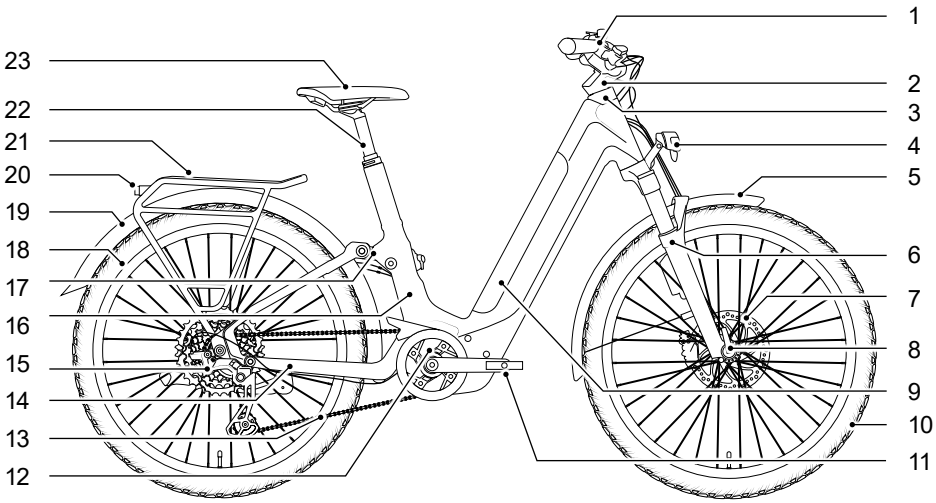
E-BIKE

MANUAL

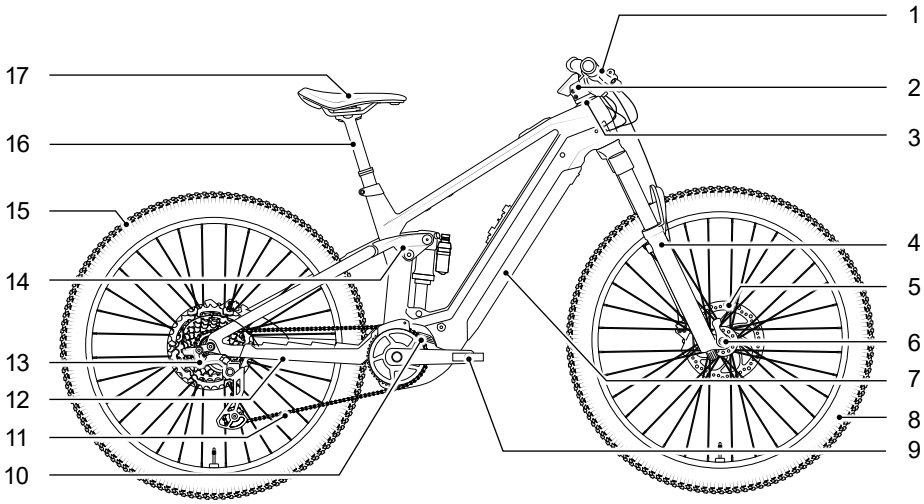
Serial number

1 E-bike parts

The illustration may vary depending on the e-bike model or the selected equipment. Read the special instructions for your equipment in the corresponding sections.



1 Handlebar
2 Handlebar stem
3 Head tube
4 Headlamp
5 Front mudguard
6 Fork
7 Disc brakes
8 Quick-release
9 Rechargeable battery
10 Front wheel
11 Pedal
12 Motor
13 Chain
14 Bottom chainstay tube
15 Gear shift system
16 Seat tube
17 Frame suspension
18 Rear wheel
19 Rear mudguard
20 Tail lamp
21 Luggage rack
22 Seatpost
23 Saddle



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3 Head tube
4 Fork
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6 Quick-release
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9 Pedal
10 Motor
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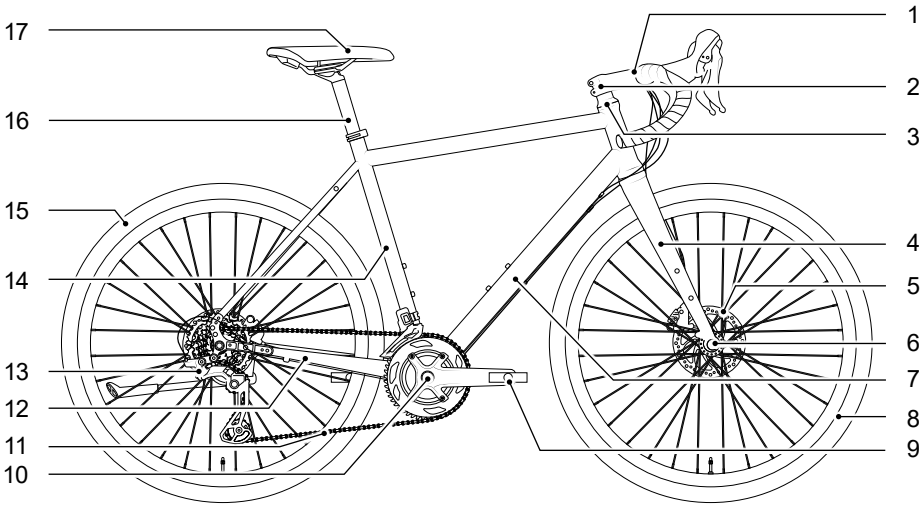

1 Handlebar
2 Handlebar stem
3 Head tube
4 Fork
5 Disc brakes
6 Front wheel hub
7 Bottom tube
8 Front wheel
9 Pedal
10 Bottom bracket
11 Chain
12 Bottom chainstay tube
13 Gear shift system
14 Seat tube
15 Rear wheel
16 Seatpost
17 Saddle

2 In an emergency

This section contains information on handling the battery. Despite compliance with all safety measures, the rechargeable battery may pose a risk, e.g. if it catches fire (see sec-tion *"Residual risks" on page 20*).

→ In an emergency, act in such a way that you do not endanger yourself or others at any time.

→ In an emergency, follow the instructions on this page.

→ Read these instructions immediately so that you can react focussed and prepared in an emergency.

→ Always keep a suitable fire extinguisher in hand at all times.

2.1 General protective measures

If faults or damage are detected on the battery:

1. Do not use the battery.
2. Wear protective gloves when touching the battery.
3. Do not inhale escaping gases or vapours.
4. Avoid skin contact with escaping liquid.

2.2 In the event of excessive heat

If excessive heat development is detected on the battery:

1. Use a fire extinguisher (primarily with a special gel extinguishing agent) to put out a possible fire if there is no danger to you and you are physically able to do so.
2. Have the battery checked immediately by your specialist dealer. Inform your specialist dealer about the rechargeable battery's status prior to transport.
3. For temporary storage, choose an outdoor location and, if possible, place the battery in a fireproof container or on the ground.
4. If the battery is stored outdoors, secure the storage location clearly and over a wide area.

2.3 In the event of deformation, odour, liquid

If deformations, odours or leaking liquids are detected on the battery:

1. Place the battery in a fireproof and acid-proof container, e.g. made of stone or clay, and cover the battery with sand if there is no danger to you and you are physically able to do so.
2. Have the battery disposed of immediately by your specialist dealer.
3. Select an outdoor location for temporary storage.
4. Secure the storage location clearly and over a wide area if you are storing the battery outdoors.

2.4 If the rechargeable battery catches fire

1. Call the fire brigade immediately.
2. Use a suitable fire extinguisher to put out the fire if there is no danger to you and you are physically able to do so.
3. Cool the battery by placing it in a fireproof container filled with water if there is no danger to you and you are physically able to do so. The water must cover the rechargeable battery completely.
4. Cover the battery completely with sand if there is no danger to you and you are physically able to do so.

3 Safety

This section contains information on how to use your e-bike safely.

3.1 Notes on safe use

Observe the following information on safe use of your e-bike to reduce the risk of you having an accident or sustaining an injury:

- Please use the e-bike only if you are fully acquainted with the operation of the bicycle and all of its functions.
- Always use the e-bike as described in the section on intended use.
- Do not allow persons with reduced physical, sensory or mental abilities or a lack of experience or knowledge to use the e-bike.
- Do not allow children to play with the e-bike.
- Protect your e-bike from unauthorised access, e.g. by locking it with a lock or removing the battery.
- Do not allow children to clean, maintain or service the bicycle.
- If you do not have the necessary know-how and tools to make adjustments and repairs, have a bicycle dealer perform them.
- The A-weighted emission sound pressure level at the driver's ears is less than 70 db(A).

3.2 Warning information

The warning notes are intended to draw your attention to potential hazards. Your complete attention is required when reading the warning notes; the statements must be understood completely. Failure to follow a warning note may result in injury to yourself or other persons. The warning notes alone cannot prevent dangers. Follow all warning notes to avoid risks when using the e-bike.

The warning notes in this user manual have the following meanings:

WARNING

The signal word denotes a medium risk that can cause death or a serious injury if not avoided.

CAUTION

The signal word denotes a low risk that can cause a slight or minor injury if not avoided.

NOTE

This key word warns of possible damage to property.

3.3 General safety information

For your own safety, please also observe the following safety instructions:

WARNING

Risk of accident and injury!

Wet, slippery or dirty road surfaces can increase braking distance or reduce grip.

► Adapt your riding style and speed to the weather and road conditions.

CAUTION

Risk of injury!

Slippery shoes can cause you to slip off the pedals.

► Wear shoes with a slip-resistant sole.

CAUTION

Risk of injury!

Using a bicycle rest handlebar or aero bar restricts the range of the operating elements and increases the overall stopping distance.

► Ride with care and adapt your riding style accordingly.

CAUTION

Risk of injury!

Items of clothing and body parts may become entangled in moving parts on the e-bike.

► Do not allow loose straps or cords such as shoelaces or jacket straps to hang down.

► Wear close-fitting clothing or use trouser clips.

► Before cleaning or maintenance, identify all moving parts of the e-bike.

NOTE

Risk of damage!

Using your e-bike incorrectly or improperly can cause certain e-bike components to wear or damage more quickly or even break.

► Do not ride the e-bike over steps or other types of ledges.

► Do not jump over ramps or mounds with the e-bike.

► Do not ride the e-bike downhill at high speeds.

► Do not ride the e-bike through deep water.

► Observe the maximum permitted total weight of the e-bike.

► Observe the temperature limits of the e-bike.

► Observe the tyre inflation pressure.

3.4 Safety notes for the charger

WARNING

Risk of electric shock and injury!

Incorrect handling of electrical current and live components can result in electric shock and serious injury.

- ► Check the charger, mains cord and mains plug for damage before each use.
- ► Do not use the charger if you know or suspect that the charger is damaged.
- ► Only use the charger indoors and keep an eye on it.
- ► Only connect the charger to a properly installed outlet.
- ► Do not let the charger come in contact with water or other fluids.

NOTE

Risk of damage!

The charger can be damaged if used improperly.

- ► When charging, place the charger on fireproof materials.
- ► Only charge the original rechargeable battery with the charger.
- ► Pull the mains plug out of the socket after charging.
- ► Observe additional safety notes for the charger.

3.5 Safety notes for the rechargeable battery

WARNING

Risk of injury!

Gases or liquids (e.g. hydrofluoric acid) can be released if the rechargeable battery catches fire, potentially leading to serious injury.

- ► Immediately remove from the fire.
- ► Maintain a safe distance from the fire and attempt to close off the area.
- ► Call the fire department.

WARNING

Risk of fire and explosion!

Internal damage to the rechargeable battery can cause overheating and gases and liquids may leak.

- ► Have a bicycle dealer check the rechargeable battery after a fall or heavy impact.
- ► Do not open, take apart, puncture or deform the rechargeable battery and battery case.

CAUTION

Risk of injury!

Lithium leaking from a damaged rechargeable battery can injure skin or eyes.

► Only handle damaged rechargeable batteries wearing protective gloves.

► Wear protective goggles and protective clothing when handling damaged rechargeable batteries.

NOTE

Risk of damage!

The rechargeable battery can be damaged if used improperly.

► In the event that the rechargeable battery could be damaged, do not charge it.

► Place the rechargeable battery on fireproof materials when charging.

► Only charge the rechargeable battery using the original charger.

► Keep the rechargeable battery away from fire and other sources of heat.

► Do not let the rechargeable battery come in contact with water or other fluids.

3.6 Road safety

Observe the following general safety information to increase overall levels of safety when riding your e-bike on the road:

→ Only use your e-bike on the road if the equipment fitted meets the road traffic regulations applicable in your country.

→ Be aware of and follow the applicable national and regional road traffic regulations.

→ Always ride your bicycle wearing a suitable bicycle helmet that has been certified according to standard DIN EN 1078 and bears the CE mark.

→ Wear bright clothing with reflective elements while riding.

→ Do not ride your e-bike if you have consumed alcohol, narcotics or medication which may impair your ability to ride.

→ Do not operate mobile devices such as smartphones or MP3 players while riding.

→ Do not allow yourself to become distracted when riding your bicycle, e.g. by switching the light on.

→ Never ride the e-bike hands-free.

Please note that road traffic also includes private land, forest paths and dirt roads when they are publicly accessible.

You can increase your safety in road traffic if you also observe the following instructions:

→ For more information about the road traffic regulations currently applicable in your country or region, contact an organisation such as the Department of Transport.

→ Keep up to date with any changes to the applicable regulations.
→ Ride carefully and with consideration for other road users.
→ Ride in such a way that nobody suffers injury, is endangered, incapacitated or disturbed.
→ Use designated cycle routes.

3.7 Tuning or modifications

WARNING

Risk of accident and injury!

Tuning or tampering with the speed settings of your e-bike may have a negative impact on your bicycle's braking or riding performance and may lead to accidents and injury.

► Do not make any structural changes.

CAUTION

Risk of injury!

The e-bike may behave differently than you expect after changes to the drive system.

► Do not make any structural changes to the drive system.

NOTE

Risk of damage!

You can cause irreparable damage to your e-bike by tuning it.

► Do not make any structural changes to the drive system.

- You can cause irreparable damage to your e-bike by tuning it.
- The frame, wheels and brakes are not designed for higher speeds.
- Any modification to the drive system or ABS system render the warranty or other claims for damages invalid.
- Tuning your e-bike has legal consequences.
- Operating an e-bike at speeds of over 25 km/h requires a driving licence and an insurance policy as well as a registration plate.
- E-bike riders travelling at a speed of over 25 km/h are required to wear a helmet.
- Any change made to the drive system will result in the loss of the driving licence.
- Any change made to the drive system will result in loss of insurance cover (personal liability insurance).
- In the event of a repeat offence, an entry may be made in the criminal record (criminal record).
- Any change made to the drive system will result in the loss of the Declaration of Conformity (CE).

Modifications to the drive system preclude participation in road traffic.

Tuning and tampering with the e-bike typically includes:

- conversion of the speed sensor,
- installation of a tuning chip,
- replacement of sprockets with parts that do not correspond to the specification (number of teeth) of the original parts and other changes to the hardware components,
- changes to the control software.

Tuning and tampering with the e-bike may have legal consequences for the user.

Possible consequences are:

- an administrative offence and a fine,
- a criminal offence for driving without a licence, and in the event of a repeat offence, possibly an entry in the criminal record,
- revocation of the driving licence,
- loss of insurance cover under a personal liability insurance policy,
- loss of liability for material defects, the warranty and warranty claims,
- partial fault in the event of an accident.

For more information, ask your dealer for the component replacement guide.

3.8 Additional regulations

E-bikes must be equipped with two independent brakes, lights, reflectors and a bell in order to ride on public roads.

Before using your e-bike on the road, make sure that it complies with the country-specific regulations.

Observe and comply with the country-specific and regional regulations for participation in road traffic (e.g. use of cycle paths). Information on the applicable road traffic regulations of the country or region can be obtained from the Ministry of Transport, for example.

3.9 Replacing components

WARNING

Risk of accident and injury!

Replacing components with incorrectly selected replacement parts may prevent the e-bike from functioning correctly.

► Only have components replaced by a bicycle dealer!

► Always use original replacement parts.

3.10 Misuse

Do not use your e-bike in the following manners to ensure safe use of your pedelec:

- Using the e-bike for purposes for which it was not designed.
  In the worst case, this can lead to overstressing of components, material breakage and/or loss of function of important equipment (e.g. brakes) and the associated serious injuries;

- Use of the e-bike for competitions, jumps, stunts or tricks if the e-bike category (use classification) excludes this use;
- Incorrect repairs and maintenance;
- Improper use of the rechargeable battery;
- Structural modifications to the e-bike as delivered, in particular tuning, and any other modification to the e-bike;
- Opening and modifying components of the e-bike;
- Cleaning the e-bike with a high-pressure cleaner;
- Charging outside the temperature range of +5 °C to +45 °C;
- Deep discharge of the rechargeable battery due to charging breaks of more than three months or improper storage of the rechargeable battery outside the optimum storage temperature of +10 °C to +25 °C.

Misuse of the e-bike may invalidate the warranty.

3.11 Residual risks

Even if you observe all the safety and warning instructions, you may still be exposed to the following unforeseeable residual risks while using the e-bike. You can only reduce these residual risks by observing all safety instructions and warnings, but you cannot rule them out completely. It is therefore important that you are aware of the existence of residual risks when using the e-bike:

- errors by other road users;
- distraction from road traffic;
- misjudgements regarding traction, speed, own driving skills;
- unforeseeable road conditions, e.g. slippery conditions caused by black ice;
- unforeseeable material defects or material fatigue can cause the breakage or functional failure of pedelec components.

→ Ride defensively and anticipate the traffic situation well in advance.

→ Check the e-bike for cracks, scratches, discolouration or component damage prior to each journey.

→ Check the function of safety-relevant components such as the brakes prior to each journey.

→ After a fall or accident, have a bicycle dealer inspect the e-bike for damage.

3.12 Riding with children

Find out whether children are allowed to ride with you on your e-bike (see section *"Bicycle passport" on page 114*). Observe the following information when riding with children:

WARNING

Risk of accident and injury!

The additional weight changes the riding characteristics of the e-bike.

► Observe the maximum trailer load and the maximum permitted total weight.

► After installing a child seat or child trailer, familiarise yourself with how the e-bike handles differently in a safe place away from the road.

WARNING

Risk of accident and injury!

Fitting a child seat or trailer coupling incorrectly can cause components to break.

► Have a bicycle dealer install your child seat, trailer and trailer coupling.

→ Your bicycle dealer will be happy to help you select suitable child seats, child trailers and trailer systems for your e-bike.

→ Read the user manual belonging to the child seat, child trailer or trailer system.

→ Observe the permitted maximum weight for the child seat, the child trailer or the trailer system specified in the accompanying instruction manual.

→ Only children younger than 8 years old who weigh less than 22 kg may be transported in a child seat or child trailer (child seat = maximum 15 kg).

→ You must be a minimum of 16 years of age to transport a child in a child seat or child trailer.

→ Only transport a child in a child seat or child trailer if they are wearing an adapted bicycle helmet that is certified according to standard DIN EN 1078 and bears the CE mark.

→ When using child seats, child trailers and trailer systems, always observe the regulations applicable in your country and region.

→ Make sure that there are no loose straps that could get caught in one of the wheels.

→ Apply the brakes sooner, expect a longer braking distance and less responsive steering.

→ Practice mounting and dismounting the bicycle in a safe place away from the road.

→ Teach your child to behave appropriately during the journey.

→ Ride defensively and anticipate the traffic situation well in advance.

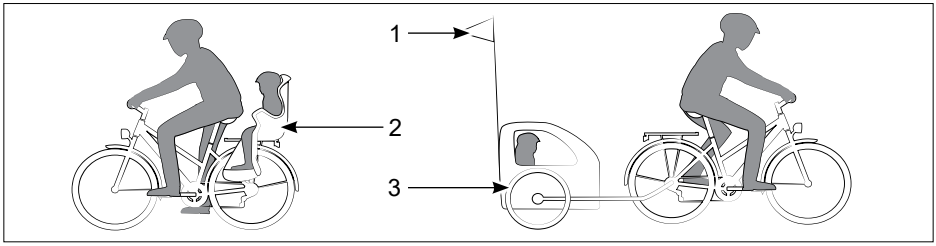

Fig.: Riding with children

1 Flag
2 Child seat
3 Child trailer

3.12.1 Travelling with children in a child seat

Child seats are only approved for use with e-bikes of EN17406 classification 1 and 2. Child seats are only permitted on e-bikes for which this is indicated on the card with the maximum permitted total weight that you received with your e-bike.

Information on child seat approval can also be found on the type plate of your e-bike.

The use of child seats is not permitted on:

- E-bikes with carbon frames or forks
- S-E bikes
- Children's and youth e-bikes with a wheel size smaller than 26"

→ Only have your child seat fitted by your specialist dealer.

→ Only have child seats fitted if your e-bike is suitable for them. Ask your dealer for suitable child seats.

→ Only use child seats that are fitted so that the child sits behind the driver.

→ Child seats mounted on the seat post are not permitted.

→ Child seats mounted on the seat tube are not permitted.

→ Child seats mounted in front of the rider are not permitted (exception: cargo bikes with special child transport devices).

→ The installation of child seats with a suitable adapter for the luggage rack is only permitted if the rack complies with the specifications of ISO 11243 and has a maximum permissible load of at least 27 kilos.

→ Children weighing more than 15 kilos may not be transported in a child seat.

3.12.2 Child trailers and other trailers

WARNING

Risk of accident and injury!

An e-bike with a child trailer attached is much longer and is more difficult to stop due to the propulsive force of the child trailer.

► Ride an e-bike with a child trailer at a moderate speed.

► Remember that the stopping distance will be much longer.

Child trailers or other e-bike trailers (cargo or dog trailers) are only authorised for use with e-bikes of EN 17406 classification 1 and 2. Child/animal/load trailers are only permitted on e-bikes if this is stated on the card with the maximum permitted total weight that you received with your e-bike.

Information on trailer approval can also be found on the type plate of your e-bike

Child/animal/cargo trailers are not permitted on:

- E-bikes with carbon frames or forks,
- S-Pedelecs,
- Children's and youth e-bikes with a wheel size smaller than 26".

→ Only trailers with two wheels next to each other are authorised.

→ The use of single-track trailers is not permitted.

→ The trailer may only be attached to the left dropout if it is firmly welded to the frame. Attachments to length-adjustable dropouts are not permitted.
→ Other mounting connections (e.g. seat post, luggage rack, etc.) are not permitted.
→ The maximum trailer load (trailer including payload) is 60 kg.
→ Only have your child/animal/cargo trailer fitted by your specialist dealer.

Observe the following points when using child trailers:

→ Only have child trailers fitted if your e-bike/bicycle is suitable for this (see section *"Bicycle passport" on page 114*).
→ Only child trailers certified according to DIN EN 15918 can guarantee maximum safety.
→ In a safe place away from the road, familiarise yourself with the changed riding characteristics of your e-bike/bicycle resulting from the increase in weight and additional length.
→ Transport a maximum of two children in the child trailer.
→ Always use a child trailer fitted with a lighting system that meets all the relevant national and regional regulations.
→ Choose a child trailer with suitable seats and restraint systems to ensure that your child is securely seated.
→ Have the child trailer fitted with a flexible flagpole at least 1.5 m in length topped with a luminous flag and make sure covers are fitted over the spokes and wheel houses.
→ In order to guarantee maximum safety, select a child trailer with a robust passenger compartment and integral safety belts.
→ Make sure that there are no moving parts of the e-bike/bicycle or trailer within the reach of the child/children that could cause injury.

4 Basics

4.1 Reading and storing the instruction manual

This original user manual – hereinafter referred to as user manual – accompanies this e-bike. The instruction manual contains important information on adjusting and using the e-bike. Before using the e-bike, read through all the warnings and information in this user manual carefully, in particular the section entitled ‘Safety’. Ignoring the warnings and information in this instruction manual can result in serious personal injury and damage to the e-bike. Keep the manual to hand so that it is available at all times. Include the user manual when passing the e-bike on to a new owner.

4.2 Signs and symbols

	Always read the instruction manual all the way through.
	Supplementary notes regarding steps to be performed or use.
1.	Handling instructions that must be performed in a specific order start with a number.
→	Handling instructions that can be performed in any order start with an arrow.
•	List items start with a bullet point.
	Electrical appliances bearing this symbol may not be disposed of with household or municipal waste. Consumers are legally required to dispose of electrical appliances bearing this symbol at suitable collection points in order to be recycled in an environmentally friendly manner.
	Rechargeable batteries and batteries may not be disposed of with household or municipal waste. Consumers are legally required to dispose of rechargeable batteries and batteries bearing this symbol at suitable collection points in order to be recycled in an environmentally friendly manner.
	Label for waste materials intended for recycling. Dispose of the packaging according to material type. Dispose of cardboard and carton as waste paper and foils via the recyclable material collection service.
	Products marked with this symbol meet all applicable Community regulations for the European Economic Area.
	Labelling for products that may only be used indoors.
	The mains connection 230V~/50 Hz belongs to Protection class II.
	Symbol for direct current (DC)
	Symbol for alternating current (AC)

4.3 Units and their meaning

You will find the following units in this user manual or on your e-bike's components:

Unit	Meaning	Unit for
°	Degree	Angle
°C	Degree Celsius	Temperature
°F	Degree Fahrenheit	Temperature (USA)
1/s	per second	Revolutions
"	Inch	Unit of length (USA) 1 inch = 2.54 cm
bar	Bar	Pressure
g	Gram	Mass (Weight)
h	Hour	Time
Hz	Hertz	Frequency
kg	Kilogramme	Mass (Weight)
km/h	Kilometre per hour	Speed
kPa	Kilopascal	Pressure
mph	Miles per hour	Speed
Nm	Newton meter	Torque
psi	Pound per square inch	Pressure (USA)

4.4 Intended use

The manufacturer or bicycle dealer does not accept liability for damage resulting from improper use. Only use the e-bike in the manner described in this user manual. Any other use is considered improper and may result in accidents, serious injury and damage to the e-bike.

Improper use of the e-bike will void the warranty.

The e-bike was designed to be used by one person for whom the seating position has been set accordingly. The e-bike is intended exclusively for private use.

The e-bike is only designed for use on roads and paths with a smooth surface. Riding on unpaved roads, which are not asphalted, made of concrete or paved, may result in the failure of the e-bike.

The e-bike is not intended to be subjected to above-average strain during use, e.g. using the bicycle in racing or competitive events is considered improper use.

To ensure proper use of the e-bike in road traffic, you must know, understand and observe the country-specific and regional regulations.

Use of a child seat, child trailer and trailer system is only permitted when this is stated in the bicycle passport.

4.5 Purpose/category

The intended use for which your e-bike is designed is determined by the respective category (1-6 according to EN 17406). The category to which your e-bike is assigned can be found in the handover document or on the type plate of your e-bike.

Category / Labelling	EN 17406	EN 17406	EN 17406	EN 17406	EN 17406	EN 17406
Typical use	Commuting/ leisure trips with moderate exertion	Leisure rides/ trekking with moderate effort.	Sport/competition rides with moderate technical demands on the trails.	Sport/competition rides with very challenging technical demands on the trails.	Extreme sports	Sport/competitive riding with high exertion.
Ground surface	Paved road / paths (tarred / paved).	Like category 1 and gravelled/ unpaved paths with a medium gradient	Like categories 1-2 and rough/ difficult routes that require advanced riding technique.	Like categories 1-3 and descents on rough terrain at a speed of 40 km/h (max.).	Such as categories 1-4 and extreme jumps or descents in rough terrain at speeds of over 40 km/h.	Like category 1 and for use in competitions/ rides at speeds above 50 km/h (e.g. downhill and sprints).
Jumps/ Drops	< 15 cm	< 15 cm	< 60 cm	< 120 cm	< 120 cm	< 15 cm
Typical Ø speed	15-25 km/h	15-25 km/h	not relevant	not relevant	not relevant	30-55 km/h

Maximum permitted total weight

The e-bike has a maximum permitted total weight that must be observed when using the e-bike. The maximum permitted total weight can

- be found on the CE sticker on your e-bike or
- bicycle passport (see section *"Bicycle passport" on page 114*).

→ Determine the empty weight of your e-bike using suspended scales, if necessary with all items of optional equipment attached.

The maximum permitted total weight is calculated by adding the following weight specifications:

E-bike + rider + luggage/child's seat etc. = maximum permitted total weight.

→ If you always observe the maximum permitted total weight of the e-bike, you will reduce the risk of having an accident, suffering an injury and damaging the e-bike. Failure to observe the total weight specification can lead to warranty and guarantee exclusions.

4.6 Information on torque values

WARNING

Risk of accident and injury!

Incorrectly tightened screw connections can result in material fatigue and eventually cause the screw connections to break.

► Do not use the e-bike if screw connections are loose.

► Tighten the screw connections with the correct torque values.

Observe the relevant torque values to ensure the screw connections are tightened correctly. This requires the use of a torque wrench with a corresponding range of adjustment.

→ If you do not have any experience working with torque wrenches or do not have access to a suitable torque wrench, have the screw connections checked by a bicycle dealer.

The correct torque value for a screw connection depends on the material and diameter of the screw as well as the material and design of the component.

→ If you tighten screw connections yourself, check whether your e-bike is equipped with aluminium or carbon components (see section *"Bicycle passport" on page 114*).

  → Observe the special torque values for components manufactured from aluminium or carbon.

→ Individual e-bike components are labelled with information about the appropriate torques or with markings showing insertion depths. Always observe these specifications and markings.

Not all components are listed in this table.

The torque specifications are standard values.

→ Please ask for more information about other components and their corresponding torque or read the enclosed instruction manual for these components.

Screw connection	Torque in Nm**
Pedal crank (steel/aluminium)	30/40
Pedal*	30
Front/rear axle nuts (15 mm)	25/35
Saddle (adjusting screw) M6/M8	14/20
Seatpost clamp M5/M6	5/10
Brake and gear levers on the handlebar	3
Handlebar stem with inner clamping (shaft stem clamping spindle)	8
Handlebar stem with outer clamping (shaft clamping/handlebar clamping)	4/5

*The right pedal of a bicycle always has a right-hand thread, while the left pedal has a left-hand thread.

**or according to the printed manufacturer's instructions.

4.7 Rotation direction of screws

→ Tighten nuts, screws and quick-release axles by turning them clockwise.

→ Unscrew nuts, screws and quick-release axles by turning them anti-clockwise.

If there are deviations from these rules, you can find the relevant direction of rotation in the relevant section.

4.8 Sitting position

CAUTION

Risk of injury!

Incorrectly adjusted sitting position can lead to muscle tension and joint pain.

► Have your sitting position set correctly by a bicycle dealer.

CAUTION

Risk of accident and injury!

An incorrect sitting position limits accessibility of handlebar controls.

► Have your sitting position set correctly by a bicycle dealer.

In order for you to control the e-bike safely, the seating position must be adapted to your individual needs.

The ideal sitting position depends on the frame size and geometry of the e-bike, the height of the rider, as well as the handlebar and saddle settings. Specialist know-how is required to achieve the best sitting position. The best sitting position may also depend on how the e-bike will be used, e.g. predominantly for sport.

The key features of an optimal sitting position are as follows:

- If a pedal is at the top, the knee angle of the upper leg and the arm angle is 90°. The lower leg must be slightly bent (see fig. 'Key features of an optimal sitting position', left).
- When one pedal is forwards, the knee must be above the axle of the front pedal (see fig. 'Key features of an optimal sitting position', right).
- The arms are relaxed and slightly bent outwards (not shown in the picture below).
- The back is not perpendicular to the seat post.

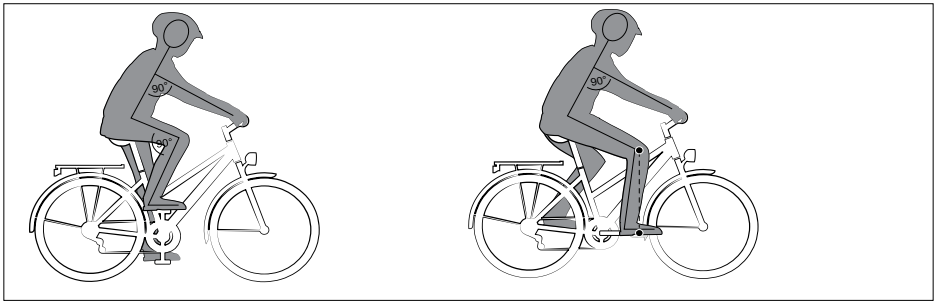

Fig.: Key features of an optimal sitting position

4.9 Transport

NOTE

Risk of damage!

Incorrect use of bicycle racks can result in material damage.

► Always use approved bicycle racks to transport the e-bike upright.
► Have the bicycle dealer inform you about how to use pedelec racks.
► Remove the battery during transport and transport it safely in the vehicle.
► Remove detachable accessories (display, etc.).
► Secure the e-bike against slipping and falling.

Depending on the bicycle model, a transport restraint for the disc brakes is included in the bicycle's packaging.

→ Ask a bicycle dealer to explain how to use a transport lock.
→ Use the transport restraint when transporting the e-bike.
→ Transport the e-bike in an upright position.

4.10 After an accident

WARNING

Risk of accident and injury!

Falls or accidents can cause damage to the e-bike, such as hairline cracks. Components may be damaged but the damage may not be visible.

- ► After a fall or accident, ask a bicycle dealer to inspect the e-bike for damage.
- ► Do not straighten damaged components.
- ► Have a bicycle dealer replace damaged components immediately.
- ► Do not use the e-bike if damage to the e-bike is recognisable or suspected.

A fall or accident may damage components. Damage to carbon components is not always visible. Fibres or paint may come off or be damaged beyond repair and the strength of the components may be reduced as a result.

→ Have a bicycle dealer replace any carbon components damaged during a fall or accident.

→ Check all components of the e-bike after minor falls, e.g. if the e-bike has fallen over.

→ If in doubt or if repairs are needed, consult a bicycle dealer.

4.11 Wear

WARNING

Risk of accident and injury!

Excessive wear, material fatigue or loose screws can lead to malfunctions that cause accidents or falls.

- ► Regularly check the e-bike for wear.
- ► Do not use the e-bike if there are deformations, cracks and changes in colour.
- ► Do not use the e-bike if there is excessive wear or loose screw connections.
- ► If you discover any excessive wear, loose screw connections, cracks, deformations or discolouration, have the e-bike inspected immediately by a bicycle dealer.

Like all mechanical components, the e-bike is subject to wear and high loads. Different materials can react differently to wear or tear due to stress. Any type of cracking, ridging or colour change indicates that the component has reached the end of its useful life. Worn components must be replaced.

Only a bicycle dealer can assess the wear on components made from aluminium, carbon or composite materials. Components made of composite materials are sensitive to high temperatures (e.g. heat radiation) and can suffer damage as a result.

Heavy blows, shocks and excessive tension can cause damage to frames, forks and wheels made of carbon and composite materials. The inner structure of the materials undergoes detrimental changes without showing any visible signs.

→ Ask a bicycle dealer for advice about the wear components on your e-bike.

→ Regularly check the condition of all wearing parts.

→ Maintain all wear parts regularly.

4.12 Emission sound pressure level

The A-weighted emission sound pressure level at the driver’s ears is less than 70 db(A).

5 Notes on the e-bike

This section provides information on the basic properties and components of the e-bike.

→ Please observe the enclosed manufacturer's manual for the components of your e-bike.

Depending on the model, your e-bike may be equipped differently.

5.1 Differences between e-bikes and bicycles

In contrast to a pedal-powered bicycle, the e-bike contains the following additional components:

- Electric motor,
- Rechargeable battery,
- Control unit,
- Display,
- Charger.

The additional components of the e-bike lead to significant differences between an e-bike and a pedal-powered bike.

- The e-bike weighs a lot more and also has a different weight distribution than a bicycle. This results in different handling.
  → You should also familiarise yourself with how the e-bike handles in a safe place away from the road.
- The electric motor has a major impact on the braking behaviour.
  → You should also familiarise yourself with how the e-bike brakes in a safe place away from the road.
- E-bikes require higher braking forces. This can result in higher wear than as for bicycles.
- Your average speed will increase with the electric motor.
  → You should therefore cycle attentively. Please bear in mind that other road users will have to adjust to the higher speed of the e-bike.

→ An appropriate level of expertise is required to handle the rechargeable battery and charger.

→ Do not make any modifications to the your e-bike's additional components.

5.2 Electric motor

The electric motor is designed specifically for powering your e-bike and must not be used for other purposes.

Depending on the model, the electric model helps you use your e-bike in two ways.

5.2.1 Assistance while driving

The electric motor only helps you to ride while pedalling. The intensity of support is automatically determined based on:

- the selected level of assistance,
- the pedalling power,
- the load and
- the speed.

The electric motor supports pedalling up to a speed of 25 km/h. If you go higher than a speed of 25 km/h, the electric motor automatically turns off. If you go below a speed of 25 km/h, the electric motor automatically turns on.

5.2.2 Assistance while pushing

Depending on the model, your e-bike may be equipped with a pushing aid.

The pushing aid supports you when pushing the e-bike. The function can go as fast as 6 km/h and depends on the selected gear. The smaller the selected gear, the lower the speed.

CAUTION

Risk of injury!

Turning the foot cranks and pedals independently when turning on the pushing aid can result in injury.

► Stand back from foot pedals and cranks when turning on the pushing aid.

5.3 Range

The electric motor is an auxiliary motor. The range is affected by your pedalling intensity.

→ Set the lowest possible level of support.

The lower the pedalling frequency of the pedal drive, the higher the energy requirement for the drive.

→ Use the gear shift system as you would without assistance.

→ For inclines, head wind or a heavy load, use the lower gears of the gear shift.

The drive requires a large amount of energy when starting.

→ Always use a low gear with the highest possible pedal force.

→ Before travelling uphill, switch to a lower gear in time.

→ Think ahead whilst riding to avoid any unnecessary stops.

The energy consumption will increase with high loads.

→ Do not transport any unnecessary loads.

Lack of care and maintenance may reduce the range.

→ Handle the e-bike with care and follow all notes on the rechargeable battery in the manufacturer's user manual.

→ Check the tyre pressure regularly.

→ Comply with the maintenance intervals.

Temperatures below +10°C may reduce the performance of the rechargeable battery during operation. When you are not using your e-bike:

→ At low outdoor temperatures, take the rechargeable battery out of the holder and put it in storage (see section *"Storing the rechargeable battery" on page 104*).

→ Only put the rechargeable battery in the holder right before riding.

5.4 Cycling with an empty rechargeable battery

If the charge of the rechargeable battery is completely used up while riding, you can use your e-bike as you would a pedal-operated bicycle.

When the rechargeable battery charge has been drained, the electric motor automatically turns off. The lights will be powered for another two hours.

5.5 Drive overheat protection

CAUTION

Risk of injury!

The electric motor and rechargeable battery can get very hot during use. You could injure yourself in the event of contact with your skin.

► Do not touch the electric motor and the rechargeable battery.

The electric motor is automatically protected against damage caused by overheating. If the motor's temperature is too high, the electric motor automatically turns off.

→ To prevent the electric motor from overheating, use a low level of assistance when the outside temperature is high or when going up steeply inclining uphill stretches.

→ If the electric motor is switched off with the rechargeable battery charged and at a speed below 25 km/h, do not use the e-bike for some time to allow the electric motor to cool down.

→ If the issue is not resolved by allowing the electric motor to cool, have your bicycle dealer inspect the e-bike.

5.6 General notes on the rechargeable battery

Your e-bike is equipped with a lithium-ion rechargeable battery (Li-ion rechargeable battery). Li-ion rechargeable batteries have a relatively high energy density. Therefore, this rechargeable battery must be handled with great care.

→ Observe the safety notes for the rechargeable battery (see section *"Safety notes for the rechargeable battery" on page 16*).

→ Please also observe the following information for reliable operation and a long service life:

Partial charging does not damage the rechargeable battery; it does not have a memory effect. Partial loads are prorated proportionately according to their capacity. For example, a charge of 50% corresponds to half a charge cycle.

NOTE

Risk of damage!

Self-discharge of the rechargeable battery for technical reasons may cause irreparable damages.

► Immediately recharge the rechargeable battery if empty.

→ Observe the rechargeable battery's temperature limits (see enclosed manufacturer's user manual).

→ Please note that outside temperatures under +10 °C may reduce the rechargeable battery's performance.

→ Please note that the rechargeable battery may lose power after about 500 complete charging cycles.

→ Please be aware that you will get used to the electrical support after some initial use. This may result in a perceived drop in the output of the rechargeable battery.

→ Please contact your bicycle dealer if the performance decreases or the operating time is significantly reduced.

→ Never perform any modifications on the rechargeable battery.

5.6.1 Charging times

When the rechargeable battery is empty, it may take between 4 and 8 hours to fully charge the battery, depending on the charger used. The length of charging is based on the following factors:

- Capacity of the rechargeable battery,
- Charging level of the rechargeable battery,
- Temperature of the rechargeable battery and
- Ambient temperature.

→ Please observe the enclosed manufacturer's user manual when using your e-bike's rechargeable battery.

5.6.2 Using the rechargeable battery

Depending on the model, your e-bike may be equipped with a:

- Carrier rechargeable battery
- Seat tube rechargeable battery
- Bottom tube rechargeable battery
- Built-in bottom tube rechargeable battery

→ Always switch the e-bike off before removing the rechargeable battery.

→ Remove the rechargeable battery from the e-bike before carrying out any work (e.g. repair, transport, maintenance).

→ Please observe the enclosed manufacturer's user manual when using your e-bike's rechargeable battery.

5.6.3 Transporting or shipping the rechargeable battery

Lithium-ion rechargeable batteries are subject to the requirements of dangerous goods legislation. The private user may transport undamaged rechargeable batteries on the road without any further requirements.

→ Please note that the special requirements for packaging and labelling e.g. during air transport or shipping orders apply for commercial transport.

→ Obtain information about transporting the rechargeable battery and suitable transport packaging, for example, from the transport company directly or from a bicycle dealer.

→ When transporting the e-bike, remove the rechargeable battery and transport it separately and secure it against bumps and impact.

Read section *"Transport" on page 29* for transporting your e-bike in a car.

5.7 Protective equipment

Depending on the model, your e-bike's rechargeable battery may be equipped with safety devices:

- Protection against overheating
- Protection against deep discharge

→ Please observe the enclosed manufacturer's user manual when using your e-bike's rechargeable battery.

5.8 Notes on the additional components of the e-bike

→ Observe the safety instructions for the charger, see section *"Safety notes for the charger" on page 16*, when using the charger.

→ Please observe the enclosed manufacturer's user manual when using your e-bike's additional components.

5.9 Notes on use

5.9.1 Information regarding road traffic

The assistance provided by e-bikes is effective up to a speed of 25 km/h. The technical configuration of your e-bike complies with the European standard EN 15194 for electrically power-assisted bicycles and the bicycle standard DIN EN ISO 4210.

→ Seek information regarding the relevant applicable road traffic regulations for the country or the region, e.g. from the Ministry of Transport.

→ Ensure that you regularly obtain information regarding changes to the content of valid regulations.

5.9.2 Start-up

The following requirements must be met in order to start up your e-bike:

- a charged battery is used,
- the control unit/display is functional and mounted on the e-bike.

→ Observe the enclosed manufacturer's operating instructions/system provider's instructions when operating your e-bike.

5.9.3 Use of the drive system

→ Always cycle with the drive system switched on.

→ Set the desired assistance level using the model-dependent control element.

- For detailed information on the support levels and handling of the drive system (e.g. control and displays; inserting and removing the battery), please refer to the system manufacturer's operating instructions.

→ Please refer to the enclosed instructions from the component manufacturer for handling model-dependent components (e.g. suspension systems).

5.10 Residual risks

Even if all safety notes are complied with, using the e-bike is associated with the following unforeseeable residual risks:

5.10.1 Risk of injury

- Gases, vapours and liquids could leak out of the rechargeable battery due to internal, invisible damages and in the event of fire. External or internal organs may be damaged, for example, if gases come into contact with skin or are inhaled.

5.10.2 Fire hazard

- Internal, invisible damage may cause the rechargeable battery to catch fire and set nearby objects on fire.

5.10.3 Risk of damage

- If the rechargeable battery catches fire, hydrofluoric acid leaks out with the smoke gas. Hydrofluoric acid is highly corrosive and permanently damages surfaces.

6 Basic adjustments

The following section contains information on how to:

- inspect your e-bike before you set off,
- adjust the seat position and
- make other basic adjustments.

If you do not have the necessary know-how and tools to make basic adjustments, have your bicycle dealer perform these adjustments.

6.1 Before your first trip

Your bicycle dealer has fully assembled and adjusted the e-bike. The e-bike is now ready to ride.

Familiarise yourself with the most important functions on the e-bike before setting off on your first trip.

→ You should also familiarise yourself with the riding characteristics of your e-bike in a safe place away from the road.

→ If you are unfamiliar with the brake lever assignment to the front and rear wheel brakes, have a bicycle dealer change the brake lever configuration.

→ Familiarise yourself with how your bike brakes at a low speed in a safe place away from the road.

→ If your bicycle is fitted with hydraulic brakes, press both brake levers several times to centre the brake pads in the calliper.

→ Practice changing gear in a safe place away from the road so that you do not have to take your eye off the road when changing gear.

→ Check to ensure that you can adopt a comfortable sitting position even on longer rides and can safely operate all components on the handlebars.

6.2 Checks before each journey

→ Before each journey, check the e-bike for damage and excessive wear.

→ If you discover any damage or excessive wear, do not use the e-bike.

→ Have the damaged or worn components replaced by a bicycle dealer.

Before each journey, check the following:

- **Brakes**
  → Push the e-bike and operate one brake each – the front or rear wheel that is currently being braked should become locked.
- **The gear shift system**
  → Check whether the gears change easily and without making unusual noises.
- **Frame, fork and seatpost**
  → Visual inspection: The frame, fork and seatpost must not be cracked, deformed or discoloured.
- **Quick-release devices**
  → Check whether all quick-release devices are closed firmly and secured correctly.
  → Check the pretension of all quick-release devices.
- **The screw and plug connections**
  → Visual inspection: The screw and plug connections must be closed correctly.
- **Pedal mechanism**
  → Check whether the pedal mechanism functions properly and is secured correctly.
- **Lighting**
  → Check whether the headlamp and tail lamp function correctly.
- **Bell**
  → Check whether the bell makes a clear sound.
- **Handlebar and handlebar stem**
  → Check that the handlebar and handlebar stem are securely seated.
  → Visual inspection: The handlebar and handlebar stem must not be cracked, deformed or discoloured.
- **Tyres**
  → Check the tyre inflation pressure.
  → Check the tyres for cracks and foreign objects.
- **Rims and spokes**
  → Visual inspection: The rims must not be cracked, deformed or worn excessively.
  → Check that the spokes for even tension.

6.3 Adjusting the seat position

Finding the best seating position depends on

- the height of the rider,
- the frame size of the e-bike
- and the handlebar and saddle settings.

WARNING

Risk of accident and injury!

Incorrectly adjusting the height of the saddle or handlebar may affect the function and safety of the bicycle components.

► Observe the minimum insertion depth of the seatpost.

CAUTION

Risk of injury!

Incorrectly adjusted sitting position can lead to muscle tension and joint pain.

► Have your sitting position set correctly by a bicycle dealer.

CAUTION

Risk of accident and injury!

An incorrect seating position can make it difficult to reach the operating elements on the handlebar.

► Have your sitting position set correctly by a bicycle dealer.

Read the section *"Sitting position" on page 28* for information on the key characteristics of an appropriate seating position.

The correct seating position may also depend on how the e-bike will be used, e.g. predominantly for sport.

Read the section *"Adjusting the saddle" on page 81* for information on adjusting the saddle height.

Do not adjust the handlebar height unless you have the necessary know-how and tools (see section *"Handlebar" on page 78*).

If your e-bike is fitted with an Ahead handlebar stem, have the handlebar height adjusted by a bicycle dealer.

If you cannot achieve a comfortable seating position by adjusting the saddle and handlebar, you can improve your seating position by replacing specific components. Components that can be replaced include

- seatpost,
- saddle,
- handlebar stem,
- handlebar,
- cranks.

→ If you cannot achieve a comfortable seating position, have a bicycle dealer fit components with different dimensions.

→ Note that there may be a reduction in foot clearance on road bikes due to the replacement of the pedal cranks or tyres.

If you decide to sell or give the e-bike to another person, this person has the option of replacing components to achieve an appropriate seating position.

6.4 Observing the torque values

The torque value refers to the rotational force applied to screw connections on the e-bike, for example. In order to tighten the screw connections correctly, always observe the torque values (see section *"Information on torque values" on page 27*).

WARNING

Risk of accident and injury!

Incorrectly tightened screw connections can result in material fatigue and eventually cause the screw connections to break.

► Do not use the e-bike if screw connections are loose.

► Tighten the screw connections with the correct torque values.

7 Brakes

WARNING

Risk of accident and injury!

In wet conditions, the effectiveness of the brakes may decrease and the braking distance may increase.

► Adapt your riding style and speed to the weather and road conditions.

WARNING

Risk of accident and injury!

Actuating only the front wheel brake may cause you to somersault over the handlebar.

► Always use the brake lever for the front wheel with care when travelling at high speeds.

► Adjust the braking force of the brakes to the riding situation.

► Always apply both brakes simultaneously when braking.

WARNING

Risk of accident and injury!

If the rear wheel locks up, it may cause you to have an accident.

► Use the rear wheel brake carefully when cornering.

WARNING

Risk of accident and injury!

Unsuitable brake pads can lead to a reduced or excessively strong braking performance or could cause the brakes to fail.

► Always replace brake components with original replacement parts.

A brake is a technical device used to slow down your bike. The term ‘brake system’ refers to all the individual parts combined.

An e-bike is fitted with a minimum of two brakes that act on the front and rear wheel independently of one another.

The following brake types may be fitted:

- Coaster brake
- Rim brakes
- Disc brakes
- Roller/drum brake

→ Check section *“Bicycle passport” on page 114* to see which brakes the e-bike is fitted with.

→ To ensure a short braking distance, you should apply both brakes evenly.

7.1 Checking the condition of the brakes

Carry out the following steps on the front and rear wheel brakes:

1. Check that all the screws in the brake system are secure.
2. Check whether the brake lever is torque-proof on the handlebar.
   → If you notice loose screw connections, ask your bicycle dealer to tighten them.
3. Check that there is still at least 1 cm of clearance between the brake lever and the grip when the brake lever is fully pulled.
   → If the gap is less than 1 cm, have your bicycle dealer adjust the braking system.
4. Check the wear on the brake pads.
   → If in any doubt, ask your bicycle dealer to show you how to inspect signs of wear.
5. Move the brake rotors on the front and rear wheel back and forth slightly to check whether they are seated snugly.
6. Check whether the front or rear wheel locks up when the respective brake lever is pressed.
   → If you notice a reduced braking force, have your bicycle dealer adjust the braking system.

7.2 Brake lever configuration

The brake levers are arranged as follows in the basic configuration:

If the e-bike has only one brake lever, it is attached on the right of the handlebar and operates the front brake.

If the e-bike has two brake levers, the right brake lever operates the rear brake and the left brake lever operates the front brake.

→ Familiarise yourself with the configuration of the brake levers before you start riding. If you wish to change the brake lever configuration, consult a bicycle dealer.

7.3 Rim brakes

WARNING

Risk of accident and injury!

Wear can cause the rim to break.

► Have the rims checked by a bicycle dealer at least once a year or after 1000 km.

When the brake lever on a mechanical rim brake is pressed, the brake cable pulls the brake arms together and the brake pads are pushed against the rim.

When the brake lever on a hydraulic rim brake is pressed, the brake pistons in the braking unit are pushed outwards by oil pressure and the brake blocks are pressed onto the rim.

If you do not have the necessary know-how and tools to adjust the rim brake, have your bicycle dealer perform the adjustments.

7.3.1 Rim brake with quick-release fastener

WARNING

Risk of accident and injury!

An open quick-release fastener can cause the rim brake to fail.

► Make sure that the quick-release fastener is closed.

The quick-release fastener lever on a rim brake allows you to quickly remove and refit the wheels.

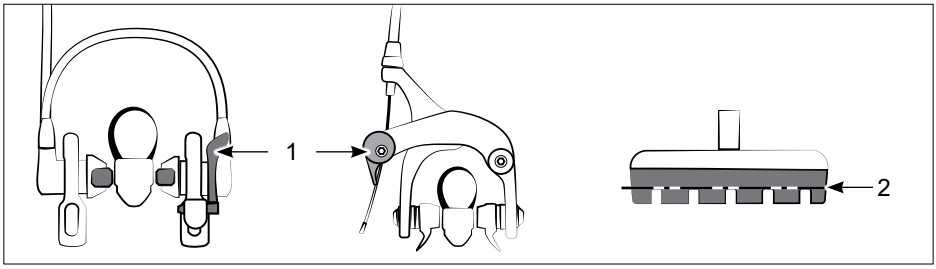

Fig.: Rim brakes

1 Quick-release mechanism

2 Wear limit

7.3.2 Basics

The brake pads and rim slowly abrade when the rim brake is used. If the rim brake is fitted with a cable, the brake cable will also wear. In the case of hydraulic rim brakes, the brake fluid can also wear through use.

In order to ensure that the rim brake remains fully operational at all times, follow the maintenance instructions below.

→ Remove any dirt from the rim brake components and rim immediately using a slightly damp cloth.

→ Check that all the screws in the brake system are secure.

→ Check whether the brake lever is torque-proof on the handlebar.

→ If you notice loose screw connections, ask your bicycle dealer to tighten them, taking the torque into consideration.

→ Pull on the brake lever several times and check that the brake cable does not catch anywhere, that no scratching sounds can be heard and that no brake fluid leaks from the cables, connections or brake pads.

→ Check for damage to the brake cable casing or torn wires (visual check).

  → If you notice damage to the brake cables or if you notice that brake fluid is leaking, do not use the e-bike.

  → Press the brake lever all the way down and check whether the gap remaining between the brake lever and grip is at least 1 cm.

→ If the gap is less than 1 cm, have a bicycle dealer adjust the rim brake.

→ Check to ensure that the wheels of the e-bike come to a complete stop when the rim brakes are applied.

  → If you notice a reduced braking force, have your bicycle dealer adjust the braking system.

→ Check for unusual noises when operating the rim brake.

  → If you hear any unusual noises, have a bicycle dealer check the braking system.

7.3.3 Checking the brake pads

→ Check whether the brake pads have reached their wear limit.

  → If in doubt, ask a bicycle dealer to check the wear limit of the brake pads.

The brake pads must be replaced before they reach their wear limit.

Have a bicycle dealer replace the brake pads and then adjust the braking system.

Ask a bicycle dealer to explain the wear limit of the rim brake.

→ Check that there is still at least 1 cm of clearance between the brake lever and the grip even when the brake lever is fully deployed.
  → If the gap is less than 1 cm, have the braking system adjusted by a bicycle dealer.
→ Check whether the brake blocks wear evenly on both sides of the rim (visual inspection).
  → If the brake pads wear unevenly or at an angle, have the braking system checked by a bicycle dealer.
→ Check the brake pads for damage and heavy soiling (visual inspection).
  → Clean the brake pads if they are extremely dirty.
  Never use oil or oil-based care and cleaning agents (e.g. WD-40) for cleaning.
  → Have damaged brake pads replaced by a bicycle dealer.
→ Check whether the brake blocks rub centrally on the side of the rim.
  → The brake shoes should be positioned so that they follow the curve of the rim as closely as possible.
→ Take hold of the brake shoes and check if they can be turned.
  → If you are able to twist the brake blocks, have them adjusted by a bicycle dealer.
→ Check whether the brake blocks move evenly and symmetrically towards and away from the rim when the brake lever is pulled and released (visual inspection).
  → If the brake blocks move unevenly, have the braking system checked by a bicycle dealer.

7.4 Operating the rim brakes

The rear wheel locks up earlier than the front wheel when the same braking force is applied.

Depending on the bicycle model, your e-bike may be fitted with different types of brakes on the front and rear wheels.

→ To brake, pull the brake lever towards the handlebar using your fingers.
→ Regulate the braking action by increasing or decreasing the force with which you pull the brake lever.
→ To stop braking, simply release the brake lever.

To ensure a short braking distance, you should brake evenly, using both brakes at the same time, or with hand brake or coaster brakes where applicable.

7.5 Adjusting the rim brakes

WARNING

Risk of accident and injury!

An incorrectly adjusted braking system may reduce the braking performance.

► The braking system must always be adjusted by a bicycle dealer.

7.5.1 Adjusting the grip reach

The brake lever can be moved closer to the grip by adjusting the grip reach.

→ Adjust the brake lever to a position where it is easy to operate it while you are riding and without removing your hand from the handlebar.

The tension of the brake cable changes when the grip reach is adjusted.

1. Screw in the adjusting screw until you are able to operate the brake lever safely (see fig. ‘Adjusting the brake lever’).

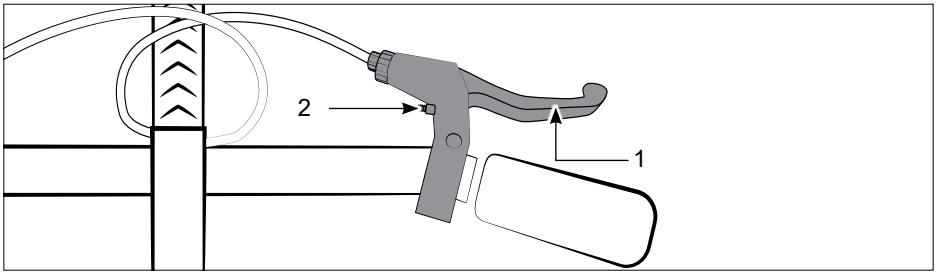

Fig.: Adjusting the brake lever

1 Brake lever 2 Adjusting screw

The adjusting screw will be a crosshead or hexagon socket screw, depending on the model.

2. Adjust the tension of the brake cable.

7.5.2 Adjusting the brake cable

If the distance between the left and right brake blocks and the rim varies by more than 1 mm, your bicycle dealer must restore the braking system to its initial set-up before the brake cable can be adjusted.

1. Unscrew the lock nut one or two revolutions in an anti-clockwise direction (see fig. ‘Adjusting the brake cable’).
2. Screw the knurled nut clockwise or anti-clockwise until the distance between the brake blocks and the rim is 1 to 2 mm on both sides (see fig. ‘Mechanical rim brake’).
   → Pull the brake cable away from the knurled nut slightly so that the knurled nut is easier to turn.
3. Unscrew the knurled nuts a maximum of five revolutions.
   → If you are unable to adjust the brake blocks, have the braking system checked by a bicycle dealer.

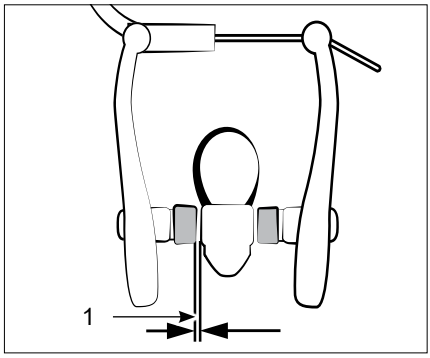

Fig.: Mechanical rim brake

1 Gap

4. Check whether you can only pull the brake lever towards the grip handle in such a way that the clearance between the brake lever and the grip handle is at least 1 cm.
5. Turn the lock nut in a clockwise direction and tighten it carefully.

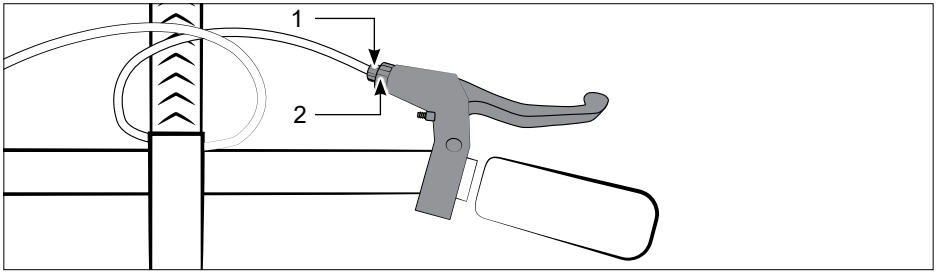

Fig.: Adjusting the brake cable

1 Knurled nut

2 Lock nut

7.6 Disc brake

WARNING

Risk of accident and injury!

Wear can cause the disc brake to fail.

► Have the disc brake checked by a bicycle dealer at least once a year or after 1000 km.

CAUTION

Risk of injury!

Making contact with hot brake rotors can cause burns.

► Allow brake rotors to cool before touching them.

NOTE

Risk of damage!

Brake pads may vitrify if used continuously for prolonged periods.

► When travelling down long descents, brake intermittently with greater force, if safe to do so.

NOTE

Risk of damage!

The brake may be damaged when the front or rear wheel is removed.

► The front or rear wheel should always be removed or fitted by a bicycle dealer.

NOTE

Risk of damage!

Full application of the brakes with new brake pads can cause the brake pads to vitrify.

► Wear in new disc brakes in a safe place away from the road.

7.6.1 Basics

When the brake lever is pulled, the brake pistons located in the caliper on the disc brake are forced outwards. The brake pistons press the brake pads against the brake disc.

→ Check the disc brake regularly for wear and ensure it functions properly.

→ Remove any dirt from the disc brake components and brake rotor immediately using a slightly damp cloth.

→ If you have disc brakes, clean the brake rotors regularly with brake cleaning fluid or warm water.

Using disc brakes causes wear and tear to the brake pads and the brake rotors.

The cable can also become worn in disc brakes operated by a brake cable.

In the case of hydraulic disc brakes, the brake fluid can also become damaged through use.

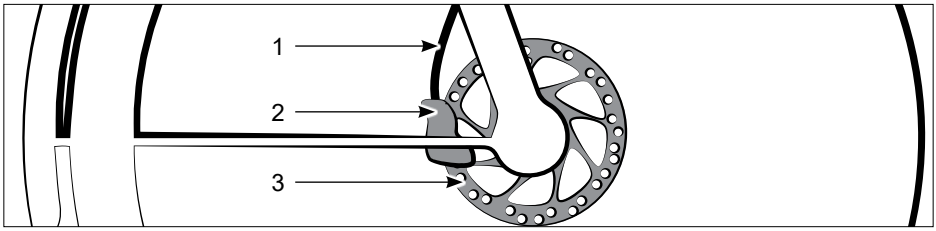

Fig.: Hydraulic disc brake

1 Hydraulic line
2 Brake caliper
3 Brake rotor

Ask a bicycle dealer about devices for checking the wear on the brake pads. Depending on your brake type, this may be the transport lock, for example.

→ Please follow the instructions listed below for the front and rear brakes.

1. Check whether the brake pads move evenly and symmetrically towards and away from the brake rotor when the brake lever is pulled and released.
   → If you can move the brake rotor or the brake pads in an uneven fashion, have the brakes checked by your bicycle dealer.
2. Pull the brake lever and check whether any brake fluid is coming out from the lines, connections or onto the brake pads.
   → If brake fluid is leaking, do not use the e-bike.
   → Have a bicycle dealer replace the disc brake.

If the disc brakes are new or if the brake pads or the brake rotor have been replaced, the disc brakes will need to be broken in.

→ To do so, please observe the manufacturer's instructions or ask a bicycle dealer.
   → If the disc brakes do not work sufficiently after braking, or if you hear unusual noises when braking, have your bicycle dealer inspect the disc brakes.

7.6.2 Operating the disc brake

The rear wheel locks up earlier than the front wheel when the same braking force is applied.

Depending on the bicycle model, your e-bike may be fitted with different types of brakes on the front and rear wheels.

→ To brake, pull the brake lever towards the handlebar using your fingers.

→ Regulate the braking action by increasing or decreasing the force with which you pull the brake lever.

To release the disc brake, let the brake lever go.

To ensure a short braking distance, you should apply both brakes evenly.

7.6.3 Adjusting the disc brake

WARNING

Risk of accident and injury!

Incorrect adjustment of the brakes can reduce braking performance or cause them to fail.

► Always have the brakes adjusted by a bicycle dealer.

► If required, ask a bicycle dealer to explain the brake adjustment process.

If you do not have the necessary know-how and tools to adjust the disc brake, have your bicycle dealer perform the adjustments.

7.6.4 Replacing the brake pads

WARNING

Risk of accident and injury!

If the wrong brake pads are installed or the brake pads are installed incorrectly, they may cause a functional impairment, such as disc brake failure.

► Always use original brake pads designed specifically for disc brakes.

► Always seek professional advice when purchasing brake pads.

► Check if the brake pads are worn.

► Have a bicycle dealer replace the brake pads.

8 Drives

E-bikes are driven manually as well as with the help of a motor. The pedal drive transmits the muscle power exerted while pedalling to the chain (chain drive) or belt (belt drive), which in turn moves the rear wheel, thus driving, i.e. propelling the e-bike.

→ Refer to the following sections ‘Chain Drive’ or ‘Belt Drive’ for information on the type of drive your particular model of e-bike has and follow the safety and maintenance information.

Below you will find information on the different motor drives that can be installed in your e-bike:

Central motor (centre or bottom bracket drive)

The central motor is located in the bottom bracket area and drives the chain or the sprocket system via the existing drivetrain. The torque is transmitted directly to the bottom bracket, resulting in good power transmission, high torque at lower motor speeds and a natural riding feel.

Rear motor (rear hub motor)

The rear motor is installed in the rear wheel hub and drives the rear wheel directly. This type of drive results in good traction, as the weight is typically on the rear wheel. It provides a natural ride feel and is quiet and robust.

Front drive

The front drive is located in the front wheel hub and drives the front wheel directly.

8.1 Pedal drive

8.1.1 Basics

Components of the pedal drive:

- Pedal,
- Pedal crank,
- Bottom bracket,
- Chain wheel.

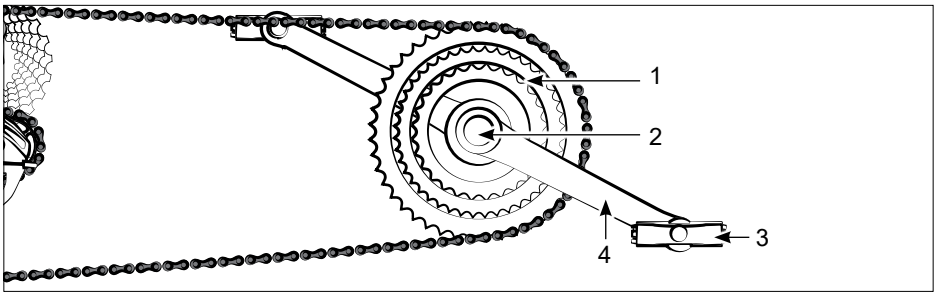

Fig.: Pedal drive

1 Chain wheel
2 Bottom bracket
3 Pedal
4 Pedal crank

8.1.2 Operating the pedal drive

→ Set the pedal drive into motion by turning the pedals (pedalling) so that the chain or belt rotates to move the e-bike.

8.1.3 Checking the pedal drive

→ Make sure that the crank arm, bottom bracket and pedals are fixed by trying to move the pedals from side to side and vertically up and down by applying a little pressure.

→ If the crank arm, bottom bracket or pedals move from side to side or up and down, have it checked and if necessary repaired by a bicycle dealer.

8.2 Chain drive

8.2.1 Basics

Depending on the model, an e-bike with a chain drive can be equipped with the following components/functions:

- Hub shifting system
- Derailleur gear
- Coaster brake

→ Clean the chain using a clean cloth with a dab of oil applied if required.

→ If necessary, clean the cogs and chain rings with a soft brush.

→ Regularly oil the chain with general-purpose oil:

- after cleaning,
- after riding in the rain,
- after 15 hours of riding.

→ Make sure that none of the chain drive components are damaged.

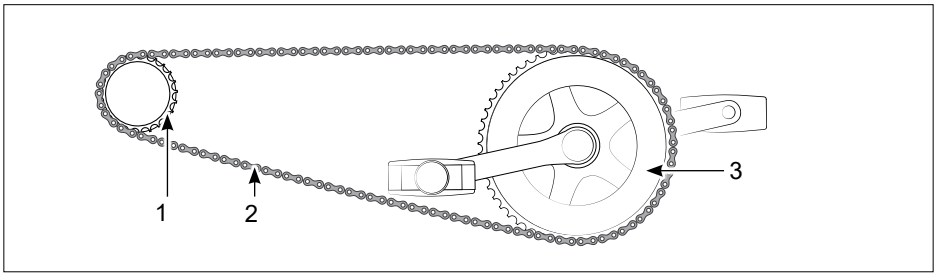

Fig.: Chain drive

1 Sprocket
2 Chain
3 Chain wheel

→ If the dirt on the chain is stubborn and cannot be removed using the methods described above or the chain drive components are damaged, please consult a bicycle dealer.

8.2.2 Operating the chain drive

→ Turn the pedals:
The pedal drive transmits the muscle power exerted while pedalling to the chain, thus setting the chain drive into motion. The rotation of the chain acts on the rear wheel, thus propelling the e-bike.

8.2.3 Adjusting the chain drive

→ Have a bicycle dealer replace the cog or chain wheel if you find individual teeth are dangerously pointed (so-called shark teeth).

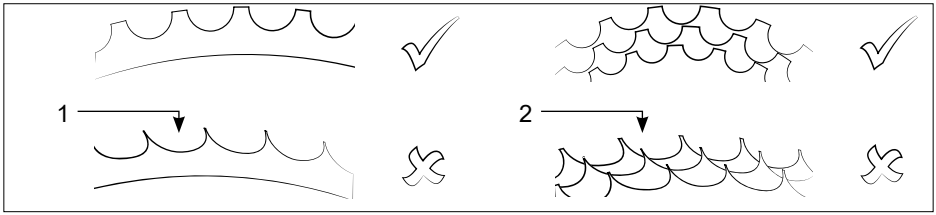

Fig.: Wear

1 Chain wheel wear
2 Cog wear

8.3 Belt drive

8.3.1 Basics

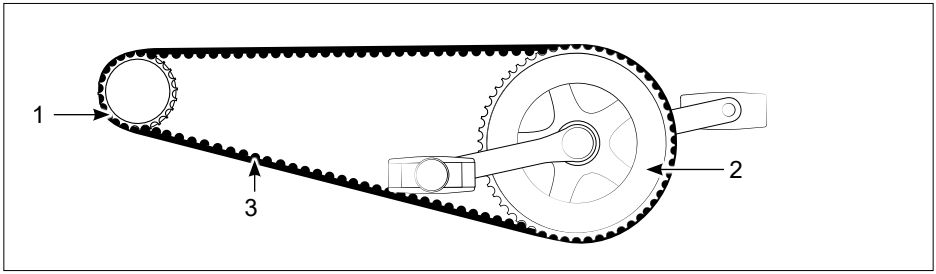

Fig.: Belt drive

1 Rear sprocket
2 Front sprocket
3 Belt

Depending on the model, an e-bike with a belt drive can be equipped with the following components/functions:

- Hub shifting system
- Coaster brake

NOTE

Risk of damage!

Incorrect handling can damage the belt.

► Do not kink, bend, twist, tie up or turn the belt inside out or use it as a spanner.

► When fitting, do not wind the belt onto the front pulley.

► Do not use a lever (e.g. screwdriver) to fit the belt.

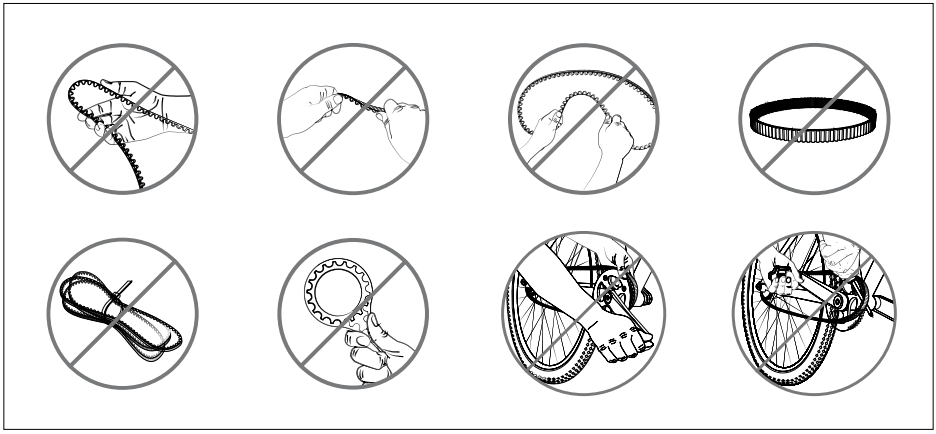

Fig.: Types of damage

8.3.2 Operating the belt drive

→ Turn the pedals:
The pedal drive transmits the muscle power exerted while pedalling to the belt, thus setting the belt drive into motion. The rotation of the belt acts on the rear wheel, thus propelling the e-bike.

8.3.3 Adjusting the belt drive

8.3.3.1 Checking the belt tension

To ensure trouble-free operation of the belt drive, the belt should be tensioned to between 14 kg and 20 kg.

→ Regularly visit a bicycle dealer to have the belt tension checked and adjusted if necessary.

8.3.3.2 Checking belt drive wear

→ Check all belt drive components for wear at regular intervals.

→ Visit a bicycle dealer to have the belt replaced if you find any signs of wear such as pointed teeth, cracks or missing teeth on the belt.

→ Have a bicycle dealer replace the cog if you find individual teeth are dangerously pointed (so-called shark teeth).

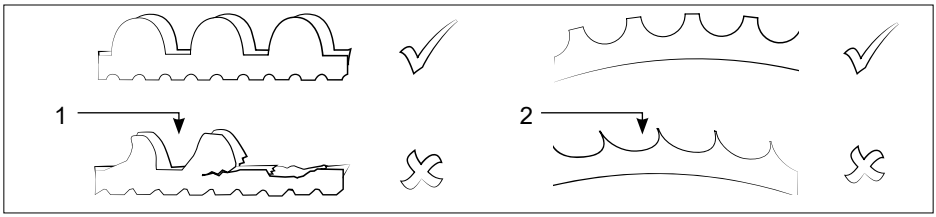

Fig.: Wear

1 Belt wear

2 Cog wear

9 Electric motor

Your e-bike is equipped with an electric drive system. To ensure that you have all the necessary information for operation and maintenance, the manuals for these systems are supplied separately with your e-bike.

The electric drive of the e-bike consists of several individual components:

- Motor
- Rechargeable battery
- Control unit/on-board computer

Detailed operating instructions can be found under the following QR codes:

BOSCH

https://help.bosch-ebike.com/de/help-center/manuals

NEODRIVE

https://www.neodrives.com/de/service/downloads/

SHIMANO

https://si.shimano.com/en/

→ Familiarise yourself with the features of your e-bike, even if you already have some experience with electrically assisted bikes.

→ Test the various support levels and the different load conditions of the e-bike away from road traffic until you feel confident in handling the e-bike.

9.1 Range

The range depends on many factors, such as:

- Level of assistance;
  - The higher the support level, the lower the range.
- Tyre inflation pressure;
- Age, care and charge status of the battery;
- Route profile and road surface conditions;
- Weather conditions, e.g. headwind;
- Weight of the load.

9.2 Cycling with an empty rechargeable battery

If the battery charge is fully depleted during the ride, you can use your e-bike like a normal bike.

When the battery charge is exhausted, the motor switches off. The lights will be powered for another two hours.

10 Gear shift system

The rider can use the gearshift system to adapt the drive to generate the power required for the route conditions and speed.
Components of the gearshift system include the shiftable gears and the corresponding controls.

A differentiation is made between the following types of gear shifting system:

- Derailleur gear
- Hub shifting system
- Hybrid shifting system
- Automatic shifting system

→ Familiarise yourself with the gear shift system on your e-bike by reading and understanding the corresponding sections in the user manual.

Regular maintenance and servicing keep wear in the gear shift system to a minimum. Shift cables stretch during use.

Observe the following information to avoid premature wear:

→ Do not turn the pedals with too much force while shifting gear.

→ Shift into the required gear in good time before uphill inclines.

→ Regularly check all the components of the gear shifting system as described in the corresponding section for your specific gear shifting system.

→ See your bicycle dealer if components show signs of damage, you hear unusual noises while shifting gear or you cannot shift all gears properly.

10.1 Operating elements

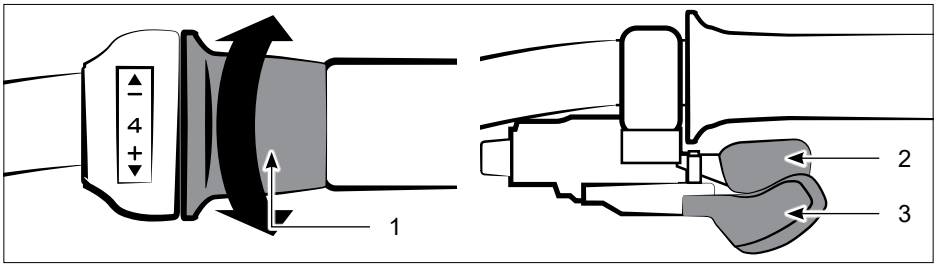

Fig.: Operating elements of the gearshift system (example)

1 Twist-grip shifter
2 Rear gear lever
3 Front gear lever

10.2 Derailleur gear

10.2.1 Basics

Bikes with a derailleur gear have 1 to 3 chain wheels on the crank and 7 to 13 cogs on the rear wheel that are selected separately by means of model-specific shifters on the handlebar. The theoretical total number of gears can be determined based on the possible combinations (number of chain wheels × number of cogs).

Choose the chain wheels corresponding to the nature of the route (uphill/flat/downhill). You select the individual gears with the aid of the cogs.

Select:

- A smaller chain wheel on uphill stretches
  (higher cadence: Less effort required)
- A larger chain wheel on flat/downhill stretches
  (lower cadence: More effort required)

The smaller the cog you combine with the selected chain wheel, the higher the selected gear and the lower the cadence.

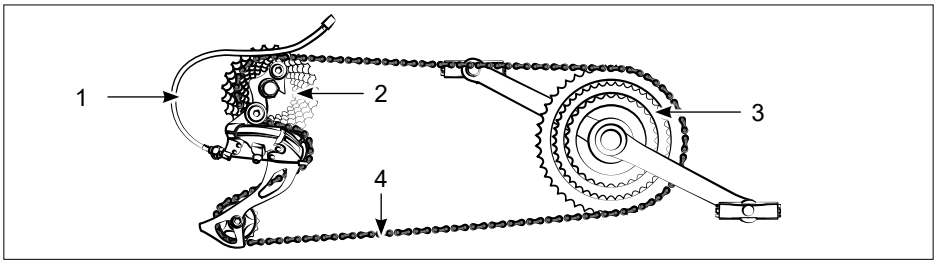

Fig.: Derailleur gear

1 Gear shift cable
2 Cogs on the rear wheel
3 Chainrings on the pedal crank
4 Chain

10.2.1.1 Maintaining the derailleur gear

→ Clean the shifters with a damp cloth.

→ Remove coarse soiling on accessible components of the gear shifting system with a damp cloth or a soft brush.

→ Lubricate the parts of the gear shifting system after cleaning with a suitable lubricant, e.g. multi-purpose oil.

→ Immediately remove excess lubricant to avoid soiling and negative environmental impact.

10.2.1.2 Checking the derailleur gear and chain tension

→ Check all components of the derailleur gear for damage.

→ Check that the rear derailleur gear is vertical or whether it is bent to the side.

→ Check that there is sufficient clearance between the rear derailleur gear/chain and spokes.

→ Visit your bicycle dealer if components show signs of damage, the rear derailleur gear is bent to the side or there is no or insufficient clearance between the rear derailleur gear/chain and spokes.

The chain tension is maintained with the aid of the jockey wheels in the derailleur gear cage corresponding to the selected chain wheels and cogs.

→ Make sure that the chain is tensioned correctly and does not sag.

→ Carefully push the derailleur gear cage forward in the direction of the crank and check that the derailleur gear cage returns to its initial position of its own accord.

→ Visit your bicycle dealer if the chain is sagging or the derailleur gear cage does not move back of its own accord or snags.

10.2.1.3 Gear combinations

NOTE

Risk of damage!

The gear shifting system can be damaged if you combine the gears incorrectly.

► Do not use the small chain wheel with the smallest cogs and the large chain wheel with the largest cogs.

Some of the theoretical possible combinations of chain wheels and cogs are not suitable for actual use, as they could reduce riding comfort and increase wear.
If, for example, the smallest chain wheel is combined with the smallest cog, due to the extreme skew of the chain, the chain wheels, cogs, and chain will wear faster than when more balanced combinations are used.

→ Select combinations that ensure the chain runs as parallel as possible (see fig. ‘Recommended combinations’).

→ If you have any problems or are unsure how to use the derailleur gear, ask your bicycle dealer for a demonstration in the handling and use of the derailleur gear.

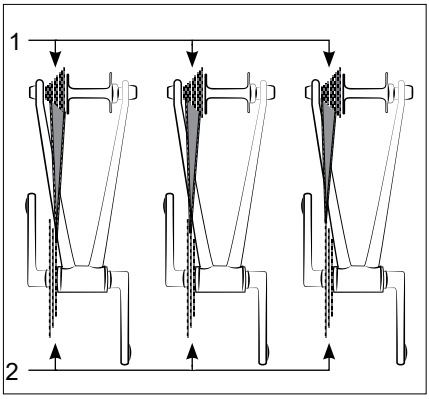

Fig.: Recommended combinations

1 Cogs on the rear wheel
2 Chainrings on the pedal crank

10.2.2 Operating the derailleur gear

WARNING

Risk of accident and injury!

Being unsure of how to use the gearshift system or experiencing problems with it may distract you from the traffic situation.

► Familiarise yourself with the gearshift system before riding in traffic on the road.

► Stop if you experience problems in operating the gearshift system, e.g. malfunctions.

NOTE

Risk of damage!

If used incorrectly, you can damage the gearshift system.

► Do not turn the pedals with too much force while shifting gear.

► Do not pedal backwards while shifting gear.

► Shift into the required gear in good time before uphill inclines.

10.2.2.1 Shifter with gear levers

On bikes with gear levers, the shifter for the cassette (cogset) is on the right-hand side of the handlebar and the shifter for the chain wheels on the left-hand side of the handlebar.

→ Release the gear lever after shifting for it to return to its initial position to complete the gear change.

→ Press or pull on the right-hand side of the handlebars (see fig. "Shimano control unit" or "SRAM control unit"):

- The front gear lever by 1 click to shift down by one gear.
- The front gear lever fully by 2 clicks to shift down by two gears.

→ Push the rear gear lever on the right-hand side of the handlebar to shift up by one gear.

→ Push the front gear lever on the left-hand side of the handlebar to shift onto a larger chain wheel (lower cadence; more effort required).

→ Push or pull the rear gear lever on the left-hand side of the handlebar to shift onto a smaller chain wheel (higher cadence; less effort required).

10.2.2.2 Shimano control unit on road bike handlebars

On bikes with racing bike handlebars, the shifter for the cassette (cogset) is on the right-hand side of the handlebar and the shifter for the chain wheels on the left-hand side of the handlebar.

→ Release the gear lever after shifting for it to return to its initial position to complete the gear change.

→ Press the lever on the right-hand side of the handlebar (see fig. "Shimano control unit"):

- the large gear lever by 1 click to shift down by one gear.
- the large gear lever fully by 2 clicks to shift down by two gears.

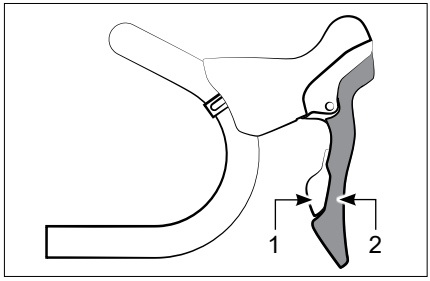

Fig.: Shimano control unit (example)

1 Small gear lever
2 Large gear lever

→ Push the small gear lever on the right-hand side of the handlebar to shift up by one gear.

→ Push the large gear lever on the left-hand side of the handlebar to shift onto a larger chain wheel (lower cadence; more effort required).

→ Push the small gear lever on the left-hand side of the handlebar to shift onto a smaller chain wheel (higher cadence; less effort required).

10.2.2.3 SRAM control unit on road bike handlebars

On bikes with racing bike handlebars, the shifter for the cassette (cogset) is on the right-hand side of the handlebar and the shifter for the chain wheels on the left-hand side of the handlebar.

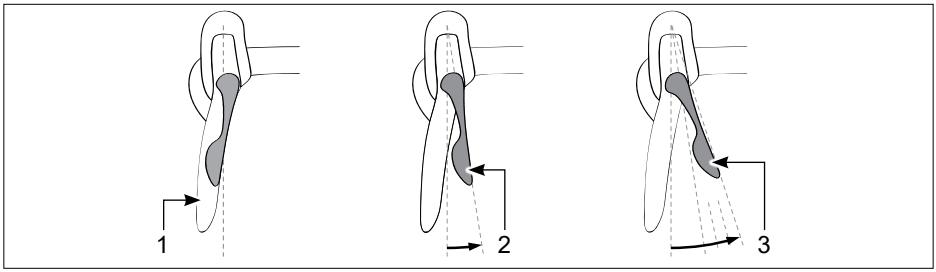

Fig.: SRAM control unit (example)

1 Brake lever 2 Gear lever approx. 15° 3 Gear lever over 15°

→ Release the gear lever after shifting for it to return to its initial position to complete the gear change.

→ Press the lever on the right-hand side of the handlebar (see fig. "SRAM control unit"):

- inwards by approx. 15° to shift up a gear.
- inwards beyond approx. 15° to shift down by up to three gears.

→ Push the lever on the left-hand side of the handlebars inwards by approx. 15° to shift to a larger sprocket (lower cadence; drive slower).

→ Push the lever on the left-hand side of the handlebars inwards beyond approx. 15° to shift to a smaller sprocket (higher cadence; smoother drive).

10.2.2.4 Changing gears with a twist grip shifter

→ Turn the twist-grip shifter in such a way that the required gear is selected and shown on the display (see fig. ‘Operating elements of the gearshift system’).

10.2.3 Adjusting the derailleur gear

NOTE

Risk of damage!

The gearshift system can be damaged if adjusted incorrectly.

► Visit your bicycle dealer if you think that your gearshift system needs adjusting.

Adjust the derailleur gear yourself only if you have the required knowledge. Otherwise, have your bicycle dealer adjust it for you.

Adjust the rear or front derailleur gear with the aid of the corresponding cable tensioning screw if unusual noises occur during or after changing gear, or if the gears cannot be changed smoothly or jump out.
Proceed as follows:

1. Turn the corresponding cable tensioning screw by half a turn clockwise or anti-clockwise (see fig. ‘Cable tensioning screw’).
   - The cable tensioning screw on the shifter adjusts the front derailleur gear.
   - The cable tensioning screw on the rear derailleur gear adjusts the rear derailleur gear.
2. Check whether the noise when changing gear has decreased or increased.
3. Turn the corresponding cable tensioning screw in small steps
   - further in the same direction if the noise has decreased.
   - in the opposite direction if the noise has increased.
4. Carry out steps 1 to 3 until the rear or front derailleur gear are set correctly. Ask your bicycle dealer if the noise persists unchanged or if you are unsure.

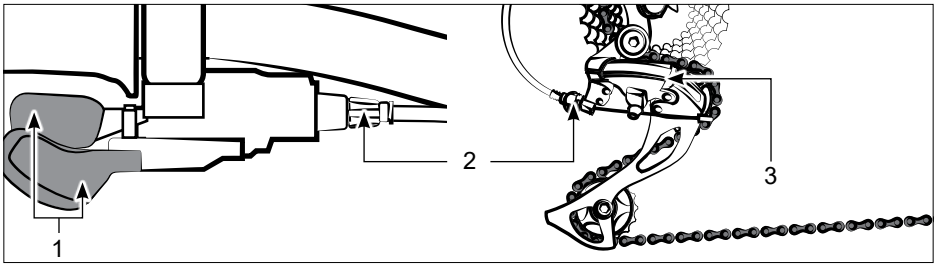

Fig.: Cable tensioning screw

1 Gear lever
2 Cable tensioning screw
3 Rear derailleur gear

10.3 Hub shifting system

10.3.1 Basics

The hub shifting system is located in the rear wheel hub. Depending on the model, the hub shifting system can be operated using either a twist-grip shifter or a gear lever on the right-hand handlebar. The two-speed automatic hub shifting system automatically shifts between first and second gear depending on the speed and therefore has no control unit.

There are also models available with or without a coaster brake.

Intensive use of your e-bike, heavy soiling and exposure to a saline environment can place greater stress on the components of the hub shifting system, which must be inspected and maintained more frequently as a result.

→ Have an oil change carried out on the gear hub once a year by a bicycle dealer if this is possible for the respective hub type.

→ Inspect all the components on the hub shifting system for damage.

→ Examine the shift cable and check the sheaths covering the shift cable and cable strands for damage and cracks.

→ Check the function of the hub shifting system as follows:

1. Lift the e-bike by the frame until the rear wheel can rotate freely.
2. Turn the rear wheel using the pedals.
3. Change through all the gears.
4. Check that you can shift smoothly to each gear.
   Listen for unusual noises while shifting gear.

→ See your bicycle dealer if components show signs of damage, you hear unusual noises while shifting gear or you cannot shift all gears properly.

→ In order to minimise wear caused by adverse weather conditions and environmental influences, maintain the components of the hub shifting system using suitable care products. Consult a bicycle dealer for information on suitable care products.

10.3.2 Operating the hub shifting system

WARNING

Risk of accident and injury!

Being unsure of how to use the hub shifting system or experiencing problems with it may distract you from the traffic situation.

- ► Familiarise yourself with the hub shifting system before riding in traffic on the road.
- ► Only use the hub shifting system if it does not distract you from the traffic.
- ► Stop if you experience problems in operating the hub shifting system, e.g. malfunctions.

NOTE

Risk of damage!

If used incorrectly, you can damage the hub shifting system.

- ► Do not turn the pedals with too much force while shifting gear.
- ► Do not pedal backwards while shifting gear.
- ► Shift into the required gear in good time before uphill inclines.

10.3.2.1 Changing gear using the gear lever

→ Release the gear lever after shifting for it to return to its initial position to complete the gear change.

→ Push the front gear lever to shift down a gear.

→ Push or pull the rear gear lever to shift up a gear.

10.3.2.2 Changing gears with a twist grip shifter

→ Turn the twist-grip shifter in such a way that the required gear is selected and shown on the display (see fig. ‘Operating elements of the gearshift system’).

10.3.3 Adjusting the hub shifting system

NOTE

Risk of damage!

The gearshift system can be damaged if adjusted incorrectly.

- ► Visit your bicycle dealer if you think that your gearshift system needs adjusting.

Only adjust the hub shifting system yourself if you have the necessary know-how and have already done so. Otherwise, have your bicycle dealer adjust it for you.

If the hub shifting system no longer functions correctly, adjust the shift cable tension. Proceed as described in the relevant section about the hub shifting system.

10.3.3.1 3-gear hub shifting system

1. Change to second gear.
2. Loosen the hub lock nut on the housing for the hub shifting system by turning it in an anti-clockwise direction (see fig. ‘Nexus setting’).
3. Align the marking in the viewing window exactly central in relation to the two lines/ arrows by screwing the knurled nut clockwise or anti-clockwise.
4. Carefully turn the lock nut in a clockwise direction and tighten it by hand.

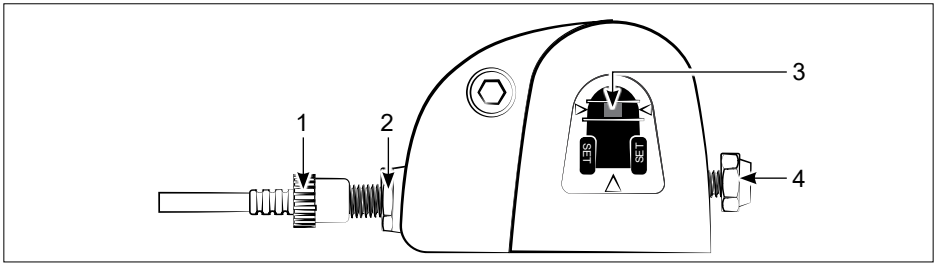

Fig.: “Nexus” setting

1 Knurled nut
2 Lock nut
3 Marking
4 Fixing screw

To remove the rear wheel, loosen the fixing screw and remove the click box from the axle (see fig. ‘Nexus setting’).

10.3.3.2 5-gear hub shifting system, 7 or 8-gear hub shifting system and 11-gear hub shifting system

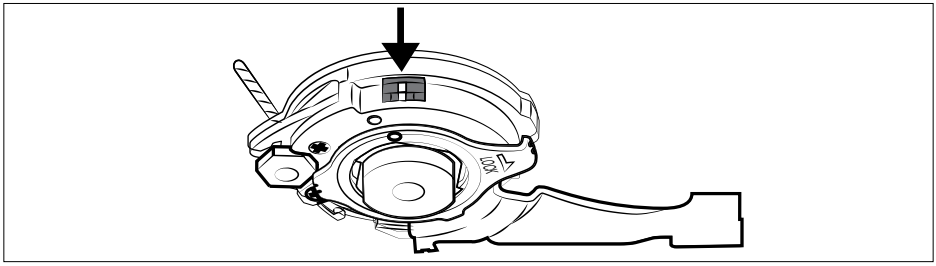

Fig.: Markings on the rear wheel hub

1. Change to:
   - 3rd gear (5-gear hub shifting system)
   - 4th gear (7 or 8-gear hub shifting system)
   - 6th gear (11-gear hub shifting system)
2. Align the two markings on the rear wheel hub exactly with one another by turning the adjusting screw on the twist grip (under the handlebar) in a clockwise or anti-clockwise direction.

Further information on the maintenance/adjustment of your gear hub can be found here:

3×3

https://www.3x3.bike/en/

ENVIOLO

https://enviolo.com/

SHIMANO

https://si.shimano.com/en/

11 Lighting

11.1 Basics

E-bikes designed for road use must be fitted with the following lighting components:

- Headlight,
- Tail lamp,
- Reflectors on the pedals,
- Side reflectors or reflective strips on the front and rear wheels,
- White front reflector,
- Red rear reflector (see fig. 'Lighting equipment').

→ Ensure that all lighting components meet national and regional requirements.

In many countries, the specified lighting components must also be fitted to the e-bike and be operational, even if the e-bike is only used on the roads during the day (during daylight hours).

The LEDs in the headlamps and tail lamps cannot be replaced. When the LEDs reach the end of their useful life, the relevant lighting components must be replaced.

→ Have any faulty lamps replaced by a bicycle dealer.

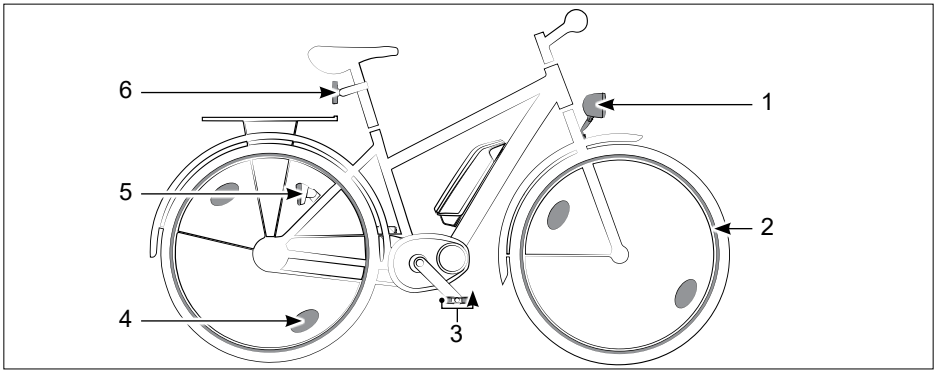

Fig.: Lighting equipment

1 Headlamp with rear reflector (white)
2 Reflective strips (silver/reflective)
3 Reflectors on the pedal (yellow)
4 Side reflectors (yellow)
5 Rear light with reflector (red)
6 Rear reflector (red)

Depending on the model, the headlamp and rear lamp are located on one of the following installation sites (see fig. 'Mounting points for lighting equipment').

- Headlamp:
  - on the head tube,
  - over the mudguard or
  - on the fork.

- Rear lamp:
  - under the luggage rack,
  - over the mudguard or
  - on the seat stay.

The rear lamp automatically turns on when the headlamp is switched on.

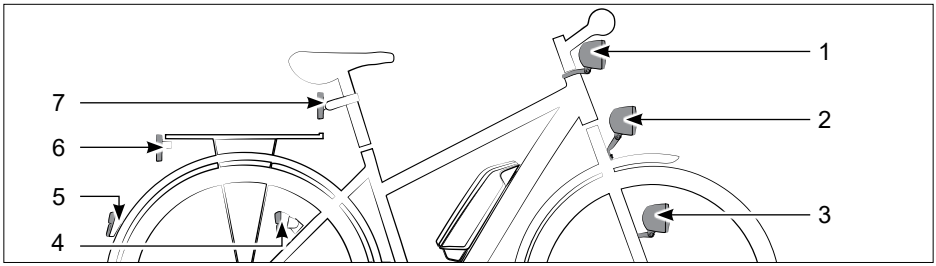

Fig.: Mounting points for lighting equipment

1 On the head tube
2 Over the mudguard
3 On the fork
4 On the seat stay
5 On the mudguard
6 Under the luggage rack
7 On the seatpost

11.2 Operating lamps

WARNING

Risk of accident and injury!

If your lamps are not fitted or generate insufficient light, other road users may not be able to see you and you may not be able to see any unevenness or obstacles in the road.

► Always switch on the lights in conditions of poor visibility (e.g. at dusk) and when it is dark.

WARNING

Risk of accident and injury!

Turning your lights on while riding may distract you from the road.

► Always stop before turning on your lamps.

Depending on the model, lighting can be switched on from the display or control unit.

11.3 Illumination

WARNING

Risk of accident!

If the light range is set incorrectly, you may dazzle oncoming road users.

► Regularly check whether the light range is set correctly.

CAUTION

Risk of accident and injury!

If reflectors or reflective strips are dirty or missing, other road users will have difficulty seeing you.

► Keep reflectors and reflective strips clean and replace missing or worn reflectors immediately.

11.3.1 Aligning the bracket

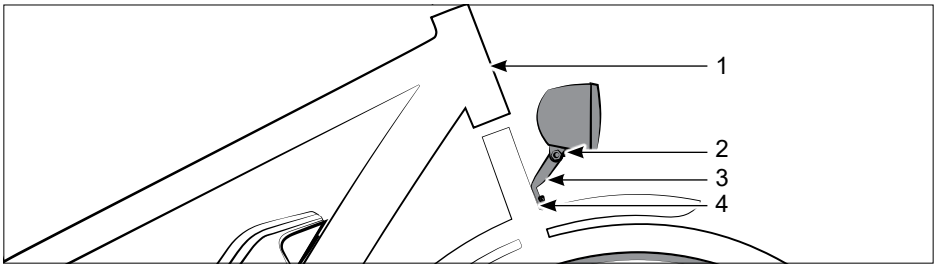

Fig.: Adjusting screws

1 Head tube
2 Screw 2
3 Bracket
4 Screw 1

The bracket must be aligned with the head tube.

1. Turn screw 1 anti-clockwise a few times to loosen (see fig. ‘Adjusting screws’).
2. Adjust the bracket so that it is aligned with the head tube.
3. Firmly attach the bracket by turning screw 1 clockwise to tighten.

11.3.2 Aligning the headlamp

The headlamp must be aligned in such a way that the emitted light beam reaches half the height of the headlamp at a distance of 5 m (see fig. ‘Light range’).

1. Switch on the headlamp to check the direction of the emitted light beam.
2. Turn screw 2 anti-clockwise a few times to loosen (see fig. ‘Adjusting screws’).
3. Tilt the headlamp forwards or backwards to align it correctly as described above.
4. Firmly attach the headlamp by turning screw 2 clockwise to tighten.

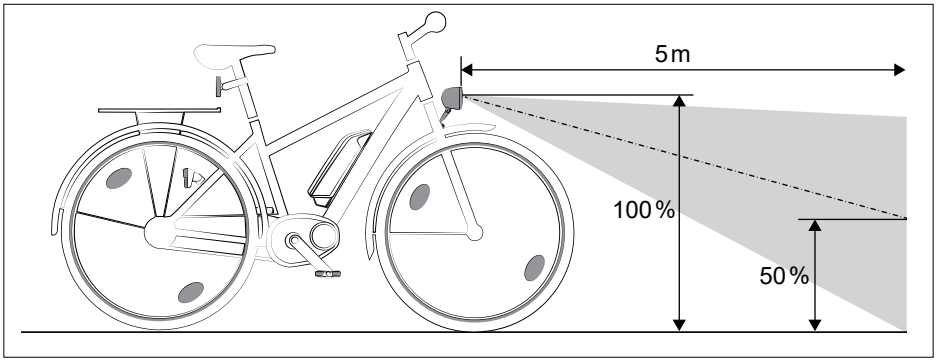

Fig.: Light range

12 Wheels and tyres

12.1 Basics

The front and rear wheels each consist of a hub, spokes, rim and tyre around the circumference of the rim with or without an inner tube inserted.

On models with an inner tube, the rim is fitted with a rim tape to protect the inner tube from the rim base and spoke nipples.
During use, the weight of the rider and unevenness on the road place a heavy strain on the front and rear wheels.

→ After breaking in your bicycle (after cycling 300 km, 15 hours of use or 3 months at the latest, whichever occurs first), have a bicycle dealer inspect the front and rear wheels and re-centre them, if required.

→ After breaking in your bicycle, check the front and rear wheels regularly for damage and correct alignment.

12.1.1 Rims and spokes

WARNING

Risk of accident and injury!

If the front or rear wheels wobble or do not rotate concentrically, this will affect riding safety and may cause the rim brakes to lock up.

► If the front and rear wheels wobble or do not rotate concentrically, have them aligned by a bicycle dealer.

If the spokes are tightened incorrectly or unevenly, this may affect the concentricity of the front or rear wheel. A loose spoke nipple or riding at speed over obstacles such as a kerb edge, for example, may affect the tension of individual spokes.

If individual spokes are tensioned incorrectly or damaged, the relevant wheel no longer rotates concentrically and wobbles, destabilising the rim and potentially causing it to break.

12.1.2 Wear limit

The rims on some models have recesses that allow you to determine how worn they are.

→ Run your fingernail or a toothpick over the recess.

  → If you cannot or can only just feel the recess, do not use the e-bike. The rim must be replaced by a bicycle dealer.

12.2 Adjustments

12.2.1 Checking and adjusting the spokes

→ Make sure that the spokes are evenly tensioned by carefully squeezing two spokes together.

→ If you discover that individual spokes have loosened, have a bicycle dealer tighten the spokes.

12.2.2 Checking the wear limit or replacing the rim

→ Check the rims for cracks and damage at regular intervals.

→ If the rims are made from composite material, have a bicycle dealer assess how worn they are.

→ Have damaged rims replaced immediately. Consult a bicycle dealer.

Especially with hollow section rims and rims made of composite materials and aluminium, damage can occur that is not visible.

13 Tyres and valves

13.1 Basics

CAUTION

Risk of accident and injury!

Damaged tyres may burst while you are riding.

► Regularly check whether your tyres are damaged or heavily worn.

NOTE

Risk of damage!

If the size of the tyres fitted to your bicycle is different to that of the original tyres, components may be damaged.

► If you have any questions or are unsure about the tyre size, consult a bicycle dealer.

There are different types of tyres that can be used depending on the intended use of an e-bike.

The tyre size is indicated on the sidewall of the tyre in millimetres or inches.

- Millimetre notation: Width–inner diameter, e.g. 52–559.
  - The inflated tyre is 52 mm wide, the inner diameter is 559 mm.
- Inch notation: Inner diameter × width, e.g. 26" × 2.35".
  - When inflated, the tyre is 2.35" wide, and the inner diameter is 26".

Tyres and rims do not form a single airtight unit and so the air is retained inside the tyre by an inner tube that is filled via the valve.
Tubular tyres and UST tubeless tyres are the only exception here.

→ Make sure that the tyres do not have cracks or damage caused by foreign objects.

→ Check the tread wear and make sure that the tyres are not too heavily worn.

→ If the tyres are cracked or damaged, or the tread is very worn, consult a bicycle dealer.

13.1.1 Valve types

→ Before purchasing a bicycle pump, consult a bicycle dealer to ensure that the valve connector or adapter on the pump is compatible with your valve.

The valve types listed below (incl. instructions for use) are used on bicycle inner tubes as standard:

- Presta valve (Sclaverand): Secured by a tappet inside the valve.

1. To open the valve, turn the knurled screw anti-clockwise as far as it can go.
2. Attach a compatible valve connector or adapter to the valve to inflate the tyre.
3. Push down the knurled screw (valve connector or adapter not resting on the valve) to release air.
4. To close the valve, turn the knurled screw clockwise as far as it can go.

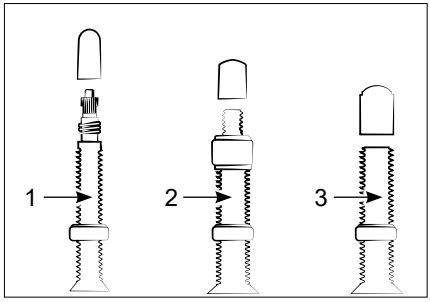

Fig.: Valve types (example)

1 Presta valve (Sclaverand)
2 Express valve (Dunlop)
3 Schrader valve

- Express valve (Dunlop): Secured with cap nut.

1. Turn the top knurled nut anti-clockwise to release air from the tyre.
2. If you wish to change the valve insert, unscrew the top knurled nut completely.
3. To close the valve, turn the top knurled nut clockwise as far as it can go.

- Schrader valve: Secured by a tappet inside the valve.

  → Push down the valve tappet (into the valve) to release air from the tyre.

13.1.2 Tyre inflation pressure

WARNING

Risk of accident and injury!

If the tyre pressure is too high, the inner tube may burst or the rim may break while you are riding; if the tyre pressure is too low, the inner tube may be damaged.

► Observe the maximum and minimum tyre pressure specifications.

► Use a bicycle pump with a pressure gauge.

Observe the maximum tyre inflation pressure defined by the lower of the two values specified on the rim or tyre wall.

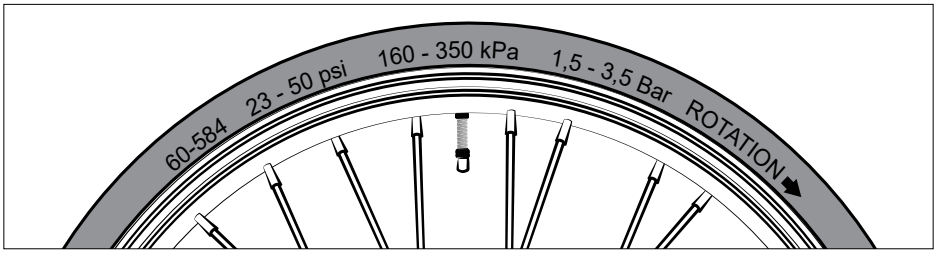

Fig.: Print on the side of the tyre (example)

A tyre inflation pressure corresponding to the specified **lower limit** is suitable for:

- lighter riders,
- riding over uneven surfaces,
- riding with greater suspension comfort and a higher roll resistance.

A tyre inflation pressure corresponding to the specified **upper limit** is suitable for:

- heavier riders,
- riding over even surfaces,
- riding with lower suspension comfort and a lower roll resistance.

→ Regularly check whether the tyre inflation pressure is within the specified range and adapted perfectly to the rider and intended use.

→ Observe the minimum and maximum tyre inflation pressure specifications.

→ Fill the tyres with air to a pressure

- above the specified lower limit but
- not exceeding the specified upper limit.

→ Use a bicycle pump with a pressure gauge to monitor the tyre pressure during the inflation process.

13.2 Adjustments

The tyre pressure influences the roll resistance and suspension of the e-bike.

1. Make sure your bicycle pump has a valve connector or adapter that is compatible with your valve.
2. Remove the protective valve from the valve.
3. Check the tyre pressure using a pressure gauge or a bicycle pump fitted with a pressure gauge.
4. Increase or reduce the tyre pressure as required by inflating or releasing air from the tyre.
5. Close off the valve using the protective cap you removed previously.
6. After adjusting the tyre pressure, ensure that the lower knurled nut on the valve is seated correctly and securely. If necessary, securely tighten the knurled nut by turning it clockwise towards the rim.

14 Other components

14.1 Handlebar

14.1.1 Basics

The handlebar is an essential element for controlling the direction of the e-bike and incorporates operating elements such as the brake lever.

A handlebar stem with outer clamping or inner clamping will be fitted to your e-bike, depending on the model.

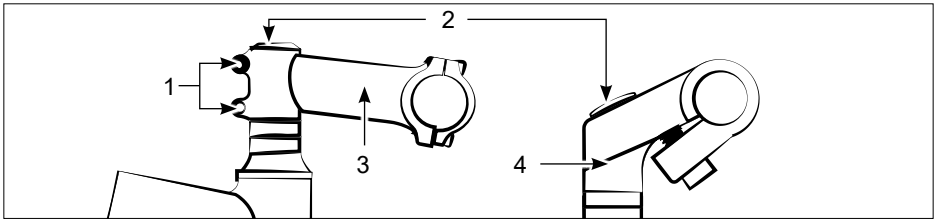

Fig.: Handlebar stems

1 Screws
2 Cap
3 Handlebar stem with outer clamping
4 Handlebar stem with inner clamping

On some models, the angle of the handlebar stem can also be adjusted.

Please refer to the enclosed instructions from the component manufacturer for handling model-dependent components (e.g. folding or height-adjustable stems).

→ If you wish to adjust the angle of the handlebar on your model of bicycle and have related questions, please consult a bicycle dealer.

14.1.2 Using the handlebar

Depending on the handlebar design, it can impair steering and braking behaviour. The steering and braking behaviour should therefore be tested on a remote stretch of road before the first ride.

→ When riding, hold the handlebar with your hands closed around the handlebar grips. The wrists should not be bent and your seating position should be comfortable for the duration of your journey.

14.1.3 Adjustments: Handlebar height

WARNING

Risk of accident and injury!

Incorrectly performed adjustments may affect the function and safety of the pedelec components.

► Observe the torque values.

► Observe the minimum insertion depth of the handlebar stem.

14.1.3.1 Handlebar stem with outer clamping

If your bicycle has a handlebar stem with an outer clamping, adjusting the handlebar height requires specialist know-how.

→ In this case, have the handlebar height adjusted by a bicycle dealer.

14.1.3.2 Handlebar stem with inner clamping

1. Remove the cap from the top of the handlebar stem with inner clamping (see fig. “Handlebar stems”, right).
2. Turn the internal screw one to two revolutions in an anti-clockwise direction.
3. Set the handlebar to the desired height by sliding the handlebar stem with inner clamping up or down. If the marking on the handlebar stem with inner clamping is visible, you have set the handlebar too high (see fig. ‘Handlebar stem with inner clamping’).
4. Turn the internal screw clockwise and tighten to secure the handlebar in position. Observe the relevant torque values.
5. Attach the cap you removed previously back onto the handlebar stem with inner clamping.

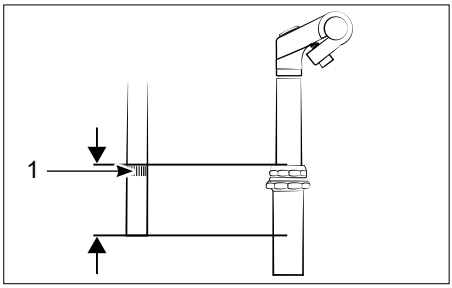

Fig.: Handlebar stem with inner clamping

1 Marking

14.1.4 Adjustments: Handlebar position

14.1.4.1 Handlebar stem with outer clamping

NOTE

Risk of damage!

If you adjust the handlebar stem with outer clamping incorrectly, the steering head bearing may be damaged.

► Tighten the top screw on the handlebar stem with outer clamping until the steering head bearing is free of play but the bearing and handlebar can move freely at the same time.

1. Remove the cap from the top of the handlebar stem with outer clamping (see fig. “Handlebar stems”, left).
2. Turn the top screw half a revolution in an anti-clockwise direction.
3. Loosen both screws on the shaft clamping in an anti-clockwise direction until you are able to turn the handlebar against the front wheel (see fig. ‘Head tube’).

The following section describes how to adjust the steering head bearing.

4. Turn the top-side screw in small increments (maximum one eighth of a revolution) in a clockwise direction.
5. Turn the screw clockwise and tighten to secure the steering head bearing in position free of play.
6. Press and hold the hand brake for the front wheel and attempt to push the e-bike back and forth to determine whether the steering head bearing is secure and free of play.
7. Lift the e-bike by the frame and tilt the frame to one side:
   - The front wheel must be able to rotate in this position as well as move to the left and right by itself. The steering head bearing is adjusted correctly if it is secured without play and the front wheel can rotate as well as move to the left and right by itself.

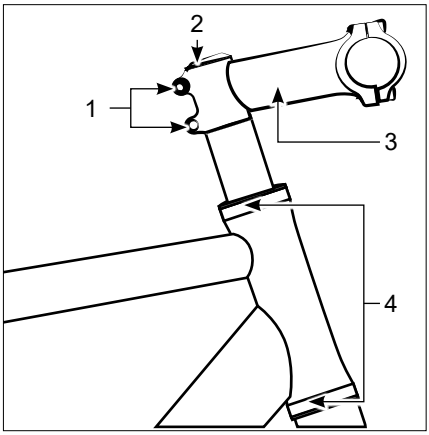

Fig.: Head tube

1 Screws
2 Cap
3 Handlebar stem
4 Steering head bearing

8. Align the handlebar to an angle of 90° in relation to the front wheel (see fig. 'Handlebar position').
9. Turn the two screws on the handlebar stem clockwise and tighten to secure the handlebar in position. Observe the relevant torque values.
10. Attach the cap back onto the handlebar stem with outer clamping.

14.1.4.2 Handlebar stem with inner clamping

1. Remove the cap from the top of the handlebar stem with inner clamping (see fig. "Handlebar stems", right).
2. Turn the top screw half a revolution in an anti-clockwise direction.
3. Align the handlebar to an angle of 90° in relation to the front wheel (see fig. 'Handlebar position').
4. Turn the internal screw clockwise and tighten to secure the handlebar in position. Observe the relevant torque values.
5. Attach the cap you removed previously back onto the handlebar stem with inner clamping.

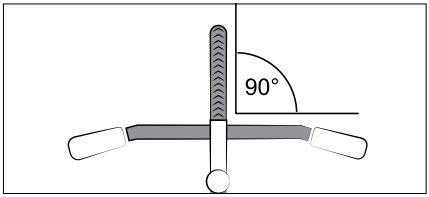

Fig.: Handlebar position

14.1.5 Adjusting the steering head bearing

You will need the following tools to adjust the steering head bearing:

- 2× open-ended spanner/headset spanner (size depends on model)

Adjust the steering head bearing as follows:

1. Turn the lock nut anti-clockwise to loosen it.
2. Turn the bearing shell clockwise and tighten.
   The steering head bearing must be free of play.

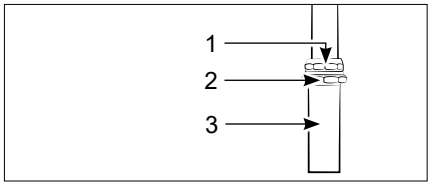

Fig.: Steering head bearing

1 Lock nut
2 Bearing
3 Head tube

3. Press and hold the hand brake for the front wheel and attempt to push the e-bike back and forth to determine whether the steering head bearing is secure and free of play.
4. Lift the e-bike by the frame and tilt the frame to one side:
   - The front wheel must be able to rotate in this position as well as move to the left and right by itself. The steering head bearing is adjusted correctly if it is secured without play and the front wheel can rotate as well as move to the left and right by itself.
5. Hold the bearing shell firmly with one hand, then turn the lock nut clockwise and tighten to secure. Observe the relevant torque values.
6. Check the position of the handlebar: If necessary, align the handlebar to an angle of 90° in relation to the front wheel (see fig. ‘Handlebar position’).

14.1.6 Handlebars for road bikes

On road bikes, the use of an aerodynamic attachment on the handlebars can adversely affect the rider’s response in terms of steering and braking behaviour.

14.2 Saddle

14.2.1 Basics

The saddle is used as a seat by the rider.

The intended use, personal preferences and physical attributes of the rider should be taken into consideration when choosing a saddle shape.

14.2.2 Adjusting the saddle

When the saddle is in the perfect position, riders should be able to assume a comfortable seating position, easily reach all operating elements on the handlebar and put their feet on the ground to support themselves.

14.2.2.1 Saddle height

WARNING

Risk of accident and injury!

If the saddle height is adjusted incorrectly, it may affect the function and safety of the seatpost.

► Observe the minimum insertion depth of the seatpost.

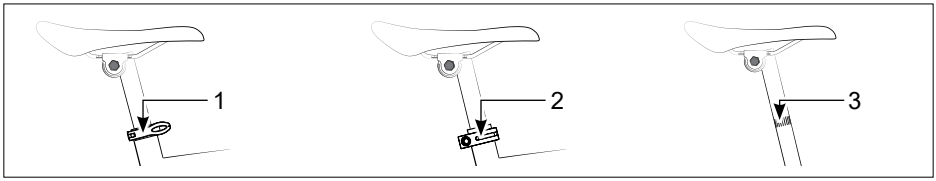

Fig.: Seatpost clamp

1 Quick-release 2 Clamping screw 3 Marking

1. Hold the saddle in position with one hand.
2. Use the other hand to loosen the seatpost clamp as follows:
   - Open the quick-release (1) (see section *"Quick-release" on page 95*).
   - Turn the clamping screw (2) on the seatpost clamp in an anti-clockwise direction (see fig. 'Seatpost clamp').
3. Slide the saddle up or down. Please remember that the marking (3) on the seatpost must not be visible (see fig. 'Seatpost clamp').
4. Position the saddle in a straight line with the frame.
5. Secure in position as follows:
   - Lock the quick-release. Remember that the quick-release lever must rest fully against the seat tube.
   - Turn the screw on the seatpost clamp in a clockwise direction and tighten. Observe the relevant torque values.
6. Make sure that the seatpost is secured in position by sitting on the saddle and bobbing up and down.
7. Make sure that the saddle is secured in position by applying slight pressure in an attempt to turn it.
   → If the saddle is not fixed in position, adjust the quick-release (see section *"Quick-release" on page 95*).

Some models are fitted with a height-adjustable seatpost that can be adjusted within a 100 mm range.

1. Press and hold the button of the relevant operating element on the handlebar.
2. Pull the saddle upwards or push down on the saddle to lower it.
3. Release the button to secure the saddle in position.
4. If necessary, also adjust the saddle height using the seatpost clamp.

14.2.2.2 Saddle position

On some models, the saddle angle and distance of the saddle in relation to the handlebar can be adjusted.

1. Depending on the model, loosen the screw or screws on the seatpost between one and two revolutions in an anti-clockwise direction (see fig. ‘Saddle clamp’).
2. Align the saddle by pushing it into the correct position.
   On models with multiple screws, you must turn the loosened screws in opposite directions to adjust the saddle angle.
3. Turn the screw/screws on the seatpost clockwise and tighten to secure the seatpost in position. Observe the relevant torque values.
4. Make sure that the saddle is secured in position by applying slight pressure in an attempt to move it.
   → If you are unsure or cannot secure the saddle firmly in position, please consult a bicycle dealer.

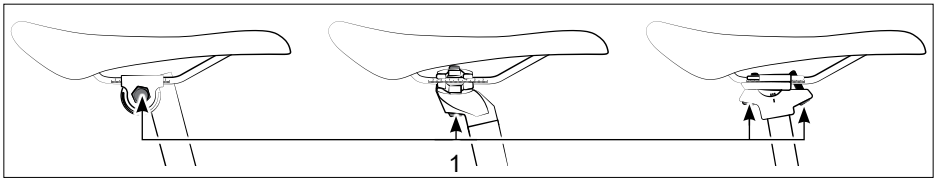

Fig.: Saddle clamp

1 Screw

14.3 Pedals

14.3.1 Basics

The pedals are fixed to the cranks. The e-bike is operated with feet on the pedals.

Depending on the e-bike model, the e-bike is equipped with folding pedals, block pedals, pedal hooks or clipless pedals.

Especially the use of pedal hooks and clipless pedals requires practice. For pedal hooks, it is recommended that you only use cycling shoes and adjust the draw strap if you are proficient in getting on and off the pedal hooks.

Clipless pedals are only intended for use with special shoes that lock into the clipless pedals. Ask a bicycle dealer to explain how it works.

14.3.2 Using the pedals

→ Tread on the pedals (pedalling) to turn the chain or belt and set the e-bike in motion.

14.3.3 Fitting the pedals

→ When fitting the pedals, remember that the right pedal has a right-hand thread and the left pedal has a left-hand thread. Secure both pedals in position by screwing them into the respective crank in the direction of travel and remove both pedals by unscrewing them against the direction of travel.

14.4 Luggage rack

14.4.1 Basics

NOTE

Risk of damage!

Fitting a luggage rack incorrectly may damage pedelec components.

► Have your luggage rack fitted by a bicycle dealer.

The luggage rack is designed to transport lightweight baggage during your journey. Your bicycle will be fitted with either a luggage rack with a clamping bracket, a luggage rack with lashing straps or a luggage rack system, depending on the model.

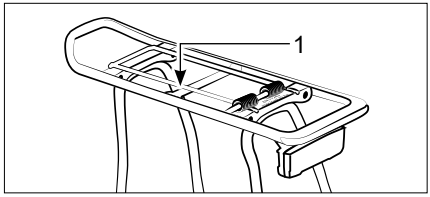

Fig.: Luggage rack system

1 Clamping bracket

→ Do not modify the luggage rack as it may affect the stability or overall function of the bicycle.

→ Regularly check that the luggage rack is correctly attached.

→ If you intend to fit a luggage rack to your e-bike or change your existing luggage rack, always consult a bicycle dealer first.

→ If you are fitting a luggage rack for the first time or changing the luggage rack on your e-bike, always use luggage racks that meet the provisions outlined in DIN EN ISO 11243.

→ Consult a bicycle dealer for more information on fitting a luggage rack.

→ Ask a bicycle dealer to explain the special characteristics of luggage rack systems.

→ Only load the luggage rack according to the manufacturer’s information on loading your rack correctly.

14.4.1.1 Maximum load

NOTE

Risk of damage!

Overloading the luggage rack may damage pedelec components.

► When loading the luggage rack, take into consideration the maximum load of the luggage rack and the maximum total weight of the e-bike.

Maximum load of the luggage rack

- Rear luggage rack: 25 / 27 kg (depending on model)
- Front luggage rack: 12 kg

Depending on the model, the maximum load of some front luggage racks can be between 5 and 15 kg.

→ Observe the maximum load specification printed on the luggage rack (see fig. 'Maximum load of some front luggage racks').

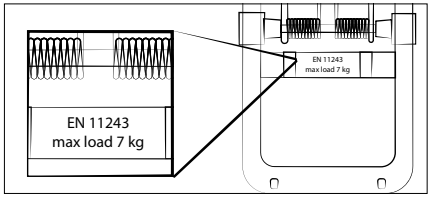

Fig.: Maximum load of some front luggage racks

14.4.2 Using your luggage rack

WARNING

Risk of accident and injury!

Loading the e-bike incorrectly jeopardises the functions and safety of the e-bike.

► Do not attach items of luggage (bags or similar) to the handlebar.

► Secure your luggage to the luggage rack to prevent it from slipping or falling off.

► Always use undamaged lashing straps or equipment.

► Ensure that there are no loose straps that could get caught in any of the wheels.

► Use proper bicycle bags from specialist retail outlets.

► Keep in mind that the payload may alter the behaviour of the bicycle.

► Position the luggage with the centre of gravity in the middle.

CAUTION

Risk of injury!

If lashing straps or clamping brackets are released suddenly, your fingers may be trapped or you may be struck by rebounding straps.

► Handle lashing straps and clamping brackets with care and hold securely when fastening and unfastening the load.

14.5 Luggage

→ Note that luggage can only be carried safely on a luggage rack.

→ When loading the e-bike, make sure that the reflectors and lights remain clearly visible.

→ While riding, keep in mind that your bicycle is carrying extra weight and may behave differently. You can expect longer braking distances and different steering behaviour.

→ Secure the luggage to the luggage rack using lashing straps or similar equipment to prevent it from slipping or falling off.

→ Position heavy luggage with the centre of gravity at the lowest point possible, e.g. in panniers.

→ Always make sure that the lashing straps or ropes used to secure loads cannot become caught in moving parts such as the rotating rear wheel or the crank.

14.6 Bell

14.6.1 Basics

A standard bicycle bell is usually a bright sounding metal bell that you can use to alert other road users and pedestrians of your presence.

→ If your bell does not make a clearly audible sound, have it replaced by a bicycle dealer.

→ Position the bell on the handlebar so that you can easily reach it without taking your hand off the handlebar grip.

14.6.2 Operating the bell

→ Press and then release the bell button to produce a sound.

14.6.3 Adjusting the bell

→ Position the bell on the handlebar so that you can easily reach it without taking your hand off the handlebar grip.

14.7 Kickstand

14.7.1 Basics

You can use the kickstand to park the e-bike upright when not in use.

14.7.2 Operating the kickstand

→ When you wish to use the e-bike, hold it steady and lift up the kickstand using your foot, for example.

→ Hold the e-bike and guide the stand downwards to park the e-bike.

→ Displace the weight of the e-bike so that the kickstand holds it in position.

→ Once you are sure that the e-bike is standing steadily and will not fall over, you can let go.

14.7.3 Adjusting the kickstand

→ Some models of kickstand can be adjusted.

→ Adjust the kickstand if it no longer functions properly.

→ If you are unsure of how to adjust the kickstand or experience problems when doing so, please consult a bicycle dealer.

14.8 Frame lock

Depending on the model, your e-bike may have a frame lock.

The frame lock does not provide sufficient protection against theft.

Attach the e-bike to a stationary object such as a bicycle stand.

14.8.1 Closing the frame lock

1. Insert the key into the lock and turn it to open the lock.
2. Push the lever down all the way. The lock engages.
   Keep in mind that the lock bolt must pass between the spokes.
3. Remove the key from the lock.

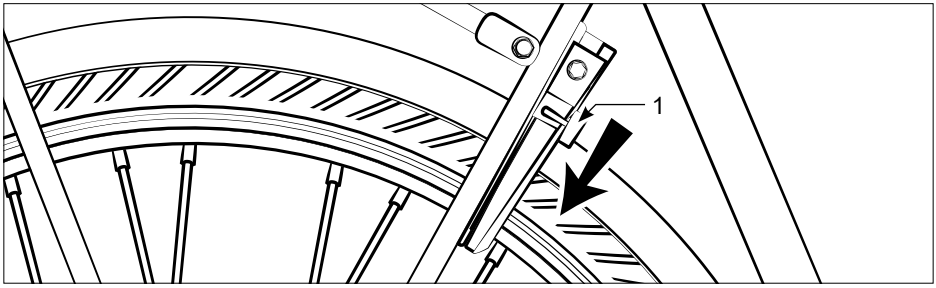

Fig.: Frame lock

1 Handle

14.8.2 Opening the frame lock

1. Insert the key into the lock and turn it.
   The lock is unlocked.
2. Push the lever all the way up to open the lock.
3. Remove the key from the lock.

14.9 Suspension

A suspension system adapted to the body weight of the driver and the intended use increases riding comfort and safety on uneven cycle routes. Individually adjusting the suspension requires specialist know-how and possibly the replacement of suspension components. If you are unfamiliar with or unsure of how to adjust the suspension, please consult a bicycle dealer.

WARNING

Risk of accident and injury!

If the suspension is adjusted incorrectly, it may affect the handling of the e-bike, depending on the road conditions.

► Have a bicycle dealer restore the suspension to its initial set-up.

WARNING

Risk of accident and injury!

The components of the suspension system are under tension. If you improperly handle the coil-sprung seatpost, suspension fork or chainstay frame damper, they may uncontrollably disengage.

► Always have the coil-sprung seatpost, suspension fork and chainstay frame damper removed and repaired by a bicycle dealer.

NOTE

Risk of damage!

An incorrectly adjusted suspension system may reduce riding comfort and the components may be damaged.

► If the suspension makes unusual noises or does not absorb bumps on the road during use, have it checked by a bicycle dealer.

14.9.1 Suspension fork

14.9.1.1 Basics

The suspension fork helps the front wheel absorb bumps and unevenness on the road.

→ Keep the sliding surfaces on the suspension components and seals free of dirt.

  → Immediately remove any dirt using a clean cloth with a dab of oil applied, if required.

→ After cleaning, apply a small quantity of lubricant to the sliding surfaces, e.g. multi-purpose oil. If necessary, consult a bicycle dealer for advice on suitable lubricants and care products.

  → After lubricating, push down on the suspension five times so that the suspension fork is pushed into the mount, and remove any excess lubricant using a clean cloth.

→ If the suspension makes unusual noises during use or you cannot feel any resistance when compressing the suspension, contact a bicycle dealer.

14.9.1.2 Sag

Sag refers to the compression of the suspension by the body weight of the rider.
The sag should be 15-30 % of the total fork travel, depending on the model.

Sag influences the spring tension, but not the stiffness of the suspension.
If the sag has been set correctly, the suspension should only compress a few millimetres when the rider sits on the saddle.
Individually adjusting the sag requires specialist know-how, in particular if the system incorporates several suspension elements.

It may make sense to have a bicycle dealer replace the built-in spring with a harder or softer spring in order to optimally adjust the sag.

14.9.1.3 Lock-out

The 'lock-out' function can lock the suspension fork and reduce rocking or plunging of the suspension with extreme force, for example, while you are riding.

14.9.1.4 Traction and compression stage

Adjusting the traction and compression stage influences the absorption and response characteristics of the suspension. The ratio between the traction stage and compression stage is crucial here, which is why only the traction stage can be adjusted on some models. The ratio between the traction stage and compression stage is adapted according to the road conditions and optimises contact between the ground and the wheels.

14.9.1.5 Operation

The model of the suspension fork determines how the suspension fork is operated.

If the suspension fork installed on your model has different or additional operating options, please refer to the relevant manufacturer documentation or consult a bicycle dealer.

14.9.1.6 Lock-out

NOTE

Risk of damage!

Using the lock-out function increases component wear.

► Only use the lock-out function if it will have a positive effect on the ride quality.

Some models of suspension fork can not only be operated, but also adjusted.

Depending on the model, the operating element for the lock-out comes in the shape of a rotary knob at the top of the suspension fork or a remote control on the handlebar (see fig. 'Operation of lock-out').

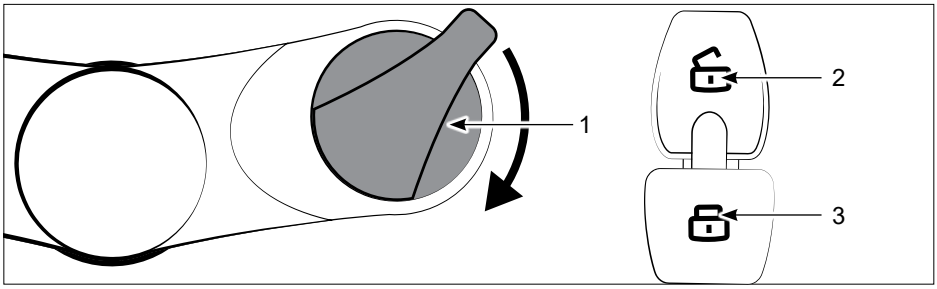

Fig.: Operation of lock-out (example)

1 Rotary knob
2 Release button
3 Locking button

→ Lock the suspension fork by turning the rotary knob clockwise one quarter of a turn or pressing the locking button.

→ Unlock the suspension fork by turning the rotary knob anti-clockwise one quarter of a turn or pressing the release button.

On uneven roads, the suspension can still be compressed up to 15 mm, even though the lock is active.

14.9.1.7 Adjusting mechanical suspension

1. Remove the dust covers from all damper rods in a vertical direction.
2. Increase the preload by turning the rotary knob at the damper rod to '+' using a coin (see fig. 'Suspension preload').
3. Reduce the preload by turning the rotary knob at the damper rod to '-' using a coin (see fig. 'Suspension preload').
4. Make sure that the spring preload setting is the same on both sides.
5. If you are unsure of how to adjust the suspension or experience problems when doing so, please consult a bicycle dealer.

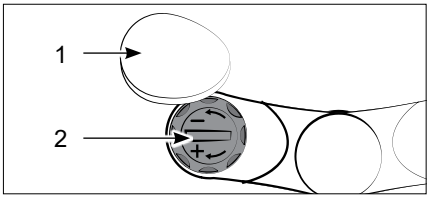

Fig.: Suspension preload

1 Protective dust cap
2 Rotary knob

14.9.1.8 Adjusting an air-sprung suspension

NOTE

Risk of damage!

Suspension components may be damaged if the damper rods are set incorrectly.

► Have a bicycle dealer adjust the air-sprung damping rods.

Adjusting the air-sprung suspension requires specialist know-how.

→ If you are unfamiliar or unsure of how to adjust a suspension system, please consult a bicycle dealer.

→ Use a suitable bicycle pump to adjust the air-sprung suspension.

→ Read the manufacturer's documentation for more information on permitted air pressures.

14.9.1.9 Suspension fork travel

Reduce the fork travel as follows:

1. Press and hold the 'Push' button (see fig. 'Suspension travel').
2. Push down on the handlebar so that the suspension fork is pushed into the damper rod.
   The further you push the suspension fork into the damper rod, the shorter the fork travel will be.
3. Release the "Push" button to fix the setting.

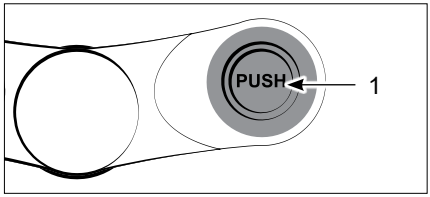

Fig.: Suspension travel

1 "Push" button

Extend the fork travel as follows:

1. Press and hold the 'Push' button (see fig. 'Suspension travel').
2. Fix the front wheel and pull the handlebar upwards so that the suspension fork slides out of the mount.
   The further you pull the suspension fork from the mount, the longer the fork travel will be.
3. Release the "Push" button to fix the setting.

14.9.2 Chainstay frame damper

A chainstay frame damper adapted to the body weight of the rider and the intended use increases riding comfort and safety on uneven cycle routes.

Individually adjusting the chainstay frame damper requires specialist know-how and possibly the replacement of suspension components.

→ If you are unfamiliar or unsure of how to adjust the chainstay frame damper, please consult a bicycle dealer.

→ If necessary, use the additional manufacturer documentation provided for the chainstay frame damper to find out how to adjust the chainstay frame damper.

14.9.2.1 Basics

The chainstay frame damper helps the rear wheel absorb bumps and unevenness on the road. The chainstay frame damper is located in the centre of the bicycle frame.

→ Keep the sliding surfaces on the suspension components and joints free of dirt.

  → Immediately remove any dirt using a clean cloth with a dab of oil applied, if required.

→ After cleaning, apply a small quantity of lubricant to the sliding surfaces, e.g. multi-purpose oil. If necessary, consult a bicycle dealer for advice on suitable lubricants and care products.

  → After lubricating, push the saddle down five times so that the chainstay frame damper is pushed into the mount and remove any excess lubricant using a clean cloth.

→ If the suspension makes unusual noises during use or you cannot feel any resistance when compressing the suspension, contact a bicycle dealer.

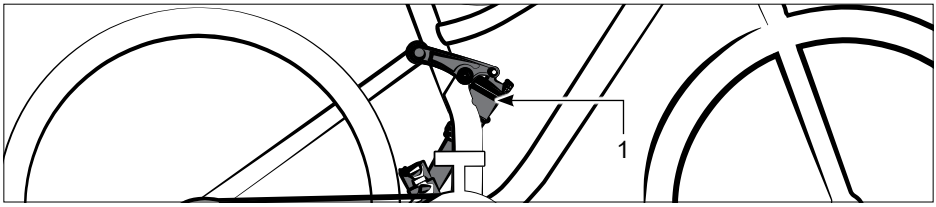

Fig.: Chainstay frame damper

1 Damper

14.9.2.2 Adjustments

Adjusting the chainstay frame damper requires specialist know-how.

→ If you are unfamiliar or unsure of how to adjust a chainstay frame damper, please consult a bicycle dealer.

14.9.3 Coil-sprung seatpost

A coil-sprung seatpost adapted to the body weight of the driver and the intended use increases riding comfort and safety on uneven cycle routes.
Individually adjusting the coil-sprung seatpost requires specialist know-how.

→ If you are unfamiliar or unsure of how to adjust the coil-sprung seatpost, please consult a bicycle dealer.

14.9.3.1 Basics

The coil-sprung seatpost helps the saddle absorb bumps and unevenness on the road.

→ Keep the sliding surfaces on the suspension components and joints free of dirt.

→ Immediately remove any dirt using a clean cloth with a dab of oil applied, if required.

→ After cleaning, apply a small quantity of lubricant to the sliding surfaces, e.g. multi-purpose oil.

→ If necessary, consult a bicycle dealer for advice on suitable lubricants and care products.

→ After lubricating, push down on the saddle five times so that the seatpost is pushed into the mount, and remove any excess lubricant using a clean cloth.

→ If the suspension makes unusual noises during use or you cannot feel any resistance when compressing the suspension, contact a bicycle dealer.

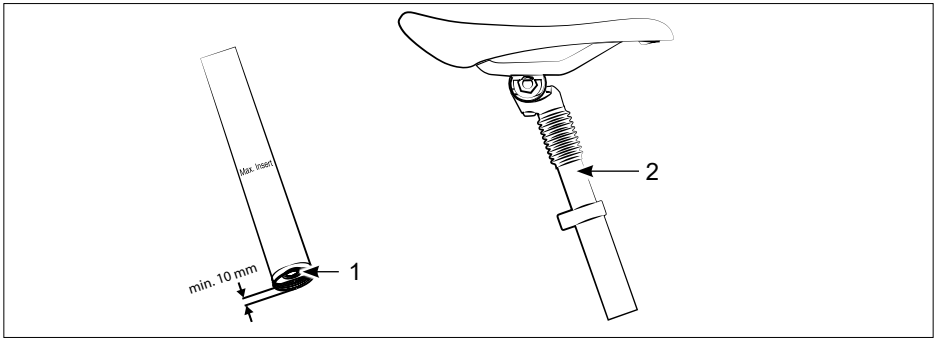

Fig.: Adjusting the coil-sprung seatpost

1 Adjusting screw

2 Coil-sprung seatpost

14.9.3.2 Adjustments

Adjusting the coil-sprung seatpost requires specialist know-how.

→ If you are unfamiliar or unsure of how to adjust a coil-sprung seatpost, please consult a bicycle dealer.

If you intend to adjust the coil-sprung seatpost yourself, proceed as follows:

1. Remove the coil-sprung seatpost from the seat tube (see section *"Adjusting the saddle" on page 81*).
2. Turn the bottom adjusting screw in the seatpost
   - clockwise to increase the spring stiffness.
   - anti-clockwise to decrease the spring stiffness.
3. When adjusting the support, please note that a minimum of 10 mm of the adjusting screw must remain inside the coil-sprung seatpost. Note the marking for the minimum depth of the adjusting screw
4. If you are unsure of how to adjust the coil-sprung seatpost or experience problems when doing so, please consult a bicycle dealer.

14.10 Quick-release

14.10.1 Basics

Quick-releases are designed for quickly removing, installing and adjusting components without having to use tools.

The following components may be fitted with a quick-release:

- Axles (quick-release axles): Securing front or rear wheel
- Seatpost clamp: Securing the seatpost

→ Check whether the quick-release makes unusual noises when opened or closed.

→ Remove any dirt from the quick-release using a clean cloth.

The removal and installation of the front and rear wheel require specialist know-how.

→ Only remove or install the front or rear wheel using the quick-release lever if you have adequate specialist know-how.

14.10.2 Operating quick-releases

WARNING

Risk of accident and injury!

If the quick-release axles or the quick-release on the seatpost are not properly locked, the wheels or calipers may become loose while cycling.

► If you do not have the necessary knowledge or tools, have the bicycle dealer install/deinstall the quick-release axles.

► Before setting off, make sure that the quick-release lever is locked with adequate pretension and is resting against the component/ frame.

CAUTION

Risk of accident and injury!

If you operate the quick-releases incorrectly, you may pinch your fingers or other parts of the body.

► Always handle quick-releases with care.

14.10.2.1 Opening quick-releases

→ To open the quick-release lever, pull it outwards away from the relevant frame element.

14.10.2.2 Locking quick-releases

→ Lock the quick-release by pushing the quick-release lever towards the appropriate frame element until it rests against the seatpost (seat tube clamp) or fork (axle).

→ If you notice that the relevant seatpost or quick-release axle is not fixed in position when the quick-release is closed, adjust the quick-release accordingly.

14.10.3 Adjusting quick-releases

1. To open the quick-release lever, pull it outwards away from the relevant frame element.
2. Screw in the adjusting screw or the hub axle nut clockwise one quarter of a revolution.
3. Lock the quick-release by pushing down the quick-release lever fully against the frame element.
4. Check whether the seatpost or the front or rear wheel are secured in position with the quick-release.
5. If necessary, repeat steps 1–3 until the seatpost or front or rear wheel are secured in position when the quick-release is locked.

→ If the quick-release locks into position too easily (with minimal/no effort), adjust the pretension.

→ If you are unsure of how to adjust the quick-release or experience problems when doing so, please consult a bicycle dealer.

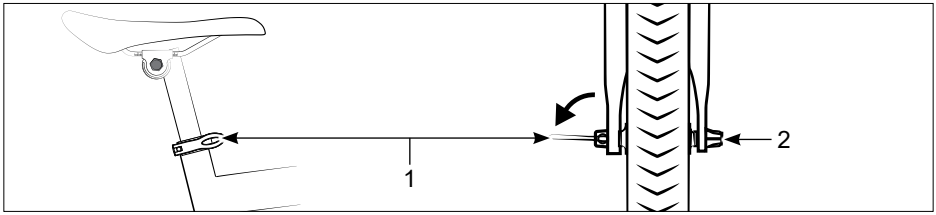

Fig.: Adjusting quick-releases

1 Quick-release lever
2 Axle nut

15 Care and maintenance

15.1 Cleaning

NOTE

Risk of damage!

Using unsuitable cleaning products can result in material damage.

► Do not use aggressive cleaning products.
Only use cleaning agents and lubricants recommended by the manufacturer.

► Do not allow cleaning/care products and oils to get onto the brake pads, brake rotors and braking surfaces of the rims.

► Do not use sharp, angular or metal cleaning tools.

► Do not use powerful water jets or high-pressure cleaners.

You will need the following items to clean the bicycle:

- Clean cloths
- Mild, tepid soapy water
- Sponge or soft brush

→ If necessary, consult a bicycle dealer for advice on suitable cleaning products and preserving agents.

→ Clean the bicycle regularly, even if only slightly soiled.

→ Read and follow the instructions for cleaning individual components included in the manufacturer's information.

Chain drive

→ Clean the chain and both sprockets with a clean (and if necessary lightly oiled) cloth or a soft brush.

→ Lubricate the chain with universal oil:

- after each cleaning,
- after riding in the rain,
- if the chain has become very wet,
- regularly after about 15 hours of use.

Belt drive components

Belt drives must NOT be oiled or greased!

→ Clean the profiles of the belts and pulleys dry with a soft brush or, if necessary, with mild soapy water.

→ Then wash off the soapy water completely with clear water. Soapy water remaining on the belt can cause the belt to malfunction.

→ Carefully remove any trapped foreign objects (e.g. small stones).

→ However, never use sharp-edged tools to do this, as you could damage the belt.

Disc brakes

→ Clean dirty brake rotors with a suitable brake cleaner approved by the manufacturer.

Rim brakes

→ Clean dirty brake pads, rims and brake cables with a slightly damp cloth.

Coaster brake

→ The coaster brake is installed in the rear wheel hub, so it does not need to be cleaned.

Frame and wheels

→ Clean the frame, the wheels and the mudguards with a damp cloth with clear water or, if necessary, with mild soapy water.

→ Then wash off the soapy water with clean water.

Operating elements

→ Clean the controls with a dry or slightly damp cloth.

→ When cleaning electrical control elements, make sure that no liquid gets into the housing.

Suspension components

→ Clean the spring elements with a clean / lightly oiled cloth or a soft brush.

→ Lubricate the suspension elements with an original lubricant from the suspension element manufacturer:

- after each cleaning,
- after riding in the rain,
- if the suspension elements have become very wet.

Quick release, thru axles

→ Clean the quick-release skewers and thru axles with a clean / lightly oiled cloth or a soft brush.

→ Lubricate the quick-release levers, quick-release axles and other joints with a suitable lubricant approved by the manufacturer:

- after each cleaning,
- after riding in the rain,
- when the joints have become wet.

Lighting

→ Clean all lighting components (headlight, rear light and reflectors) with a damp cloth with clear water or, if necessary, with mild soapy water.

→ Then wash off the soapy water with clean water.

15.2 Maintenance

After the break-in period, you should have your bike serviced at regular intervals. The times given in the table are intended as a guide for cyclists who ride between 1,500 and 2,500 kilometres or 60 and 100 operating hours per year.

If you regularly cycle more or a lot on bad roads, the intervals in the service plan will be shortened accordingly in line with the tougher use.

You can carry out the checks marked with * yourself if you have manual skills, some experience and suitable tools, e.g. a torque spanner.

If the inspections reveal any defects, initiate suitable measures immediately. If you are not absolutely sure or have any questions, please contact your specialist dealer.

Part	Task	Before every trip	Monthly	Yearly	Other intervals	To be carried out by
Lighting	Check function if necessary	*				User
Tyres	Check air pressure Check tread height and sidewalls"	*	*			User
Brakes (rims)	Check lever travel, pad thickness and position in relation to the rim; brake test when stationary	*				User
Brakes (mechanical discs)	Lever travel, pad thickness and brake test when stationary	*				User
Brakes, brake pads (rim)	Clean		*			User
Brake cables/pads/lines	Visual inspection		*			User
Brakes (discs)	Lever travel, pad thickness, tightness, brake test when stationary	*				User
Brakes (discs)	Replace brake fluid (for DOT fluid)			*		Specialist retailer

Part	Task	Before every trip	Monthly	Yearly	Other intervals	To be carried out by
Rims (for rim brakes)	Check wall thickness, replace if necessary		*		*after the 2nd set of brake pads at the latest	Specialist retailer
Fork	Check or replace				*at least every 2 years	Specialist retailer
Suspension fork/ suspension elements	Visual inspection of lower legs/stanchions	*			*every 50 operating hours at the latest, or in accordance with the manufacturer's recommendation.	User
Suspension fork/ suspension elements	Maintenance of the spring and damping unit			*	*every 200 operating hours at the latest, or in accordance with the manufacturer's recommendation.	Specialist retailer
Inner bearing	Check bearing play Dismantle and regrease (shells)		*		*at least annually	Specialist retailer
Chain	Check or lubricate	*			*from 1 000 km or 50 operating hours	User
Chain	Check wear, replace if necessary		*		*at least annually	Specialist retailer

Part	Task	Before every trip	Monthly	Yearly	Other intervals	To be carried out by
Pedal crank	Check and/or tighten		*		*at least annually	Specialist retailer
Paint coat/eloxal/ carbon	Preserve				*at least every six months	User
Wheels/spokes	Check wheel trueness and tension, centre or retension		*		*if required	Specialist retailer
Handlebars and stem (aluminium and carbon)	Check or replace				*every 2 years at the latest	Specialist retailer
Headset bearing	Check bearing play Regrease		*	*	*at least annually	Specialist retailer
Metallic surfaces	Preserve (exception: rim shoulders with rim brakes, brake rotors)				*at least every six months	User
Hubs	Check bearing play Regrease"		*	*	*at least annually	Specialist retailer
Pedals (all)	Check the bearing play		*			User
Pedals (click/sys-tem)	Clean and lubricate the locking mecha-nism		*			User

Part	Task	Before every trip	Monthly	Yearly	Other intervals	To be carried out by
Seat post/stem	Check screws Remove and re-grease Carbon: new assembly paste (no grease)		*	*		Specialist retailer
Rear derailleur/ front derailleur	Clean, lubricate		*			User
Quick-release	Check seat	*				User
Nuts (mudguards etc.)	Check and/or tighten		*			User
Valves	Check seat	*				User
Cables (gear shift/ brakes)	Remove and grease			*		Specialist retailer

16 Storage and disposal

This section contains information on how to store and dispose of your e-bike and rechargeable battery safely.

16.1 Storing the rechargeable battery

WARNING

Risk of injury!

A damaged or improperly used rechargeable battery can irritate and injure the respiratory tract, the eyes or the skin.

► Seek medical attention immediately in case of any complaints.

► Ensure that faulty batteries are kept in well-ventilated areas.

► Avoid contact with the battery fluid.

► If battery fluid gets into eyes, rinse eyes with plenty of water. Seek medical attention immediately.

If you do not intend to use your rechargeable battery for a prolonged period, proceed with storage as described below:

→ Charge the rechargeable battery to approx. 60 % of its capacity.

  → After each charging session, disconnect the battery from the charger and pull the mains plug out of the socket.

→ Take the rechargeable battery out of the battery holder.

→ Store the rechargeable battery in a dry room protected from freezing temperatures and significant fluctuations in temperature, ideally at +10 to +15 ° C, for example, in a cellar room.

→ Store the rechargeable battery so that

- it is protected from falling,
- it is protected from moisture, and
- it is out of reach of children and animals.

→ If you have the rechargeable battery in storage for more than three months, charge the battery every 3 to 6 months to about 60% of its capacity.

16.2 Storing the e-bike

If you do not intend to use your e-bike for a prolonged period, proceed with storage as described below:

→ Store the e-bike in a dry room where it is protected from frost and large changes in temperature.

→ Store the e-bike hanging from the frame to prevent the tyres from deforming.

→ Clean the e-bike before storing it.

→ If your e-bike has derailleur gears, you should shift to the small chainring at the front and the smallest sprocket at the back, in order to relieve the gear cables of as much tension as possible.

16.3 Cleaning the e-bike

For your own safety, please also observe the following safety instructions:

CAUTION

Risk of injury!

Moving parts of the e-bike can pinch or crush body parts.

► Secure moving parts, if possible.

► Wear protective gloves.

NOTE

Risk of damage!

Using unsuitable cleaning products can result in material damage.

► Do not use aggressive cleaning products.

► Do not use sharp, angular or metal cleaning tools.

► Do not use powerful water jets or high-pressure cleaners.

→ You will need the following items to clean the bicycle:

- Clean cloths
- Mild, tepid soapy water
- Sponge or soft brush
- Cleaning products and preserving agents

→ If necessary, consult a bicycle dealer for advice on suitable cleaning products and preserving agents.

→ Clean the e-bike regularly, even if it is only slightly dirty.

→ Wipe down all surfaces and components using a sponge moistened with mild soap suds.

→ After cleaning, wipe all surfaces and components dry.

→ Preserve all painted and metal surfaces on the frame at least every six months.

→ Colours may fade due to UV irradiation and other environmental conditions.

→ If the bicycle is fitted with rim brakes, do not preserve the rims. Likewise, if the bicycle is fitted with disc brakes, do not preserve the brake rotors.

→ Read and follow the instructions for cleaning individual components included in the manufacturer’s information.

16.4 Disposal

Familiarise yourself with all disposal symbols displayed on packaging, the rechargeable battery as well as the charger (see section *"Signs and symbols" on page 24*).

16.4.1 Disposing of the packaging

→ Dispose of the packaging according to material type. Dispose of cardboard and carton as waste paper and foils via the recyclable material collection service.

16.4.2 Disposing of the e-bike

The symbol with the crossed-out dustbin means that electrical and electronic appliances must not be disposed of with household waste. Consumers are legally obliged to dispose of electrical and electronic appliances separately from unsorted municipal waste at the end of their service life. This ensures that recycling is environmentally friendly and conserves resources.

Batteries and accumulators that are not firmly enclosed in the electrical or electronic appliance and can be removed without destroying them must be separated from the appliance before it is handed in at a collection point and disposed of in a designated disposal facility. The same applies to lamps that can be removed from the appliance without causing damage.

Owners of electrical and electronic appliances from private households can hand them in at the collection points of the public waste disposal organisations or at the collection points set up by the manufacturers or distributors in accordance with the ElektroG. The disposal of old appliances is free of charge.

Retailers with a sales area of at least 400 m² for electrical and electronic appliances are obliged to take back appliances. The same applies to food retailers with a total sales area of at least 800 m² if they sell electrical and electronic equipment on a permanent basis or at least several times a year. Distance sellers with a storage area of at least 400 m² for electrical and electronic equipment or a total storage area of at least 800 m² are also subject to the take-back obligation. In general, distributors are obliged to guarantee the free take-back of old appliances by providing suitable take-back options within a reasonable distance.

Consumers have the option of returning an old appliance free of charge to a distributor obliged to take it back if they purchase an equivalent new appliance with essentially the same function. This option is also available for deliveries to a private household. In distance selling, the option of free collection when purchasing a new appliance is limited to heat exchangers, display screen devices and large appliances that have at least one outer edge with a length of more than 50 cm. The distributor must ask the consumer about the intention to return the goods when concluding the purchase contract. Apart from this, consumers can return up to three old appliances of the same type to a distributor's collection centre free of charge, without this being linked to the purchase of a new appliance. However, the edge lengths of the respective devices must not exceed 25 cm.

Electrical and electronic devices used in information and communication technology, such as computers or smartphones, often contain personal data. Consumers are responsible for deleting these before returning the devices.

Consumers are encouraged to take measures to avoid waste. With regard to electrical and electronic appliances, this means extending their service life by repairing defective appliances and selling used appliances in good working order instead of disposing of them.

16.4.3 Disposing of the rechargeable batteries and batteries

The adjacent symbol means that batteries and rechargeable batteries must not be disposed of with household waste.

Consumers are legally obliged to take all batteries and rechargeable batteries, regardless of whether they contain harmful substances*) or not, to a collection point in their municipality/neighbourhood or to a retailer so that they can be disposed of in an environmentally friendly manner and valuable raw materials such as cobalt, nickel or copper can be recovered.

The return of batteries and rechargeable batteries is free of charge.

Some of the possible ingredients such as mercury, cadmium and lead are toxic and endanger the environment if disposed of improperly. Heavy metals, for example, can have harmful effects on humans, animals and plants and can accumulate in the environment and in the food chain and then enter the body indirectly via food.

There is a high risk of fire with used batteries containing lithium. Particular attention must therefore be paid to the proper disposal of used batteries and accumulators containing lithium. Incorrect disposal can also lead to internal and external short circuits due to thermal effects (heat) or mechanical damage. A short circuit can lead to a fire or explosion and have serious consequences for people and the environment. Therefore, tape the terminals of lithium-containing batteries and rechargeable batteries before disposal to prevent an external short circuit.

Batteries and rechargeable batteries that are not permanently installed in the device must be removed and disposed of separately before disposal.

Only dispose of batteries and rechargeable batteries when they are discharged!

Delete any personal data stored on accessory devices before returning the e-bike to the collection point. This is your responsibility.

*) labelled with:

Cd = Cadmium

Hg = Mercury

Pb = Lead

Li = Lithium

Co = Cobalt

Ni = Nickel

Mn = Manganese

16.4.4 Disposing of lubricants, cleaning agents and care products

Lubricants, cleaning agents and care products should not be disposed of with household rubbish, in sewers or in nature.

→ Read the information on the packaging.

→ Dispose of the lubricants, cleaning agents and care products at a recycling centre or collection point run by your city council or municipality.

16.4.5 Disposing of tyres and inner tubes

Tyres and inner tubes are not residual waste or household rubbish.

→ Dispose of tyres and inner tubes at a recycling depot or at a recycling collection point run by your city or municipality.

17 Vibration

Total vibration value to which the upper limbs are exposed:	2.5 m/s²
Highest effective value of the weighted acceleration to which the entire body is subjected:	0.5 m/s²
Measurement uncertainty:	0.5 m/s²

The actual vibration emission value may deviate due to the type of application, as described below:

- Condition of the e-bike and proper maintenance;
- Type of material and use of the e-bike;
- Use of the correct accessories and their perfect condition;
- firm hold of the e-bike by the user;
- Road characteristics and surface;
- intended use of the e-bike as described in this user manual.

Inappropriate use of the e-bike can cause vibration-related illnesses.

18 Warranty and warranty terms

Manufacturer's warranty

When purchasing a new e-bike from an authorised commercial dealer, we grant - in the following: "the manufacturer" - a worldwide, voluntary manufacturer's warranty in accordance with the following provisions. The contractual warranty rights against the seller remain unaffected.

Conditions

The manufacturer's warranty is only available to the first purchaser of an e-bike who has purchased it from an authorised commercial dealer. If the e-bike is transferred to another person by the original purchaser, the warranty is cancelled.

Time

This voluntary manufacturer's warranty is valid from the date of purchase for a period of:

5 years for steel / aluminium frames and unsprung steel / aluminium forks,

3 years for carbon frames and unsprung carbon forks

Important: The warranty period for e-bikes of EN17406 classification 5 is limited to 2 years.

The warranty is not extended by the provision of warranty services. Repaired or replaced e-bikes are guaranteed for the remaining warranty period and in accordance with the original warranty conditions. The basis for calculating the warranty period is the date of the purchase contract for the e-bike.

Assertion

The manufacturer's warranty is provided by Hermann Hartje KG, Deichstraße 120-122, 27318 Hoya, Germany. The buyer must check the e-bike immediately after purchase and report any defects to their authorised dealer in writing without delay. Hidden defects must be reported as soon as they are discovered.

To register a warranty claim, please first inform your specialist dealer of the defect to be claimed within the warranty period and then hand over the e-bike to your specialist dealer for inspection promptly and at your own expense, presenting the original proof of purchase. A warranty cannot be granted without the presentation of the original proof of purchase. At the beginning of these brief instructions you will find a handover document, a copy of which will be kept by your specialist dealer after it has been acknowledged and signed by the end user. This handover document must be presented together with the defective component in the event of a warranty claim. Otherwise a warranty will not be granted.

The specialist dealer will contact the manufacturer to rectify the fault. The warranty is subject to the following conditions.

Warranty service

The manufacturer will, at its own discretion, either replace or repair the defective e-bike/ frame with an e-bike/frame of similar type and quality. Colour deviations may occur when frames and forks are replaced. If a repair or replacement is not possible, the purchase price will be refunded, taking into account the use already made of the e-bike (on presentation of proof of purchase of the e-bike).

In the event of a replacement or a refund of the purchase price, the returned e-bike / component becomes the property of the manufacturer.

Components that are not faulty and are covered by the warranty can only be replaced for a fee. The manufacturer / dealer will contact the end customer to obtain consent before replacing the non-defective components.

Warranty exclusion

This warranty is only granted if the buyer is a consumer and the e-bike is for private use. It does not apply to e-bikes that are used commercially (e.g. in hire and rental operations). This warranty does not apply to purchases of e-bikes that are not fully assembled.

The manufacturer's warranty applies exclusively to e-bike frames, rear triangles and rigid forks. E-bike components are excluded from this manufacturer's warranty. It does not apply to wearing parts if they are damaged by wear and tear.

Wearing parts are in particular

- Rechargeable batteries/batteries
- Drive chain or belt
- Brake pads
- Brake fluids
- Brake cables
- Brake cable housings
- Seals
- Rims or brake rotors
- Rubber luggage strap
- Grips/handlebar tape
- Sprockets, pinion or toothed belt pulley
- Lacquered surfaces
- Bearings in hubs, joints etc.
- LEDs/lamps
- Pedal surfaces
- Tyres
- Saddle cover / Saddle
- Rear derailleur pulleys
- Gear cables
- Shift cable housing
- Hoses
- Lubricants
- Stand caps

The warranty does not apply to damage caused after the transfer of risk. In particular, the warranty does not apply to damage caused by accident, negligence, improper or abusive operation, improper use, force majeure, improper assembly, failure to observe the recommended maintenance instructions, improper or incorrect maintenance or repair by anyone other than a specialised dealer, use of components that are not compatible with the e-bike and/or product modification. The warranty does not apply to damage due to infiltration of sweat, impact, colour change in the form of sunlight or comparable external influences.

All e-bikes are supplied with a Quick Start Guide (this document). Please follow the instructions contained therein or on the e-bike itself. Failure to comply with the instructions will invalidate the warranty. Consequential and incidental damages are not covered under this warranty.

Component manufacturers (Shimano, SRAM etc.) remain unaffected by this manufacturer's warranty.

Other

The place of fulfilment of the manufacturer's warranty is 27318 Hoya, Germany. Hoya is the place of jurisdiction for all disputes in connection with this manufacturer's warranty.

This manufacturer's warranty is subject to German law to the exclusion of all standards that refer to foreign law.

What is the relationship between statutory warranty law and this warranty?

With this warranty, the manufacturer grants a voluntary manufacturer's warranty; additional claims under national warranty law remain unaffected by this.

Recommendation

We strongly recommend that you only use commercial specialist dealers to carry out maintenance and repairs. This warranty does not apply in the event of improper or incorrectly performed maintenance or repair work. Costs for maintenance work are to be borne by the end customer.

19 Declaration of conformity

To call up the declaration of conformity for your e-bike, we refer you to the respective FAQ pages of the individual brands, where you can find the documents for the appropriate model year:

Victoria

https://www.victoria-bikes.com/victoria-bedienungsanleitungen/

Conway

https://www.conway-bikes.com/downloads/

QiO

https://www.qio-bikes.com/bedienungsanleitungen/

Contoura

https://www.contoura.de/faq-bedienungsanleitungen/

Chike

https://chike.de/service/#Downloads

20 Bicycle passport

Manufacturer/model _____

Type and design _____

Frame size _____

Frame shape _____

Frame number _____

Suspension fork manufacturer _____

Suspension fork model _____

Serial number _____

Gear system (manufacturer, type) _____

Brake (front, manufacturer, type) _____

Brake (rear, manufacturer, type) _____

Wheel/tyre size _____

Permitted total weight _____

Motor (manufacturer, type) _____

Rechargeable battery
(manufacturer, type) _____

Display (manufacturer, type) _____

Brake lever configuration

Right brake lever	☐ Front brake ☐ Rear brake
Left brake lever	☐ Front brake ☐ Rear brake
Luggage rack	☐ front ☐ rear ☐ retrofittable
	☐ not suitable for luggage racks
Child seat	☐ Installation permitted
	☐ Installation not permitted
Trailer coupling	☐ Mounting permitted
	☐ Mounting not permitted

Miscellaneous _____

_____

Stamp Signature of the bicycle dealer

21 Handover document

We wish you a safe journey on your new e-bike!

Acknowledgement

☐ I have received verbal instructions on performing care and maintenance as well as product information. I have received an original user manual in printed form.

☐ I am aware that the vendor's warranty obligations only apply to product defects. The warranty does not cover wear damage resulting from normal use of the product.

☐ I have thoroughly inspected the entire product. The delivered product was complete and showed no sign of obvious damage.

☐ I hereby confirm that the e-bike has been fully checked for safety by the bicycle dealer before delivery and that all necessary adjustments have been made.

Comments

Place, date Purchaser's signature

22 Inspection report

1. Inspection

> 100 - 300 km / 2 months	
Order no.	Mileage
Work carried out, parts replaced or repaired	
Date	Stamp and signature of specialised dealer

2. Inspection

1000 km / 12 months	
Order no.	Mileage
Work carried out, parts replaced or repaired	
Date	Stamp and signature of specialised dealer

3. Inspection

2000 km / 24 months	
Order no.	Mileage
Work carried out, parts replaced or repaired	
Date	Stamp and signature of specialised dealer

4. Inspection

3000 km / 36 months	
Order no.	Mileage
Work carried out, parts replaced or repaired	
Date	Stamp and signature of specialised dealer

5. Inspection

4000 km / 48 months	
Order no.	Mileage
Work carried out, parts replaced or repaired	
Date	Stamp and signature of specialised dealer

6. Inspection

5000 km / 60 months	
Order no.	Mileage
Work carried out, parts replaced or repaired	
Date	Stamp and signature of specialised dealer

23 Imprint

Text, content and layout
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This original instruction manual for your e-bike meets the requirements and stipulations outlined in standards DIN EN 15194, DIN EN 4210 and DIN EN 82079-1.

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