can be also reached with the regulation/substitution of other components as per: seatpost offset, handlebar width, offset and angles, stem angles and offsets.

⚠ WARNING: If you will use your bike for long periods or performance we strongly suggest performing an anthropometric test to get the correct adaptations to your body.

The suspensions (on full suspended frames & hardtail) should be regulated in relationship to your weight and your riding style. The main adjustments you can make is the preload, and where possible the compression and rebound. See *Image 1D*.

Priority regulation to be done for a good rideability is to adjust the suspensions (see also suspended forks in 2D) according to: SAG, the amount the shocks move under the total weight of the cyclist; having it properly adjusted ensures the shocks are neither too hard nor too soft.

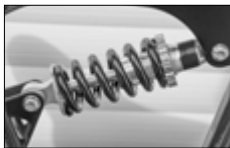


Image 1D(a) - Simple Mono



Image 1D(b) - Professional Mono

General warnings

⚠ DANGER: Any kind of modification made to the frame or fork will nullify the warranty and constitute a hazard for the user's safety.

⚠ DANGER: The use of a bicycle of the incorrect size for your body may lead to the risk of injury of the user and the product. Please respect the measures. If you have any doubt about which size to choose, contact your dealer.

⚠ DANGER: Never attach the carbon fiber bicycle with a clamp to the bike stand or car racks that use clamps. Carbon fiber tubes have thin walls and could be damaged. If necessary, secure to the bike stand or rack via an aluminum seat tube. See *Image 1E*.

ⓘ ATTENTION: Not all suspension are identical and have different use and regulations. Please read the suspension user manual. Air suspension systems should be only charged and regulated with their specific pumps. NOT use any other.

⚠ DANGER: Our bikes (muscular) are designed to carry in total: user+bike+luggage a maximum weight of 120 Kg for young and adult bikes and 85 kg for kids bikes.

For EPAC (Electrically Assisted Bicycles) the limit is 120 Kg (user+bike+luggage).

⚠ WARNING: Respect the original suspension length to avoid modifying the geometry and in consequences the guidability of the bike. Risk of serious injuries and frame damage.

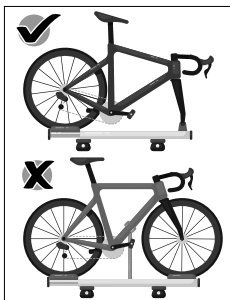


Image 1E - Use of bicycle racks for carbon fiber frames

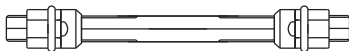
⚠ DANGER: As with all mechanical components, the bicycle is subjected to wear and high stresses. Different materials and components might react to wear or stress fatigue in different ways. If the design life and use of a component has been exceeded, it may suddenly fail, possibly causing injuries to the rider. Any form of crack and scratches, in highly stressed areas indicate that the life of the component has been reached and it should be replaced. If any doubt, organize a check with your reseller.

⚠ DANGER: For composite components, impact damage could be invisible to the user. Carbon fiber frames should be treated very carefully, a minor impact could modify the structure and in future make frame failure.

⚠ DANGER: For all frames, if an accident occurs, it is always recommended to replace all bikes.

Pin type

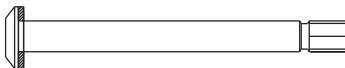
MECHANICAL NUTS



QR9

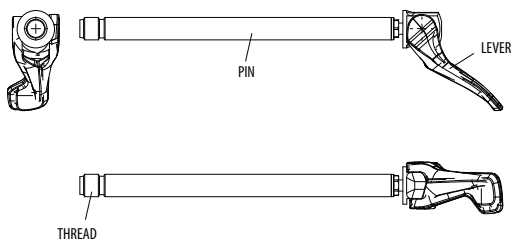
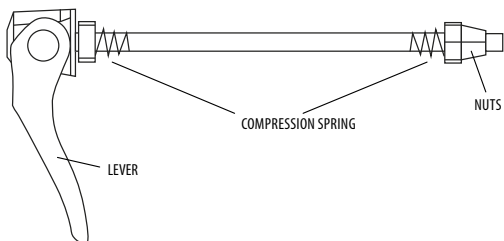


STEALTH



WITH LEVER



THRU AXLE**QUICK RELEASE**

Tightening torques and periodic controls

Tightening Torque values* in [Nm] - Frame system		Maintenance	
Component	Generic*	Control to do	Period
Wheel to frame - Nut system	30 - 45	Torque	Monthly**
Wheel thru axle to fork	see component*	Torque	Monthly**
Fork to Quick Release System	-	Visual (see 6F)	Monthly**
Bottle cage - Frame	4	-	-
Linkage / Mono rear suspension frame	6 - 10	Torque / Lubrification	Monthly**
Accessories (Luggage rack / Fenders, mudguards)	6 - 8	Torque	Monthly**
Frame	-	Clean	Monthly
* If component have torque indications, use those. These values are only referential.			
** If not removed. If not after each time is installed/removed.			

Table 1F - Frame System torque and periodic controls to be done

What to control before each use:

Make a visual control to verify no visible cracks / damage in the frame are present. As indicated before, frames allow the interactions of all other systems. For example a frame can be damaged by a seatpost not well tightened or a disc brake caliper not well fixed. So please read carefully next sections of what to control for next chapters.

General maintenance:

Cleaning is an operation we suggest to do after every ride in order to carefully check visually the integrity of the frame. Don't use aggressive products because they can damage the chemical structure of the frame.



ATTENTION: Don't use the bike stand maintenance with clamps to the frame because you can damage it.

Transportation recommendations



ATTENTION: Some commercial bike racks, grab the bike from the tube section. This is not recommended, especially if it is a carbon fiber frame.



ATTENTION: For long periods of transportation or storage under direct light sun, internal chemistry structure of composite frames can be damaged. Please cover and protect the frame to avoid damage.

2. FORK SYSTEM

Function

All forks are an extension of the frame to allow the direction and support of the bike. They could be suspended or rigid. In case of suspended type the function is to absorb and reduce all the roughness of the terrain.

How its made

As you can see in the *Image 2C*, a fork is generally composed of: a steerer, a crown, legs and tips/dropouts. As shown in the diagram, there are 2 main kinds of forks (suspended-rigid) which could have 3 different types of steerer (1"-1"1/8 - tapered) and 2 different types of fixing tips (thru axle-open dropout). The suspended forks can also be featured with a locking system (remote-manual) that transforms the suspended fork into a rigid fork and with or without regulation (preload-rebound-compression).

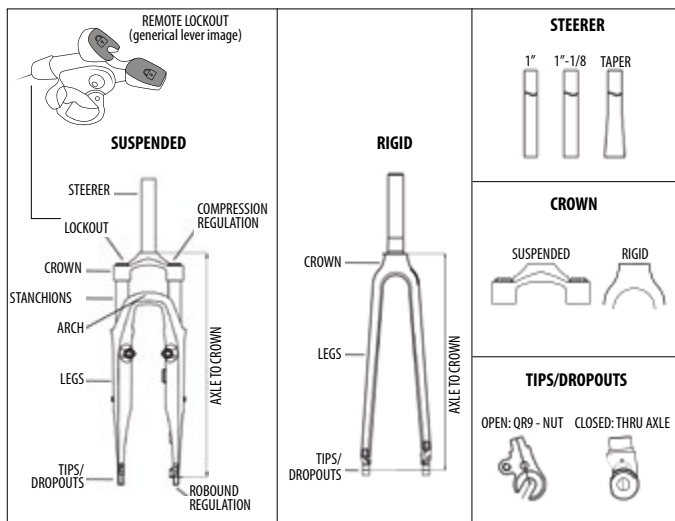


Image 2C - Fork System Diagram

User adaptation

To adapt your suspended fork you can regulate it in relation to your weight and riding style. The adjustments you can make depend on the model of the fork, but usually it is preload, and where possible - compression and rebound. The adjustment of the suspensions should be done according to **SAG** - the amount the shocks move under the total weight of the cyclist in a steady position. A properly adjusted SAG ensures the shocks are neither too stiff nor too soft.

SAG regulation should be done from specialized technicians, please contact your dealer.

⚠ DANGER: It's possible to upgrade the fork, but it's mandatory to respect: axle to crown distance (see image 2c), rake, length, wheel size and head tube frame specification ($1'' - 1\frac{1}{8}''$ - tapered) of the original bike. If these parameters aren't respected, the general geometries of the bike can be modified, causing a degeneration of the rideability, injuries or even death could occur.

The different types of MTBs

- The **rigid MTB** has no suspension. Perfect for riding on (very) smooth ground, it is highly responsive, with good pedalling performance.
- The **hardtail MTB** has front suspension. There are many varieties, the most commonly used being air forks and coil spring forks.
- The **full-suspended MTB** has two suspensions: a front suspension with a suspension fork and a rear suspension, called a shock absorber.

Suspensions

1. The type of spring

In order to function, a fork and/or shocks need a "spring effect" that can absorb energy and then release it to return to its initial position. These suspensions are made with two types of springs: a helicoidal spring (or simply coil) and a pneumatic spring (with air).

The advantage of the first one is that it is simpler, reduces friction and doesn't change behaviour during long descents.

The second one is a little more difficult to adjust and maintain, but it is lighter and when properly adjusted works well for all riders.



Lockout

Adjusting the front suspension

To adjust the front suspension level, you can turn the barrel adjuster on the left side of your fork by half turn. You will hear a click after each half turn. Keep doing this until you get the right level of suspension.



Adjustment range of the shock absorber

Suspension lockout on the fork

Turn the right blue wheel clockwise to lock the suspension and counterclockwise to unlock it. It is preferable to lock the suspension on a flat surface and to unlock it on chaotic surfaces.



2. Travel

The “travel” of a fork is the maximum distance the fork can travel before it hits the stopper. This distance ranges, expressed in millimetres, from 80mm for bikes designed for flatter terrain, to over 200mm for downhill MTBs.

The shock absorber functions slightly differently: in addition to compressing down, shifts your frame's rear triangle.

3. The sag

The sag refers to the travel of the coil or pneumatic spring when cushioning a shock. When bumping against irregular features of the terrain, the inner leg(s) (stanchions) of your fork descend into the outer legs (sliders) to dampen the shocks (the shock absorber works the same way).

Sag refers to the percentage that the suspension descends into the sliders when the rider mounts the bike.

4. The hydraulic system

Most shock absorbers have a hydraulic system. This is a cartouche that is made of a perforated piston moving through oil which slows the movement of the stanchions into the sliders in order to keep the bike steady. This reduces the rebound of the suspensions after the spring release effect.

The hydraulic cartouche can be adjusted in two ways: the compression and the rebound (or release). The adjustment of the compression controls the speed at which the suspension descends while adjusting the rebound determines the speed at which the suspension returns to its initial position after cushioning a shock.

⚠ DANGER: The suspension settings given in this manual are for general guidance only. Any adjustment must be checked and carried out according to your type of suspension. For greater reliability and safety, consult a qualified technician.

How to adjust your sag

1. Determining the sag of your fork and/or shock

The first adjustment to make on your suspensions is the sag. The goal is to define the best level of hardness of the spring based on your weight as the rider, your riding style, the type of terrain, and your personal preference.

The sag is the amount of suspension travel when the rider is sitting on bike. It is calculated as a percentage of total travel.

2. Adjusting your sag

2.1 Suspensions with a helicoidal spring (coil)

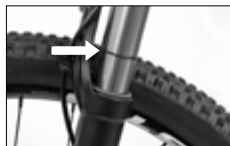
With this type of suspension the adjustment dial that regulates the coil tension is typically located on the T of your fork, on the right side. It is often labelled preload. Simply turn the dial clockwise to tighten the spring, and counter clockwise to loosen it.

2.2 Air suspension (pneumatic spring)

For an air suspension (pneumatic spring), you'll need to get a high-pressure pump for suspension in order to inflate your air chamber. The higher the pressure inside the chamber, the firmer the spring will be. In other words,



O-ring to the support tube



The displacement of the O-ring on the fork shows the travel used

the more sag is desired the less air should be injected, and vice-versa. The valve through which to pump in air is typically located on the left side of the T of the fork.

⚠ ATTENTION: Don't over-tighten the cap on the air valve; its purpose is not to keep air in but rather to protect the valve from external elements such as mud or dust.

To check if you have the correct sag, put a rilsan (nylon) clamp around one of the dampers. If your fork or shock has an O-ring (also called toric joint) on the damper, you don't need to put a clamp. Get all your cycling gear on: helmet, shoes, bag, glasses, protections, then get on your bike. Sit on the bike, pedals horizontal, hands on the handlebar, and lean against the wall with your elbow or have someone hold you up. Slide the O-ring or the nylon clamp down to the fork seal, then get off the bike while taking care not to compress the suspension.

Determine the amount of travel obtained by measuring the distance between the O-ring and the fork seal. Then calculate the proportion of this travel relative to the maximum travel of your suspension, and you will have your sag:

$$(\text{total travel} * 100) / \text{fork travel} = \text{sag}$$

If your sag is too high, loosen the coil spring or let some air out of your pneumatic spring. If it's too low, then do the reverse: tighten the coil spring, or add more air. Then repeat the test.

⚠ ATTENTION: If you change the pressure of your suspension, remember to pump your fork or shock absorber two or three times in order to distribute the air between the positive and negative chambers (if you have an air suspension fork).

How to adjust your rebound

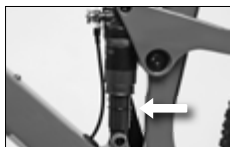
Check whether your fork is equipped with a dial to adjust the rebound. On the vast majority of forks, this dial is found under the right stanchion. It is often marked with SLOW (or +) which indicates the slowing of the rebound, and FAST (or -) for a faster rebound.

⚠ DANGER: adjusting the rebound (or release) determines the speed at which the suspension returns to its initial position after having cushioned a shock. If it is too fast, you may feel a recoil effect that could destabilize the bike or even throw you off. If you're new to mountain biking, we recommend that you not set the rebound at the highest level. Conversely, if the rebound is too slow when riding on very uneven ground your suspension won't have time to fully return to its starting position before having to cushion the next shock and you'll quickly find it bumping against the stopper.

Your adjustment will depend on three criteria: your weight, your riding style, and the terrain you ride on. For example, a beginner rider on smoother terrain will want a slower rebound than a more experienced rider riding over more uneven or bumpy patches. Very uneven terrain with long scree, steps, or jumps requires a fast rebound. The right amount of rebound is one that smooths out the terrain as much as possible.



O-ring at the top of the suspension



The displacement of the O-ring on the suspension shows the travel used

How to adjust the compression of your suspension

This adjustment is a bit more complicated than the two previous ones. Remember: adjusting the compression will change the speed at which the suspension descends (compresses). It is adjusted using a dial with the marking CHARGER or COMPRESSION on the right side of the T of the fork.



Setting the spring rate with a shock pump

Entry-level suspensions typically don't come with a way to adjust the compression; others only have two positions (open, closed), others have a single compression adjustment that can be set to several positions, and lastly, high-end MTB enduro/gravity forks have two compression adjustment mechanisms.

1. Locking the suspension

On some forks and shocks, the compression dial has only two positions: open and closed. When the dial is in the open position, the suspension works normally. When in the closed position, the suspension is much more rigid, nearly "fully-locked", which yields better performance on smoother terrain, uphill climbs, or riding on paved roads.

To lock the suspension simply turn the dial which is located either on the handlebar or on the suspension itself, depending on the model.



The damper is adjusted with an adjustment handwheel

2. Low-speed compression adjustment

This adjustment is only on suspensions that have one or two compression adjustments made using a dial with several positions. When the fork or shocks only have a single compression adjustment, this adjustment regulates the **low-speed compression**. It concerns compressing the suspension at the start of a ride or when riding over small bumps, when braking, or when pedalling force is applied by the rider.

A low speed compression setting that is too open can result in a loss of traction when applying force, braking, or on a raised turn or banked curve. Conversely, a low speed compression setting that is too closed will make your suspensions too firm and you will feel the jitter from small bumps much more in your arms.



In the case of air suspension, it will be necessary to adjust the air pressure

3. High-speed compression adjustment

This adjustment is only found on suspensions that have two compression adjustment mechanisms. The central ring is for the low-speed compression, while the outer ring is for the **high-speed compression**. It's the compression of the suspension at the end of the course, or over large bumps such as very uneven terrain, or when landing jumps.

If during steep descents over very uneven ground you feel you don't have enough manoeuvrability or that your bike is shaking too much, your high-speed compression setting is too closed. Conversely, if you feel that the fork or shock goes in too far on impact it's because your high-speed compression is too open.

General warnings



ATTENTION: These lines are intended for general forks. Most of them already have a specific user manual attached to them. In this case, take that manual as the main reference to regulations, maintenance, tightening torques, etc. If specific instructions are missing, please contact your dealer in case of any doubt.

⚠ WARNING: Fork and frame combination must allow max 60° of turning as per standards normative. This doesn't mean the fork can rotate 360° without touching the frame or damaging the cables. (Exemption for BMX bikes with rotor system).

Tightening torques and periodic controls

Tightening torque values* in [Nm] - Fork system		Maintenance	
Component	Generic*	Control to do	Period
Wheel to fork - Nut system	30 - 45	Torque	Monthly**
Wheel thru axle to fork	see component*	Torque	Monthly**
Fork to Quick Release system	-	Visual (see 6F)	Monthly**
Fork steerer	-	Clean	Monthly

* If component have torque indications, use those. These values are only referential.
 ** If not removed. If not after each time is installed/removed.

Table 2F - Fork System torque and periodic controls to be done

What to control before each use:

Make a visual control before each use to verify that no visible cracks / damage in the fork are present.

⚠ DANGER: Forks interact with other systems and so uncontrolled forks could cause a severe damage and very dangerous situations:

- riding the bike with an untightened headset which can cause damage to the frame and fork;
- loss of control due to an untightened stem and handlebar to the fork steerer;
- loss of direction or unexpected brake of the bike due to an unfixed wheel to the fork;
- compromising braking due to an unfixed disc brake caliper to the fork.

So please read carefully next sections of what to control for next chapters.

General maintenance:

The correct work of suspended forks and their components are directly connected to the cleaning conditions. Small particles of dust can damage the internal gaskets. Please regularly clean with care the steerers to preserve their function. The continuous locking and unlocking of the fork while remote control is present could also compromise the locking system, so the locking should be used conscientiously.

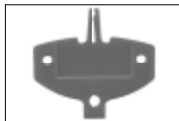


Image 4I - Brake caliper spacer

Transportation recommendations

If the wheel is removed for transportation, pay attention to not lose any components. If the system is made with a thru-axle, insert the axle through the fork again to avoid any compression or damage of the fork.

⚠ WARNING: In case of disc brake system, never transport the bike upside down; once removed the wheel pay attention to insert the plastic spacer between the brake pads in order to avoid accidentally touching the brake lever that could cause a closure of the pads (see Image 4I).

In case of a V/C-brake system installed, pay attention to unblock the brake caliper in order to easily take the wheel out.

3. STEERING SYSTEM

Function

This system allows control of the direction of the bicycle and provides support for users. It is generally composed of: handlebar, stem, headset, expander/star nut and spacer. This system is directly related to the fork and frame system.

How its made

As shown in *Diagram 3C*, there are two main different system configurations regarding the junction between fork - stem. Both pursue the same goal: create a solid junction between fork and handlebar allowing bike direction control and user support, but also support for mounting commands, lights, etc on the handlebar.

Diagram 3C - Main configurations of steering system

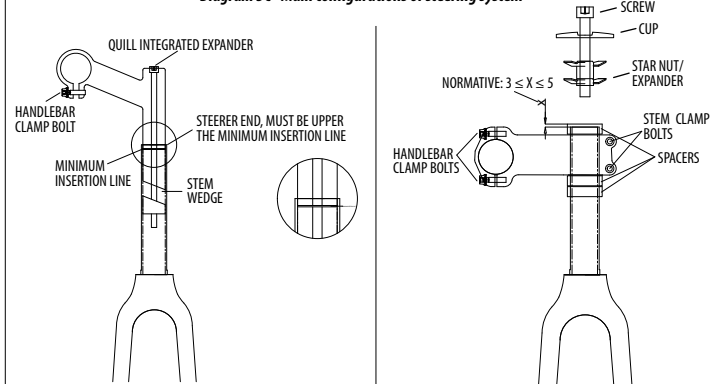


Image 3C(a) - Quill Stem

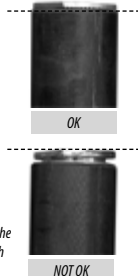
Image 3C(b) - Ahead Stem

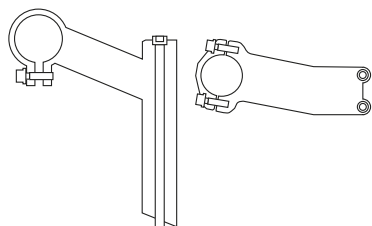
CARBON STEM EXPANDERS

EXPANDER BODY TYPES

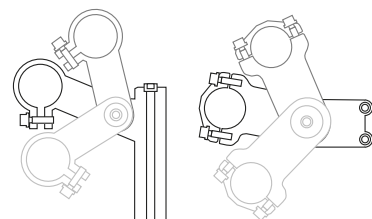


DANGER: Torque tighten to 12 Nm. Check the seating of the expander. The expander must fit flush with the steerer tube.

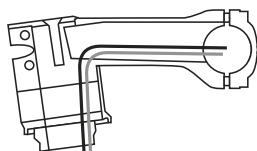




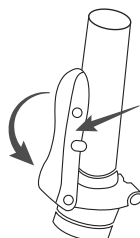
FIXED STEM



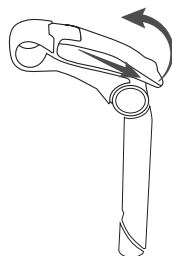
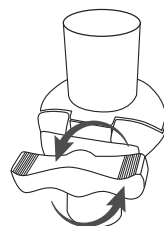
ADJUSTABLE STEM



INTEGRATED CABLE STEM



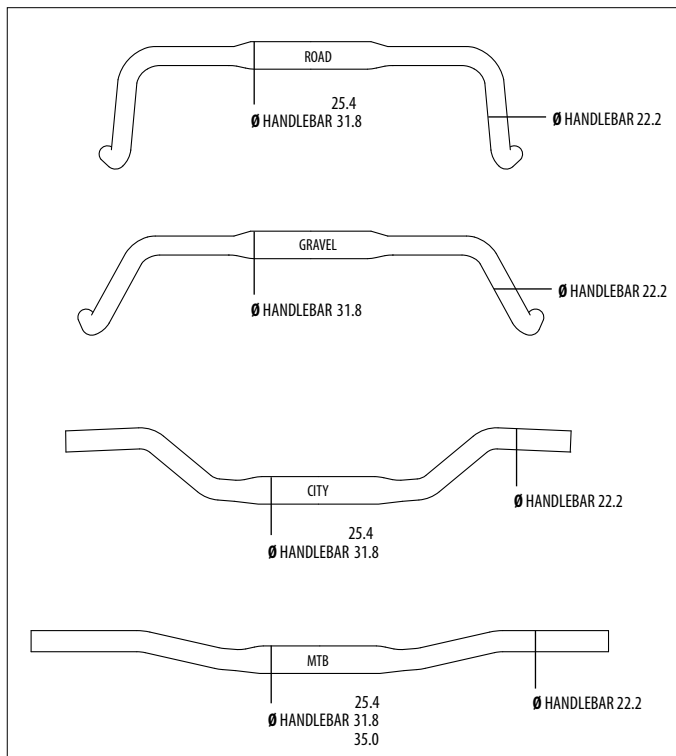
FOLDING STEM



OPENING STEM

The main difference between both types is that the stem quill requires a fork with threaded steerer (see *Image 3C(a)*), instead the ahead type doesn't require it (see *Image 3C(b)*).

There are several different types of handlebar depending on the use and typology of the bike as seen on *Image 3C(c)*.
Handlebar types: road - gravel - city - mtb.



The junction between frame and steering system (fork-stem) is made by a headset bearing kit that allows the direction control of the fork. Exist 3 main headset types: integrated, semi integrated and external. Despite the type of headset, the regulation and tightening is highly recommended to be done by a technician.

User adaptation

All components from this system (except for the headset, because it is strictly related to the frame) could be regulated, changed or upgraded based on the physical characteristics of the final user (pay attention to respect the same diameter ($\varnothing$) specifications of the original components). Handlebars can be rotated around the stem axle in order to fit the most appropriate position/angle for the user. There are various upgrade possibilities available on the market regarding the handlebars and stems. All the stems can be adjusted in height: for quill version: by inserting or slipping off.

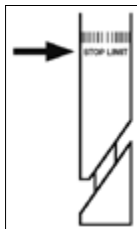


Image 3D - Minimum insertion mark of quill stem

⚠ WARNING: Respect the minimum insertion mark found on the component.
(See Image 3D)

For the ahead stem: by changing the disposition of the spacers on the fork steerer.
(See Image 3C(b))

⚠ WARNING: Respect the quantity of spacers originally included.
Some stems can also be adjusted at angle to guarantee more flexibility for the user fisionomy.

⚠ WARNING: Be sure that the stem orientation is properly aligned with the wheel direction for safe ride conditions.

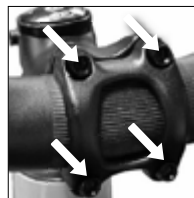


General warnings

⚡ DANGER: Respect always the minimum insertion mark indicated on the stem (for quill version) or the quantity of spacers (ahead version).

⚡ DANGER: Never exceed the limit of tightening torque for every component. The correct value is usually marked on the component (except for headset).

⚠ WARNING: When adjusting handlebar height, be sure to verify the clearance between fork and frame so you can move freely 30° to one direction and 30° to the other one. In case of a bigger angle, be sure that the rotation does not interfere with the bike frame - this can cause damage to cables, brake levers, commands, frame and handlebar). This doesn't mean the fork can rotate 360° without touching the frame or damaging the cables (exempt BMX bikes with rotor system).



⚠ DANGER: Before use, it is necessary to check that all fastening screws are correctly closed and tightened. The above-mentioned check ensures the safety of the end user during general use of the bike.

⚠ DANGER: In folding bikes, before using the bicycle, check that the expander screw inside the steerer tube is properly tightened.

⚠ WARNING: The above-mentioned check must be carried out on the fixing screws on all handlebar and seat post models equipped on the bicycle. It is recommended to have these operations carried out by a qualified technician.



Expander screw - folding bike

Tightening torques and periodic controls

Check the closing torque (Nm) marked directly on the component.

Tightening torque values* in [Nm] - Steering system		Maintenance	
Component	Generic *	Control to do	Period
Quill stem - Fork	18 - 20	Torque	Monthly**
Ahead stem - Fork	5 - 10	Torque	Monthly**
Handlebar clamp M6	12 - 14	Torque	Monthly**
Handlebar clamp M8	14 - 18	Torque	Monthly**
Headset kit	-	Grease	Monthly

* If component have torque indications, use those. These values are only referential.
 ** If not removed. If not after each time is installed/removed.

Table 3F - Steering system torque and periodic controls to be done

What to control before each use:

To guarantee your safety, it is strongly recommended to make a simple test as shown on *Image 3G* before each use of the bicycle. While holding the handlebar with two hands on the grips and the front wheel with both legs, try to rotate the handlebar in both directions simulating the forces of turning. If there is any movement of the handlebar only and not on the wheel, the junction stem and fork need to be checked and tightened immediately.

The correct alignment of the handlebar and front wheel allow precise direction control and smooth ride. The angle between the handlebar and front wheel must be 90°.



Image 3G - Testing of correct junction conditions stem-fork

General maintenance:

The junction fork-stem should rotate smoothly. This junction should be controlled and tightened (if necessary) periodically by a technician since it does not have a specific torque indication: if it is too much tightened, the bearings will be blocked and will don't allow moment of the steering. And contrary - too much loose will damage bearings because of a slake. It is also vital to periodically grease the headset kit as indicated in the table of torque. If cleaned or washed after greasing, you should dry out the components after each wash to preserve from rust or damage of the bearings.

Transportation recommendations

For easier transport of your bike and to save space without removing the wheels, it is possible to lose the stem and rotate the handlebar at 90° in order to align it in the same direction of the wheel (running direction).

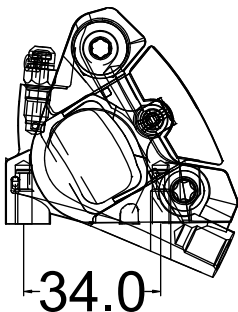
When fixing the handlebar remember to straighten it up (perpendicular to the wheel direction) and ensure to tighten all the fixing screws at the correct tension before riding.

If you transport your bicycle with your car support, it is always recommended to fix the steering system eliminating the free movement of it.

4. BREAKING SYSTEM

Function

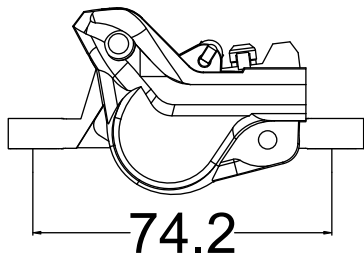
Its main function is to guarantee the bike will stop when needed. Independently of the type of braking system installed on your bike, all of them use the same principle by applying a friction force to decrease the rotational speed of the wheels.



FLAT MOUNT

ROAD
MTB
GRAVEL
CICLOCROSS

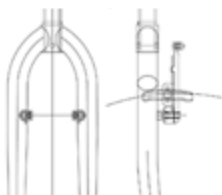
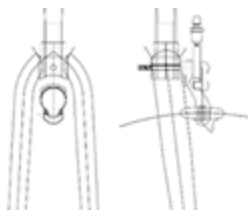
In some situations it needs to be combined with adapters



POST MOUNT

MTB
CITY
TREKKING

In some situations it needs to be combined with adapters

V-BRAKE**ROAD SINGLE PIVOT****ROAD DUAL PIVOT**

How its made

In the *Image 4C* you can see the most used brake systems and its main components divided by their specific scope inside system:

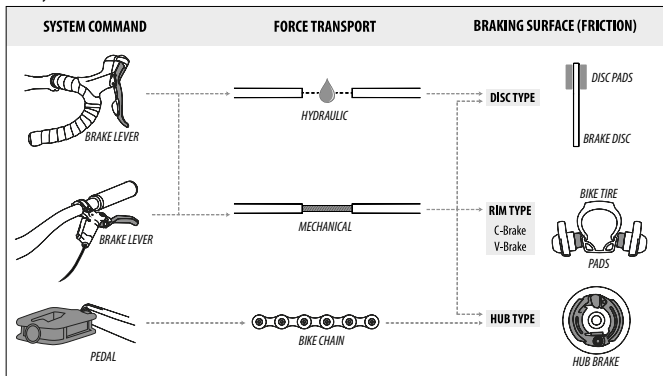


Image 4C - Brake system diagram

User adaptation

To get the best performance when braking and to fit your body measures, the brake lever can be adjusted (not all models) to the length of your fingers. See a correct fitting in *Image 4D(a)*. This adjustment is possible thanks to a smaller screw (when featured) generally located in the brake lever as you can see in *Image 4D(b)*.



Image 4D(a) - Brake lever regulation



Image 4D(b) - Brake lever regulation

⚠ DANGER: When the maximum braking force is applied, the lever should not touch the handlebar, if this occurs could be a leak of fluid in the hydraulic brake system or a cable damage when not hydraulic. Urgently extraordinary maintenance should be done.

⚠ ATTENTION: If your hands do not reach the levers or the hand-force applied to the lever is excessive, ask your dealer to adjust the distance of the levers and the intensity of the force required to brake.

General warnings

⚠ DANGER: The braking force must be controlled and equilibrated (rear and front) and should be gradually increased. Braking force should not be applied abruptly because it can result in a dangerous weight distribution causing the overturn (see *Image 4E*), slipping of the wheels, falls and severe injuries including death.

⚠ DANGER: When braking, braking surfaces (disc, pads and rims) can overheat and reach high temperatures. Avoid contact immediately after use and wait a few minutes before touching them.

⚠ DANGER: Always consult a specialist in the event of malfunction of the braking system, pressure loss or leakage of liquid from the system.

⚠ DANGER: In case of adverse weather conditions, mud, rain or snow; the friction force executed by the pads decreases considerably. In wet conditions the bike will need up to 50% more distance to totally stop.

⚠ ATTENTION: Brake system components may produce noises when high percentage of humidity, dirt or other external agents are in the surfaces.



Image 4E - DANGER, do not repeat this (excessive front brake)

Tightening torques and periodic controls

The Table 4F shows the indicative torque tightening values for all components of the brake system.

⚠ DANGER: The table below and its values are referred to a normal use (no competition)

⚠ WARNING: If written in the part itself, use that value.

Tightening torque values*** in [Nm] - Brake system				Maintenance	
Component / Mark	Shimano	Sram	Generic*	Control to do	Period
Caliper brake fixing - Frame	6 - 8	5 - 7	7 - 10	Torque	Monthly**
Caliper brake fixing - Fork	6 - 8	9 - 10	7 - 10	Torque	Monthly**
Brake shoe/ Pads fixing bolt	-	-	5 - 8	Torque	Monthly**
Handlebar - Brake lever	6 - 8	-	6 - 8	Torque	Monthly**
Brake disc - Hub	4	6.2	4 - 6	Torque	Monthly**
Shoes / Pads / Discs / Rims	-	-	-	Visual-See image 4G	Weekly**

* If component have torque indications, use those. These values are only referential.
 ** If not removed. If not after each time is installed/removed.
 *** Values are indicative and must be controlled by re-seller and dinamometric tool.- NOT FOR COMPETITION -

Table 4F - Brake system tightening torque and periodic controls to be done

What to control before each use:

Before riding your bike check the full system is working properly by actioning the lever and verifying the wheel of the lever pressed does not turn. Generally our bikes are produced with a left lever for the front wheel and a right lever for the rear wheel.

⚠ WARNING: It is important to control the wear of the friction components. See Image 4G to visually control them.

⚠ WARNING: Deeper checks should be carried out periodically (we recommend it to be done by dealer) to verify no leakage of fluid (when hydraulic systems) or cable integrity (when mechanical systems).

General maintenance:

If you notice that the braking system is losing power because of degradation of the wear components, urgently organize an extraordinary maintenance intervention in authorized dealers. It is important to maintain the components clean and dry after each use.

⚠ WARNING: The use of detergents and other solvents are forbidden to clean the system, because they always leave a bit of oil on it. Please use only specific brake cleaning products.

⚡ DANGER: Don't use the bike if one of the braking systems is broken or damaged because falls and severe injuries including death can occur.

Transportation recommendations

If the bike has a disc hydraulic system, never transport the bike upside down; in case you take the wheels out, insert the plastic spacer provided with the bike. (See *Image 4I*). If V/C-brake system is installed, pay attention to unblock the brake caliper in order to easily take the wheel out.

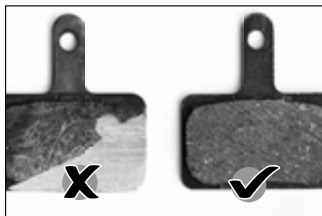


Image 4G(a)



Image 4G(b)



Image 4G(c)



Image 4G(d)

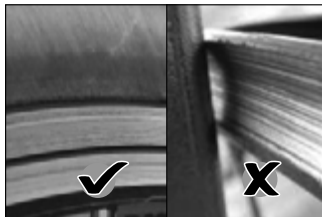


Image 4G(e)

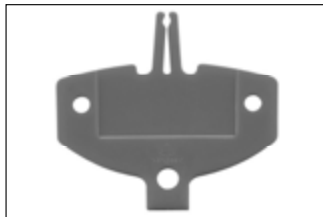


Image 4I - Brake caliper spacer

5. TRANSMISSION SYSTEM

Function

The main function is to provide the transformation and transportation of the human energy to the rear wheel. There are infinite types of gear systems possibilities that allow users to adapt the power based on the type of terrain and desired speed. Main scope is to allow users to maintain an optimal pace (60/90 revolution pedals x min) regardless of the terrain slope or desired speed.

How its made



REV0 shift



Traditional shifter - Pull



Traditional shifter

In the *Image 5C* you can see the main parts of the transmission system (usual configuration, but it may also be inverted):

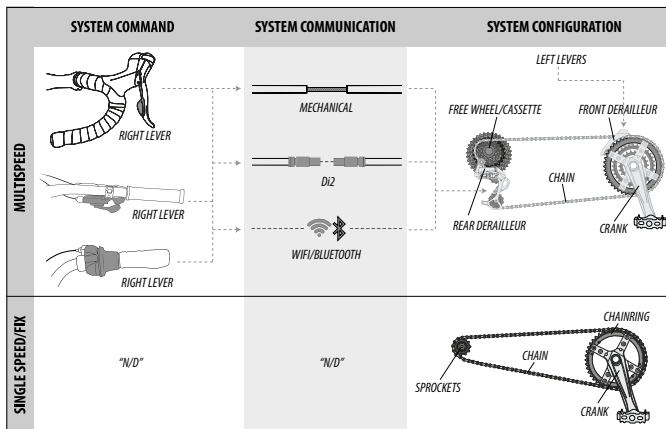


Image 5C - Main components of transmission system

User adaptation

As you can see in the *Image 5C*, the system is complex and any change must be done accurately with the help of your dealer. Not all components are compatible between them. Chain, sprockets, derailleur, etc are designed specifically for each system.

When a multi speed system is installed, use the left lever to move the front derailleur to diverse chainring (could be 2 or 3). As a general rule, like shown in *Image 5D(a)*; when climbing hills, the chain should be positioned on the left side (Front: Small chainring, Rear: Big sprocket). This will make the bike go slower but with less effort and high pace. Instead, to achieve the maximum speed, the chain should be positioned on the right side (Front: Big chainring, Rear: Small sprocket), decreasing the pace but increasing the effort.

Correct use of the chain alignment allows less wear of the drive system (see sprockets/sprocket).

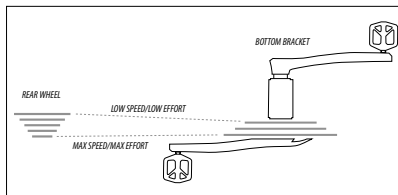


Image 5D(a) - Multispeed system chain positions

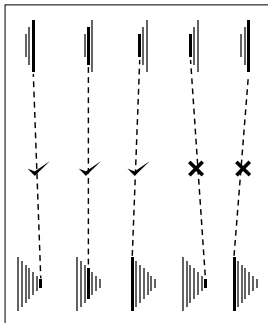


Image 5D(b) - Multispeed system chain positions

General warnings

⚠ ATTENTION: When switching gears, it is important that you reduce the power in the pedals, in order to reduce general stress in the system and to guarantee long life to it.

⚠ WARNING: Wear straight-cut trousers or use trousers clips to prevent them from getting caught in the chain or other parts of the systems.

⚠ ATTENTION: (When multiple rings crankset installed) avoid using the incorrect cases shown on *Image 5D(b)*.

⚠ DANGER: When cleaning or riding, pay attention to the rotary parts that could provoke serious injuries.

⚠ DANGER: A chain without maintenance or incorrectly closed/installed can produce serious injuries, even death.

⚠ DANGER: Replacing the original systems combinations (teeth quantities, crank length, type of chain, pedals, derailleur and commands) can reduce the safety of the cyclist. Pay specific attention to the distance between rotatory parts (in particular to the distance pedal-front wheel).

Tightening torques and periodic controls

Tightening torque values* in [Nm] - Transmission system		Maintenance	
Component	Generic*	Control to do	Period
Crankset - Central movement set	34 - 44	Torque	Monthly**
Central movement set - Frame	25 - 30	Torque	Monthly**
Rear derailler - Frame	8 - 15	Torque	Monthly**
Front derailler - Frame	5 - 7	Torque	Monthly**
Pedals - Crankset	34 - 40	Torque	Monthly**
Gear levers - Handlebar	6 - 8	Torque	Monthly**
Transmission system	-	Calibration	Monthly**

* If component have torque indications, use those. These values are only referential.
 ** If not removed. If not after each time is installed/removed.

Table 5F - Transmission system torque and periodic controls to be done

What to control before each use:

In case of a single speed system, pay attention to verify the tension of the chain to guarantee the correct working conditions. As shown in *Image 5G*, the chain should be tensioned enough that it can move vertically between 1 and 2 cm. If it is too tight it won't move vertically. To adjust the chain tension move the rear wheel to the back (to tighten) or to the front (to loose). To make this operation unlock the Quick Release or nut of the rear wheel. See chapter 6.

In the multispeed system the tension is guaranteed by the rear derailleur.

Control the systems is cleaned and lubricated before each use to provide longlife to components.

⚠ DANGER: If the chain is too tensioned, the chain risks failure; if it happens while applying force to the pedal, severe injuries and even death can occur.

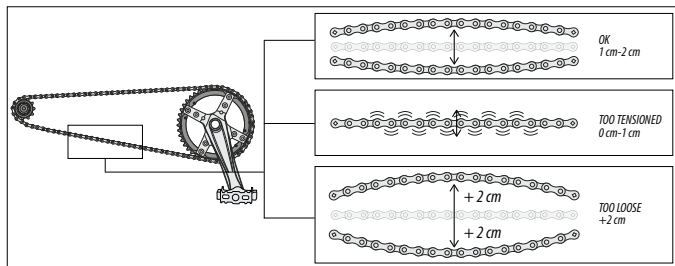


Image 5G - Chain tension in single speed systems

General maintenance:

For all type systems; after long term use, chain, crank plates, pedals, central movement and cassette can present worn, and need to be replaced. See *Image 5H(a)* to understand when it needs to be replaced.

To avoid system degradation make a periodic regulation of: derailleurs, cables (in case of mechanical system), battery and connection (in electrical systems), and gear commands.

In a mechanical system, to regulate the correct functioning of the movable parts (derailleurs and commands), you must guarantee the correct cable tension between them. Also pay attention to regulate the limits strokes of derailleur; superior "H" and inferior "L" by the screws as shown on *Image 5H(b)*.

We recommend making the gear regulation in the official dealer, to guarantee the correct working.

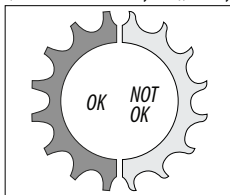


Image 5H(a) - Visual control in chainring and sprockets

⚠ WARNING: Wrong regulation of the limits of the derailleur can damage the parts.

Transportation recommendations

Derailleur, levers and cables are delicate and complex elements that should be protected when transporting your bike. If the wheels are taken out for transportation, be very careful because the rear derailleur and front chainring can be broken.

If multisystem speed is installed, before taking the rear wheel off, position the chain in the smallest sprocket.

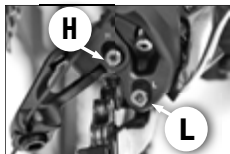
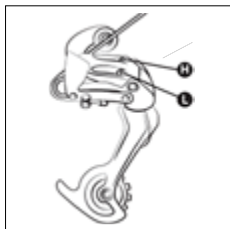


Image 5H(b) - Derailleur limits regulation

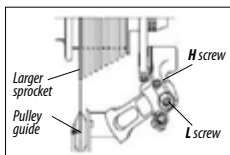
Adjusting the rear derailleur limit screws

The range of movement of the derailleur can be adjusted with screws **H** and **L**. Screw **L** adjusts the upper limit (on the side of the largest sprocket). When screw **L** is loosened, the chain is positioned more towards the outside of the largest sprocket. The **H** screw allows you to adjust the lower limit (on the smaller sprocket side). When you loosen the **H** screw, the chain is positioned more towards the outside of the smaller sprocket. These actions are performed a quarter turn at a time. With each adjustment, you should achieve perfect alignment between the sprocket, chain and rear derailleur pulley.



Adjustment of rear derailleur cable tension

To adjust correct sprocket replacement, use the barrel adjuster on the rear derailleur or handlebar. This barrel adjuster allows you to adjust the derailleur cable tension and correctly position the derailleur according to the selected speed.



6. PEDALS

Different pedals types



Flat pedals - Kids



Flat pedals - BMX



Flat pedals - MTB



Flat pedals - City bike



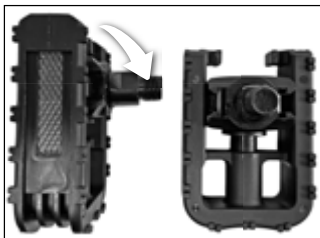
Automatic pedal - Road



Automatic pedal - MTB



Flat pedals - Folding bike (Open)



Flat pedals - Folding bike (Close)

Assembly instructions

The pedal marked **R** should be screwed clockwise onto the right side crank, while the pedal marked **L** is to be screwed anticlockwise onto the left crank. Initially tighten by hand then complete the final rotations using the wrench n. 15 (torque 35/40 Nm). To check the efficiency of the pedal bearings, turn and move the pedals from the right to left and up and down by hand. If the pedal bearings are too loose or rigid, contact your dealer for assistance. Pedals with automatic locking system of the feet on the pedals require dedicated shoes under which the cleats are applied to allow the coupling. To attach a foot to the pedal, insert the front of the cleat into the front of the pedal and press down. To remove, turn the heel laterally. Make sure all fixing screws are fully tightened; if a plate is loose this makes it impossible to get off the bike. Follow the manufacturer's instructions for adjustments.



⚠ WARNING: Check the correct fixture of the pedals. Follow the instructions strictly to avoid damaging the thread of the pedal or crank and check the wear of the cleats.

The best type of shoe to wear to ride the bike is one with a fairly rigid rubber sole which ensures grip on the pedal. If the sole is too soft, you may find it painful when you exert pressure with your foot while pedalling. To ensure your foot is in a natural position, the shoe should not be too wide in the heel region. If the sole is too wide, it may come into contact with the crank arm or the rear carriage, as well as causing pain in the joints due to the incorrect posture.



Automatic pedals operation

Latest generation pedals are called quick or automatic release. This type of pedal allows the foot to be released from the pedal via a so-called "cleat" and stops slipping.

When using the bike on even or uneven ground, the adherence to the pedal allows you to have more control over the bike and to obtain the best pedalling performance possible.

This system allows you to place the middle of your foot in the right position with respect to the axis of the pedal, in addition stopping the end of the foot inadvertently knocking against the front wheel.

⚠ ATTENTION: Automatic pedals require specific shoes.

⚠ ATTENTION: Always carefully read the instructions enclosed by the pedal manufacturer and the shoe manufacturer.

The fastening system allowing you to attach and release the shoe from the pedal is similar to the one for skis. Generally, the quick attachment and release system for MTB pedals is located on both sides of the pedals. Place the tip of your foot near the cleat in the centre of the pedal.

Press with your foot to locate the attachment point. You will hear a click when the shoe is attached.

Automatic pedals are known as the Quick Release pedals because the shoe is released when you twist the heel outwards. To familiarise yourself with the attachment and release mechanism, we advise leaning on a fixed point getting someone to help you.

The difference in the way one pedal works to another depends on the shape of the shoe, the angle and the release force. Special cleats, once attached, allow the foot a certain amount of lateral movement. This type is recommended for anyone with joint problems, especially in the knees.

Some automatic pedal systems integrate the cleat inside the sole, so you can walk without any problems.

⚠ DANGER: Practise while stationary to familiarise yourself with the mechanism. Get someone to help you and practise on a quiet road before tackling crowded streets. Always carefully read the instructions provided by the shoe and pedal manufacturer.

Set up and maintenance

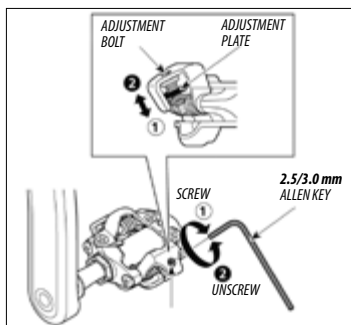
Although there are models with different technical characteristics for Quick Release pedals, the basic settings are the same for them all.

Secure the cleats on the shoe so that the centre of the foot is on the axis of the pedal. When pedalling, your foot should be in a natural position. Normally, the heel is turned slightly inwards.

Make sure that the cleat bolts are closed correctly.

If the bolts come loose, the pedal may not work properly, in addition to jeopardising your safety.

⚠ DANGER: Make sure that the cleats are tightened correctly because a loose bolt could prevent the Quick Release mechanism of the pedal from working properly (**risk of falling!**)



Adjusting the preload on the release spring to suit your own needs

Adjust the tension of the pedal release to your requirements. We recommend a reduced load initially to facilitate release. Attach and release the shoe to check the load and adjust it as required with the socket head screw.

Clean the pedal release mechanisms regularly and keep them lubricated and greased.

To avoid unpleasant noises like squeaking, apply grease on the contact points between the cleat and the pedal.

Regularly check the wear of the cleats. If the connection between the pedal and the cleat is unstable, it is a sign that the cleat or the sole of shoe is worn.

⚠ DANGER: Make sure that the shoe and the pedal are free of dirt or anything else which could stop the cleat locking onto the pedal. Regularly lubricate the Quick Release mechanism.

⚠ DANGER: Very worn cleats or a faulty attachment/release mechanism could cause falls because the shoe may accidentally be released or fail to be released when required.

⚠ DANGER: If Quick Release pedals are installed (see *Image 5E(a)*), they need special shoes *Image 5E(b)*. Read carefully the instructions of the pedal and shoes manufacturer. There are many different types of Quick Release, but in the most common cases: to release the shoes from the pedal, user must turn the heel outwards as shown in *Image 5E(c)*.



Image 5E(a) - Automatic pedal



Image 5E(b) - Shoes for automatic pedals

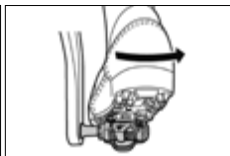


Image 5E(c) - The shoe is quickly released from the pedal by turning the heel outwards

7. WHEEL SYSTEM

Function

The function of this system is to provide the support of the user and bike, transporting the energy from the transmission system to the ground and allowing motion and direction.

How its made

As shown in *Image 6C*, the system is composed of: hubs, spokes, spokes nuts, rims, inner tube and tyre.

⚠ Attention: Exist different types of inner tubes valves. You need the right adaptor to inflate them.

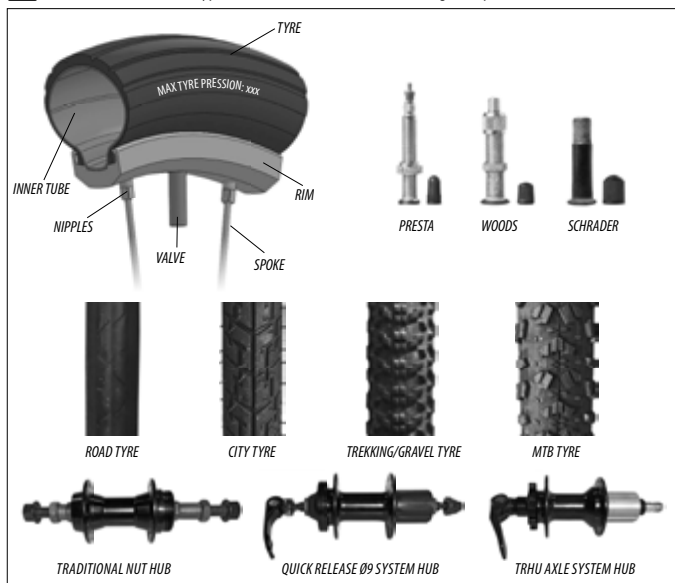


Image 6C - Main parts of wheel system and tire, valves and hubs types

User adaptation

Unlimited combinations of wheels assemblies exist. Terrain, types of use, sizes and materials are some of the common attributes that define them. The tyre should be chosen carefully by the terrain and specific use. They can be divided in 4 main categories: City - Trekking/Gravel - Mtb - Road. Terrain and user characteristics will determine the correct tyre pressure to guarantee the best grip/performance and safety conditions.

7.1 WHEEL SYSTEM TUBELESS READY

Tubeless ready is a special type of tubeless tyre that requires sealant to ensure air tightness.



TR: TUBELESS READY INDICATION



TUBELESS VALVE



APPLICATION OF SEALING TAPE



INSERTION OF SEALING LIQUID

⚠ WARNING: If you choose to use the rims in tubeless ready mode, carefully examine the manufacturer's instructions regarding the additional components required for conversion to tubeless configuration. A specialised mechanic must be consulted to carry out the conversion.

⚠ DANGER: Incorrect fitting of the tubeless ready tyre can cause the tyre to unexpectedly lose pressure and come off the rim, which can lead to accidents resulting in serious or fatal injuries.

General warnings

⚠ DANGER: Never exceed the limits of the tyre pressure indicated in the tyre (see *Image 6E*), this can make the tyre fail and incidents, injuries and even death can occur. (Some tires does not indicated the minimum, in this case, please consult the tyre producer or your reseller).

⚠ DANGER: Any rubber component act through friction forces, therefore degradation will occur because of use. Weather and direct sun influence degradation producing aging on the tyre.

⚠ DANGER: In the *Image 6G(a)*/*Image 6G(b)*, you can see some tyre bad conditions to avoid. If these happen, replace the tyres immediately.

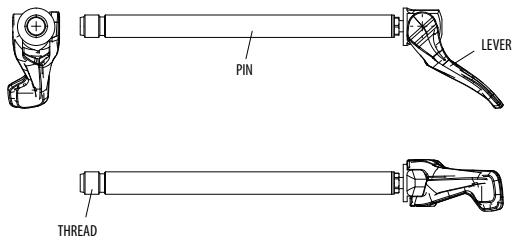
⚠ WARNING: Is recommendable to always ride with an inner tube repairing kit.

⚠ WARNING: Over tightening the components could damage them and compromise the user safety.

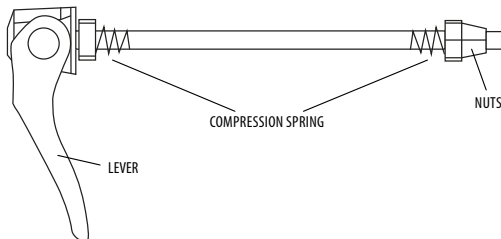


Quick Release fixing procedure

THRU AXLE



QUICK RELEASE



Tightening torques

There are 3 main types of fixing the wheel to frame: Quick Release (QR), traditional system with nut and true axle system as seen in *Image 6C*. The correct fixing allows the bicycle to be ridden safely.

For the traditional nut system the recommended torque is 40-45 Nm.

For thru axle (allen key) systems, the tightening torque is always indicated in the component.

For Quick Release systems, maximum torque is usually not indicated. The lever closing mechanism is characterized by a cam locking mechanism that when a de-closing position has been passed, ensures that it does not reopen without a contrary force. See *Image 6F(a)/Image 6F(b)/Image 6F(c)*.



Image 6F(a) - Opening the Quick Release lever



Image 6F(b) - Closing the Quick Release lever



Image 6F(c) - Closing the Quick Release mechanism with the palm of your hand

Tightening torque values* in [Nm] - Wheel system		Maintenance	
Component	Generic*	Control to do	Period
Wheel to frame - Nut system	30 - 45	Torque	Monthly**
Wheel thru axle to frame	see component *	Torque	Monthly**
Frame to Quick Release system	-	Visual (see 6F)	Monthly**
Wheel hub	-	Lubricate	Monthly
Bike tire external aspect	-	Visual (see 6E)	Before Use
Bike tire - Pressure	-	Pressure	Before Use
* If component have torque indications, use those. These values are only referential.			
** If not removed. If not after each time is installed/removed.			

Table 6F - Wheel system torque and periodic controls to be done

What to control before each use:

Before every ride check that the wheel tyre pressure is correct. Also verify no damage or wear is present as in *Image 6G(a)/Image 6G(b)*.

Verify the correct fixation of the wheels to the frame and fork by pushing them from different directions as shown in *Image 6G(c)*. If one of the wheels is loose, adjust the fixing mechanism (see the previous section) and repeat the control operation.



Image 6G(a) - Visual control on MTB tire

If movements/sleak continues, schedule an extraordinary intervention to the wheel by a dealer/technical point service. Check if spokes are broken or damaged or loose. Also verify by turning the wheel in the air (by handling the bike from frame) that no bumps or deformation are present in the tyre or rim.

General maintenance:

It is vital for the proper work of the system to do a periodical maintenance.

In addition to the controls before each use, monthly control of the wheel is required being one of the main systems acting in relationship with the terrain. Check: both wheels are rolling freely by holding the bike from the frame one by one. The spinning should be smooth and without sounds and no bumps should be present in the entire wheel diameter. In the same control, verify that the wheel isn't crooked. Lubrification of the hubs is mandatory to be done monthly. The spokes tension should be controlled by a technician every 2 months.



Image 6G(b) - Visual control on MTB tire

⚠ DANGER: Normal forces when riding work in each wheel spoke in a different way. Be sure to make periodic checks of the wheel spokes tension. Damage in a spoke can compromise the whole system, your safety, even death can occur.

⚠ ATTENTION: If you do not use the bicycle for long periods, it is recommended to store the bicycle hanging. Weight of the bicycle could damage the tyre.

⚠ ATTENTION: Don't use aggressive products to clean the tyre, some of them can affect the tyre chemistry composition and produce damages or fast aging.

Transportation recommendations

If the wheel is removed for transportation:

- pay attention to not lose any components.
- If the system is made with a thru axle, insert the axle in the frame/fork even without wheel in order to avoid the frame/fork to be compressed and damaged.

⚠ WARNING: Pay attention to the external components (ex. brake disc / cassette / Quick Release) that can easily be damage, when taking the wheel out.

⚠ WARNING: If transporting your bike by airplane, remember to totally deflate the wheels (flight pressures can make the inner tube to explode).



8. ACCESSORIES SYSTEM

Function

The accessories are components that allow a better rideability and the possibility to customize the bike to make it unique and to satisfy specific needs.

How its made

All of the accessories are being studied to make your bike more ergonomic and safe. There are infinite options in the market to get your bike personalized.

All the accessories could be adjusted, changed or upgraded based on the physical characteristics of the final user and the special requirements.

Upgrades that replace original components are possible but please be sure that the new accessory will respect all the necessary bike specs and your country regulation.

To understand compatibility please see the *General warnings* section in this chapter for each accessory.

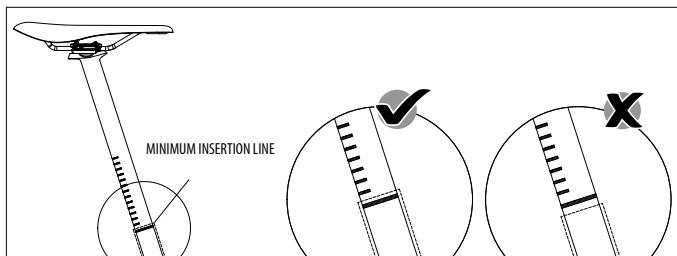


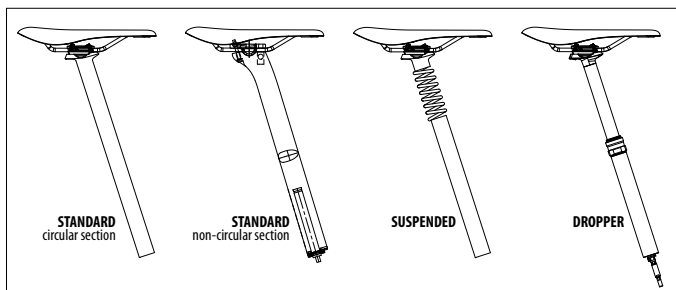
Image 8E(a) - Correct leg/saddle position

User adaptation

As anticipated in other chapters, the correct sitting position on your bike is extremely important. The principal condition to have the bike properly fitted is the frame measure, because the rest of the components could be adjusted/regulated according to the final user's physical characteristics.

For a correct regulation of the seatpost height it is recommended to use the shoes and bike clothes that you are going to use when riding the bike: sit on the saddle and put your heel on the pedal in the lowest position - your leg should be fully extended. See *Image 8E(a)*.





⚠ ATTENTION: This adjustment needs the usage of an essential bike tools kit to correctly fix the seatpost clamp and seat. Please respect the tightening torques as indicated below.

For a professional and racing saddle's position it is recommended to contact a bike specialist, who could adjust the saddle position properly tested and based on your physical characteristics and on your own bike.

⚠ DANGER: As you can see in the *Image 8E(b)*, the seat post should never be positioned exceeding the minimum insertion mark in correlation with the frame structure. Exceeding this can provoke serious injuries, permanent damage of the product and even death.

General warnings

Removing the original systems combination, such as protective parts (chainguard, chainring protector or mudguards), is not recommended.

CHAINGUARD: if your stock bike does not have it, if you want to install it, please be sure that it will be in accordance with the chainwheel teeth and properly fixed on the frame. In case of need consult your reseller.

⚠ WARNING: Be sure that does not interfere with any rotative components to guarantee a safe rideability to the user.

⚠ DANGER: Never remove the chain-guard, especially on child bikes. They are studied to prevent damage/injuries that could be caused by the rotative parts and chain.

MUDGUARDS: if your stock bike does not have them, if you want to install them please be sure that they will be in accordance with the wheel size and correctly fixed to the frame and fork.

⚠ WARNING: Be sure that does not interfere with any rotative components to guarantee a safe rideability to the user.

SEAT POST: if you replace the original seat post, respect the original diameter. Installing seatpost longer than the original can provoke the failure of the frame causing injuries and even death. No warranty will be recognized if longer seat posts are installed.

⚠ WARNING: Never exceed the minimum insertion, frame damages and injuries could happen.

SEAT: verify the correct angulation of it in order to be able to have the best riding position, for the proper position please never hesitate contact a specialist.

⚠ DANGER: If your bike has a saddle with spring coils, be sure that the springs coils are covered if you decide to install a child-seat to prevent trapping of fingers.

SEAT POST CLAMP: properly tighten according to the specifications for bolt tightened models (4Nm) and enough tighten for the Quick Release models.

⚠ WARNING: Be sure before each ride that the seat post clamp will be correctly fixed on seat tube in order to prevent the insertion of the seat tube on the frame.

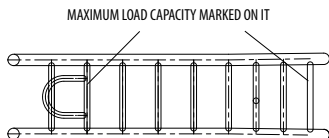
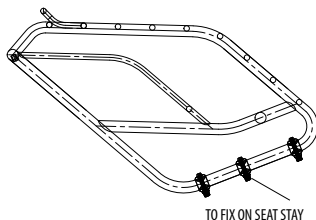
REAR CARRIER: for rear carrier not approved for child seats the maximum allowed weight marked on it is 25kg, never exceed this limit.

For rear carrier approved for child seats the maximum allowed weight marked on it is 27kg (child+seat), never exceed this limit.

⚠ WARNING: Never exceed the maximum allowed weight marked on rear carrier.

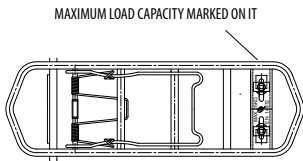
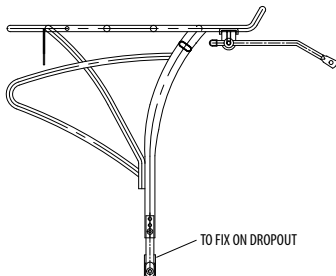
⚠ WARNING: Rear carrier to fix on seat tube are not allowed because could damage the frame.

TYPE 1: REAR CARRIER INTEGRATED ON SEAT STAY



MAX 25 Kg: NOT APPROVED FOR CHILD SEATS
MAX 27 Kg: APPROVED FOR CHILD SEATS

TYPE 2: REAR CARRIER FIXED IN THE DROP OUT

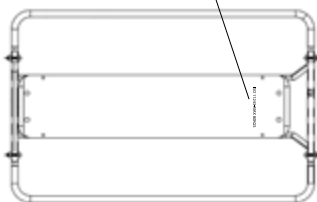


MAX 25 Kg: NOT APPROVED FOR CHILD SEATS
MAX 27 Kg: APPROVED FOR CHILD SEATS

TYPE 3: REAR CARRIER

MAX 80 Kg: APPROVED FOR CHILD SEATS

MAXIMUM LOAD CAPACITY MARKED ON IT



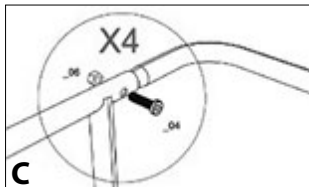
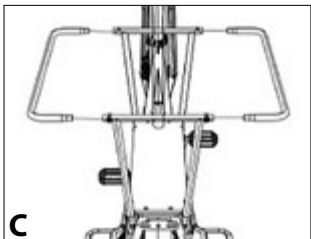
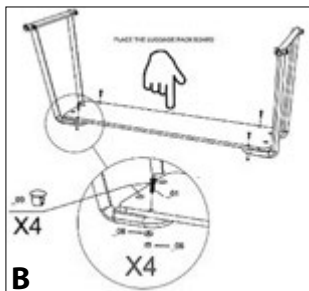
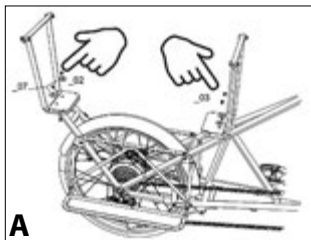
ISO 11243: 2023
MAX 80 Kg

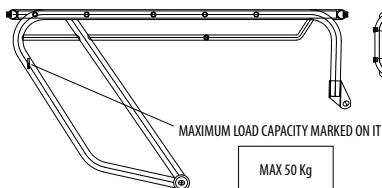


WARNING: Do not exceed the maximum permissible load of 80 kg.
Two infant seats can be attached (not available as optional accessories).

Rear carrier assembly procedure:

- 1- Position the rear carrier components on the frame as shown in image (A).
- 2- Position the carrier top and secure it with the supplied screws as shown in image (B).
- 3- Mount the side bars and secure them with the supplied screws as shown in image (C).



TYPE 4: REAR CARRIER FIXED ON SEAT STAY

WARNING: Do not exceed the maximum permissible load of 50 kg.

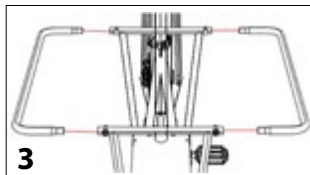
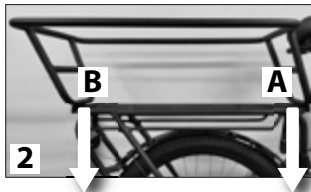
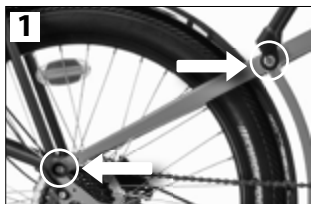
Rear carrier assembly procedure:

1- Position the rear rack on the frame as shown in image (1), attach the rack to the frame using the supplied screws on both sides.

Side bar fixing procedure:

1- Position the side bar supports marked A and B respectively according to the picture (2), securing each with the screws supplied. Do not tighten the screws at first to leave some play for general assembly.

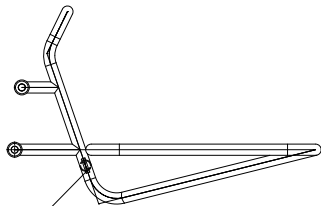
2- Mount the side bars and secure them with the screws provided as shown in the picture (3). Do not forget to tighten all screws.



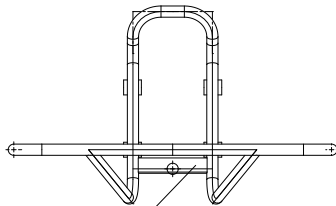
FRONT CARRIER: maximum allowed weight marked on it.

 **WARNING:** Never exceed the maximum allowed weight marked on front carrier.

TYPE 1: FRONT CARRIER

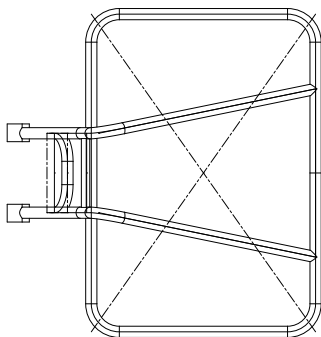


MAXIMUM LOAD CAPACITY MARKED ON IT

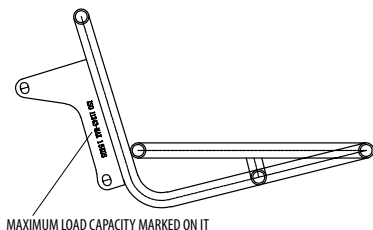


MAXIMUM LOAD CAPACITY MARKED ON IT

ISO 11243: 2023
MAX 10 Kg

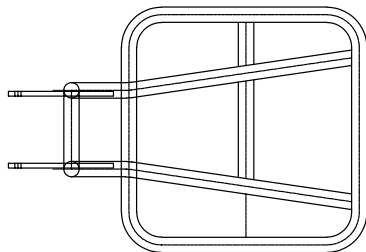
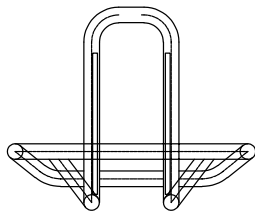


WARNING: Do not exceed the maximum permissible load of 10 kg.

TYPE 2: FRONT CARRIER

MAXIMUM LOAD CAPACITY MARKED ON IT

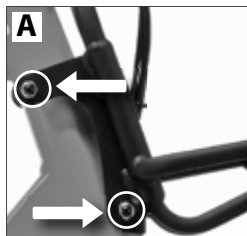
ISO 11243: 2023
MAX 15 Kg

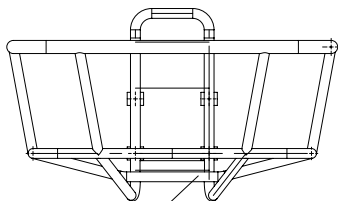
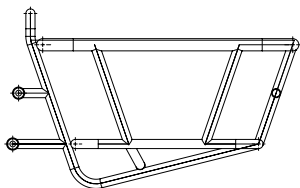


WARNING: Do not exceed the maximum permissible load of 15 kg.

Front carrier assembly procedure:

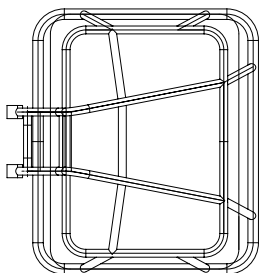
1- Position the front rack on the frame as shown in image (A), attach the rack to the frame using the supplied screws on both sides.



TYPE 3: FRONT CARRIER

MAXIMUM LOAD CAPACITY MARKED ON IT

ISO 11243: 2023
MAX 15 Kg

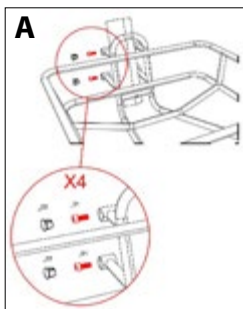


WARNING: Do not exceed the maximum permissible load of 15 kg.

Front carrier assembly procedure:

1- Loosen the screws already mounted on the bike and position the front rack on the frame.

2- Secure the pannier rack to the frame using the supplied screws as shown in image (A).



TYPE 4: FRONT CARRIER

 **WARNING:** Do not exceed the maximum permissible load of 10 kg.

BASKETS: need to be fixed on the front or rear carrier.

 **WARNING:** Never exceed the maximum allowed weight marked on front carrier.

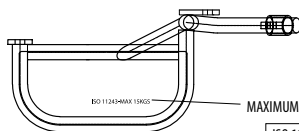
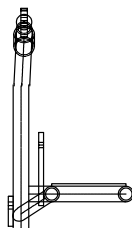
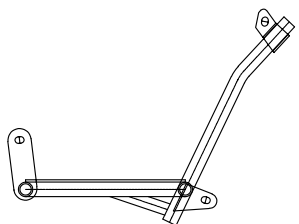


*The basket model is for illustrative purposes only

FOOTREST: need to be fixed on the seat stay.

⚠ WARNING: Never exceed the maximum allowed weight marked on.

TYPE 1: FOOTREST



MAX 15 KG: LOAD CAPACITY ON EACH FOOTREST

ISO 11243: 2023
MAX 15 Kg

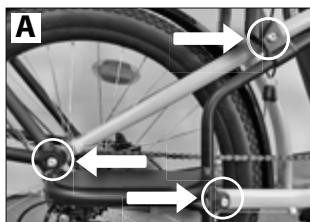
⚠ WARNING: Do not exceed the maximum permissible load of 15 kg.

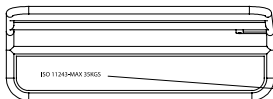
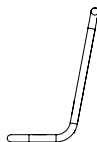
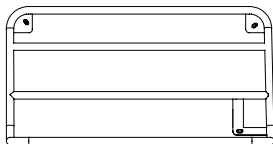
Footrest assembly procedure:

1- Position the footrest on the frame as shown in the image (A), fasten the footrest to the frame using the screws supplied.

To fasten the rear side, unscrew the footrest fastening screw, place the footrest on the same spot and fasten again using the longer screw supplied with the accessories.

Repeat the same operation for the footrest on the opposite side.



TYPE 2: FOOTREST

MAX 35 KG: LOAD CAPACITY ON EACH
FOOTREST

MAXIMUM LOAD CAPACITY MARKED ON IT

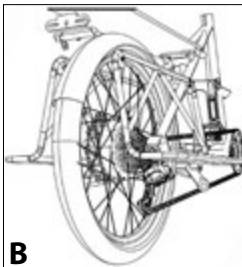
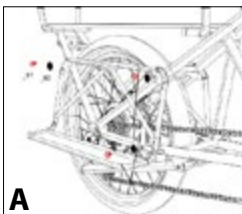
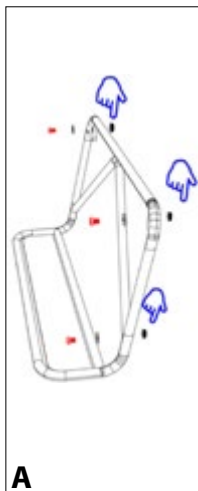
ISO 11243: 2023
MAX 35 Kg



WARNING: Do not exceed the maximum permissible load of 35 kg.

Footrest assembly procedure:

- 1- Unscrew the screws already mounted on the bike, position the footrest on the frame as shown in the pictures (A).
- 2- Position the footrest and fasten it with the supplied screws as shown in the picture (B).



KICKSTAND: there are many types of fixing to the frame, be sure to use the correct one - in case of no fixing on the frame please use a kickstand to clamp on the chainstay.

⚠ WARNING: Be sure that it does not interfere with any rotative components before start riding.

⚠ WARNING: Be sure that it does not interfere with any rotative component and easy to safety manage even riding the bike.

⚠ WARNING: Some countries or even local authorities can demand the installation of the lights (front and rear). Please consult the road regulation of the country before starting riding the bike on public roads.

⚠ WARNING: Some countries or even local authorities can demand the installation of the reflectors (on the wheels spoke and on the front end rear of the bike). Please consult the road regulation of the country before starting riding the bike on public roads.

TYPE OF KICKSTAND



Side stand



Double center stand



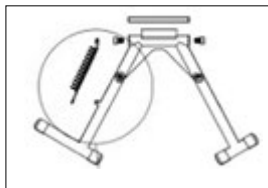
Rear rack-integrated kickstand



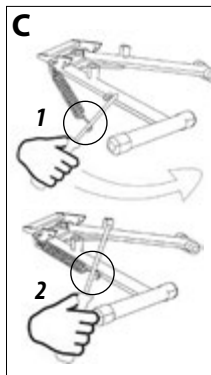
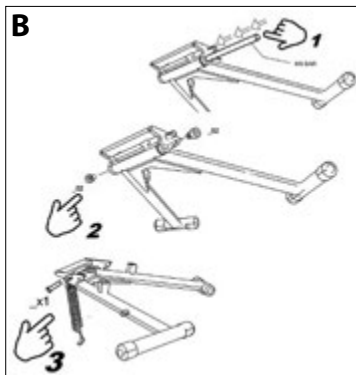
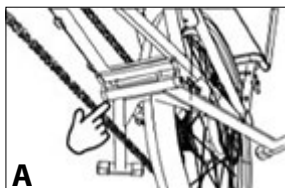
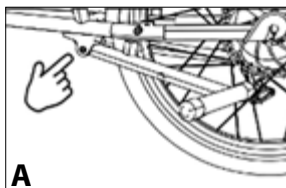
*Adjustable frame-mounted side stand
(18–40 mm)*



Adjustable universal side stand

Kickstand assembly procedure:

- 1- Position the stand on the frame as shown in image (A).
- 2- Mount the stand by inserting the internal bar and secure it with the screws supplied as shown in image (B).
- 3- Follow the method described in image (C) to complete assembly.



TRAILER : it is not recommended to use a trailer on a bike, it could damage the frame and compromise the rideability of the bike.

 **WARNING:** The road regulations of some countries prohibit its use.

LUGGAGE: could be mounted on the rear carrier, please respect the maximum weight marked on the rear carrier.

 **WARNING:** Pay attention that it doesn't interfere with the wheel.

BIKE PACKING BAG: only the models to fix on the frame are allowed, please be sure that the bag does not interfere with the rotative components.

 **WARNING:** Bikepacking bag on seatpost are not allowed (could damage the frame and seatpost because of an extra force that works on the seatpost).

 **WARNING:** Bike packing bag on the handlebar are not allowed, could compromise the rideability and stability of the bike.

CHILD SEAT: are not recommended. Mounting these kinds of accessories are at full responsibility of the final user.

 **DANGER:** Before mounting a child seat on the rear carrier, ensure the maximum permitted weight. See "REAR CARRIER" on page 43.

 **DANGER:** If you decide to install this accessory in the rear carrier, be sure to cover any coil springs under the saddle to prevent trapping of fingers.

 **WARNING:** Some countries or even local authorities can demand the installation of a bell or a specific bell type. Please consult the road regulation of the country before start riding the bike on public roads .

HANDLE GRIP: are studied to absorb good parts of the micro vibration caused by the asperities of the ground and to guarantee a correct grip to safety ride the bike.

AERODYNAMIC EXTENSION: special attention is suggested in case of aerodynamic extension used on racing bicycles that will adversely affect the rider's response to steering and braking, please be sure to use them only in safety condition.

User adaptation

Tightening torque values* in [Nm] - Steering system		Maintenance	
Component	Generic*	Control to do	Period
Seat post clamp nut - Frame	20 - 24	Torque	Monthly**
Saddle support - Seatpost	10 - 14	Torque	Monthly**
Accessories (luggage rack, fenders, mudguards)	6 - 8	Torque	Monthly**
Kids bike stabilizers - Rear wheel axle	10 - 12	Torque	Monthly**
* If component have torque indications, use those. These values are only referential.			
** If not removed. If not after each time is installed/removed.			

Table 8F - Accesories system torque and periodic controls to be done

What to control before each use:

Before each use it is important to control that all the principal components will be correctly tightened, and all of them properly works.

If your bike has a luggage rack installed in the front or in the back, please control carefully if everything is in place. Small objects can fall from the carriers, get stuck in the wheels and provoke serious injuries.

Control that the lights are on before start riding, in case of light battery system please periodically check their charge status.

General maintenance:

Clean all the components after each use to prevent their degradation; dry them after each wash to prevent rust/oxidation; periodically check the screws tightening torque.

Transportation recommendations

It is possible to remove some components to optimize the transportation, for example: removing the seat tube and the seat could help you to save space.

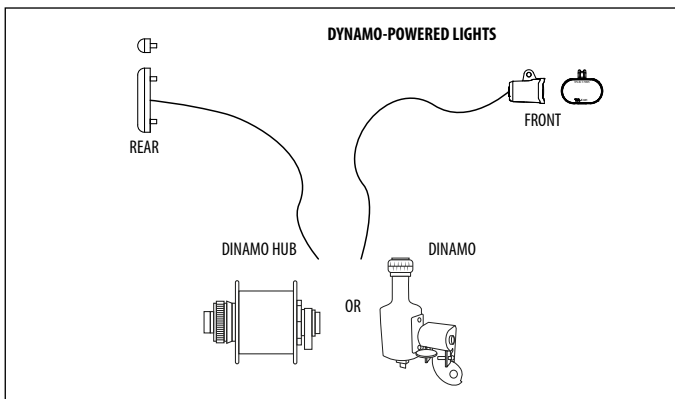
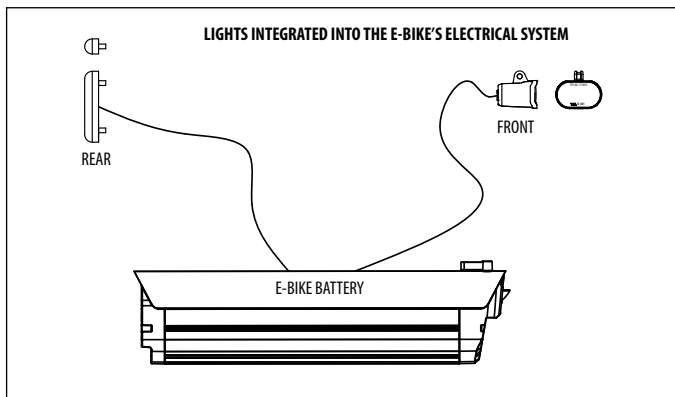


ATTENTION: Pay attention to don't lose any removed component.



WARNING: Remember to re-install and correctly fix all the components.

9. LIGHTS



LIGHTS POWERED BY INTERNAL BATTERIES

REAR LIGHT



+

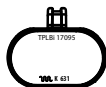


LIGHT ON THE FRAME OR REAR CARRIER

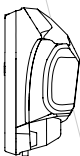
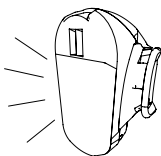
FRONT LIGHT



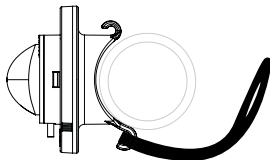
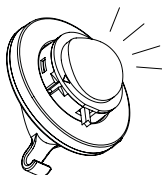
+



LIGHT ON THE FRAME OR FRONT CARRIER



LIGHT ON THE SEATPOST



LIGHT ON THE HANDLEBAR

10. MAINTENANCE FOR CORRECT USE

MAINTENANCE

This bicycle must be serviced regularly both for safety and to increase its service life. It is important to check mechanical parts regularly to ensure that worn parts or parts showing signs of wear are replaced. When replacing a component, it is important to use original parts to protect the performance and reliability of the bicycle. Please use appropriate replacement parts for tyres, inner tubes, transmission elements and various elements of the braking system.



ATTENTION: Always remove the battery before replacement.

CLEANING

To prevent corrosion of the bike, it should be rinsed regularly with fresh water, especially if it has been exposed to seawater. Cleaning should be done with a sponge, a basin of lukewarm water and a water jet (not pressurised).



ATTENTION: Be especially careful not to use a highly pressurised water sprayer.

LUBRICATION

Lubrication is essential on the various moving parts in order to prevent corrosion. Regularly oil the chain, brush the sprockets and cranksets, and periodically put a few drops of oil into the brake and derailleur cable housings. We recommend that you start by cleaning and drying the components to be lubricated. Grease should be used for the other components. We recommend using specific oil for the chain and derailleur. Grease should be used for the other components.

OVERHAULS

To ensure safety and to keep components in good working order, your pedal-assisted bicycle should be checked regularly by your dealer. The bike should also be serviced regularly by a qualified technician.

First overhaul: 1 month or after 150 km:

- Checking the tightness of the elements: crank, wheel, pedals, handlebars, saddle collar;
- Checking the functioning of the drivetrain;
- Checking and adjusting the brakes;
- Checking the pressure and/or alignment of the wheels.

Every year or 2000 km:

- Checking wear levels (brake pads, transmission, tyres);
- Checking the function of the electrical assistance;
- Checking the bearings (pedals, wheels, headset);
- Checking the cabling (brakes, derailleur, suspension) or the hydraulic brake exhaust pipes;
- Checking the pressure and/or alignment of the wheels.

Every 3 years or 6000 km:

- Checking wear levels (brake pads, transmission, tyres);
- Checking bearings (pedals, wheels, headset, pedals);

- Checking cables (brakes, derailleur, suspension or hydraulic brake lines);
- Replacing drive train (chain, freewheel, crankset);
- Checking the function of the electrical assistance;
- Changing tyres;
- Checking wheel wear (spokes, rim);
- Wheel pressure and/or alignment;
- Changing brake pads.

11. WARRANTY

As a valued customer of Alete Bikes, you will benefit from a warranty that protects your bicycle from manufacturing defects, according to the terms detailed below. In accordance with Directive 2019/771/EU, we are committed to providing high quality products and reliable service. We also inform you that we have assigned a category to each of our bicycles based on the intended use of the model. We invite you to check which category your bicycle belongs to:

CATEGORY 1

RACING BICYCLES, RECREATIONAL BICYCLES AND CITY BIKES

Suitable for use exclusively on paved surfaces such as:

- Paved roads and cycle paths.

Where the wheels are in constant contact with the ground (no jumps, no pedalling on one wheel).

CATEGORY 2

CROSS AND TREKKING BIKES, CYCLOCROSS BICYCLES, GRAVEL BIKES

Suitable for use on paved surfaces such as:

- Paved roads and cycle paths;
- Compact terrain, gravel, sandy or dirt tracks, marked for cycle traffic.

Where the wheels remain in constant contact with the ground. Descending from an obstacle is automatically permitted in the short term up to a maximum height of 15 centimetres. (without jumping, without pedalling on one wheel).

CATEGORY 3

MOUNTAIN BIKE HARD TAIL / FULL (LIGHT OFF ROAD) WITH SUSPENSION SUSPENSION MAX. 130 mm OF TRAVEL

Suitable for use on surfaces such as:

- roads or tracks with uneven surfaces, dirt, gravel, sandy, earthy (e.g. forest roads, mule tracks);
 - cycle paths of medium difficulty, technical trails where obstacles such as roots, bumps, rocks and steps may be present;
- Where the wheels may lose contact with the ground to a greater extent due to unevenness of the terrain such as roots, bumps, jumps, steps up to 0.6 m.



ATTENTION: Please note that with the use of rear stands, mudguards, luggage racks and bicycle trailers, the intended use of the model always changes to category 2.

CATEGORY 4

MOUNTAIN BIKES WITH MAX. 160 mm of travel

Suitable for use on:

- cycle-hiking trails of a high degree of difficulty, technical trails with the constant presence of obstacles such as roots, bumps, rocks and steps;
- bike parks suitable for use in this category where there are jumps, steps up to max. 1 m.

CATEGORY 5

CARGO BIKES WITH A MAXIMUM LOAD OF UP TO 180 Kg (load may vary depending on model)

Suitable for use specifically on paved surfaces such as:

- paved roads and cycle paths.

Procedure for Warranty Claims

In the event that warranty work is required for your bicycle, it is advisable to initiate the procedure through the point of sale where the purchase was made.

The point of sale will provide you with all the relevant information.

The request must include:

- Lot number of the product needed to identify the product code that can be found on the sticker on the frame or in the user and maintenance booklet, this information is necessary to identify the bicycle.
- Photo of the product from the side.
- Photo of the proof of purchase: receipt or invoice.
- Photo/video of the defect found.

Cases of Exclusion from the Warranty

- Damage resulting from improper use, negligence, or improper maintenance, in this regard we invite you to check the specifications of use in the instruction manual of the bike.
- Unauthorized structural modification of frames and components, included painting modifications.
- Normal or natural wear and tear of the components.
- Damage resulting from professional use or rental use of the bicycle.
- Loads exceeding the maximum capacity and competition use.
- For frames, corrosion defects due to natural wear and tear of the component in question are excluded.
- For shock absorbers, please refer to the operating and maintenance instructions in the supplier's manual.
- Problems arising from failure to observe the operating and maintenance instructions.

Routine maintenance

We recommend that you have your bicycle checked regularly.

This helps keep your bicycle in perfect condition and can extend the life of its components. Remember that routine maintenance is the responsibility of the end user.

First use

For detailed instructions on how to set up your bicycle components, please refer to the owner's manuals provided at the time of purchase. Correct assembly and initial maintenance are essential for the safety and proper functioning of your bicycle. We strongly recommend that you follow these instructions to maintain the validity of your warranty.

Batteries

In order to best preserve your battery:

- Do not connect the positive terminal directly to the negative terminal of this battery;
- Do not place the battery in a place with high temperatures, in an environment exposed to direct sunlight or near heat sources;
- Do not leave the battery in a damp place or in contact with any liquids;
- Do not open the battery without the guidance of an authorised technician;
- Store the battery in a dry and temperate environment;
- Charge the battery monthly;
- Charge the battery exclusively with the charger supplied with your bicycle.

Limitation of Liability

The manufacturer is not liable for any damage and/or loss resulting from the malfunction of the product or any of its parts.

Online Services via QR Code

The product always comes with a QR Code that allows you to download the general user and maintenance manual. Where available, an additional QR Code may be provided for product registration and warranty extension.



ATTENTION: Scanning the QR Code requires an active internet connection.

Contact us

For further information or if you have any questions regarding the warranty, please contact us:

ITALY: service@aletebikes.com - +39 0426 317511

EUROPE: aftersales@aletebikes.com - +39 0171 911383

Warranty Period per Component

Below is the warranty period for each component of your bicycle, starting from the date of original purchase:

Recognised period from the date of purchase:	Before first use	15 days	2 years	10 years
Battery			X	
Controller/Display/Motor/Electrical connections			X	
Frame				X
Rigid fork				X
Suspension fork			X	
Shock absorbers			X	
Gear			X	
Hydraulic brakes			X	
Mechanical brakes			X	
Brake pads (disc) or brake pads (v-brake)		X		
Tightening			X	
Tyres	X			
Hubs			X	
Spokes		X		
Inner tube	X			
Rims		X		

Recognised period from the date of purchase:	Before first use	15 days	2 years	10 years
Chain		x		
Pedals		x		
Cables		x		
Saddle		x		
Seat post/Seat post clamp/Collar			x	
Rear carrier			x	
Fender		x		
Carter			x	
Bell		x		
Lights		x		
Grips		x		
Headset			x	
Handlebar			x	
Stem			x	
Bottom bracket			x	
Crankset			x	
Freewheel			x	
Deraillleur			x	
Gear levers			x	

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Cidi Esperia S.p.A.

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