Original instruction manual

City bike, Trekking/ATB bike
Mountain bike, Racing bike
Youth bike
ISO 4210:2014

Children’s bike
ISO 8098:2014

Toy bikes
ISO 8124:2014

Pedelec / E-bike
EN 15194
Bicycle components of the city and tour bicycles

The bike you've purchased, may it be a city/tour bike, trekking/ATB bike, Holland bike, single-speed/fixie bike, child bike, pedelec/e-bike, could have a different appearance. This manual only applies to the bicycle for which it was issued.
Bicycle components to mountain bikes (MTB)

1. Top tube
2. Down tube
3. Seat tube
4. Head tube
5. Chain stays
6. Seat stay

The bike you’ve purchased, may it be a mountain bike, all mountain bike, enduro mountain bike, dirt/street/freestyle bike, cross bike/ATB bike, fat bike, single-speed/fixie bike, or a pedelec/e-bike, could have a different appearance. This manual only applies to the bicycle for which it was issued.
The bike you've purchased, may it be a racing bike, triathlon / TT bike, cyclocross bicycle, single-speed / fixie bike, or a pedelec/e-bike, could have a different appearance. This manual only applies to the bicycle for which it was issued.
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**Bicycle components to the city and tour bike** C2

**Bicycle components to the mountain bike (MTB)** C3

**Bicycle components to the racing bike** C4

**Legal protection tips**

**Genesis | Nakamura**

1
Dear customer,

To begin, we would like to provide you with some important information about your new bicycle. This will help you to use the technical equipment better and avoid risks. Please read this operating manual carefully and keep it in a safe place for later reference.

The bike you have received has been assembled and adjusted according to your body type. If this isn’t the case, please contact a bike shop to have this necessary work done on your bike.

It is assumed that the bike’s user has acquired the basic and needed knowledge to operate bicycles. All persons using, • repairing or maintaining this bicycle • clean • or disposed of, must have fully taken note of and understood the content and meaning of these operating instructions. If you have further questions or have not understood something completely, it is imperative for your own safety that you ask a specialist retailer.

All the information in these operating instructions refers to the bike’s assembly, technical equipment, care and maintenance. Please pay close attention to this information; much of it relates to safety. Failure to follow these instructions may lead to serious accidents, falls and economic loss.

Due to the complex technology built into modern bicycles, we have only described the most important points.

Also this manual only applies to the bicycle for which it was issued.

The technical details concerning the parts installed to the bike can be read in the attached instructions and reference materials provided by each of the bike’s manufacturers. If something is not clear to you, please ask your specialist retailer.

Before riding your bicycle on public roads, you should inform yourself about the applicable national regulations in your specific country.

To begin, however, we would like to provide you with some information relating to cyclist:
• Always wear a fitted and suitable bicycle helmet and use it each time you ride.
• Inform yourself on how to properly wear the helmet in the instructions provided by the helmet’s manufacturer.
• Anytime you ride, always wear bright clothing or sports clothes with reflective elements; This is important for BEING SEEN.
• Tight clothes and trouser clips are mandatory to wear. Your shoes should have an anti-skid, stiff sole.
• Do not ride hands-free.

Even if you are an experienced bike user, it is essential that you first read the chapters ‘Before the First Ride’ and do the inspections described in the chapter ‘Before Each Ride’!

Be conscious of the fact that as a cyclist on the public road, you are exposed to unexpected dangers.

Protect yourself and others by riding responsibly and safely.

Instructions for parents and guardians:
As a legal guardian, you are responsible for watching over the child and his or her safety. This includes taking care of the bike’s technical condition and supervising the rider.

In the section titled “Children’s Bikes”, take careful note of what you and your child need to pay attention to.

You should be certain that your child has learned how to ride the bicycle safely and follows instructions. Ensure that your child has learned and understood how to safely and responsibly ride the bicycle in the environment in which it will be used.
• Take note that children under the age of eight must ride their bike on the pavement. Children between eight and ten years old may ride the bike on the sidewalk.
• Children must get off the bike when they cross the road.
Safety information

Please thoroughly read all of the warnings and instructions in this operating manual before you begin riding the bike. Always keep the operating instructions close to your bicycle so that they are available when you need them.

**Before the first ride, be sure to read the chapters “Before the First Ride” and “Before Every Ride”!**

If you give your bicycle to another person, hand them the operating instructions, as well.

You will find four different kinds of notes in these instructions – one gives you important information about your new bicycle and its use. Another tells you about the damages that could be done to the components and environment. The third warns about possible falls and serious damage, including physical injury. When you see these symbols, there is always a risk that the danger described may occur. The field to which the warning applies has a grey background.

These notes are structured as follows:

**Important:** This symbol provides you with information about the handling of the product or the part being covered in the instruction manual and should be paid close attention to.

**Warning:** This symbol warns of misuse which could result in damaging the product or the environment.

**Danger:** This symbol means your life or health could be put in danger if you don’t follow the instructions properly or ignore the legal requirements.

**Important bolted connection!** Here, you must tighten with an exact torque. To find out the correct tightening torque, you can either look on the bike part itself or in the table listing the tension values which is found on page 40. A torque wrench must be used to apply the exact tightening torque value. If you don’t have a torque wrench, bring your bike to a bike shop for repair. Parts that have been installed incorrectly may fall off or break. This may result in severe falls.

Check that the quick releases are fastened and secured each time your bike has been left unattended – even if it is for just a short time. Regularly make sure that all screws and parts are securely fastened.

Be aware that all parts made of composite materials (e.g., carbon fibre) usually require low tightening torque values (see p. 40). Some typical parts that are made of carbon fibre include the handlebars, stem, seat post and saddle rails, frame and fork, cranks. Ask your retailer for instructions on handling these kinds of materials.

These operating instructions have been written with the assumption that the reader can already ride a bicycle. These are not instructions on how to ride a bike. Neither are they intended to inform the reader on how to assemble or repair the bicycle.

Always be aware that riding a bicycle is dangerous. As a cyclist, you are particularly at risk. Always be aware that you are safer in a car than you are on a bicycle. While on a bike, you do not have an airbag or body shell. Nevertheless, you travel faster than pedestrians while on the road. Pay particular attention to others on the road.

Never ride with headphones. Never talk on the phone while riding. Never ride your bike if you are not able to completely control it. Under no circumstance should you ride your bike if you took medicine or are under the influence of alcohol or drugs.

- Under wet and slippery conditions, alter your way of riding accordingly. In this case, you should ride slower and apply your brakes earlier and more gradually as the braking distance becomes significantly longer.
- Ride at an appropriate speed and in concordance with the terrain and your riding capabilities.
- Do not ride hands-free.
Modern braking systems might be more powerful or have a different functionality than those that you are used to. Please get to know the brakes on a safe piece of land before setting off on your first ride with the bicycle!

If you use a bicycle with carbon fibre rims, please note that this material provides a significantly weaker braking effect in combination with rim brakes than aluminium rims do!

Remember that braking on wet and slippery surfaces may be dangerous, different and in particular, not as effective. Please take the possibility of longer braking distances and slippery surfaces into account when riding!

If rubber or plastic pedal covers have been put on your bike, familiarize yourself with their grip. When wet, rubber and plastic pedals are very slippery!

Modern bicycle equipment is high tech! working on it requires technical knowledge, experience and special tools. Therefore, do not work on your bike by yourself. Bring your bike to a specialist workshop if it is in need of repair, maintenance or restoration.

Before the first ride

In addition, pay close attention to the operating instructions by each of the components’ manufacturers. These are included with the bicycle or available on the internet.

Your specialist bicycle retailer will be happy to answer any further questions you have after reading this manual.

Please ensure that your bicycle is ready for use and is adjusted to fit your body.

That means:
• Setting the position and fixture of the seat and handlebars
• Checking the assembly and settings of the brakes
• Securing the wheels into the frame and fork

To ensure that you enjoy a safe and comfortable riding position, please allow your specialist retailer to set up your handlebars and stem.

Adjust the seat to a safe and comfortable position for you (see page 13).

Allow your specialist retailer to set up the brakes so that the brake levers are always within easy reach. Ensure that you know which lever operates which brake (right/left)!

As a standard, bikes are made with two hand brakes, the left one connects to front wheel and the right one connects to the back wheel. Despite this general rule, however, you should still check what wheels the brakes are connected to since this standard isn’t always followed.

If you are riding a single speed or a “fixie”, please familiarise yourself with its behaviour under braking before your first ride!

To ensure that the wheels are securely fastened in the frame and fork. Check that the quick releases and all important nuts and bolts are secure (see page 10 and 40).

Lift your bicycle up slightly and drop it onto the ground from about 10 cm in the air. If it rattles or makes another unusual noise, ask a specialist retailer to identify and fix the problem before you ride.

Push the wheels forwards with the brakes applied. The back brake should completely prevent the back wheel from moving, while the front brake should lift the back wheel off the ground with its braking effect. Please take an initial test ride in a safe place where you can familiarise yourself with the new brakes! Modern brakes can behave completely differently under braking than those that you are perhaps used to. The bicycle’s steering should not rattle under braking or exhibit any play.

Check the air pressure in the tyres. You will find instructions as to the correct tyre pressures on the sides of the tyres. Please adhere to the required minimum and maximum pressure! If you cannot find any recommended pressures, 2.5
Before each ride

Before every ride, please check that:
- The lights and bell are working and safely secured
- The brakes are working safely and are properly secured
- The cables and fittings are not leaking if you have a model with hydraulic brakes
- Damaged tyres and rims, concentricity and damage caused by riding over foreign objects (particularly after riding off-road).
- The tyres have a sufficient tread depth
- The suspension components are working properly and are safely secured
- All bolts, nuts, quick release axles and quick releases are tight (see page 10 and 40)
- Check the frame and fork for dents, cracks and damage
- The handlebars, stem, seat post and seat are both correctly and securely fastened as well as set up in the right position
- The seat post and seat are secure. Try turning the seat or tipping it upwards or downwards. It should not move.
- When you are driving with clipless/step-in pedals: Functional testing is required. The pedals should release easily and smoothly.

If you aren’t completely certain if your bike is in perfect condition, it is best not to ride it. Allow your bike to be inspected by a bike specialist.

It is particularly important if you use your bicycle a lot, either through sports riding or daily use, that you regularly have all the important parts checked by a specialist retailer.

Frame and fork, suspension components and other parts relevant to your safety such as brakes and wheels are subject to heavy wear, which can impact the operating safety of these parts.

If you overuse the components’ intended amount of use or service life, they may suddenly fail to function properly. This can lead to falls and serious injury!

Please make these checks before continuing after a fall or if your bicycle falls over!

Aluminium parts cannot be safely bent back into shape, while carbon components can sustain damage which is not recognisable to the eye.

Have your bike checked by a bike specialist.
When you have fallen

Check the whole bicycle for alterations. There may be dents, cracks in the frame and fork, or bent components. Also, when parts, such as the handlebar or saddle, have moved or twisted, make sure that they are still working properly and securely fastened.

- Look carefully at the frame and fork. Deformations can be more clearly if you look at the bike’s surface from various angles.
- Look to see whether the saddle, saddle post, stem or handlebars are still in the correct position. If this is not the case, do NOT twist or bend the component back into its proper position without untightening the screw connections belonging to the part. When tightening the component, it is imperative to observe the prescribed tightening torque. The relevant figures can be found on page 40 and in the chapter “Quick Release Levers”
- Check that both wheels are properly and securely aligned within the frame and forks.
- Lift the front and back of the bike at the same time and turn the front and back wheels. The rim must be able to run through the brakes in a straight line and without hitting them. The tyres must not touch the brakes. You can see from the distance between the frame or fork and the wheel whether the wheel turns without snagging.
- Check that both brakes are operating fully.
- Do not set off again without having checked that the chain is sitting securely on both the front chain wheel and rear sprockets. It must be engaged fully with the cogs. If you set off and the chain jumps off a cog you may fall, at the risk of very severe injury.

Aluminium components may break without warning if they have been deformed. Do not use any components which are bent or deformed after an accident (e.g. after a fall). These kinds of components should always be replaced.
Carbon components may be seriously damaged without it being visibly noticeable. In the case that the bike has fallen over, you should have a specialist retailer inspect all of the carbon components.

If you notice any changes to your bicycle, DO NOT continue cycling. Do not retighten any loose parts without first checking them and always use a torque wrench. Take the bicycle to your specialist retailer, describe the fall to them and have the bicycle checked out.

Legal requirements

Before riding your bicycle on public roads, you should inform yourself about the applicable national regulations in your specific country.

This information is on how your bike must be equipped in order to be taken on public roads.
The lighting system required to be installed or carried with you is also described. You will also be informed on which brakes the bike needs to be equipped with.

There you will find information on the legal age limit for riders and where one is required to ride depending on the age. The regulations for children riding on public roads are also found here. If you are required to wear a helmet, it will be mentioned here.
Intended use

Bicycles are intended for transporting one person at a time. Riding a bicycle with another person is only permitted within the framework of national legislation (This would be the StVO in Germany). A tandem is exempt from this. If you would like to transport baggage, this requires that your bicycle is fitted with suitable equipment. Children can only be transported in children’s seats or trailers intended for this purpose. We recommend not taking any chances when it comes to quality in this area!

Ensure that you do not exceed the maximum permissible weight.

Providing your bike is equipped in line with national law, then

Type 1

**Trekking bikes**
and appropriately equipped pedelecs, youth bikes, children’s bikes, single-speed bicycles and fixed-gear bicycles may be ridden on public roads and light terrain (i.e. dirt roads).

Type 2

**city and touring bikes**
and appropriately equipped pedelecs, youth bikes, children’s bikes and single speed/ fixed gear bikes may be used on both public and paved roads.

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:
• use on terrain,
• overloading, or
• incorrect remedying of defects

These bikes are not intended for hard impact, extreme use (i.e. riding over steps, jumps) and recognised extreme sporting events (i.e. bike tricks, stunt jumping).

Type 3

**Racing bikes**
and appropriately equipped pedelecs/ youth bikes/ single speed/ fixed gear bikes may be used on public roads, smooth surfaces and paved roads. Participation in competitions is only allowed if permitted by the manufacturer.

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:
• use on terrain,
• overloading, or
• incorrect remedying of defects

These bikes are not intended for hard impact, extreme use (i.e. riding over steps, jumps) and unrecognised extreme sporting events (i.e. bike tricks, stunt jumping).

Type 4

**Triathlon/ TT bikes**
may be used on public roads, smooth surfaces and paved roads. Participation in competitions is only allowed if permitted by the manufacturer.

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:
• use on terrain,
• overloading, or
•incorrect remedying of defects
These bikes are not intended for hard impact, extreme use (i.e. riding over steps, jumps) and unrecognised extreme sporting events (i.e. bike tricks, stunt jumping).

**Type 5**

**Cyclocross bikes** and appropriately equipped youth bikes/ single speed/ fixed gear bikes may be used on public roads and on easy terrain such as field paths and designated courses for cyclocross bikes. Participation in competitions is only allowed if permitted by the manufacturer.

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:

- Use on challenging terrain, cycling over obstacles
- Overloading, or
- Incorrect remedying of defects

These bikes are not intended for hard impact, extreme use (i.e. riding over steps, jumps) and unrecognised extreme sporting events (i.e. bike tricks, stunt jumping).

**Type 6**

**MTB - spring deflection of up to roughly 120mm** and appropriately equipped pedelecs, youth bikes and single speed/ fixed gear bikes may be used on public roads and on moderately challenging terrain such as field paths, trails and designated courses for cross country bikes. Small obstacles may be ridden over, such as roots, stones and steps. Appropriate protective gear should be worn (suitable helmet, biking gloves).

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:

- Using the bike on difficult terrain, steep inclines, for jumps and in bike parks
- Overloading, or
- Incorrect remedying of defects

These bikes are not intended for hard impact, extreme use (i.e. riding over steps, jumps) and unrecognised extreme sporting events (i.e. bike tricks, stunt jumping).

**Type 7**

**All Mountain** – spring deflection of roughly 120-150mm and appropriately equipped pedelecs may be used on public roads and open terrain. These bikes may be ridden over obstacles such as roots, stones and steps. Small jumps are permitted. You should always wear appropriate protective gear (i.e. helmet, biking gloves, protectors).

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:

- Using the bike on difficult terrain, for high jumps, downhill use or aggressively in bike parks
- Overloading, or
- Incorrect remedying of defects

These bikes are not intended for hard impact, extreme use (i.e. extreme downhill trails, very high jumps) and unrecognised extreme sporting events (i.e. extreme stunts and jumps).

**Type 8**

**Enduro** spring deflection of roughly 150-180mm and appropriately equipped pedelecs may be used on public roads and open terrain. These bikes may be ridden over obstacles such as roots, stones and steps. Jumping is allowed. Appropriate protective equipment (suitable helmet, gloves) wear appropriate protective gear (i.e. helmet, biking gloves, protectors).

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:

- Using the bike on difficult terrain, for high jumps, extreme downhill use or aggressively in bike parks
- Overloading, or
- Incorrect remedying of defects

These bikes are not intended for hard impact, extreme use (i.e. extreme downhill trails, very high jumps) and unrecognised extreme sporting events (i.e. extreme stunts and jumps).
Type 9
Freeride/Downhill
spring deflection from 180mm upwards

and appropriately equipped pedelecs may be used on public roads and open terrain. These bikes may be ridden over obstacles such as roots, stones and steps. Jumping is allowed. Appropriate protective gear should be worn (full-face helmet, long finger biking gloves, protectors).

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:
- Using the bike on difficult terrain, for high jumps, extreme downhill use or aggressively in bike parks
- overloading, or
- incorrect remediing of defects
These bikes are not intended for hard impact, extreme use and unrecognised extreme sporting events (i.e. extreme stunts and jumps).

Type 10
Dirt/Street/Freestyle Bikes

and appropriately equipped youth bikes and single speed/ fixed gear bikes may be used on public roads and open terrain such as field paths, BMX courses, ramps and dirt tracks. These bikes may be ridden over obstacles such as roots, stones and steps. Appropriate protective gear should be worn (suitable helmet, biking gloves).

Manufacturers and dealers are not liable for damage resulting from use outside of intended use. This applies particularly to damage resulting from non-adherence to the safety instructions, e.g., in terms of:
- Using the bike on difficult terrain, for high jumps, extreme downhill use or aggressively in bike parks
- overloading, or
- incorrect remediing of defects
These bikes are not intended for hard impact, extreme use (i.e. riding over steps, jumps) and unrecognised extreme sporting events (i.e. bike tricks, stunt jumping).

Participation in competitions is only allowed if permitted by the manufacturer.

If you are not sure what type of bike you own, contact your specialist retailer or manufacturer to find out more about the bike’s use and limitations.

Before riding on public roads with your vehicle, inform yourself on the current riding regulations in your country. Only ride on pathways and trails that are permitted for vehicles. In certain areas, there are exceptions to standard regulations.
Adjusting the bicycle to the rider

The seat post, seat, stem and handlebars can only be tightened and secured with quick releases or bolted connections.

For detailed information, please read the instructions supplied by the manufacturer. Only allow specialists to work on your handlebars and stem!

Possible positions for adjusting bolted connections

Possible positions of quick release skewers and quick release axles

* see page 40

Using quick releases

Quick releases are systems installed on the bicycle in place of bolted connections. They consist of two parts: the clamping lever, which provides the necessary clamping force, and the locking nut, which allows you to regulate the clamping force. You can change the setup of your quick release when the clamping lever is open.

Quick release levers should be closed with the correct holding force. To close the lever correctly, pressure should be felt when it is half closed and, at the end, the ball of the thumb needs to be used to completely close it.

Possible positions for adjusting bolted connections

Untightening adjusting nuts

Tightening adjusting nuts

If your bike is equipped with one or several quick release axles, then read the corresponding instruction manual provided by the component manufacturer to learn how to operate and maintain them.
All quick release skewers must be firmly closed before you set off.

Make sure all the quick release levers are placed where they belong— even when the bike has been parked unattended for a short time and before each ride.

In a closed state, the quick release lever must be tightened on the rims, forks and seat post.

In a closed state, the tip of the quick release lever must always be pointed backwards. This way, the quick release won’t open during the ride.

Lock down wheels or other parts of your bike that are attached with quick release fasteners when you park your bicycle.

Quick release axles

In modern suspension systems, quick release axles are also used instead of just quick release levers and screw fittings which both work the same way quick release levers do:

The axle is screwed into the dropout and fixes the hub in between the two fork arms. The hub and the axle are partially secured with a quick release lever which operates in the same way as a normal quick release skewer. Systems in which the axle is only inserted or screwed in and then fastened with a screw also exist. Refer to the component manufacturer instructions and allow your specialist retailer to explain the system to you in detail.

The following instructions refer specifically to Rockshox®-forks’ quick release axles but can in some cases also be used for other forks.

Inserting and tightening

1. Turn the quick release lever into an open position. Make sure that the lever is in the corresponding slit in the axle.
2. Insert the axle into the hub from the right until it reaches the thread of the left dropout.
3. To tighten the axle in the dropout, place the quick release lever in the slit in the axle flange and turn it clockwise as tightly as possible. Close the quick release lever by turning it.

When closing the quick release lever, you should start to notice resistance when the lever is in a horizontal position (90 degrees in relation to the bottom fork leg/axis extension).

If performed correctly, the quick release lever should leave a noticeable mark on the palm of your hand.

Should you not feel resistance when the lever is in a 90 degree position or not see a mark on the palm of your hand then it is not tight enough. Increase the tightness by doing the following:
Open the quick release lever and carefully turn...
the quick release mounting screw until it is tight enough. In order to increase the tightness, undo the quick release lever and insert a 2.5mm Allen key into the adjuster in the centre of the lever.

The quick release axle with a quick release lever and an Allen key can be applied for making adjustments.

Turn the Allen key clockwise and check the tension of the lever again. Repeat this process until an adequate level of tension has been attained.

Do not use any other tools to connect the axle to the bottom fork leg. Pulling the axle too tight can damage both the axle and the bottom fork leg.

Providing your bike is equipped with a fork made by Fox®, the function is fundamentally the same. This is where the quick release axle is inserted into the left-hand side of the fork.

Quick release axle systems of other manufacturers
Other manufacturers can increase the tightness of the axle by untightening the dropout of the tight counter nut and turning it clockwise to reinstall it.

Disassembly
1. Open the quick release lever and position it in the slot of the axle flange.
2. Turn the quick release lever anticlockwise until the axle becomes disengaged from the thread of the dropout. Then remove the axle from the hub.

Installing pedals
If your bicycle was supplied without the pedals pre-installed, these have to be attached with the correct wrench. Please note that the pedals have to be screwed in in different directions and secured with a high mounting torque (see page 40). Apply assembly grease to both threads.

Read the attached instructions of the component manufacturers when using pedals with clips and straps. Practise taking your feet in and out of the hooks and operating the strap releases in a safe place. Tightened straps will NOT release your feet! Inadequate tyres can result in falling over and injury.
Ensure that you have read the manufacturer’s instructions before using magnetic or clipless pedals. Practise clipping your shoes in and out of the pedals’ locking system before your first ride in a quiet, safe place. Clipless pedals which do not properly release are a safety hazard.

In the case of magnet pedals, you are able to adjust how much force is required to release the shoe from the pedal. Please test this on your first ride with a setting that releases easily. Regularly clean your magnet pedals and keep them in good condition with a suitable spray lubricant.

**Setting up the seating position**

Before you use your bicycle for the first time, the seating position has to be set up to suit your body size. This is vital for riding safely and securely.

To do this, the seat’s height, alignment and angle have to be set up, as do the height and alignment of the handlebars with the stem.

**How to correctly determine your saddle height**

Estimate your appropriate saddle height and adjust it accordingly. Sit on your bike. Ask somebody to hold you up or simply use a wall to lean yourself up against.

Push one of the pedals down to the lowest position possible and place the heel of your shoe on it. In this position your leg should be straight.

If you now simulate your leg’s cycling position, your leg should be slightly bent.

The ideal foot position for cycling is attained by making sure that the widest part of your foot is positioned above the pedal axle.

If you are using click-in pedals, then make sure to adjust the pedals in accordance with the correct foot positioning. This way you avoid risking damage to your musculoskeletal system while using your bodily strength to its highest potential.

Children and persons who are not confident cyclists should be able to touch the ground with the tips of both feet. Otherwise, when stopping they run the risk of falling and suffering serious injury.
Setting up the angle of the seat

When you have set the height of the seat, you have to check that the angle of the seat is suitable. In general, the upper surface of the seat should be horizontal. You can adjust this by loosening the clamping bolts in the seat post.

Patented seat post with one-screw locking mechanism

Patented seat post with two-screw locking mechanism

Attachment with seat clamp

Suspension seat post

Integrated Seat Post

If your mountain bike is equipped with a telescopic seat post, read the manufacturer’s enclosed instructions before use.

If your bike is equipped with a so-called “integrated seat post”, which can otherwise be described as a seat post with integrated fixing, then read the component manufacturer’s enclosed instructions to assist you with the setup.

Before you start riding, please test to see if your seat post and seat are secure. To do this, hold the seat at the front and back and attempt to turn it. It should not move.

For information concerning the installation and service of threaded and telescopic seat posts, read the manufacturer’s service manual.

When adjusting the height of the seat, never pull the seat post further out than the maximum extension length marked! If your tube does not have a maximum marking, then you must leave a minimum insertion length of 7.5 cm.
When you squeeze the brake levers hard or all the way to the end of their leverage, the braking force can increase sharply! Please familiarise yourself with this new braking behaviour. Ensure that you receive and read the manufacturer’s operating manual.

Setting up the brake levers

Set up your brake levels in such a way that you can safely apply them and brake comfortably. Please familiarise yourself with which lever operates which brake!

Some brakes are now equipped with power modulators. This guards against “overbraking” and any dangerous locking of the wheels.

Changing the position of the stem also changes the position of the handlebars. You should always be able to safely reach and use grips and controls. Please ensure that all cables and lines are long enough to allow you to turn the handlebars in every possible way.

When you squeeze the brake levers hard or all the way to the end of their leverage, the braking force can increase sharply!

Please familiarise yourself with this new braking behaviour. Ensure that you receive and read the manufacturer’s operating manual.

The brake levers should be set up so that your hands can safely and comfortably apply them as a straight extension of your arms.

Check the brake handles before going on your first ride. When using hub gears, the brake handle on the right hand side of the handlebars is, in theory, the one that operates the front wheel. With derailleur gears, it is the left brake handle that operates the front wheel.

Should you want to switch the sides of the brake handles around then find yourself a workshop to have the operation performed.

For detailed information, please read the instructions supplied by the manufacturer. Only allow specialists to work on your handlebars and stem!
In order to allow people with smaller hands to safely apply the brakes, the levers can be set up to be closer to the handlebars using an adjusting screw (located in the lever).

In some models it is possible to bring the brake levers closer to the handlebars, using special devices.

Set up the cable tension in such a way that the brake levers do not touch the handlebar grip, even when they are applied to their fullest extent!

**Back pedal brakes**

If your bicycle is equipped with back pedal brakes, you brake by pushing the pedals backwards instead of forwards. This means that your bicycle will not freewheel and you are unable to rotate the pedals backwards freely as you otherwise can.

The safest way to brake using back pedal brakes is when the line of the pedals is horizontal. If one pedal is at the top and one at the bottom, the poor force output produced is not conducive to effective braking!

The effectiveness of back pedal brakes can deteriorate substantially on long inclines! This type of braking system can become very hot from continuous braking. You should also use the front brake to slow down on long inclines. Wait until the back pedal brake has cooled down and do not touch the brake drum.
Children

**Parental information**

Before you allow your child to ride the bike, you should take the time to practice with him or her.

Especially for the child’s first times on a bike, you need to be responsible in supervising the child. This is your obligation as a parent. Whatever it is you do or practice with your child, be sure not to overwhelm him or her.

Before your child takes off on the bike, he or she must first understand how the brakes function, especially if the bike is equipped with a backpedal brake.

Help your child practice riding and using the bike on a play street or in a safe and traffic-free area.

To prepare the child for riding on public roads, you should, among other things, teach him or her how to ride over obstacles such as curbs and train tracks. The bike should always be ridden over such objects carefully and the child should make sure that there are no signs of oncoming traffic.

Never allow your child to ride without a helmet. Purchase a certified bicycle helmet. Bring your child with you when buying a helmet for him or her. He or she should try it on, find the right size and find one he or she likes. The child will only be happy to wear the helmet if it is one he or she accepts wearing. Make sure that the helmet is properly fitted and that the straps are tight and closed.

Make sure the child has bright clothing on, tight trousers, and shoes with a firm grip. In order to be seen better, it is recommended the child wears reflective strips.

If you have any questions concerning the bike’s maintenance or assembly, please contact your local bike shop.

Inform yourself on your country’s public road regulations. In Germany, for example, children below the age of 8 must ride on the pavement. For as long as the child is 10 years of age, he or she may ride on sidewalks.

Children’s bikes are not usually permitted to be ridden on public roads when they aren’t built according to the legislative standards.
Before the first ride
- Clearly explain the brake system to your child. Allow your child to test the brakes while under your supervision.
- Make note that the brakes don’t work as well in wet and slippery conditions and you need to, therefore, ride slower under such conditions.

If you turn these first exercises into a game, your child will enjoy doing them. He or she will happily and quickly learn the content, as well.

Before each ride
You and your child should regularly perform the bike inspections together which are described in the section “Before each ride”. While doing so, your child will learn how to interact with the bike’s technic and will be able to recognize problems sooner and let you know if something isn’t working anymore.

If there is a defect that needs to be repaired immediately, bring the bicycle to a bike repair shop.

If one of the inspected points has a defect, you should by no means allow your child to ride the bike. This may otherwise lead to a severe accident. If you are not certain, please contact your local retailer.

Adjusting the bicycle for a child
When you adjust the height of the saddle, you need to find a height that allows the child to pedal well while still being able to touch the ground with the tip of his or her foot. This is important so that the child is able to quickly support itself when he or she needs to stop or feels uncertain.

For children and adolescents, the height of the saddle height should be checked about every 3 months.

Operating the brakes
Help the child to practice using the brakes in a safe environment. The child should also learn to use both of the brakes at the same time. This is because the bike may collapse if only the front brake is used, causing the rider to lose balance.

Tyres
Inform your child that he or she should never ride over sharp curbs. Otherwise, the wheels or tyres may become damaged, causing the bike to collapse on the bike.

Maintenance / Upkeep
Regularly inspect your child’s bike. Children, especially smaller children, do not pay attention to safety.
**Children’s bikes/stabilisers**

As a parent or legal guardian, you have a major responsibility when your child rides a bicycle and therefore wants to ride on public roads!

- Take the time to accompany the child on its first ride in a safe and quiet place (car park, field).
- Explain to the child that it should only ride with a helmet and easily visible, bright clothing.
- Set up the seat and handlebars so that the child is able to put its feet on the ground in unsafe situations – it is important to have a relaxed seating position if your child is to control the bicycle properly.
- Explain and practice using the front and rear brakes. The child must especially practice having control while pedalling backwards and carefully using the handbrake which operates the front brakes.

If you are using stabilisers, please make sure that you carefully read the manufacturer’s assembly instructions! The stabilisers have to be absolutely secure, as your child is relying on their support! If they are not sure whether you have correctly assembled the stabilisers, please ask your specialist retailer for advice!

Training wheels should only be used for the smallest of children. It is recommended that you dismantle the training wheels as soon as possible so that your child can practice riding the bicycle with even balance.

Using stabilisers can help a child get used to riding a bicycle. It avoids falls and helps children to feel safer. However, first the child gets used to riding with this “tricycle” style bike. It doesn’t learn to keep its balance and make the necessary counter-movements. That is why you have to be particularly careful when you first remove the stabilisers. This is very unfamiliar for the child and it first has to learn this new skill.

**Bike stand**

Make sure that your child always completely folds in the kickstand before he or she begins riding. The bike may otherwise topple over.

Carrying children / Trailers for children

- Please only use safe, certified children’s seats!
- The child has to wear a helmet, its feet have to be away and protected from any possible contact with moving parts, such as spokes.
- A child seat changes the way your bicycle behaves when riding. Take note of the longer braking distances and the more unstable steering. Practice riding with a child seat in a safe area before taking to public roads.
- Please comply with the manufacturer’s instructions supplied with the seat.

Only install children’s seats on bicycles which are suitable for this kind of equipment.

Carbon fibre frames and components are not permitted to carry children’s seats!

Never attach a children’s seat to the seat post! Wrap and protect all suspension and moving parts on the seat and seat post. Please ensure that your child cannot trap its fingers anywhere! This would result in a substantial chance of injury!
If additional equipment was delivered with your bicycle, which was not pre-assembled, please ensure that you read the manufacturer’s instructions.

Child bike trailers:
• Take no chances in terms of quality when buying child bike trailers.
• Only install child bike trailers on bicycles and only using mounting parts approved or intended for this purpose by the manufacturer.
• It is easy to oversee a child bike trailer in traffic! Use a brightly coloured flag and approved light system to ensure that it is easily seen. Ask your specialist retailer about safety equipment.
• Notice that trailers make the bike’s length much longer than usual. A trailer for children changes the way your bicycle behaves when riding. Take note of the longer braking distances and the more unstable steering. Riding a bike around curves with a trailer is different than riding without one. You must keep this in mind when riding in traffic. Before riding on public roads, practice riding your bike with an empty trailer in a safe and quiet environment.

Check to see whether the manufacturer of the trailer has specified a maximum load and maximum permitted speed. Pay attention to these specifications. Children under the age of 16 are not legally permitted to ride with a bicycle trailer attached to the bike.

Full suspension bicycles are not suitable for use with trailers and child bike trailers!
The bearings and attachments are not designed to withstand this sort of force. This could result in strong wear and breaks with serious consequences.

Frame

Depending on the type and function of the bike in question, the frame designs will vary. Modern frames are manufactured using various materials such as steel alloy, aluminium alloy or carbon fibre.

Thanks to advancements made in the fields of construction and materials, it is now possible to manufacture frame designs that ensure both cycling stability and the safety of the cyclist. Not only are you able to enjoy the comfort of a step-through frame, you can also rest assured that carrying baggage while cycling will not affect your safety.

Frame designs:
- Lugged steel frame
- Welded aluminium frame
- Welded carbon fibre frame

Should your bike be stolen, it can be identified using the frame number. Make sure to write down the number, paying special attention to the correct order of the digits. Should this not be the case, it will not be possible to identify your stolen bike.

There is a section in the handover documents you received for your bike in which you can write down the frame number.

The frame number may be engraved in various places on the bike frame. It is common for it to be engraved on the seat tube, the dropouts or the bottom bracket shell.
Under no circumstances should you use your bike if the frame is warped or cracked. Never attempt to repair damaged parts without the assistance of a professional. There is a risk of injury. Broken parts must be replaced by a specialist retailer. Do not use your bike until broken parts have been replaced.

A damaged bike frame or broken parts can result in injury. Should your bike show any signs of not being able to travel in a straight line, it is possible that either your frame or fork is bent. Contact a specialist retailer to check your frame and fork and possibly make some adjustments.

Loose accessories

Always use the instructions to install the included accessories. Make sure to use the correct tightening torques for all the screw fittings. (See page 40 “Tightening Torques for Screw Connections”)

- Only use add-on parts that comply with the respective legal regulations and road traffic regulations.
- The use of unauthorised accessories may lead to accidents or severe falls. You should therefore only use original accessories and add-on parts which fit your bicycle.
- Consult a specialist retailer for advice.

Loose luggage rack

Only install baggage racks on bicycles which are suitable for this kind of equipment. Use only the intended fixing devices. If you own a frame or parts made of carbon, ask your specialist retailer for transportation of luggage. Don’t fix racks at the seat post! It is not constructed for this use. An overload of the seat post by a rack can result in a break of the seat post and serious accidents.

Bar ends

Bar ends must always be tightened to the correct torque on the handlebars. If not done correctly, you are at risk of falling off your bike. Prior to installation, make sure that your handlebar manufacturer approves the addition of bar ends. Only then can you go forward with the installation.

Not all frames and parts made of carbon are allowed to be combined! Read the instructions provided by each individual manufacturer. Consult your specialist retailer.

* see page 40
Mounted accessories

Accessories/maintenance/replacement parts

Lighting-technical installation

Dynamos are often turned on by applying upward pressure to the lever.

The lever for hub dynamos are either located on the back side of the lamp or on the handle bars. If the lighting system is equipped with a sensor, it will turn on and off automatically.

Please read the operating instructions supplied for your light system. If a light is not working properly, the bulb is usually broken in conventional lights. If you feel confident, you can check this yourself and install a replacement bulb. Suitable bulbs are available from your specialist retailer. It is not possible to replace the bulbs in modern LED lights.

Clean your reflectors and lights on a regular basis. Warm water with cleaning fluid or washing up liquid is suitable here. It is also important to keep the contact points in good condition with a suitable spray lubricant.

Well-functioning lighting is a matter of life or death! Ask a specialist retailer to inspect and repair your bike.

Light generator/ dynamo

The dynamo generates the required amount of electrical energy for the headlamps and the rear lamp.

Hub dynamo

Utilized lighting Identification data of the lamps

<table>
<thead>
<tr>
<th>Lighting system</th>
<th>Identification data of the lamps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headlights</td>
<td>6 V 2.4 W</td>
</tr>
<tr>
<td>Halogen headlamps</td>
<td>6 V 0.6 W</td>
</tr>
<tr>
<td>Rear light</td>
<td>6 V 0.6 W</td>
</tr>
<tr>
<td>Rear lamp with a parking light</td>
<td>6 V 0.6 W</td>
</tr>
<tr>
<td>Lighting with LED light sources</td>
<td>LED light sources are not exchangeable</td>
</tr>
<tr>
<td>Dynamo</td>
<td>6 V 3 W</td>
</tr>
<tr>
<td>Hub dynamo</td>
<td>6 V 3 W</td>
</tr>
</tbody>
</table>

If your bike is equipped with a hub dynamo, you can simply switch it on and off using the switch on the back of the front wheel headlamp. If your bike’s lighting system is equipped with a light sensor, the dynamo will automatically switch itself on and off.
In order to take off the front wheel, the lamp cable connector must first be removed.

In order to install the lamp cable, the connecting terminal for the hub dynamo has to be facing to the right in accordance with the direction of travel. Reconnect the plugs and check that the lighting is working. In order to do this, spin the front wheel and check to see if the lights turn on.

**Failure of the lighting system**

- The lighting system is key and it is vital that it is proper working condition. Only allow authorised specialist retailers to perform checks and servicing work after failures or temporary problems.

- Make sure to regularly clean your bike’s reflectors and headlamps! Warm water and washing-up liquid are suitable for the job. Make sure all contact points are kept clean and conductive with suitable maintenance oil.

- Your bike is equipped with a modern lighting system. It not only provides you with the required lighting but also with security features such as parking lights. If during the night, for example, you are stood at traffic lights, you will still be visible to other drivers.

- Some models are also equipped with newly developed daytime running lights. These are supplied by various energy sources depending on the riding situation. Make sure you read the component manufacturer’s enclosed instructions.

**Mudguard**

The mudguards are fixed correctly in place with special braces. If the inside of the mudguard runs parallel to the tyre and forms a ring shape then the braces are the perfect length. During normal use, the mudguard should not come loose. The mudguard is fitted with a safety fastening in case an object jams between the mudguard and the tyre. This releases the mudguard from its holder to prevent a fall.

- You must stop riding immediately if a foreign body is trapped between the tyre and the mudguard. Foreign bodies must be removed before you can continue on your ride. Otherwise, there is a risk of a fall and serious injuries.

- You may under no circumstances drive with a loose mudguard strut, as the strut may jam in the wheel and block it.

Damaged mudguards must be replaced by a specialist retailer before riding again. You should also regularly check whether the braces are fixed securely in the safety releases.

**Relock a safety release**

Source: Shimano® techdocs
Transporting baggage changes the behaviour of your bicycle. Among other things, it also makes the braking distance longer. This may lead to severe accidents. Please adjust your riding style to this, i.e. brake earlier and anticipate more sluggish steering. Only transport baggage on racks intended for this purpose! Don’t fix racks at the seat post! It is not constructed for this use. Subjecting this part of the bicycle to excess weight with a rack can lead to breaks in the seat post and serious falls!

- Only mount child seats on baggage racks if they have the corresponding holders and the manufacturers permit this.
- Please ensure that nothing can get caught in the spokes and turning wheels.

If you are riding with baggage, ensure that you do not exceed the maximum permissible weight of the bicycle (see page C5). Information on the weight capacity of the rack is also stated here.

**Front wheel baggage carriers**

Front racks are attached to the front axle or the front fork. Front racks have a strong impact on the bicycle’s behaviour! Please practice riding in a safe area before riding with a loaded front rack for the first time!

Read the manufacturer’s instructions. They will often provide you with important tips on how to cycle with a trailer. You can also visit the corresponding website.

Check to see whether the manufacturer of the trailer has specified a maximum load and maximum permitted speed. Pay attention to these specifications. Children under the age of 16 are by law not permitted to cycle with a trailer.

**Suspension**

If your bicycle is equipped with suspension elements, they must be adjusted to suit the rider’s weight and intended purpose. Expertise and experience are needed to perform this kind of work. Therefore, if you need to adjust the suspension, it is best to bring your bike to a shop. Carefully read the enclosed manual concerning the suspension system to your bicycle.
Avoid washing your bicycle with a high-pressure cleaner as the cleaning fluid can penetrate sealed areas due to the high pressure and then eventually destroy them. The shock absorber’s sliding pistons and gaskets should be carefully cleaned with a soft cloth as part of your regular bicycle cleaning routine. Spray lubricant on the running surface of the shock absorbers and gaskets helps keep the system working effectively. Special spray lubricant is available specifically for this purpose, e.g., from Brunox®.

You should regularly check the links of the rear fork for play. Grip the frame securely and attempt to move the rear wheel sideways. You can also test for play in the shock absorber attachment by rapidly lifting and dropping the rear wheel. If you a) notice play anywhere or b) hear rattling, you should immediately take your bicycle to be checked by a specialist retailer. Do not use your bike until it has been repaired.

A suspension fork must be adjusted in accordance with the instructions provided by the fork manufacturer. In general, it can be said that when cycling over uneven terrain, the forks are having to work at a noticeable level but not to the extent that they are “struggling” or in other words deflecting to their maximum capacity.

With proper basic settings, the spring element should be compressed by about 10 - 15% (Cross Country), 15 - 20% (Touring) or 25 - 33% (Enduro, Freeride, Downhill) of the spring play, if the rider is sitting comfortably on the bicycle.

Suspension forks can only function effectively if they are regularly cleaned. Purpose-made cleaning agent or warm water with washing up liquid is suitable here. Specialist retailers also stock suitable spray lubricant for greasing your suspension regularly, both after every clean and otherwise. The same applies for suspension seat posts.

Most suspension seat posts can be adjusted to the rider’s weight. However, in most cases this requires the seat post to first be extracted from the frame. Please talk to your specialist retailer before carrying this out.

Suspension frames and their suspension-related parts

In this case, the frame’s rear fork is flexible and has suspension and damping from a shock absorber.

Some shock absorbers use metal springs, whereas others work with air chambers. The damping, which regulates the speed of compression and stretching, can be adjusted in high-quality shock absorbers.

For more information, read the manufacturer’s enclosed instructions.
The functionality and secure fit of the suspension parts are vital for your safety! Clean and check your full suspension bicycle on a regular basis! Warm water with a little washing up liquid or light cleaning agents are suitable for cleaning this part of the bicycle.

Tighten all screws to the recommended torque. Screws may otherwise break off or become detached from other parts (see page 40).

Full suspension bicycles are not suitable for use with trailers and child bike trailers! The bearings and attachments are not designed to withstand this sort of force. This could result in strong wear and breaks with serious consequences.

If your full suspension frame is built with a short, downward opening seat tube, then the seat post can only be lowered so much that if the spring deflection is used to its maximum potential, the seat post still won’t come in contact with the spring element.

Please have your bicycle checked by a specialist retailer on a regular basis. These experts can identify damaged and worn parts and are able to advise you in selecting replacements. Refrain from repairing key parts yourself (frame, fork, handlebars, stem, headset, brakes, lights).

Like every mechanical component, a bike takes on extensive strain, wear and tear. Different materials and bike parts will react to wear and tear in different ways. If a bike component’s recommended period of use is exceeded, a malfunction may occur which can in turn result in injury. Any kind of rip, puncture or colour change occurring in an overused area is an indication that the component’s use has reached its limit; in this case, the component should be replaced.

The bearings and attachments are not designed to withstand this sort of force. This could result in strong wear and breaks with serious consequences.

Screws and torque spanners

When working on the bicycle, please ensure that all screws are tightened to the correct torque. The required torque is printed on many parts with a screwed connection. This amount is stated in Newton meters (Nm) and this work should be carried out using a torque wrench. A torque spanner is most suitable for this job. Once the right torque is reached, it gives way and clicks. Otherwise screws can snap or break. If you don’t own a torque wrench then you should always leave this work up to a specialist retailer!

A table listing the most important torques for bolted connections is provided on page 40.

Chain

To ensure that it can work effectively, the chain has to be cleaned and greased regularly (see page 39). Dirt can be removed when washing the rest of the bicycle. Otherwise you can clean the chain by rubbing it with an oily clot. When the chain is clean, it should be greased at the joints with suitable lubricant. After being left to soak, the excess lubricant should then be removed.

To ensure that the chain and gears can work safely, the chain must have a certain level of tension. Chain gear systems tense the chain automatically. In the case of hub gears, chains which are too loose must be tightened. Otherwise they can come off and lead to a fall.
Chain tension

In the case of bicycles with adjustable dropouts, the mounting screws of the axle housing should be loosened and tightened, and not the axle nuts. If the bottom bracket shell contains an eccentric bush, please tighten the chain according to the instructions provided by the corresponding manufacturer.

Please ensure that axle nuts and boosters are correctly attached!

Dirt and permanent strain wear the chain. The chain should be replaced as soon as it can be significantly lifted (approx. 5 mm) from the front chain ring. Many modern chains for derailleur gear systems no longer have chain connectors. You therefore require specialist tools to open/change/close them. This work should be carried out by a specialist retailer.

Other chains are supplied/assembled with chain connectors. In some cases, these can be opened without the need for tools. These chain connectors can also be used to repair a damaged chain on a ride, if they have the correct width for the drive train.

Check wheels

It is the wheels that connect the bike to the ground. The wheels are subject to a great deal of strain through the uneven characteristics of the ground and the weight of the rider.

Before shipping, thorough checks and centring works are performed on the wheels. The spokes bed in, however, during the first kilometres of cycling.

• After the first 100 kilometres, the wheels must be checked by a specialist and re-centred if necessary.
• The tension of the spokes must be checked at regular intervals. Loose or damaged spokes have to be replaced or centred by a specialist retailer.

Belt drive

If your bicycle is equipped with a belt drive, please read the attached component manufacturer’s operating instructions before first use.

Wheels

10-15 mm

* see page 40
All screw connections have to be tightened with the correct torque. If the torque is not correct, the screws may break or loosen other parts (see page 40 “Torques for screwed connections”).

Check hubs
The hub bearings are checked as follows:
• Lift the wheel off the ground by raising the front of the bike to start off with and then lift the rear. Push each wheel so they start spinning.
• The wheel should continue to spin before slowing down at a consistent speed. If the wheel suddenly stops then the bearing is faulty. Front wheels with a hub dynamo are an exception to this. These wheels display a higher degree of resistance. It is barely noticeable while cycling, but during the test you will notice it.
• The hub bearing is allowed no leeway. Pull the wheel to the right and left in its forks or in the chain stays to see whether or not it is loose. There should be no leeway noticeable.
• If the wheel is able to be moved even slightly in its bearings or if it is difficult to spin, the hub bearings have to be set up by a specialist retailer.

Rims/Tyres

Normal operation wears down brake rubbers and brake pads. You should therefore regularly check the condition of your braking system and brake pads! Replace worn brake pads and rubbers in good time!
Ensure that rims and brake discs are clean and free of any oil!

Clean the rims on a regular basis according to the inspection plan on page 37. Make sure to also check the wear indicators:

Modern rims (from 24”) indicate when they are worn from braking. These indicators take the form of embossed or coloured points or lines on the brake surfaces of the rims. When these disappear, you are no longer permitted to use the rims. There are also similar indicators which only appear after a certain level of wear. At the very latest when two pairs of brake rubbers have been worn, it is necessary to have the rims checked by a specialist retailer.

Do not exceed the tyre pressure recommended when inflating the tyres. Otherwise this could lead to a tyre exploding. The tyres must be pumped up with at least the stated minimum tyre pressure. If the tyre pressure is too low, the tyre could separate itself from the rim.

On the side surface of the tyre, you will find information regarding the maximum permitted tyre pressure and usually also the minimum permitted tire pressure.
When changing your tyres, make sure to only replace them with tyres of the same mod-
Tyres are available in different dimensions. Tire dimensions are stated with standardised information.

Example 1: “46-622” specifies that the tyre has a width of 46mm and the rim a diameter of 622mm.

Example 2: “28 x 1.60 inches” specifies that the tire has a diameter of 28 inches and a width of 1.60 inches.

Tyres and tyre pressure

The numbers provided for the recommended tyre pressure can either be specified in bar or PSI. The following table presents the conversions for the usual pressure levels and provides you with information on which tyre widths these pressure values should be applied to.

<table>
<thead>
<tr>
<th>Tyre width</th>
<th>Tyre pressure recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 mm</td>
<td>4.5 bar 65 psi</td>
</tr>
<tr>
<td>37 mm</td>
<td>4.5 bar 65 psi</td>
</tr>
<tr>
<td>40 mm</td>
<td>4.0 bar 55 psi</td>
</tr>
<tr>
<td>42 mm</td>
<td>4.0 bar 55 psi</td>
</tr>
<tr>
<td>44 mm</td>
<td>3.5 bar 50 psi</td>
</tr>
<tr>
<td>47 mm</td>
<td>3.5 bar 50 psi</td>
</tr>
<tr>
<td>50 mm</td>
<td>3.0 bar 45 psi</td>
</tr>
<tr>
<td>54 mm</td>
<td>2.5 bar 35 psi</td>
</tr>
<tr>
<td>57 mm</td>
<td>2.2 bar 32 psi</td>
</tr>
<tr>
<td>60 mm</td>
<td>2.0 bar 30 psi</td>
</tr>
</tbody>
</table>

Pay attention to the values provided by the tyre manufacturer. Depending on the circumstances, these may vary. Failure to observe can result in damage to the tyres and tubes.

Tubeless tyres/Tubeless

If your bicycle is equipped with tubeless tyres, read the attached manufacturer’s instruction manual concerning the tyres and rims.

Only replace broken or worn key parts with original replacement parts from the manufacturer or parts approved by your manufacturer. In the case of light systems, this is mandatory. In the case of other components, the manufacturer’s warranty will usually cease to exist if non-approved replaced parts are installed.

If you install non-original or false replacement parts, this can lead to severe loss of function! Tyres with poor grip or safety, brake pads with a low friction coefficient and incorrectly installed or poorly made lightweight components can all lead to potentially serious accidents. The same applies for improper assembly!

Tyres are wearable parts. You should therefore regularly check the pressure, tread and condition of your tyres. Not ever tyre is designed for every type of use. Allow a specialist retailer to advise you when selecting tyres.

Only use tubeless tyres on rims intended for this purpose! This will be marked, for instance, with the abbreviation “UST”.

Your bicycle can only function safely and effectively if you replace parts with suitable, authorised replacements. Please consult your manufacturer, importer or specialist retailer for advice on suitable replacement parts.

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Your bicycle can only function safely and effectively if you replace parts with suitable, authorised replacements. Please consult your manufacturer, importer or specialist retailer for advice on suitable replacement parts.
Only use tubeless tyres in the prescribed manner with the correct tire pressure and, if necessary, the recommended sealant.

Mountain bikes are fitted with tubular tyres. Read about this in the enclosed instructions provided by your manufacturer.

Tubeless tyres can only be mounted and removed from the rims without tools, otherwise this could lead to leaks. If the sealant is not sufficient for preventing damage, a normal tube can be used after removing the valve from the tubeless system.

**Tubular tyres**

If your bike is equipped with tubular tyres, read the enclosed instructions provided by your tyre and rim retailer.

Only use tubular tyres on rims intended for this purpose! These do not have rim flanges but a smooth surface, curving inwards. This is where the tubular tyres are fitted.

Fitting tubular tyres requires expert skills and a lot of experience! Always have a specialist change your tubular tyres. Obtain information about the correct handling and replacement of tubular tyres.

**Dealing with punctures**

You need the following equipment to repair a tire puncture:
- Plastic tire lever
- Patches
- Rubber cement
- Sandpaper
- Open-ended spanner or wrench (for wheels without quick release skewers)
- Air pump
- Spare tube

1. **Open the brake**
   For more on this, read the description in the chapter “Brakes” (Page 32).

2. **Removing the wheel**
   - If your bicycle has quick-release levers or axles, open them (see page 10).
   - If your bicycle has hex nuts, loosen these with a suitable spanner anti-clockwise.

   You can then remove the front wheel according to the steps listed above.

   The following applies for rear wheels:
   - If your bicycle uses a derailleur gear system, change gear to the smallest sprocket. In this position, the rear derailleur poses the least hindrance in removing the wheel.
   - If your bicycle has quick-release levers or axles, open them (see page 10 and 11).
   - If your bicycle has hexagonal bolts, then loosen them in anti-clockwise direction with a fitting ring spanner or box-end wrench.
   - Pull the rear derailleur backwards somewhat.
   - Lift the bicycle slightly.
   - Lightly strike the wheel from above with the palm of the hand.
   - Take the wheel out of the frame.

   If your bicycle has a gear hub, please consult the instructions supplied by your manufacturer for removing the wheel.
Types of valve on bicycle tubes

- Dunlop (Woods) valve
- Schrader valve
- Presta valve

3. Removing the tyre and inner tube

- Unscrew the valve cap, the fastening nut and possibly the cap nut from the valve. In the case of Dunlop or Woods valves, remove the valve stem.
- Release all of the remaining air from the inner tube.
- Insert the tyre lever opposite the valve on the inside of the tyre.
- Insert the second tyre lever approx. 10 cm from the first, between the rim and tyre.
- Lift the tyre wall over the edge of the rim.
- Repeat this lifting action around the wheel until the entire tyre is free.
- Remove the inner tube from the tyre.

4. Change the inner tube

Switch the inner tube for an intact one.

- Pump the inner tube up somewhat.
- Check that the tyre is properly in place and runs true using the control ring on the side of the tyre. Adjust the positioning of the tyre with your hand if it does not quite run true.
- Pump the inner tube up to the recommended tyre pressure.

5. Reassembling the tyre and inner tube

- Tubular tires and tubeless tires must be changed according to the tires and rims’ manufacturer’s instructions.
- Please avoid allowing foreign bodies inside the tyre. Ensure that the inner tube does not have any folds and is not squashed.
- Ensure that the rim tape covers all spoke nipples and does not have any damage.
- Place one edge of the rim into the tyre.
- Push one side of the tyre completely into the rim.
- Insert the valve through the valve hole in the rim and put the inner tube into the tyre.
- Pull the second side of the tyre into the rim with the balls of your hands.
- Ensure that the inner tube is correctly positioned.
- In the case of Dunlop or Woods valves: Push the valve stem into the right position and tighten the cap nut.

6. Reattaching the wheel

Reattach the wheel securely back in the frame or fork with the corresponding quick release, bolted connection or quick release axle mechanism.

Please take note of the running direction of the tyre when installing it.

If your bicycle has disc brakes, please ensure that the brake discs are correctly secured between the brake pads!

Read the gear manufacturer’s instructions to correctly and safely assemble and set up derailleur gear systems, gear hubs and combined hub and derailleur gear systems.

Tighten all screws to the recommended torque. Otherwise the screws could break and parts could fall off (see page 40).
Connect the brake line, attach it or close the brake quick release.
Check if the brake pads are aligned with the brake surfaces.
Securely attach the brake arm.
Test the brakes.

**Brakes**

Modern bicycles can be equipped with a variety of different braking systems. There are various options:

*Rim brakes in the form of a V-brake*

What to do if the rubber brakes start rubbing against the rim:
You can use the spring adjusting screws to adjust the rear spring force in such a way that both rubber brakes lift from the rim the same way whenever you let go of the brake lever. Finish off by testing the brakes.

*Opening side-pull caliper brakes:*
- Open the quick release lever on the brake arm or lever, or:
- If you do not have a brake quick release, deflate all of the air out of the tyre. Now the wheel can be pulled out from between the brake pads.

**Worn brake pads**
The rubber brakes for brake pads are almost all made with grooves and notches. The grooves and notches help recognize when the rubber brakes have been subject to too much wear and tear. If the grooves and notches aren’t visible anymore, then you must replace the rubber brakes.

*Opening cantilever brake or V-brake*
- Hold the wheel with one hand.
- Press the brake arms together against the rim
- Hang either the brake cable or the outer cover over one of the brake arms.

**Side pull brake**

- New brake blocks
- Worn out brake pad

**Cantilever**

*Source: Shimano® techdocs*
Hydraulic rim brakes

Remove hydraulic rim brake:
- If your system features a brake quick release, remove the brake unit according to the instructions supplied by your manufacturer.
- If you do not have a brake quick release, deflate all of the air out of the tyre.

Disc brakes with hydraulic or mechanical operation

Disk brakes:
- The wheel can be removed without any further preparation.
- Please note: when fitting the wheel, the disk must be slotted between the brake linings of the brake calliper and ultimately be centred without contact.

Formation of air bubbles on the disk brakes

Avoid permanently braking for longer periods, as can be the case during long, steep descents. Otherwise this can allow vapour bubbles to form and cause a complete failure in the braking system. This could result in serious falls and injury.

The brake lever may not be applied if the bicycle is on its side or upside down. Otherwise air bubbles can enter the hydraulic system which could cause the brakes to fail. After transporting the bicycle, check if the pressure point of the brakes seems softer than it was before. Then apply the brakes slowly several times. This allows the braking system to discharge any bubbles. If the pressure point remains soft, please refrain from riding. A specialist retailer has to then discharge the air from the brake system.

You can avoid this problem by applying the brake lever before transport and then fixing it in this position using a strap. This prevents any air from entering the hydraulic system.

When you come to cleaning the braking system, please first read the instructions provided by the component manufacturer.

In particular, brake disks and brake pads are subject to wear. Please allow a specialist retailer to check these key parts on a regular basis and replace any worn parts if necessary.

If your bike is equipped with a converter, which allows you to operate hydraulic brakes with mechanical brake levers, read the enclosed component manufacturer’s instruction manual before using your bike.
Almost all modern brakes provide considerably more braking power than was available for bicycles in the past. Carefully familiarise yourself with the brakes, practising using them and practise emergency braking, starting on safe ground with no traffic before setting out into the traffic.

When riding down a long or very steep slope, avoid applying the brakes constantly or only using one of them. This can result in overheating and therefore a loss of braking power. The proper and safe way to brake is to apply both brakes evenly. The only exception is if you are cycling in slippery conditions such as on sand or a smooth surface. You should then exercise great care, slowing yourself down using the rear brake. Otherwise there is the risk of the front wheel slipping out to the side and causing a fall.

Your bicycle is supplied with the corresponding operating manual for your specific gear system. You can get more information about the gears on your bicycle in the operating manual provided by your manufacturer or on the manufacturer’s website.

Brakes are vital to your safety on the bike. You should therefore maintain them on a regular basis. This requires specialist knowledge and tools. Allow your specialist retailer to do this type of work on your bicycle! Work that is improperly carried out endangers your safety on the bicycle! Never apply oil-based liquids to the brake pads, rim brakes surfaces, brake blocks or the brake disks. These substances reduce the effectiveness of the brakes.

After performing any alterations on the braking system, make sure to test your brakes where there is no traffic before taking your bike out again.

Change your brake fluid on a regular basis. Check periodically the brake pads and let your retailer replace them when they are too worn. Read more information in the brake manufacturer’s instruction manual.

There are different types of disk brakes for racing bikes and cyclo-cross bikes. Make sure to read the enclosed manufacturer’s instruction manual before taking your bike on its first ride. Familiarise yourself with the brakes and the braking power on safe ground before your first ride.

Drum brakes

Roller brakes

Roller brake

Source: Shimano® techdocs

Gear hubs, roller, drum or back pedal brakes are opened as follows:
• Loosen the cable anchor or quick release on the brake arm.
• In the case of back pedal brakes, the screws on the brake arm of the chain stay have to be opened.

Gears

The following instruction manual will use examples to describe how to use commercial gear components on a bicycle. Should the components differ, you can find specific tips in the corresponding instruction manual or on the manufacturer’s website. If you have any questions about assembling, maintaining, setting up or operating the gears, please contact your bicycle specialist retailer.
The gear shifters regulate the necessary cycling power and speed. While riding in lower gears, it becomes easier to ride on inclined planes and it reduces physical exertion when pedalling. While riding in higher gears, more physical exertion is needed to pedal, allowing you to reach higher speeds with lower pedalling cadence. You should generally aim at pedalling faster and using lower gears.

Modern bicycles can be equipped with a variety of different gear systems.

There are various options:
• Derailleur gear system
• Gear hub
• Combined derailleur and gear hub systems

These gears can be operated using various gear levers:

Gear lever STI type, using the example of a Shimano lever

SRAM racing bike shifters are operated differently. The following example is applicable to a RED shifter:
The shifter behind the right brake lever moves the chain to the back gear wheels. Changing gear with short switch travel moves it to the small sprockets and with long switch travel to the large sprockets.
A combination of hub and derailleur gears

This type of gear system is made by SRAM and provided under the name of “Dual Drive”. This type of gear system has a three gear hub and an additional sprocket for common derailleur systems. An advantage to this is that one of the front derailleurs drops out which lowers the chain’s skew.

A thumb switch is used to operate the hub gear components. The derailleur system is operated with a twist grip and the latest version uses a trigger switch.

The precise procedure on how to assemble, or put on and remove the rear wheel is explained in the manufacturer’s instruction manual included with your bike.

If you would like to manually change the gears, choose the manual mode and change the gear transmission ratio by turning the twist grip.

You can choose the mode you’d like by pushing the button on the handlebars.

Automatic gear shift

This is a continuously variable shifting system which allows the biker to either change gears manually or automatically.

Using the twist grip, select the automatic mode and choose the pedal cadence at which you’d like to ride; the Harmony system will take care of the rest. The drive will automatically and continually adapt to the gear transmission ratio, allowing you to always keep your preferred pedal cadence.

If the automatic mode is turned on, in the handlebar display, you will see symbolised cranks with pedals and a quarter circle made up of bluely lit lighting elements. The higher your pedal cadence is, the more lighting elements will be seen.

As an alternative, there is also the 14-speed hub gear manufactured by Rohloff and operated with a twist grip. Instructions on how to service, install or remove parts when the bike has broken down can be found in the attached instruction manual. It is helpful to have a bike specialist tell you about the bike’s functions and demonstrate how to assemble and reassemble the bike.

Automatic mode

Manual mode

Thumb switch

Twist grip

Twist grip shifter
Your bicycle is supplied with the corresponding operating manual for your specific braking model. You can get more information about the brakes on your bicycle in the operating manual provided by your manufacturer or on the manufacturer’s website.

Gears are vital to your safety on the bike. Please read the operating instructions supplied to you by your manufacturer and familiarise yourself with how to operate the bicycle and switch gears before your first ride. Allow your specialist retailer to undertake any work on your bicycle’s gears! Work that is improperly carried out endangers your safety on the bicycle!

Do not pedal backwards while changing gears as this could damage the gear shift. Retuning the gears shifts should only be done carefully and step by step. If something is assembled wrong, the bike chain may fall from its sprocket, causing the bike to fall over. If you are not certain, please contact a bike specialist who is able to retune the gear shifts for you.

Despite a perfectly set up chain gear system, a bike chain crossing at an angle can lead to noises during riding. These noises are normal and do not cause any damage to the gear components. If you change gears slowly, you won’t hear the sound of the chain changing gears.

It is recommended to use a spoke protector when riding city, tour and child bicycles. Otherwise, even the slightest false adjustment can cause the bike chain or the entire rear derailleur to fall between the cassette and the spokes.

Modern bicycle technology is highly efficient but also sensitive. You should service your bicycle on a regular basis. This requires specialist knowledge and tools. Allow your specialist retailer to do this type of work on your bicycle! You can get more information about your bicycle’s parts as well as cleaning and maintenance in the operating manual provided by your manufacturer or on the manufacturer’s website.

Do not change or replace bike parts unless they are of the same brand and design. The guarantee and service warranty will otherwise become void.

Work which you are able to carry out yourself with no risk to safety is printed in bold.

To ensure that your bicycle remains in a safe condition and fulfils the conditions of the warranty, the following terms apply:

- Clean your bicycle after every ride and check it for possible damage.
- Allow a specialist retailer to carry out inspections.
- Check your bicycle every 300 - 500 km or every three to six months.
- Check that all screws, nuts and quick releases are secure.
- Use a torque spanner to tighten screw joints!
- Clean and grease moving parts (excluding brake surfaces) according to instructions from the manufacturer.
- Have paintwork touched up.
- Ask a specialist retailer to replace any broken and worn parts.
Schedule and inspection work

Before every ride:

Work undertaken

Check the following:
- Spokes
- Rims for wear and concentricity,
- Tyres for damage and foreign bodies
- Quick release
- The functionality of the gears and suspension
- The functionality of the brakes
- Hydraulic brakes: Tightness
- Lighting
- Bell
- Tube tyres and tubeless tyres: Securely fastened and the right air pressure

Maintenance/inspection:

Every 300 to 500 kilometres:

Work undertaken

Check the following:
- Chain       Sprocket       Rim
- Sprockets   Belt drive
- Check the brake pads for wear, replace them if required

Clean:
- Chain       Sprocket
- Sprockets   Belt drive

Grease:
- The chain with suitable lubricant

Check the following:
- All screw joints are secure

Every 1000 kilometres:

Work undertaken

- If you need to check the hub brake: smearing and renewing the brake cone with brake grease (retailer)

Every 3000 kilometres:

Work undertaken

Have the following checked, cleaned or replaced by your specialist retailer:
- Hubs       Headset       Brakes
- Pedals     Gear system

After every ride from purchase, then at least once a year:

Work undertaken

Check the following:
- Tyres and wheels

Torques:
- Handlebars       Pedals
- Cranks            Seat
- Seat post         All mounting screws

Make possible adjustments to the following components:
- Headset          Gear system
- Brakes            Suspension elements

Every 3000 to 500 kilometres:

Ask your specialist retailer for suitable lubricants! Not all lubricants are designed for all purposes. Using the wrong lubricants can lead to damage and impact the part’s performance!

The first inspection is particularly important for ensuring that your bicycle remains safe and problem-free! Cables and spokes stretch, while bolted connections can loosen. Therefore always allow a specialist retailer to carry out the first inspection.

After riding 200 kilometres:

Work undertaken

Check the following:

Every 3000 kilometres:

Work undertaken

Have the following checked, cleaned or replaced by your specialist retailer:

After rides in the wet:

Work undertaken

Cleaning and greasing:
- Gears       Brakes (excluding brake surfaces)
- Chain
- The joints to the threaded frames should be cared for according to the manufacturer’s instructions.
## Lubrication

Working on the bicycle requires special knowledge, experience and special tools! Only allow specialists to work or check key parts on the bicycle!

### Lubrication schedule

<table>
<thead>
<tr>
<th>What must be lubricated?</th>
<th>At what intervals?</th>
<th>With which lubricants?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chain</td>
<td>After removing dirt, after having ridden in the rain, every 250 km</td>
<td>Chain oil</td>
</tr>
<tr>
<td>Brake and shift cables</td>
<td>Malfunctions, 1x year</td>
<td>Silicone-free grease</td>
</tr>
<tr>
<td>Wheel bearings, dust cap, inner bearing</td>
<td>Once a year</td>
<td>Bearing grease</td>
</tr>
<tr>
<td>Suspension elements</td>
<td>After removing dirt, after riding in the rain, according to the manufacturer’s instructions</td>
<td>Multi-purpose oil spray</td>
</tr>
<tr>
<td>Dealing with the threads during assembly</td>
<td>During assembly</td>
<td>Assembly grease</td>
</tr>
<tr>
<td>Contact points of the carbon parts</td>
<td>During assembly</td>
<td>Carbon assembly paste</td>
</tr>
<tr>
<td>Sliding surfaces on the quick releases</td>
<td>Once a year</td>
<td>Grease, multi-purpose spray grease</td>
</tr>
<tr>
<td>Metal seat post in the metal frame</td>
<td>During assembly</td>
<td>Grease</td>
</tr>
<tr>
<td>The gear shift’s joints</td>
<td>Malfunctions, 1x year</td>
<td>Spray grease</td>
</tr>
<tr>
<td>The joints on the brakes</td>
<td>Malfunctions, 1x year</td>
<td>Spray grease</td>
</tr>
<tr>
<td>The joints on the threaded frame</td>
<td>For malfunctions, for dirt</td>
<td>According to the manufacturer’s instructions</td>
</tr>
</tbody>
</table>
Bolted connections

It is vital that all bolted connections on the bicycle have the correct torque in order to ensure that they are secure. Too much torque can damage the screw, nut or component. Always use a torque spanner to tighten screw joints. You are not able to correctly tighten these bolted connections without this specialist tool!

If a component specifies a torque for its bolted connections, then this should be strictly adhered to. Please read the instructions provided by the manufacturer, which lists the correct mounting torques.

---

**Bolted connection**

<table>
<thead>
<tr>
<th>Bolted connection</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crankset arm, steel</td>
<td>30 Nm</td>
</tr>
<tr>
<td>Crankset arm, aluminium</td>
<td>40 Nm</td>
</tr>
<tr>
<td>Pedals</td>
<td>40 Nm</td>
</tr>
<tr>
<td>Front wheel nut</td>
<td>25 Nm</td>
</tr>
<tr>
<td>Rear wheel nut</td>
<td>40 Nm</td>
</tr>
<tr>
<td>Stem expander bolts</td>
<td>8 Nm</td>
</tr>
<tr>
<td>Ahead stem clamping bolts</td>
<td>9 Nm</td>
</tr>
<tr>
<td>Clamping screw and bar end screw on the derailleur hanger</td>
<td>10 Nm</td>
</tr>
<tr>
<td>Seat post clamping bolt M8</td>
<td>20 Nm</td>
</tr>
</tbody>
</table>

---

**Differences for carbon components:**

<table>
<thead>
<tr>
<th>Bolted connection</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front derailleur bracket attachment screw</td>
<td>3 Nm*</td>
</tr>
<tr>
<td>Shift lever attachment screw</td>
<td>3 Nm*</td>
</tr>
<tr>
<td>Brake lever attachment screw</td>
<td>3 Nm*</td>
</tr>
<tr>
<td>Handlebars - stem clamping</td>
<td>5 Nm*</td>
</tr>
<tr>
<td>Stem - fork tube clamping</td>
<td>4 Nm*</td>
</tr>
</tbody>
</table>

---

**Screw connection**

<table>
<thead>
<tr>
<th>Screw connection</th>
<th>Thread</th>
<th>Maximum tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drinks bottle holder</td>
<td>M 5</td>
<td>4 Nm*</td>
</tr>
<tr>
<td>Bottom bracket</td>
<td>BSA</td>
<td>according to manufacturer’s instructions*</td>
</tr>
<tr>
<td>Brake caliper, disk brake, Shimano (IS and PM)</td>
<td>M 6</td>
<td>6 – 8 Nm</td>
</tr>
<tr>
<td>Brake caliper, disk brake, AVID (IS and PM)</td>
<td>M 6</td>
<td>8 – 10 Nm</td>
</tr>
<tr>
<td>Brake caliper, disk brake, Magura (IS and PM)</td>
<td>M 6</td>
<td>6 Nm</td>
</tr>
</tbody>
</table>

---

**General information on the screw connection’s tightening torque**

In general, the following torques can be used for bolted connections:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Screw quality</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.8</td>
<td>10.9</td>
<td>12.9</td>
</tr>
<tr>
<td>M 4</td>
<td>2.7</td>
<td>3.8</td>
</tr>
<tr>
<td>M 5</td>
<td>5.5</td>
<td>8.0</td>
</tr>
<tr>
<td>M 6</td>
<td>9.5</td>
<td>13.0</td>
</tr>
<tr>
<td>M 8</td>
<td>23.0</td>
<td>32.0</td>
</tr>
<tr>
<td>M 10</td>
<td>46.0</td>
<td>64.0</td>
</tr>
</tbody>
</table>

* Use of carbon assembly paste is recommended
If you have acquired a time trial or triathlon bike...

**TT/ Time Trial bikes**

![](image)

The sitting and handlebar position for time trial and triathlon bikes differ greatly in comparison to the sitting position for classical road bikes. It is best to ask an expert on how you should sit on time trial and triathlon bikes.

The riding capabilities for a bike with time-trial bars may be different than what you’re used to and therefore more dangerous. Even the way in which the hands switch from the steering to breaking position takes longer than usual. Therefore, practice this in a safe and open environment until you are completely confident in operating the bike.

**Disc wheels, special wheels**

The sitting and handlebar position for time trial and triathlon bikes differ greatly in comparison to the sitting position for classical road bikes. It is best to ask an expert on how you should sit on time trial and triathlon bikes.

Especially when it comes to bicycle wheels, they can be equipped with a different riding, braking and steering system and thus catch you off guard. Especially tri spokes and disc wheels are a lot more sensitive than the conventional kinds of bicycle wheels. Rims made from materials other than aluminium can display a different or even worse braking action and possibly catch you off guard.

Therefore, practice this in a safe and open environment until you get used to your new bike and its riding capabilities.

**Electrical / Electronic gears**

If your bicycle is equipped with an electronic gear shifter, read the attached manufacturer's instruction manual concerning the use and maintenance of this component.

Only allow a bike specialist to work on the electrical gear shifter. Ask your local bike shop about how to handle and care for the components.
How to use carbon components

If you have a carbon frame or parts, these should not be applied with grease or oil. Please use special assembly paste for carbon parts.

Carbon parts cannot be bent, dented or misshapen after an accident/fall. If this is the case, it is possible that the fibres have been destroyed or have broken off, e.g. within the part, which is not visible from the exterior! Therefore, it is vital to regularly check carbon frames and other carbon components very carefully, especially after a fall or an accident.

Characteristics of carbon

Carbon fibre is a material that requires special handling and care when constructing the wheel, during servicing, when riding and also during transportation and storage.

- Look for splinters, tears, deep scratches, holes or other changes in the carbon surface.
- Check if the parts have got softer or less stiff than usual.
- Check if individual layers (paint, finish or fibres) come off.
- Listen for any cracking or other usual sounds.

If you are not completely certain that your bicycle is in perfect condition, please allow a specialist retailer to check the affected carbon parts!

Some carbon components require lower torques than metal parts. Excessive torques can lead to hidden damage, which is possibly not visible from the outside. Frames or components can break or warp to such an extent that you could fall. Therefore please always adhere to the instructions supplied by the manufacturer or ask for advice from a specialist. Use a torque spanner to ensure that you get the required torque. Carbon parts may not be applied with grease or oil. Special assembly paste is available for assembling and safely securing carbon components with a low mounting torque.

Never expose carbon parts to high temperatures! Even in the back of cars, the sun’s rays can generate such a heat that it can put the safety of carbon parts at risk.

Pay attention to the guidelines on how to transport bicycles made with carbon parts.

Do not clamp a carbon frame directly into a work stand, instead you should secure it by the seat post. If the seat post is also made of carbon, use another tube made of metal.

In addition to any time you have an accident or the bike falls over, the following components to and areas on carbon parts should be checked regularly (min. every 100 km) for irregularities, such as tears, fractures and surface changes:

- The areas surrounding the insert nuts to the bottle holder, the slot to the dropouts, storage areas to the threaded frame, spring elements on the main frame and chainstay, seat post clamps, derailleur hangers, the clamping area to the front derailleur, the disc brake mount or brake bosses, the press fit to the head set and the threaded section to the bottom bracket cups.
Transporting the bicycle

By car

You should use only roof and rear-mounted carriers which comply with the requirements of the national licensing authority applicable to you. Roof, rear-mounted and other carriers which are officially approved are safe to use in traffic. Ensure the presence of a quality stamp such as a “GS” safety-tested mark.

Poor quality roof racks may lead to accidents. Drive your car accordingly while transporting your bike on its roof.

Carefully attach the bicycle so that it won’t become separated from the roof rack. This could result in severe traffic accidents. You should regularly check if the bike is secure during its transportation. Loose parts, e.g. tools, air pumps, bags or child seats, may fall off while riding and put others on the road at risk of being hurt. Therefore, remove all loose parts before riding the bike.

You may only attach the bike by its handlebars, handlebar stem, bicycle seat or seat post if the manufacturer advises you to. Don’t use any attachments that could cause damage to the bicycle fork or frame.

A carbon bike is not made to be transported on the roof of a car because the wheels are generally attached to a clamp which latches onto the frame tube.

The manufacturers of attachments and accessories offers information on their use and installation on their website. Inform yourself anytime you use something new.

On the train

In public transportation, there are different rules on transporting bikes. Therefore, it is best to find out before traveling what transporting options are available on the busses and trains.

Aircraft

Be informed by the airline about their rules on transporting sporting equipment and bicycles. You may have to register the bike. Carefully pack your bike to avoid damages while in transport. You may want to use a specialised bike case or a sturdy moving box to safely transport your bicycle. For further information, go to a bike shop and ask your local bike specialist.
Environmental protection tips

General care and cleaning products
Please take the environment into account when caring for and cleaning your bicycle. You should use care and cleaning products which are biodegradable wherever possible. Please ensure that no cleaning fluid enters the drainage system. When cleaning the chain, use a suitable chain cleaning tool and dispose of chain lubricant properly at a suitable waste disposal site.

Brake cleaner and lubricants
Take the same approach to using brake cleaner and lubricants as you do to general care and cleaning products.

Tyres and inner tubes
Tyres and inner tubes are not residual waste or domestic rubbish and have to be disposed of at your local recycling centre.

Carbon parts and frames
Carbon parts and frames consist of carbon fibre matting stuck together in layers. We recommend allowing your specialist retailer to dispose of any discarded carbon parts.

Liability for material defects (Warranty services)

In Germany/Austria and all nations which apply EU law, the common conditions for warranty/liability for material defects apply. Please inform yourself about the applicable national regulations in your specific country.

Under EU law, the seller accepts liability for material defects for at least two years after the date of sale. This also covers defects which already existed at the time of sale/change of ownership. In fact, if material defects occur within the first six months, the assumption is made that these already existed at the time of sale.

One precondition for the seller assuming this liability is that the product’s use and maintenance was in line with all conditions stipulated. These are outlined in the pages of this operating manual and in the supplied instructions from the component manufacturers.

If your bike’s, pedelec’s or e-bike’s manufacturer has provided you with additional guarantees, these will be listed on page U7 in the envelope. Read the relevant guarantee conditions for further details about the guarantee cover and on how to exercise claims under it.

In the case of a defect/possible liability claim, please contact your specialist retailer. We recommend filing all purchase receipts and inspection reports as proof for your records.
What other elements require attention, in case of a pedelec?

Introduction

The pedelec’s electric motor assists you while you pedal. Pedelec stands for Pedal Electric Cycle and means that the motor is only activated when you pedal. This provides helpful assistance particularly on inclines or when transporting loads. While riding your pedelec, you can decide how much support you want to receive from the motor.

These original operating instructions are not intended for the assembly and/or repair of pedelecs.

Changes done to the technical details that pertain to the information and illustrations are reserved for the original operating instructions.

These original operating instructions contain general information about the pedelec's characteristics. Since there are many different models and designs, it is not possible to provide the reader with every bit of information. To find out specialised information about your pedelec, please read the operating instructions included by the component manufacturer. You can find general technical information in the original general operating instructions enclosed.

General safety information

Even if you have many years of experience in riding bicycles, you should still read through these original operating instructions – Technologically speaking, pedelecs in particular have made vast develops in recent years.

Before riding your pedelec for the first time, carefully read the “Pedelec Original Operating Instructions” enclosed. It is particularly important for you to read the technical information concerning your pedelec.

Keep these operating instructions in a safe place so that if you have any questions in the future, you will be able to find the information you need. Pass these instructions on to everyone who uses, maintains or repairs this pedelec.

Please bear in mind, as is the case with any sporting activity, riding a pedelec can also be dangerous, risky and can cause injuries.

For your own safety, always wear a suitable helmet and light-coloured clothing appropriate for cycling. You should at least wear tight-fitting trousers or bicycle clips along with tight shoes with non-slip soles. Your shoes should also be suitable for the pedals installed.

Remember that cycling on public roads is dangerous. Think ahead when cycling so that you are always in control of your bicycle.

Do not cycle when under the influence of medicine, drugs or alcohol. The same applies when you are tired.

Never use headphones or a telephone while cycling.

Remember that you traveling a lot faster on a pedelec than on a bicycle without an electric drive. Other road users may misjudge the speed at which you are moving.

Observe the traffic regulations and the national statutory regulations for riding a pedelec.

Do not ride hands-free.

Only use your pedelec for its intended purpose (see also page 8). If you are uncertain about the intended purpose of the pedelec, ask your specialist retailer.
Children and pedelecs
Inform yourself on whether the child is old enough to ride the pedelec and has the necessary license to do so before allowing him or her to ride the pedelec.

Various versions of motors and batteries

1. Hub motor on the rear wheel, battery on the bicycle rack
2. Centre engine with the battery in the seat tube
3. The hub motor on the front wheel and the battery on the down tube

Even the LCD display and the display element may have a different appearance. Here you see an example of the handlebars with a LCD display on the left handle, a central display element and a pushing aid on the right handle. Your pedelec may have been equipped differently and have a different appearance.

Pedelecs are manufactured in a variety of designs based on different interests and target groups. They mostly differ in where the motor and battery are placed.

Therefore, your pedelec’s appearance may vary from the illustration shown here. However, the general functions described are still the same. For individual technical details please read the operating instructions for the electrical system.

Always squeeze the brakes to your pedelec before you place a foot on the pedal. The motor starts propelling as soon as you step on a pedal. This boost is unusual and can lead to falls or cause dangerous traffic accidents and injury to occur.

Practice operating and riding your pedelec in a quiet and safe place before you take to public roads!

Be careful not to exceed the pedelec’s weight allowance. This is how the permitted weight is calculated: The weight of the biker + the pedelec’s weight + the weight of the luggage + the weight of the trailer/luggage

Refer to the manufacturer’s instructions to find out the necessary information on the bike’s permitted weight.
While the support mode is on, do not put one foot on the pedal in order to swing the other leg over the seat. The pedelec may otherwise immediately take off. There is a risk of falling over!

Legal requirements

There are various kinds of pedelecs and e-bikes, all of which have differing legal regulations to follow within the scope of the European Union. A pedelec (pedal electric cycle) is a bike which provides an electric drive when the pedals are in motion. It has a strong motor of 250 watts at max (GB: 200 watts) and can be ridden up to 25 km/h in speed. Therefore, it still constitutes as a bike which doesn’t require registration. The s-pedelec is the faster variation. For the s-pedelec, the electric drive is also activated by putting the pedals into motion. However, the motor is stronger, usually between 350 and 500 watts, and the engine shuts down when it reaches around 45 km/h.

Please inform yourself about the applicable national regulations in your specific country! Refer to the bike’s registration form to see which pedelec model you have. Heed to the legal regulations. Ask for information at your local bike shop.

Check whether your private third-party-liability insurance covers possible damage caused by using a pedelec.

Pedelec

According to EU-law, a pedelec is under the same category as a bike and, therefore, has the same requirements as a bike does. The arrangements for using bicycle paths are also the same as for bicycles. Outside of this scope of application as well as in some areas within the EU, special regulations may apply. Inform yourself on the current legal regulations.

Your pedelec may already be able to provide your bike with an extra “push”. If not, it can be installed at a bike shop. This pushing aid enables the pedelec to move up to 6 km/h without you having to pedal.

The following only applies if your pedelec/e-bike hasn’t got a generator/dynamo: If you want to ride without electrical power, you still need to carry the pedelec’s battery with you. However, a dynamo is required if you have to ride with lights.

Pushing aid

A so-called pushing aid is installed in some models. It allows you to move your pedelec slowly at up to 6 km/h without pedalling. If you have to push the pedelec out of an underpass or a parking garage for example, this aid can be useful. Do not use this pushing aid to ride the bike.

S-pedelecs and their use on bike lanes

In towns and cities, you are only allowed to use s-pedelec’s/pedelec’s pushing aid (even without motor support) when you have seen a sign permitting its use (In Germany: Mofas frei)

Outside of towns and cities, you may use your s-pedelec on bike lanes unless it is clearly marked as prohibited (in Germany: Keine Mofas)

The legal requirements listed here are represented in their current state. The rules and regulations for pedelecs and fast pedelecs are constantly being revised and edited. Pay attention to the media for changes relating to legal regulations so that you remain up to date on the current situation.
Before the first ride

In addition to all the inspections mentioned in the chapter “Before the first ride” located in the technical part of the instruction manual, the pedelec also requires the following:

**Inspecting important components to your pedelec.**
- Please check that the battery is secure.
- Check the charging state of the battery to ensure that the charge is sufficient for the drive planned.
- Making sure that all of the plugs and connections are securely fastened in the electrical system.
- Familiarise yourself with the functions of the operating element.

Check all screws, quick release fasteners and important components for safe and correct attachment. On pages 10 and 40, you will find a table listing all of the important screw connections and prescribed tightening torques. There are also references on the proper use of quick releases.

**Instructions about electrics and electronics**

Your pedelec is supplied with the corresponding operating manual for the integrated motor from the component manufacturer.

For more information about the bike’s operation, maintenance, upkeep and technical data, read the instruction manual along with the websites for each of the manufacturer’s parts.

The electrical installation of your pedelec is very powerful. Correct and safe operation requires you to have it regularly maintained by a specialist retailer. Immediately remove the battery when you notice damage to the electrical system, particularly when live parts are exposed after an accident. Always contact your specialist retailer when you require repairs, want to ask a question, have a problem or discover a defect. A lack of technical knowledge can lead to severe accidents or injuries.

Always remove the battery before doing any kind of work on the electrical system to your pedelec.

Possible positions of quick release skewers and quick release axles

1. 
2. 
3.
• Only charge the battery with the charger it belongs to.
• Don’t allow the battery to fall.
• Don’t ever open up the battery; this can cause the battery to short circuit.
• Do not store or carry the battery with any metal objects (e.g. paper clips, nails, screws, keys, coins) that could cause short circuits
• Keep the battery away from heat (i.e. strong sunrays and fire).
• Protect the battery from coming in contact with water and other fluids.
• Do not clean the battery with a pressure washer. Use a damp rag when cleaning the battery. Never use aggressive cleaning solutions.

**Loading process**

In some models you can charge the battery while it is mounted in the pedelec. Please read the component manufacturer’s operating instructions in this regard. You may also remove the battery from its holder and charge it somewhere else. This is especially recommended in cold temperatures so that the battery can be charged in warmer conditions. This allows the battery to charge more quickly.

**Removing the battery**

To ensure the full lifespan of the battery, it should be charged in an environment between 10°C and 30°C.

To unlock the battery, put the key into the lock and open it.

1. Depending on where your battery is placed on your pedelec, remove it from its holder. Hold onto it tight as it is heavy.
2. To avoid having the key break or losing it, remove it and place it in a safe place.

**Charger:**

1. After removing the battery from its packaging, stick the power plug into an electrical socket with a voltage between 230 and 240 volts.

For safety reasons, always place the charger on a dry, non-flammable surface.

Charging the battery: Never place or store several batteries on top of each other.

Read the operating instructions for the charger before beginning to charge the battery.

• Only use the charger that came with your bike or one from the same manufacturer.
• Use the charger in a dry room and don’t cover it up while it is in use. It could otherwise short circuit or cause a fire.
• When you clean the charger, unplug it from the electrical socket first.
• After charging, remove the battery from the charger and unplug the charger.
2. The battery begins charging as soon as you have plugged the charger into the wall. If your charger features LED lights, they will blink while the battery is charging. If the battery’s charge level is shown by the LEDs on the battery, the number of bulbs show how much still needs to be charged. The charging process goes through several stages. The corresponding LED will flash if one of the stages is being charged. If this stage is fully-charged, the LED will shine permanently. If all of the LEDs go out, this means the charging is complete.

3. If the charging is complete, you should remove the power plug from the electrical outlet.

A defected battery should neither be charged nor used any further. A battery can become warm while charging. While charging, a max temperature of 45° C is permitted. If the temperature is any higher than this, end the charge immediately.

Battery information system

The battery to your pedelec is connected to an information system which provides you with information about the battery’s state of charge and capacity. This information is either shown on the display panel on the battery’s exterior or on the display screen located on the handlebars. By pushing the battery button, the system is activated and it will show you a percentage of the state of charge or a number of LEDs will illuminate to show how much capacity the battery has left.

Inserting the battery

1. Before using the battery, the key must be placed in the lock and turned clockwise. This will allow the battery to be placed in the pedelec’s battery holder. Depending on where the battery is placed, it may need to be turned roughly 45° outwards.

2. Make sure that the locking device is locked when you press the battery into the holder. Turn the key clockwise and pull it out. The battery is now locked into place.

3. Please check that the battery is secure.

It is always permitted to fully charge the battery again. There is no memory effect.

The ideal temperature to charge the battery is between 0° C and +30° C. If the battery is charged in a cooler environment, the battery takes longer to charge. If the temperature is above 45° C, the battery will not charge.

When temperatures drop outside, it is best to store and charge the battery in your home or in a warm garage and to only insert it unto the bike shortly before riding it again. This will extend the battery’s lifespan.

For more information, refer to the original operating manual provided by the battery’s manufacturer and included with the bike.

Check the battery’s charge level and capacity before every trip. Only begin your ride if the battery’s charge level is sufficient enough to assist you during the entire trip you wish to make. Always make sure you have enough capacity to get back home again in a safe and comfortable manner.
When riding your pedelec in the winter, make note that the battery range becomes smaller because of the lower temperatures. You can increase the range by storing the battery in a warm room and only attaching it to the bike shortly before use.

Battery safety

If you won’t be using the battery for an extended period of time, you should store it in a dry and well-ventilated area. When storing, never stack batteries on top of each other or place them close to each other. Ideally, you should place them in a room temperature from 10 – 23°C and leave them at a charge level from 50 – 75 %. If you don’t use the battery for more than six months, it will need to be recharged.

Don’t ever ship a battery through the mail on your own! Batteries are considered dangerous goods. In certain conditions, the battery may overheat and catch fire.

Batteries may only be dispatched by a trained member of staff. If you have a problem with your battery, consult a specialist retailer. A specialist retailer can have the battery picked up free of charge and in accordance with the dangerous goods regulations.

Commissioning

Display

You can either control your pedelec using a control unit or a display unit. This is how they are (or for the most part are) constructed:

- Light display
- Light button
- Power button
- State of charge display
- Button to choose the Support Mode ▲
- Button to choose the Support Mode ▼
- Function Selection Button
- Support Mode display
- Electric consumption display
- Speed display
- Display for the:
  - Distance
  - Average speed
  - Max speed
  - Total kilometres
  - Range
  - Battery capacity
- Speedometer display

Operating element

If switched on, the control units receive their energy from the pedelec’s battery. To switch on the system, simply press the on/off button.

If you don’t use your pedelec for longer than 10 minutes, the system may turn off automatically to save energy. If you would like to ride with electrical support again, restart the computer system.

The display fields provide you with different kinds of information. These are usually:

- Support mode: You can make a selection using the two buttons. By pressing the buttons, the support level is adjusted by one level, either up or down.

Do not use the pedals when turning on the system or for the two seconds that follow.
• Battery charge level: Here you can see how “full the tank” is. The motor support automatically turns itself off when the battery level is too low. Usually, the display turns itself off too.
• Speed
• Total kilometres
• Trip distance

Read the manufacturer’s instructions to find information on the control element’s functions, display options and your pedelec’s display.

Function
As soon as you select motor support and begin to pedal, the motor will start running. If you are not pedalling then the motor support stays off.

At a speed of roughly 25 km/h, the motor support turns itself off. This is a legal requirement.

The motor of the s-pedelec, which has a higher performance (350 or 500W), turns itself off at a speed of 45 km/h. In addition, in the so called e-bike mode, you can travel up to 20km/h without additional pedal support. The motor power depends on various factors:
• The power applied when pedalling: If you pedal with less power, you are provided with less support than when you increase your pedalling power, i.e. when riding uphill. However, this increases the power consumption and decreases the range. This is not the case with hub motors. Each individual support level is assigned with a predetermined motor power level.

• Support mode: The higher the level of support, the more power the motor will provide. However, high motor performance means high power consumption. The lowest support mode provides the least support but also the longest range.

• The speed: The faster you travel, the stronger the support.

Range
Specified range information has been obtained under optimal conditions. Ranges achieved under everyday conditions will usually be shorter. Please consider this when planning your route. Various factors influence the range of your pedelec:
• Support level: The higher the applied support level, the lower the range.
• Style of riding: You can save energy by operating the gears appropriately. In lower gears, you apply less strength, which in turn results in a lower amount of support and thus allows your pedelec to save energy. With hub motors, the support level is not influenced by the gears and the power input of the cyclist.
• Ambient temperature: In colder temperatures, battery levels decrease quicker, thus affecting the potential range.
• Weather conditions and weight: In addition to the ambient temperature, wind conditions also affect the range. Headwind requires more physical effort.

Technical condition of your pedelec: The air pressure in your tyres affects rolling resistance. If the tyre pressure is too low, the rolling resistance increases significantly, especially when cycling over a smooth surface such as asphalt. Dragging brakes and a poorly maintained chain also decrease the range of your pedelec.

• Charge status: The battery level informs you on the amount of electrical energy saved in the battery at that moment. The more energy, the higher the range.

Battery capacity: The battery capacity enables a full battery to deliver a certain amount of electricity. The capacity of a battery decreases over time which means that the amount of energy saved in a full battery also decreases.

Recuperation
Some pedelecs can also generate energy through the motor and charge the battery, for example, while cycling downhill. The motor acts like a dynamo in this case and generates electricity whenever the bike brakes. In turn, this also recharges the battery. This allows you to considerably extend the possible range of the trip. Furthermore, on steep or long inclines, recuperation can be used as a comfortable “engine brake”.

Refer to the system operating instructions to gather information on how to use and operate the recuperation feature. A weak recuperation level will cause the brakes to not work as well. Therefore, it is best to ride on flatter inclines. Stronger recuperation levels allow the brakes to work significantly better.
This unobtrusively and conveniently optimises the range.

Familiarise yourself with the braking action of the different levels in a quiet area where there is no traffic before using recuperation on public roads.

Make note that specifically at high recuperation levels, the onset of the braking action may be surprisingly strong. Therefore, you should practise cycling with recuperation in a quiet area without traffic before riding on public roads.

Driving without drive support

You can also use your pedelec without the drive support. If you have inserted the battery, you can use the functions of the operating unit just as you normally would.

If you choose to cycle without a battery, make sure the battery connections stay clean and dry. It is best to cover them using appropriate protection. However, in this case, you will not be able to use the functions of the operating unit.

If your pedelec is equipped with a dynamo-powered lighting system, you can also cycle in the dark without a battery or with the operating unit switched off. If the lights are powered by the battery, you must carry a charged battery with you. Please talk to your specialist retailer before carrying this out.

Service and maintenance

Your pedelec must be inspected on a regular basis. The first inspection should be performed at a specialist workshop after cycling roughly 200 km or otherwise after four to six weeks. During the first kilometres cycled, safety related screw connections may become loose; brake and gear cables can increase in length; the bearings can break and the spokes can readjust themselves. For these reasons, this inspection is necessary.

- Open live parts should only be maintained and cleaned at a bike shop.
- Only replace the pedelec’s components with original parts or parts that have been approved by the manufacturer. Otherwise, your warranty claims may be rendered invalid.
- Remove the battery before cleaning your pedelec.
- Ensure that you do not touch and thus possibly connect contacts when cleaning or repairing the battery. You risk being hurt and the battery may suffer damage if the contacts are live.
- Cleaning with a high-pressure cleaner may damage the electrical system. High pressure levels can result in cleaning fluid finding its way into sealed components and cause damage.

Components that are only allowed to be replaced with parts approved by a manufacturer

- Frame
- Fork
- Motor unit
- Battery
- Tyres
- Rims
- Brake system
- Front light
- Rear light
- Number plate holder
- Side stand
- Handlebars
- Stem

Correct use also entails inspections and maintenance work. Non-compliance will affect your warranty claims.

- Open live parts should only be maintained and cleaned at a bike shop.
- Only replace the pedelec’s components with original parts or parts that have been approved by the manufacturer. Otherwise, your warranty claims may be rendered invalid.
- Remove the battery before cleaning your pedelec.
- Ensure that you do not touch and thus possibly connect contacts when cleaning or repairing the battery. You risk being hurt and the battery may suffer damage if the contacts are live.
- Cleaning with a high-pressure cleaner may damage the electrical system. High pressure levels can result in cleaning fluid finding its way into sealed components and cause damage.
Protect the cables and electrical components from damage. If damage should have already occurred, refrain from using your pedelec until it has been inspected by a specialist retailer.

Don’t let children who are unattended ride the pedelec without first thoroughly instructing them on how to use it. Explain to children the dangers of using electrical devices.

Trailer use

Find out if a trailer can be fitted to your pedelec. If necessary, contact your specialist retailer. Pay attention to the current national legal practice, with particular regards to whether you are allowed to use a trailer to transport children.

In Germany, it is prohibited to use an s-pedelec to pull a child-carrying trailer with a child inside.

Transporting the pedelec

By car

Using a car, you can transport your pedelec like a bicycle on a suitable bicycle car rack.

- Make note that pedelecs are much heavier than typical bikes and, therefore, the car rack must be designed to carry its weight.
- Before transport, remove the battery and transport it separately.
- Make sure that the battery’s contacts are safe from short circuiting.

By public transportation

The same regulations for transporting a bicycle must be applied here. These regulations can be found in the general information section in this manual. It is recommended to remove the battery before getting on the train and not to put it back on until you have gotten off.

Aircraft

Batteries must be transported as you would dangerous goods. The battery must be specially marked. Consult your airline for further information.

Liability for material defects and lifespan

The statutory two-year liability for material defects applies. The increased effect of force caused by the electric drive means that wearing parts, such as the brakes and tyres, are subject to greater wear and tear than with a normal bicycle. This the due to the greater weight of the vehicle and the higher average speed that is achieved through the propulsion. A bike’s tendency to have more wear and tear is not a material defect and is, therefore, not covered by the guarantee. Typical components to which this applies are:

- Tyres
- Brake pads
- Drive components
- Spokes
The battery is subject to aging and is therefore also a wearable part. Please note that the battery gradually loses its capacity depending on its age and operating life. Take this into account when planning journeys and ensure that you switch to a new battery in good time. Replacement batteries can be purchased from your specialist retailer.

**Batteries from pedelecs and e-bikes**

Batteries belonging to pedelecs and e-bikes should be treated as hazardous and are therefore subject to compulsory special labelling. They have to be disposed of by specialist retailers or manufacturers.

Batteries are not meant to be thrown away at home. Broken or old batteries should be exposed of at a bike shop.
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The bicycle listed in the section “Bicycle identification” was assembled properly and was delivered to the customer ready-to-use. This complies with type ________, in the chapter “Intended use”.

**Functional checks for the following components:**

- [ ] Wheels: Spoke tension, sturdiness, concentricity, correct tyre pressure
- [ ] All screw joints: secure, correct mounting torque
- [ ] Gear system
- [ ] Brake system
- [ ] Light system
- [ ] Seat position adjusted to the rider
- [ ] Suspension adjusted to the rider
- [ ] The following components were assembled and checked separately:

  _______________________________________________________
  _______________________________________________________
  _______________________________________________________

- [ ] The assembling/inspecting party completed a test ride
- [ ] The customer was instructed on how to use the bicycle
- [ ] Function of the right front brake
- [ ] Function of the left front brake

**Supplied by (retailer stamp):**

The following operating manuals were supplied and explained:

- [ ] Bicycle
- [ ] Gear system
- [ ] Brake system
- [ ] Suspension elements
- [ ] Belt drive
- [ ] Other documentation:

  _______________________________________________________
  _______________________________________________________
  _______________________________________________________

**Permitted for trailers:**

- [ ] Yes  [ ] No

**Permitted for child seats:**

- [ ] Yes  [ ] No

**Permitted for luggage carriers:**

- [ ] Yes  [ ] No

**Permitted for competitions:**

- [ ] Yes  [ ] No

**Authorized for Bike Parks:**

- [ ] Yes  [ ] No

**Customer/recipient/owner**

- Name: _____________________________________________
- Address: ___________________________________________
- Postal code, Town/City: _________________________
- e-mail: __________________________________________

Date: __________________ Signature: __________________

Date of purchase: __________________ Signature: __________
Bicycle identification

Bicycle manufacturer:  **Intersport Austria**

Brand:  **GENESIS / NAKAMURA**

Model  _______________________

Frame height/size  _______________________

Colour  _______________________

Frame number  _______________________

Fork/suspension fork  _______________________

Serial number  _______________________

Rear shock absorber  _______________________

Serial number  _______________________

Gear system  _______________________

Engine number  _______________________

Battery number  _______________________

Key number  _______________________

Special features  _______________________

The maximum total weight for this bicycle is 100 kg. The weight may vary, especially for E-Bikes, Kids’ bikes and youth bikes: _____ kg (bike weight + rider + baggage + trailer).

In the case of change of ownership:

Owner  _______________________

Address  _______________________

Date/Signature  _______  _______________

______________________
Please read. Make note of the bicycle identification and delivery document!