Pedelec Groove Next

EPAC Electrically power assisted cycle

Original User Guide | US

Version 1

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GROOVE NEXT

DERBY CYCLE WERKE GMBH

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Bike passport

Last name:

First name:

Street:

Zip code, Town/city:

Phone/Fax:

E-mail:

Brand:

Model:

Serial number (S/N):

Frame number:

Color:

Gearset:

Purchase date:

Stamp and signature of the dealer

Change of owner

2. Owner

Last name:

First name:

Street:

Zip code, Town/city:

Date/signature

3. Owner

Last name:

First name:

Street:

Zip code, Town/city:

Date/signature

4. Owner

Last name:

First name:

Street:

Zip code, Town/city:

Date/signature

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*dependent on model

*dependent on model

I. Introduction

WARNING

There are risks associated with the use of any bike which cannot be predicted or avoided, and which are the sole responsibility of the rider. Because it is impossible to anticipate every situation or condition which can occur while riding, this manual makes no representation about the safe use of the bike under all conditions.

This user guide contains information on how to use, maintain and look after your Groove Next pedelec. It also contains important safety and performance information. This manual is not intended as a comprehensive use, service, repair or maintenance manual. Please see your dealer for all service, repairs or maintenance. Your dealer may also be able to refer you to classes, clinics or books on bike use, service, repair safety or maintenance.

WARNING

Please see your dealer for all service, repairs or maintenance. This manual is not intended as a comprehensive use, service, repair or maintenance manual. Your dealer may also be able to refer you to classes, clinics or books on bike use, service, repair safety or maintenance.

Make sure the the service intervals are up to date ⇨ *12. Service intervals Page US-69***.** If wear and damage are not detected in good time, components may fail. If that happens while you are riding the bike you could be severely injured or killed. If you observe worn, damaged or bent components do not use the bike again until the components are repaired or replaced.

WARNING

Before using your pedelec for the first time, carefully read this user guide. Please also read the other items in the information pack ⇨ *II. Component guides Page US-7***. Familiarize yourself with the meaning of the safety information symbols.** Should you have questions please contact your dealer ⇨ *5.3.3 Display of the battery charge level, Page US-45*. Failure to comply with safety information and instructions can result in death, severe injuries and/or damage to the pedelec. The manufacturer shall not be liable for injury and damage caused by the failure to comply with safety information and instructions.

Make sure your dealer has provided you with all of the documentation that was delivered with the pedelec. Keep this user guide and information pack safe for future use. Please pass on the guides and information pack to other people who will use, maintain or repair this pedelec, otherwise uncertainties can arise that could result in death, severe injuries and/or damage to the pedelec. In case of a conflict between the instructions in this manual and information provided by a component manufacturer, always follow the component manufacturer's instructions or consult your dealer.

You can download this guide as a PDF file from our website: www.derby-cycle.com/en/downloads/downloads.html. There you will also find links to the websites of the various component manufacturers.

I.I Explanation of the safety information symbols

WARNING

This symbol ⚠ combined with the signal word "WARNING" indicates a potentially dangerous situation. Failure to comply with this safety warning could result in death or serious injury.

CAUTION

This symbol ⚠ combined with the signal word "CAUTION" indicates a potentially dangerous situation. Failure to comply with this safety instruction can result in minor or moderate injuries.

NOTICE

The signal word "NOTICE" indicates a potential situation that may cause product or component damage. Failure to comply with this safety instruction can result in damage to the pedelec and its components.

This symbol indicates helpful tips, useful or important information about the product or its additional uses. It does not indicate hazard or a dangerous or harmful situation.

I.II Groove Next

Your Pedelec Groove Next is an Electrically Power Assisted Cycle (EPAC). When the assist mode is switched on, the electric motor provides assistance as long as you are pedaling. You can control the degree of assistance, which is adjusted using various assist modes ⇨ *5.3.4 Display of the assistance mode, Page US-45*. The assistance is dependent on the force and speed of your pedaling and the speed you are traveling. The motor assistance stops as soon as you stop pedaling, turn off the assistance or when the battery is discharged or if you reach a speed of 20 mph. Speeds greater than 20 mph may be achieved by pedaling faster.

II. Component guides

In the component guides you will find important information about the use and maintenance of components of your pedelec. They also often contain information about any warranties. If there is no specific user guide included for the particular component you are interested in, look on the manufacturer's website. You will find a list of our component manufacturers at http://www.derby-cycle.com/en/downloads/downloads.html

III. Dealer

Let our dealers advise you. The following link leads to our brand home page with all dealers in your area.

www.kalkhoff-bikes.com/en/service/dealer-search

IV. Legal regulations

WARNING

Follow all applicable federal, state and local traffic regulations, otherwise you run the risk of a serious accident. Before using your pedelec abroad, find out about the regulations applicable in that country.

Wear a bike helmet. You should always wear a suitable bike helmet for your own safety. A bike helmet can protect you from severe injuries. Make sure the helmet is correctly positioned.

Only those above the age of 16 should ride the pedelec. Young people may have problems controlling the speed. This could lead to serious falls and accidents.

Check whether a driver´s license is needed (and which license) to ride your pedelec.

Check local laws/ordinances for laws regarding use of children trailers and cycletrailers on pedelecs. Discuss with a dealer whether trailers may be attached to your bike model.

Never ride your bike while under the influence of alcohol or drugs.

WARNING

Never ride the bike 'no hands'. You could fall off and seriously injure or even kill yourself – and also be liable for prosecution. You must always have at least one hand on the handlebars.

Never hitch a ride by holding on to another vehicle. It can lead to accidents and serious injuries.

Like all bikes, the pedelec must comply with all applicable federal, state and local traffic regulations and applicable standards. If you make technical modifications to the bike, take into account the respective national road traffic regulations and applicable standards. If the cut-off speed and/or the speed of the push assist exceed the specified values, the pedelec will become liable to mandatory registration and insurance. Technical modifications can impair the function of your pedelec, resulting in damage to components. If this happens while you are riding the bike you could be severely injured or killed. Furthermore, it will invalidate the manufacturer's liability, warranty and guarantee (where applicable).

You are sharing the road or the path with others — motorists, pedestrians and other cyclists. Respect their rights.

IV.I Reflectors

Bikes shall be equipped with reflective devices to permit recognition and identification under illumination from motor vehicle headlamps. In the USA, the requirements for reflectors are regulated in the “16 CFR 1512.16 - Requirements for reflectors”. The following table provides an overview of the required reflectors, as well as a small selection of characteristics which these reflectors should have. For additional information, please see “16 CFR 1512.16 - Requirements for reflectors”.

Front reflector		1	Colorless
			Front-facing
			The optical axis of the reflector shall be directed forward within 5° of the horizontal-vertical alignment of the bike when the wheels are tracking in a straight line.
Rear reflector		1	Red light
			Rear-facing
			The optical axis of the reflector shall be directed rearward within 5° of the horizontal-vertical alignment of the bicycle when the wheels are traveling in a straight line.
Pedal reflector		2 per pedal	Colorless or amber
			Front and rear surfaces of the pedal

Type		Number	Characteristics
Side reflector a) or b)	a) Retroreflective tire sidewalls	2 per wheel	On each side of the wheel
	b) Reflector	1 per wheel	Front side reflector: colorless or amber on the front wheel
			Rear side reflector: colorless or red on the rear wheel
			Shall be visible on each side of the wheel
			On the spokes of each wheel

IV.II Lighting

In Germany the requirements for lighting on bikes is regulated in Section 67 of the Road Traffic Licensing Regulation (StVZO) and in the Technical Requirements for vehicle parts. Lighting includes both battery and dynamo-powered lights.

Front light	1	Front	White light
			The illuminance must be at least 10 lux at the center of the beam at a distance of 10 meters.
Rear light	1	Back	Red light
			The lowest point of the illuminating surface must not be lower than 9.75 inches above the road surface.
			A standlight function is also permitted

IV.II.I Replacement bulbs

The replacement bulbs you will need depend on the type of lighting fitted on your bike. The table below tells you what type of bulb you will need:

Type	Power supply	
Front light (LED, incandescent)	6 V	2.4 W
Front light halogen	6 V	2.4 W
Rear light	6 V	0.6 W
Rear light with standlight function	6 V	0.6 W
Lighting with LED lamps	LED lamps are not replaceable	
Hub dynamo	6 V	3 W

IV.II.II Disposal

Follow all applicable federal, state and local regulations regarding the disposal of the drive system, display, control unit, battery and charger. Otherwise you may be committing an offense and run the risk of a fine or penalty.

Do not dispose of the display, control unit, pedelec battery and charger in the household waste. Hand them in at the designated place (e.g. recycling center, bike dealer). Electronic devices contain valuable materials that can be reused, protecting natural resources. Bring your batteries to a drop-off location (www.call2recycle.org).

V. Intended purpose

V.I E-mountain bike

This bicycle is designed and equipped for use on public roads and paved paths. It can also be used on a non-challenging terrain. The manufacturer and dealer accept no liability for damage resulting from any use beyond this definition and/or failure to comply with the safety information and instructions in the user guide. This applies particularly to off-road use, overloading and failure to properly rectify faults. Also included in the definition of intended use are the conformance to the operating, maintenance and repair conditions in the user guide and service book ⇨ *II. Component guides Page US-7* - stipulated by the manufacturer. Fluctuations in consumption and battery power as well as a reduction of capacity ⇨ *7.3.1.2 Capacity Page US-57* due to the bicycle's age are commonplace and technically unavoidable and as such do not constitute material defects.

V.II Pedelec weight

For safety reasons we recommend you weigh your pedelec because the weight can vary due to various equipment characteristics, accessories and frame heights, otherwise you risk fracturing the frame. This can lead to severe falls that could result in death or serious injury.

V.III The maximum permissible total weight

WARNING

Do not exceed the maximum permissible total weight of the pedelec, because it can lead to the fracture or failure of safety-relevant parts (such as the brakes). If this happens while you are riding the bike, it can lead to severe falls – with fatal consequences.

Total weight = Weight of the bike + weight of the rider + weight of the trailer bike or trailer + weight of luggage and/or child.

Example calculation:

244 lbs total weight = 46 lbs weight of the bike + 165 lbs weight of the rider + 22 lbs weight of the trailer + 11 lbs weight of the luggage.

244 lbs is below the allowed total weight of 265 lbs and is therefore permissible.

Bike type	Maximum permissible total weight	Weight of rider**
Pedelec Groove Next	265 lbs	219 lbs

** with a 46 lbs pedelec.

VI. Pedelec Groove Next*

1 Luggage rack*
2 Seatpost
3 Back light
4 Saddle
5 Right brake lever (rear wheel brake)
6 Shifter
7 Handlebar stem
8 Front light
9 Handle bars
10 Left brake lever (front wheel brake)
11 Display element
12 Front mudguard*
13 Fork
14 Disc brake, front wheel
15 Front wheel hub incl. dynamo
16 Front wheel
17 Wheel rim
18 Clamping bolt for removing the battery
19 Pedal
20 Pedal crank
21 Chain
22 Rear wheel incl. reflector strips
23 Side stand
24 Derailleur
25 Drive
26 Seat stay
27 Disc brake, rear wheel
28 Rear mudguard*
29 Seat tube
30 Crossbar
31 Down tube with integrated battery
32 Battery charger

*dependent on model

VII. Warranty

Warranty periods

The statutory warranty valid at the time of delivery applies to all models.

Conditions for claim under warranty

» Manufacturing, material or information error.

» The cause of the change in the product is not wear or aging arising naturally or as a result of its functions.

» The damage was not caused by use of the bike for other than the intended purpose.

The following are excluded from the warranty

» Damage caused by improper use or force majeure.

» All parts subject to function-related wear and tear or aging to a normal, expected extent, unless this is the result of a defect in the manufacturing process or material.

» Damage caused by incorrect or insufficient care and unprofessional repairs, conversions or replacement of components on the bike.

» Accident damage or damage caused by other external factors, providing this is not attributable to incorrect information or a product error.

» Repairs carried out with used parts or damage that occurs as a consequence of this.

» Damage resulting from competitive use.

» Special equipment, accessories or non-standard equipment; in particular technical modifications.

The following are considered wear parts under the statutory warranty

» Tires

» Rims in connection with rim brakes

» Brake pads

» Bike chains and toothed belts

» Chain wheels, sprockets, bottom brackets and jockey wheels

» Lamps in the lighting equipment

» Handlebar tape and handle grips

» Hydraulic oils and lubricants

» Gear-shift and brake cables

» Paint finishes

» Bearings

» Sliding bearings and bearings for full-suspension frames, suspension forks or other suspension elements

1. General Safety Information

Comply with the safety and user instructions at the start of the following sections.

WARNING

By choosing to ride a bike, you assume the responsibility for that risk, so you need to know — and to practice — the rules of safe and responsible riding and of proper use and maintenance. Proper use and maintenance of your bike reduces risk of injury.

We discourage allowing children under the age of 16 years to ride pedelecs. They may not be able to cope with the speed. It can result in serious accidents and falls.

Wear a bike helmet. You should always wear a suitable bike helmet for your own safety. A bike helmet can protect you from severe injuries. Make sure the helmet is correctly positioned.

Do not ride in unfavorable lighting conditions (fog, rain, dusk, darkness) without adequate lighting ⇨ *IV.II Lighting, Page US-9*; it can lead to accidents and serious injuries ⇨ *III. Dealer, Page US-8*. Avoid wet weather riding where possible.

Keep your hands and other body parts and clothing away from moving parts. They may get caught or entangled and lead to a fall and/or other serious injuries.

WARNING

Adapt your riding style to the prevailing traffic conditions. You could fall off and involve yourself and others in a serious accident that could result in death or serious injury. Take into consideration the longer braking distances needed on wet or icy roads. Think ahead, anticipating the actions of other road users and reduce your speed. Avoid sudden jerky movements of the handlebars and braking actions. Dismount if you are unsure about a situation.

Ride defensively. Always assume that others do not see you.
Look ahead, and be ready to avoid:

- Vehicles slowing or turning, entering the road or your lane ahead of you, or coming up behind you.
- Parked car doors opening.
- Pedestrians stepping out.
- Children or pets playing near the road.
- Pot holes, sewer grating, railroad tracks, expansion joints, road or sidewalk construction, debris and other obstructions that could cause you to swerve into traffic, catch your wheel or cause you to have an accident.
- The many other hazards and distractions which can occur on a bike ride.

Only use the bike for its intended purpose ⇨ *V. Intended purpose, Page US-10*, otherwise it can lead to component failure. If this happens while you are riding the bike you could be severely injured or killed.

WARNING

Do not remove the front or rear reflectors or reflector brackets from your bike ⇨ *IV.II Lighting, Page US-9***.** They are an integral part of the bike's safety system. Removing the reflectors reduces your visibility to others using the roadway. Being struck by other vehicles may result in serious injury or death. Make sure that your bike is equipped with correctly positioned and securely mounted reflectors.

Inspect your pedelec before every trip, and after each time it has been transported anywhere or has been left unattended ⇨ *4. Before every trip, Page US-41*. If wear and damage are not detected in good time, components may fail. If this happens while you are riding the bike you could be severely injured or killed. Due to the additional power, wearing parts on a pedelec are subject to more stress than a normal bike. If you observe worn, damaged or bent components do not use the bike again until the components are repaired or replaced.

Contact your bike dealer when it is necessary to replace wearing parts and other components. We recommend that all assembly and adjustment work is carried out by your dealer. Only use original replacement parts. Replacement parts from other manufacturers can impair the function of your pedelec. It can result in failures that can lead to serious accidents, injury or death.

Do not exceed the the maximum permissible total weight of the pedelec, because it can to the fracture or failure of safety-relevant parts ⇨ *V.III The maximum permissible total weight Page US-11*. If this happens while you are riding the bike, it can lead to severe falls – with fatal consequences.

WARNING

Ask your dealer to show you the operation and features of the components. Please also read the component guides. We recommend that all assembly and adjustment work be carried out by an approved dealer, as incorrect assembly could cause components to become loose. If this happens while you are riding the bike you could be severely injured or killed. If you do have to tighten something, you will find a complete list of the required torque settings in Section ⇨ *10. Torque settings, Page US-67*, which must be strictly followed.

Always remove the battery before starting to do adjustments, assembly, service or maintenance on the pedelec. The pedelec could switch on unexpectedly and you could be seriously injured.

You should have your bike and its components checked periodically by your dealer for indicators of stress and/or potential failure, including cracks, deformation, corrosion, paint peeling, dents, and any other indicators of potential problems, inappropriate use or abuse. These are important safety checks and very important to help prevent accidents, bodily injury to the rider and shortened product life.

CAUTION

Do not attempt to open the motor, display, battery or charger; you could injure yourself. Furthermore, parts may be destroyed, invalidating the warranty. If problems arise please contact your dealer.

NOTICE

Always park your pedelec so that it cannot tip over. If the bike tips over components can be damaged. If your bike is not equipped with a kick stand, one can be retrofitted. Please ask your dealer.

Do not clean the pedelec with a water hose or high pressure washer. You could damage the bike. Clean the pedelec with a soft damp cloth.

1.1 Tips

1.1.1 Children

WARNING

Make sure that your child always wears an approved bike helmet when riding; but also make sure that your child understands that a bike helmet is for bicycling only, and must be removed when not riding. A helmet must not be worn while playing, in play areas, on playground equipment, while climbing trees, or at any time while not riding a bike. Failure to follow this warning could result in serious injury or death.

As a parent or guardian, you are responsible for the activities and safety of your minor child, and that includes making sure that the bike is properly fitted to the child; that it is in good repair and safe operating condition; that you and your child have learned and understand the safe operation of the bike; and that you and your child have learned, understand and obey not only the applicable local motor vehicle, bike and traffic laws, but also the common sense rules of safe and responsible bicycling. As a parent, you should read this manual, as well as review its warnings and the bike's functions and operating procedures with your child, before letting your child ride the bike.

1.1.2 Wet weather

WARNING

Avoid wet weather riding where possible. Wet weather impairs traction, braking and visibility, both for the bicyclist and for other vehicles sharing the road. The risk of an accident is increased in wet conditions. Under wet conditions, the stopping power of your brakes (as well as the brakes of other vehicles sharing the road) is dramatically reduced and your tires don't grip nearly as well. This makes it harder to control speed and easier to lose control. To make sure that you can slow down and stop safely in wet conditions, ride more slowly and apply your brakes earlier and more gradually than you would under normal, dry conditions.

1.1.3 Night rides

Riding a bike at night is much more dangerous than riding during the day. A biker is very difficult for motorists and pedestrians to see.

WARNING

Therefore, children should never ride at dawn, at dusk or at night. Adults who chose to accept the greatly increased risk of riding at dawn, at dusk or at night need to take extra care both riding and choosing specialized equipment which helps reduce that risk. Consult your dealer about night riding safety equipment.

WARNING

Reflectors are not a substitute for required lights. Riding at dawn, at dusk, at night or at other times of poor visibility without an adequate bike lighting system and without reflectors is dangerous and may result in serious injury or death. Bike reflectors are designed to pick up and reflect car lights and street lights in a way that may help you to be seen and recognized as a moving bicyclist.

While riding at dawn, at dusk or at night:

» Ride slowly.

» Avoid dark areas and areas of heavy or fast-moving traffic.

» Avoid road hazards.

» If possible, ride on familiar routes.

» If riding in traffic:

- Be predictable. Ride so that drivers can see you and predict your movements.
- Be alert. Ride defensively and expect the unexpected.

» If you plan to ride in traffic often, ask your dealer about traffic safety classes or a good book on bike traffic safety.

1.1.4 Bright, visible clothing

Wear light colored, reflective clothing and accessories, such as a reflective vest, reflective arm and leg bands, reflective stripes on your helmet, flashing lights attached to your body and/or your bike ... any reflective device or light source that moves will help you get the attention of approaching motorists, pedestrians and other traffic.

Always wear appropriate shoes that will stay on your feet and grip the pedals. Make sure that shoe laces do not get entangled or caught in moving parts, and never ride barefoot or in sandals.

Always wear protective eyewear, to protect against airborne dirt, dust and bugs — tinted when the sun is bright, clear when it's not.

Always wear bright, reflective and visible clothing that is not too loose to entangle in the bike or get snagged by objects on the side of the road or trail.

2. Protection from theft, manipulation and loss

WARNING

Protect your pedelec from unauthorized access. If third parties alter components (e.g. the brakes) without your knowledge, you could be seriously injured. Inspect your pedelec before every trip, and after each time it has been transported anywhere or has been left unattended ⇨ *4. Before every trip, Page US-41*. If your bike is damaged, do not ride it again before the damage has been rectified. If your bike is lost or stolen it will not be replaced under the warranty.

The following measures can help you to protect your pedelec from theft and manipulation and to recover it if it has been stolen:

Always lock the bike and battery even if you are only leaving it for a short while. Ideally, the lock(s) should block the wheel powered by the motor. Do not leave the key in. To be on the safe side, you can also remove the battery. The pedelec must also be secured with a lock when it is parked outside the home (e.g. sheds, basement).

Do not park your pedelec in deserted locations – especially for long periods. If possible, park your pedelec in manned private or communal garages or individual bike lockers.

Chain and lock the pedelec to fixed anchors such as a fence or street lamp to prevent theft.

Quick-release wheels should be attached to a fixed object together with the frame. That way the bike cannot be stolen. Alternatively, the quick-release levers can be replaced by an anti-theft device. For questions about this please contact your dealer.

Use a high quality bike lock: you should invest approximately 10% of the purchase price of the bike in locks. Your dealer will be able to fit a suitable frame lock if your bike does not already have one. Alternatively, you can also use other types of bike locks. Ask your dealer for advice.

Make a note of the important details of your pedelec and get it registered with the police. This makes it easier to identify if it is stolen.

Bike theft is often covered by household contents insurance. Check the terms of your insurance policy as soon as possible.

3. Before your first ride

Make sure that your pedelec is adjusted to suit your height and is ready to use. Familiarize yourself with the basic functions of your pedelec. If your new bike doesn't fit, ask your dealer to exchange it before you ride it.

WARNING

Your dealer will explain to you the operation and specificities of your pedelec and its components. Please also read the component guides. We recommend that all assembly and adjustment work is carried out by a dealer, as incorrect assembly could cause components to become loose. If that happens while you are riding the bike you could be severely injured or killed. If you do have to tighten something, you will find a complete list of the required torque settings in Section ⇨ *10. Torque settings, Page US-67*, which must be strictly followed.

WARNING

Adjusting the pedelec to your height. If the bike is not correctly adjusted to your height you can lose control over the bike and fall off.

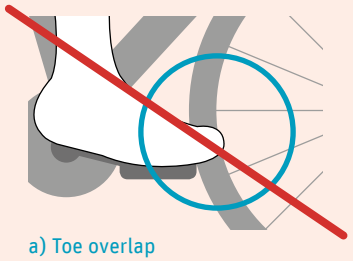
Practice braking and riding with assistance in a safe place before venturing into traffic. If you do not familiarize yourself with the operation and higher speed of your pedelec you could cause a serious accident. Ride in ECO mode until you feel confident enough to try the higher modes ⇨ *5.3.4 Display of the assistance mode, Page US-45*. Dismount if you are unsure about a situation.

3.1 Toe overlap

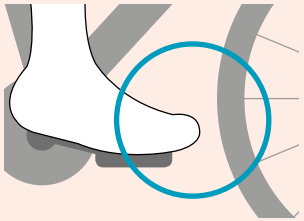
WARNING

Avoid toe overlap (picture a). Otherwise, your foot can get caught in the spokes, you can fall very hard and get serious injuries. Your toe or toeclip may be able to contact the front wheel when a pedal is all the way forward and the wheel is turned. Changing tire size or pedal crank arm length affects toe overlap. Ask your dealer to help you determine if the combination of frame size, crank arm length, pedal design and shoes you will use results in pedal overlap (picture b). Whether you have overlap or not, you must keep the inside pedal up and the outside pedal down when making sharp turns (picture c).

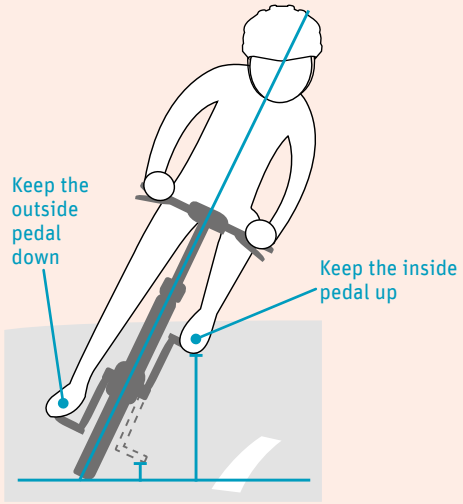
WARNING



a) Toe overlap



b) No toe overlap



c) Pedelec: When making sharp turns

3.2 Attaching the pedals

1. Screw the right hand pedal (marked 'R') into the right hand pedal crank in a clockwise direction.
2. Screw the left hand pedal (marked 'L') into the right hand pedal crank in a anticlockwise direction.

WARNING

Make sure you screw the pedals in straight otherwise you could damage the thread on the pedal crank – if that happens while you are riding the bike you could fall off.

3. Tighten both pedals towards the front wheel with a torque setting of 40 Nm [29.5 ft·lb].

3.3 Adjusting the saddle

Correct saddle adjustment is an important factor in getting the most performance and comfort from your bike. If the saddle position is not comfortable for you, see your dealer. Your dealer can adjust saddle angle or teach you how to do it.

CAUTION

Some people have claimed that extended riding with a saddle which is incorrectly adjusted or which does not support your pelvic area correctly can cause short-term or long-term injury to nerves and blood vessels, or even impotence. If your saddle causes you pain, numbness or other discomfort, listen to your body and stop riding until you see your dealer about saddle adjustment or a different saddle. If you have questions, please consult with a urologist or men's health expert.

If, in spite of carefully adjusting the saddle height, tilt and fore-and-aft position, your saddle is still uncomfortable, you may need a different saddle design. Saddles, like people, come in many different shapes, sizes and resilience. Your dealer can help you select a saddle which, when correctly adjusted for your body and riding style, will be comfortable.

Riding with an improperly tightened seat post can allow the saddle to turn or move and cause you to lose control and fall. Therefore:

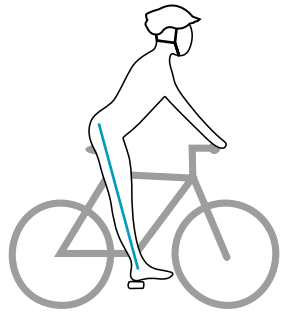
» Ask your dealer to help you make sure you know how to correctly clamp your seat post.

» Understand and apply the correct technique for clamping your seat post.

» Before you ride the bike, first check that the seat post is securely clamped.

3.3.1 Adjusting the saddle height

1. Sit on the pedelec and at the same time lean against a wall.
2. Turn the foot pedal on the opposite side to the wall to its lowest point.
3. Put your heel on the pedal.
   Your leg should be fully extended.
4. If your leg is not fully extended when your heel is on the pedal, raise the saddle. Lower the saddle if you cannot reach the pedal. The following sections explain how to adjust the saddle height on your bike. The seatpost can be fastened using the saddle clamp bolt ⇨ *3.3.2 Adjusting the saddle height: Saddle clamp bolt(s)*, Page US-21* or quick-release lever ⇨ *3.3.3 Adjusting the saddle height: Quick-release skewer*, Page US-21*.



For 3. Stretch out leg

WARNING

Mark on the seat post

There is a mark on the saddle post showing the maximum amount you can pull the saddle post out of the frame. Never pull out the saddle post beyond this mark, otherwise it can buckle or break and you could fall off.

3.3.2 Adjusting the saddle height: Saddle clamp bolt(s)*

1. Undo the saddle clamp bolt(s) by turning it/them anticlockwise with an Allen key.
2. Move the seatpost into the right position.
3. Tighten the saddle clamp bolt(s) again by turning it/them clockwise ⇨ *10. Torque settings Page US-67*.
4. Test the tightness of the saddle by trying to twist it.

For 1. Loosen the saddle clamp bolt(s)

For 3. Tighten the saddle clamp bolt(s)

WARNING

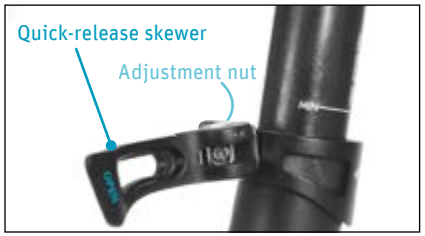
Only use appropriate tools to tighten screws and bolts. Observe the specified torque setting. Screws that have not been tightened properly with a torque wrench are at risk of breaking, which could lead to severe falls.

3.3.3 Adjusting the saddle height: Quick-release skewer*

WARNING

The quick-release skewer must be correctly closed before you set off. Check that it is correctly fitted before every ride and after every time the bike is left unsupervised, even for a short time. Otherwise, the seatpost may come loose; if this should happen whilst you are cycling, you could fall. This could result in serious injuries.

1. Open the quick-release skewer by swinging the lever 180˚. You will generally be able to read "OPEN" on the inside of the lever.
2. Move the seatpost into the right position. Take heed of the marking.
3. Close the quick-release skewer by swinging the lever back 180˚. You will generally be able to read "CLOSE" on the outside of the lever.



For 1. Quick-release skewer open

For 3. Quick-release skewer closed

*dependent on model

WARNING

It should be so hard to close the quick-release skewer that you need to use the balls of your hands (120 N: corresponds to a weight force of 26,5 lb). You should have the mark of the lever imprinted on your hand. Otherwise, it could open when you are cycling, which could lead to the seatpost coming loose and cause you to fall. If you close the quick-release skewer too tightly, the seatpost can break; if this should happen when you are cycling, you could fall.

Quick-release skewer is too easy to close	Quick-release skewer is too stiff to close
1. Open the quick-release skewer. 2. Turn the adjusting nut **clockwise**. 3. Swing the quick-release lever closed again. 4. Repeat if necessary.	1. Open the quick-release skewer. 2. Turn the adjusting nut **anti-clockwise**. 3. Swing the quick-release lever closed again. 4. Repeat if necessary.

4. Try to twist the saddle to check that it is firmly fixed.

3.4 Shifting and tilting the saddle

WARNING

Never clamp the saddle in the curve of the saddle rail; always do it in the straight section. Only shift the saddle within the straight section (fig. 1). Saddles that stay clamped outside this area can fail (fig. 2).

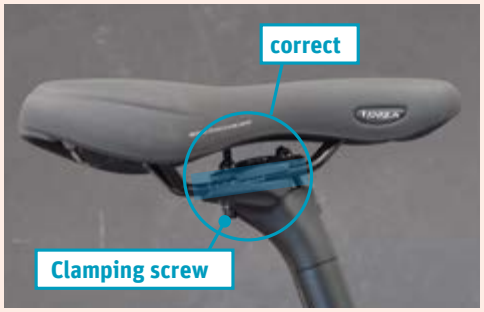


Fig. 1

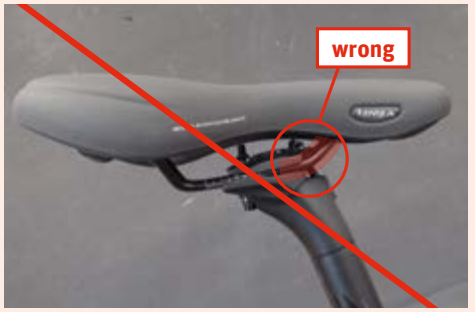


Fig. 2

Use a torque wrench to tighten the clamping screws. Observe the specified torque setting. If no value is shown on the component, use the torque settings from the following table:

Thread	Tightening torque	
	Nm	ft·lb
M5 / M6 / M7 / M8	M5: 5 / M6: 10 / M7: 14 / M8: 22	M5: 3.6 / M6: 7.3 / M7: 10.3 / M8: 16,2

Failure to comply can result in screws/bolts becoming loose, tearing away or fracturing. If that happens while you are riding the bike, components may come off and you could have a severe crash. If screws are overtightened, other components can also be damaged.

3.4.1 Screw supports: Shifting and tilting the saddle

1. Loosen the clamping screw by turning it anti-clockwise. Turn the screw completely two to three times at most or the whole mechanism could fall apart.
2. Shift the saddle forwards or backwards as desired.

For 1. Loosen the clamping screw

3. Tilt the bike saddle to the desired angle.
4. Tighten the clamping screw by turning it clockwise with a torque wrench.
5. Ensure that the newly-tightened saddle does not tip; test it by pressing down on the front and back alternately.

3.4.2 Twin-screw supports: Shifting and tilting the saddle

WARNING

Screw the clamping screws fully in a straight position in the nuts. Failure to do so can result in the screws tearing out of the nuts.

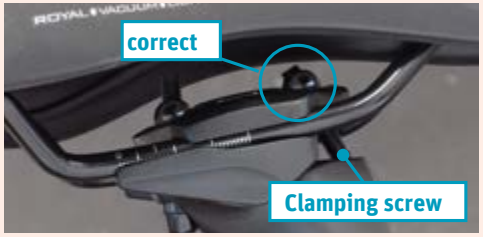


Fig. 1

Fig. 2

1. To shift the saddle, loosen the front and rear screws by turning them anti-clockwise. Turn the screws completely two to three times at most or the whole mechanism could fall apart.

For 1. Loosen screws

2. Shift the saddle forwards or backwards as desired.
3. Tighten the screws using a torque wrench to turn them clockwise.
4. To alter the angle of the saddle, loosen the front screw by turning it anti-clockwise. Turn the screw completely two to three times at most or the whole mechanism could fall apart.
5. Tighten the front screw with the same number of turns.
6. Ensure that the newly-tightened saddle does not tip; test it by pressing down on the front and back alternately.

3.4.3 Clamp attachment: Shifting and tilting the saddle

1. Turn the clamping nut clockwise to loosen it. You may need to keep the nut on the other side in place with a second key.
2. Shift the saddle forwards or backwards as desired.

For 1. Loosen clamping nut

3. Tilt the bike saddle to the desired angle.

4. Turn the clamping nut clockwise to tighten it. You may need to keep the nut on the other side in place with a second key. Observe the correct torque setting.

5. Ensure that the newly-tightened saddle does not tip; test it by pressing down on the front and back alternately.

3.4.4 Suspension seatpost

WARNING

If your bike is equipped with a suspension seat post, the suspension mechanism may require periodic service or maintenance. Ask your dealer for recommended service intervals for your suspension seat post.

3.5 Handlebars

WARNING

Make sure the stem and the handlebars are at the right height for you.

Make sure the saddle and handlebar stem are parallel to the bike's center line and clamped tight enough so that you can't twist them out of alignment.

An insufficiently tightened stem clamp bolt, handlebar clamp bolt or bar end extension clamping bolt may compromise steering action, which could cause you to lose control and fall. Place the front wheel of the bike between your legs and attempt to twist the handlebar/stem assembly. If you can twist the stem in relation to the front wheel, turn the handlebars in relation to the stem, or turn the bar end extensions in relation to the handlebar, the bolts are insufficiently tightened.

3.5.1 Adjusting the height and angle of the handlebars

WARNING

Ask your dealer to do this, otherwise there is a risk of the handlebars loosening, leading to falls and serious injuries.

3.6 Turn lights *

On the back of the front light there is a slider. Depending on the direction you push the slider, the front and rear lights are either ON or OFF during travel.

3.7 Adjusting the headset

When the headset clicks or makes noises, it must be readjusted.

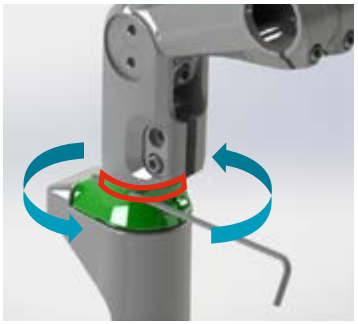
WARNING

We recommend asking your cycle dealer to assemble and adjust the bike.

Observe the prescribed tightening torque. Failure to comply can result in screws/bolts becoming loose, tearing away or fracturing. If that happens while you are riding the bike, components may come off and you could have a severe crash. If screws are overtightened, components can also be damaged. If you are unsure how to set the tightening torque, please ask your cycle dealer.

*dependent on model

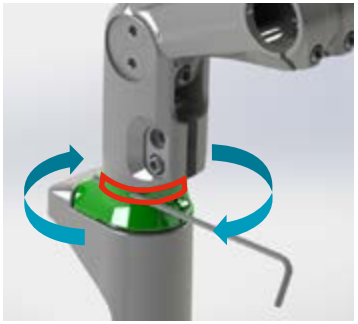
1. Undo the M3 and M4 bolts by turning them anticlockwise with a 0.059" or 0.118" Allen key. Do not remove the bolts completely.



For 1. a) anti-clockwise

2. a) To secure the headset, insert a 0.118" Allen key into the opening in the upper spacer and turn this **anti-clockwise** until the headset is securely fastened.

   b) To loosen the headset, insert a 0.118" Allen key into the opening in the upper spacer and turn this **clockwise** to loosen it. It is best to proceed in small steps. A quarter of a rotation is often enough to adjust the fit.



For 2. b) clockwise

3. Check that the headset is now properly adjusted.
   There are two ways of doing this:

   a) Grip the lower bearing with your thumb and forefinger. Squeeze the brake and move the wheel backward and forward. You will feel significant bucking if there is too much play. In this case you will need to tighten the upper spacer using a 0.118" Allen key.

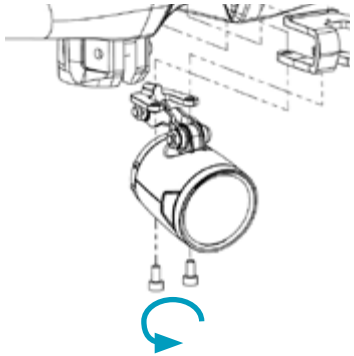
   b) It is easy to check whether the headset is fixed too tightly - simply lift the front wheel and allow it to swing from left to right. The handlebar should swing it easily until the stop.

4. Once the headset has been adjusted as required, tighten the M3 bolt with a 1,1063ft·lb torque. The M4 bolt must be tightened with a 1,4751ft·lb torque. Tighten both bolts in the clockwise direction. Use one torque wrench.

For 4.

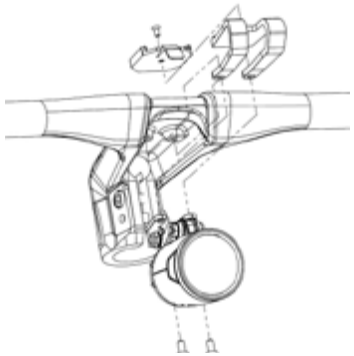
3.8 Fitting the Smartphone holder

1. First of all, remove the front light by loosening the two M4 bolts on the underside of the stem with a 0.118" Allen key. Turn the bolts counterclockwise.



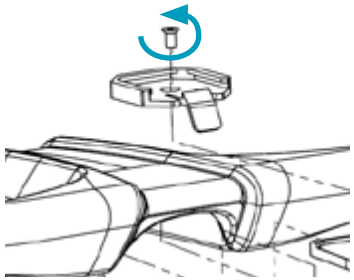
For 1. Dismantle the front light

2. Position the lower Smartphone holder between the front light and the handlebar. Take care not to clamp the light and control cables. Tighten the two M4 bolts clockwise with a 2,2127ft·lb torque using a torque wrench.



For 2. Assemble the front light and lower Smartphone holder

3. Attach the upper Smartphone holder. Tighten the M3 bolt clockwise with a 1,3276ft·lb torque using a torque wrench.



For 3. Attach the upper Smartphone holder

You can obtain the right Smartphone housing for your Smartphone from retailers such as BBB Cycling (www.bbbcycling.com).

NOTICE

Only use the Smartphone holder to hold a Smartphone. Tablets may be too large or heavy for the holder (they may fall, destroying or shattering them on the road). Do not exceed a Smartphone size of 7 inches.

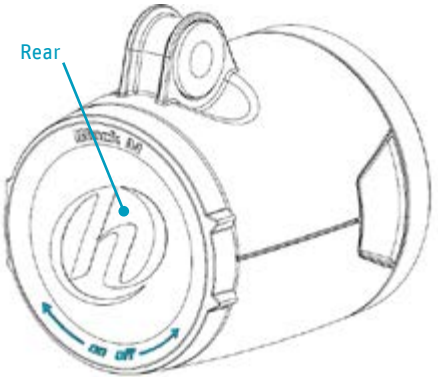
Obtain the right Smartphone housing for your phone from BBB Cycling (www.bbbcycling.com).

3.9 Attaching the reflectors

Your Pedelec comes supplied with two reflectors. Mount the white reflector on the handlebar, the red reflector on the seatpost and the remaining reflectors on the wheel.

3.10 Switching the lights on and off

There is a ring on the rear of the front light. Depending on the direction that you turn it, the front and rear light will turn **on** or **off**. You will need to step on the pedals to activate the lights.



Front light

3.11 Changing the angle of the front light

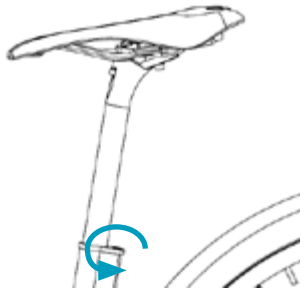
Proceed as follows to determine the correct light angle:

1. Position the Pedelec at a distance of five meters from a wall.
2. Measure the height of the front light with a measuring tape.
3. Mark the height of the front light on the wall.
4. Switch on the light.
5. Lift the front wheel slightly and rotate it so that the front head lamp lights up.
6. If the light beam hits the wall above the height marking, it will blind oncoming traffic. The brightest part of the light beam should preferably be midway between the ground and the height marking.

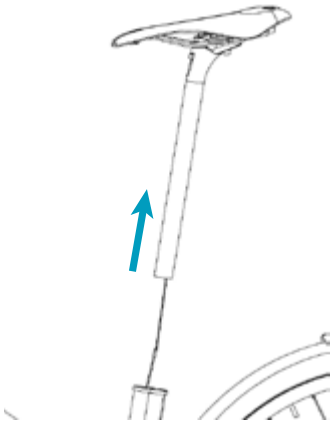
1. Loosen the M5 bolt slightly by turning it anticlockwise. At the same time, secure the locking nut with an 0.315" open-end wrench.
2. Adjust the light angle so that it does not blind other people.
3. Tighten the M5 bolt again by turning it clockwise. At the same time, secure the locking nut with an 0.315" open-end wrench.

3.12 Replacing the tail light

1. Undo the seatpost bolt by turning it anticlockwise with a 0.157" Allen key.



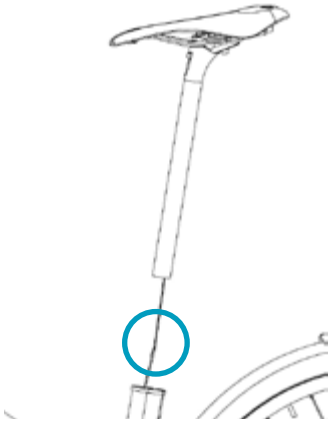
2. Carefully lift the seatpost out of the seat tube.



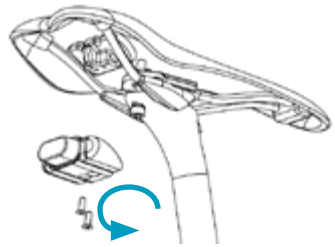
NOTICE

When doing so, make sure that the light cable does not break. The light cable for the rear light passes through the seat post into the down tube.

3. Disconnect the top and bottom of the light cable from the terminals.



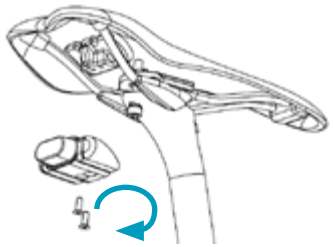
4. Use a Torx screwdriver (TX 30) to turn and loosen the two M4 bolts on the tail light mounting anticlockwise.



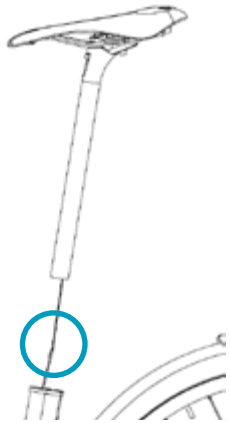
5. Remove the rear light bracket and tail light together with the light cable.
6. Remove the tail light and its light cable from the rear light bracket.
7. Insert the new tail light and light cable into the rear light bracket.
8. Slide the light cable through the seatpost from above. Use a liner if necessary.
9. Position the tail light mounting on the seat stays.

10. Fix the rear light bracket and tail light by hand tightening the M4 bolts clockwise using a Torx screwdriver (TX 30).

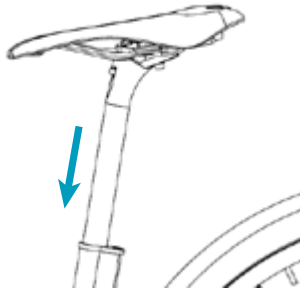
The mounting must be in the guides and be hand-tightened (TX20).



11. Reconnect both of the light cables.



12. Slide the seatpost into the seat tube. When doing so, make sure that the light cable does not get crushed. Position the seatpost as you want it.

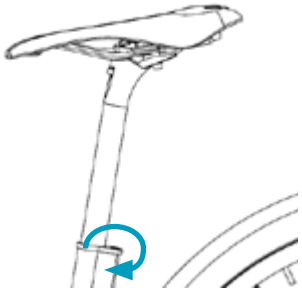


WARNING

Seatpost marking

The seatpost is marked to indicate how far you may pull it out from the frame. Never pull the seatpost further out than the marking. This could cause it to bend or break, and cause you to fall.

13. Tighten the seatpost bolt again by turning it clockwise with a torque of 8,8507ft·lb - 11,0634ft·lb using a torque wrench.



WARNING

Observe the prescribed tightening torque. Failure to comply can result in screws/bolts becoming loose, tearing away or fracturing. If that happens while you are riding the bike, components may come off and you could have a severe crash. If screws are overtightened, components can also be damaged.

If no value is shown on the component, use the torque settings from Section ⇨ *10. Torque settings Page US-67*

3.13 Brakes

WARNING

Before every ride: Check the brakes. Squeeze the brake levers. Make sure the brake quick-releases are closed. Make sure all control cables are seated and securely engaged. Make sure the brakes begin to engage within an inch of brake lever movement. Make sure you apply full braking force at the levers without having them touch the handlebar. If not, your brakes need adjustment. Do not ride the bike until the brakes are properly adjusted by a professional bike mechanic.

Riding with improperly adjusted brakes, worn brake pads, or wheels on which the rim wear mark is visible is dangerous and can result in serious injury or death.

Replace the brake pads when they reach the safe wear limit. The use of worn brake pads can lead to serious injuries with fatal consequences.

CAUTION

Disc brake

Disc brakes: Avoid touching the brake discs after intensive use of the brakes: they can become very hot. Touching them may cause contact burn injuries.

See the brake manufacturer's instructions for operation and care of your brakes, and for when brake pads must be replaced. If you do not have the manufacturer's instructions, see your dealer or contact the brake manufacturer.

If replacing worn or damaged parts, use only manufacturer-approved genuine replacement parts.

Many bikes have brake levers which can be adjusted for reach. If you have small hands or find it difficult to squeeze the brake levers, your dealer can either adjust the reach or fit shorter reach brake levers.

3.13.1 Three types of bike brakes

There are three general types of bike brakes: rim brakes, which operate by squeezing the wheel rim between two brake pads; disc brakes, which operate by squeezing a hub-mounted disc between two brake pads; and internal hub brakes. All three can be operated by way of a handlebar mounted lever. On some models of bike, the internal hub brake is operated by pedaling backwards. This is called a coaster brake.

Disc brakes

Rim brakes

Coaster brakes

WARNING

Practice braking and riding with assistance in a safe place before venturing into traffic. The braking action may be stronger or weaker than you are used to. Serious accidents can happen if you do not familiarize yourself with the braking action. Practice until you feel confident enough. Dismount if you are unsure about a situation.

Rim brake

Rim brakes: Avoid continuous braking on long downhill stretches. It can can lead to a loss in braking power and/or damage to the tires. Brake intermittently with intervals in between to allow the airflow to cool the braking system. If necessary, make regular stops to ensure adequate cooling.

Applying brakes too hard or too suddenly can lock up a wheel, which could cause you to lose control and fall. Sudden or excessive application of the front brake may pitch the rider over the handlebars, which may result in serious injury or death.

3.13.2 Braking

WARNING

Make sure that your hands can reach and squeeze the brake levers comfortably. If your hands are too small to operate the levers comfortably, consult your dealer before riding the bike. The lever reach may be adjustable; or you may need a different brake lever design.

WARNING

The shorter the brake lever reaches, the more critical it is to have correctly adjusted brakes, so that full braking power can be applied within available brake lever travel. Brake lever travel insufficient to apply full braking power can result in loss of control, which may result in serious injury or death.

To make sure that you have maximum friction available, keep your wheel rims and brake pads or the disk rotor and caliper clean and free of dirt, lubricants, waxes or polishes. The braking action of a bike is a function of the friction between the braking surfaces.

3.13.3 Learning how to brake

WARNING

Practice braking and weight transfer techniques where there is no traffic or other hazards and distractions.

Learn which brake lever controls which bike

It's very important to your safety that you learn and remember which brake lever controls which brake on your bike. Traditionally, in the U.S. the right brake lever controls the rear brake and the left brake lever controls the front brake; but, to check how your bike's brakes are set up, squeeze one brake lever and look to see which brake, front or rear, engages. Now do the same with the other brake lever. Two keys to effective speed control and safe stopping are controlling wheel lockup and weight transfer.

Learn to practice slowing and stopping smoothly

Brakes are designed to control your speed, not just to stop the bike. Maximum braking force for each wheel occurs at the point just before the wheel “locks up” (stops rotating) and starts to skid. Once the tire skids, you actually lose most of your stopping force and all directional control. You need to practice slowing and stopping smoothly without locking up a wheel. The technique is called progressive brake modulation. Instead of jerking the brake lever to the position where you think you’ll generate appropriate braking force, squeeze the lever, progressively increasing the braking force. If you feel the wheel begin to lock up, release pressure just a little to keep the wheel rotating just short of lockup. It’s important to develop a feel for the amount of brake lever pressure required for each wheel at different speeds and on different surfaces. To better understand this, experiment a little by walking your bike and applying different amounts of pressure to each brake lever, until the wheel locks.

Learn how to transfer your weight

When you apply one or both brakes, the bike begins to slow, but your body wants to continue at the speed at which it was going. This causes a transfer of weight to the front wheel (or, under heavy braking, around the front wheel hub, which could send you flying over the handlebars).

A wheel with more weight on it will accept greater brake pressure before lockup; a wheel with less weight will lock up with less brake pressure.

So, as you apply brakes and your weight is transferred forward, you need to shift your body toward the rear of the bike, to transfer weight back on to the rear wheel; and at the same time, you need to both decrease rear braking and increase front braking force. This is even more important on descents, because descents shift weight forward.

This weight transfer is even more pronounced if your bike has a front suspension fork. Front suspension “dips” under braking, increasing the weight transfer.

Go more slowly on loose or wet surfaces

Everything changes when you ride on loose surfaces or in wet weather. Avoid wet weather riding where possible. It will take longer to stop on loose surfaces or in wet weather. Tire adhesion is reduced, so the wheels have less cornering and braking traction and can lock up with less brake force. Moisture or dirt on the brake pads reduces their ability to grip. The way to maintain control on loose or wet surfaces is to go more slowly.

WARNING

If your brakes are not functioning as listed above, they need adjustment, do not ride the bike until the brakes are properly adjusted by a professional bicycle mechanic.

3.14 Understanding the chain

Bicycle chain

WARNING

Always remove the battery before starting to work on the pedelec. The system could switch itself on unexpectedly and you could seriously injure yourself.

1. Switch off the pedelec using the button.
2. Remove the motor casing.
3. Unplug the round power supply plug on the motor.

CAUTION

Check the chain for signs of wear before every trip. A worn or damaged chain can break. It that happens while you are riding the bike you could be thrown off and seriously injured.

NOTICE

When you are cleaning the belt, make sure that no water gets into the motor. Water ingress can damage the motor.

If the chain won't shift smoothly and quietly from gear to gear, the derailleur is out of adjustment. See your dealer.

3.14.1 Chain tension

Measuring chain tension

1. Remove the pedelec battery.
2. Press the chain up or down at its tautest point. The tension is correct if you can move the chain up and down by about 0.2 inches.
3. Check the chain at four or five points over a complete revolution of the crank.

Adjusting chain tension

1. Remove the pedelec battery.
2. Undo the rear wheel nuts.
3. If necessary remove the brake anchor.
4. Pull the rear wheel back in the drop-outs until the chain just has the permissible amount of play.
5. Carefully tighten all bolts in a clockwise direction to a torque setting of 35 – 40 Nm [25.8 - 29.5 ft·lb]. Make sure the wheel is reinstalled straight.

3.14.2 Checking for chain wear

1. Remove the pedelec battery.
2. Check chain wear with a chain wear indicator or a vernier calliper.
3. Replace the chain if it is worn.

3.14.3 Chain cleaning and maintenance

Lubricate the chain after riding in the rain. Clean and lubricate it when you clean the wheel. Under no circumstances use basic or acidic cleaners to remove rust. Using cleaners of this kind can damage the chain.

1. Remove the pedelec battery.
2. Roughly brush the chain with a hand brush.
3. Then remove the old chain oil with a dry cloth.
4. You can now lubricate chain. How you lubricate the chain depends on the product you have chosen.
5. When you have finished, turn the crank to distribute the chain oil.

3.15 Gears

WARNING

Never shift a derailleur onto the largest or the smallest sprocket if the derailleur is not shifting smoothly. The derailleur may be out of adjustment and the chain could jam, causing you to lose control and fall.

If you have difficulties with shifting, the problem could be mechanical adjustment. See your dealer.

The gears are operated by controls on the handlebars (gear lever, twist grips, ...). The gear shift allows you to adjust the gear of your bike and the transmission to the current situation. On a straight level stretch a higher gear is sensible to achieve and maintain a higher speed without having to pedal too much.

As soon as you start going uphill a lower gear is beneficial, because it is important to be able to climb the hill with little effort. Select the gears so that your legs are always moving at a steady pace.

Derailleur

With this system the chain is lifted on to a sprocket when changing gear. The chain must continue moving so that the teeth of the sprocket can engage with the chain links easily and smoothly. For a successful gear change you must therefore keep pedaling forwards, never backwards! – but at the same time pedaling lightly and without force.

Derailleur

You should clean the pinions at regular intervals with a neutral cleaner. Cleaning with a neutral cleaner and then lubricating can effectively extend the life span of the pinions and chain.

3.16 Wheel

WARNING

Riding with an improperly secured wheel can cause the wheel to wobble or disengage from the bike, and cause serious injury or death.

Spin each wheel and check for brake clearance and side-to-side wobble. If a wheel wobbles side to side even slightly, or rubs against or hits the brake pads, take the bike to a qualified bike shop to have the wheel trued.

Wheels must be true for rim brakes to work effectively. Wheel trueing is a skill which requires special tools and experience. Do not attempt to true a wheel unless you have the knowledge, experience and tools needed to do the job correctly.

Riding with an improperly secured wheel can allow the wheel to wobble or fall off the bike, which can cause serious injury or death. Therefore, it is essential that you:

» Ask your dealer to help you make sure you know how to install and remove your wheels safely.

» Understand and apply the correct technique for clamping your wheel in place.

3.16.1 Axle nut

Removing the rear wheel

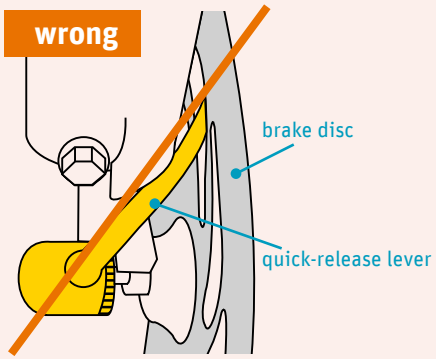
1. Switch off the pedelec.
2. Change the gear to the one recommended by the gear manufacturer for disassembly.
3. Remove the gear shift cable from the rear wheel.
4. Undo the axle nuts using a 0,590551" spanner, turning anticlockwise.
5. Take off the chain.
6. Remove the rear wheel.

Replacing the rear wheel

1. Attach the chain
2. Insert the rear wheel centrally in the drop-outs as far as it will go.
3. Re-attach the gear shift cable.
4. Tighten the axle nuts using a 0.59 inches spanner, turning clockwise. Make sure that your wheel is correctly centered.
5. Reinsert the battery.

3.16.2 Quick-release wheels*

WARNING



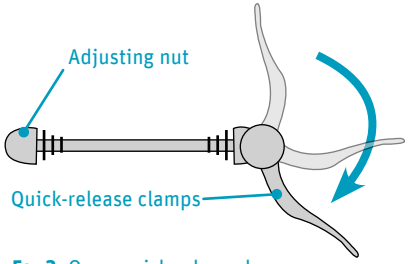
Quick-release lever and brake disc collide

Front wheel: The quick-release lever must be positioned on the opposite side to the brake disc (where fitted). If the quick-release lever is on the same side as the brake disc, there is a risk that they can clash and lock the front wheel (see diagram), which can cause a serious accident.

All quick-release clamps must be correctly tightened before you set off, otherwise the components can loosen – which, if it happens while you are riding the bike, could cause you to fall off, leading to serious injuries.

Removing the front wheel

1. Switch off the pedelec.
2. Open the axle lever by folding it by 180˚. You will now usually be able to see the word ‘OPEN’ on the inside of the lever.
3. Undo the adjustment nut by turning it slightly **anticlockwise**.



For 2. Open quick-release lever

NOTICE

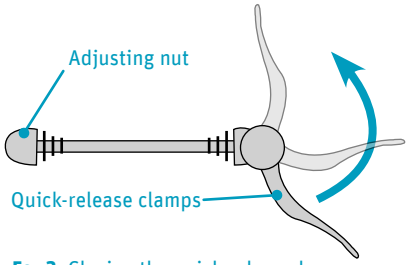
Detach all cables from the wheel (e.g. lighting cables), otherwise you could tear them.

If your bike is fitted with rim brakes it is sensible to release them before you remove the front wheel. Otherwise you may not be able to remove the front wheel.

4. Remove the front wheel.

Replacing the front wheel

1. Insert the wheel into the front fork ends.
2. Gently turn the adjusting nut on the quick-release lever in a **clockwise** direction. Make sure that your wheel is correctly centered.
3. Close the quick-release lever by turning it up180˚. You will now usually be able to see the word 'CLOSE' on the outside of the lever.



For 3. Closing the quick-release lever

WARNING

Closing the quick-release lever should be so hard that you need to use the ball of your hand to do it. If not, it can open and loosen the saddle, which could result in you falling off the bike.

*dependent on model

Quick-release lever shuts too easily	**1.** Open the quick-release lever. **2.** Turn the adjustment nut **clockwise**. **3.** Close the quick-release lever again. **4.** Repeat if necessary.
Quick-release lever too stiff	**1.** Open the quick-release lever. **2.** Turn the adjustment nut **anticlockwise**. **3.** Close the quick-release lever again. **4.** Repeat if necessary.

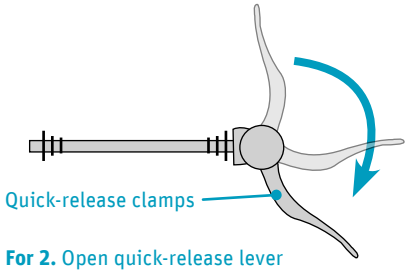
Quick-release levers cannot be closed just by simple turning.

WARNING

If you have released the rim brakes to remove the wheel, you must close them again, otherwise you will not be able to brake and run the risk of serious injury.

3.16.3 Quick-release axle*

Removing the front wheel



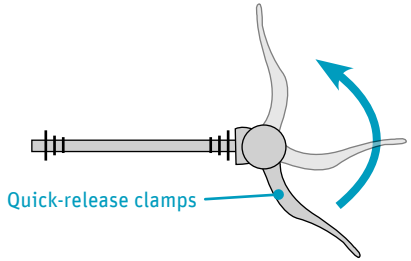
For 2. Open quick-release lever

1. Switch off the pedelec.
2. Open the quick-release lever by turning it down 180˚.
3. Hook the quick-release lever into the slot and turn it anticlockwise until the quick-release axle protrudes from the axle hole about 0.39 inches.
4. Lift out the front wheel and remove the quick-release axle.

If your bike is fitted with rim brakes you must release them. Alternatively, you can deflate the front tire. Otherwise you will not be able to remove the front wheel.

5. Remove the front wheel.

Replacing a wheel



For 6. Close quick-release lever

1. Apply a thin layer of grease to the quick-release axle.
2. Push the wheel into the front forks and align with the axle holes.
3. Reinsert the quick-release axle.
4. Move the quick-release lever to the open position.
5. Hook the quick-release lever into the slot and turn it clockwise. This screws the axle into the thread. Make sure that your wheel is correctly centered.
6. Close the quick-release lever by turning it up 180˚.

WARNING

Closing the quick-release lever should be so hard that you need to use the ball of your hand to do it. If not, it can open and loosen the wheel, which could result in you falling off the bike.

*dependent on model

Quick-release lever shuts too easily	**1.** Open the quick-release lever. **2.** Hook the quick-release lever into the slot and turn it clockwise. This screws the axle into the thread. Ensure that your wheel is centered. **3.** Close the quick-release lever. **4.** Repeat if necessary.
Quick-release lever too stiff	**1.** Open the quick-release lever. **2.** Hook the quick-release lever into the slot and turn it counter-clockwise until the quick-release axle sticks out about 1 cm from the axle hole. **3.** Close the quick-release lever. **4.** Repeat if necessary.

3.16.4 Rims

Wear

WARNING

Look out for deep grooves on both rims.
The rims could fracture and cause a fall. Replace rims as soon as you detect signs of wear. Many rims have a wear indicator. If the indicator can no longer be felt in a spot, the rim is worn.

Make sure the rims are clean and undamaged at the tire bead and, if you have rim brakes, along the braking surface.

Cleaning

1. Switch off the pedelec.
2. Brush the rims with a hand brush. Heavier soiling can be removed with a soft, damp cloth.

NOTICE

When you are cleaning, make sure that no water gets into the motor.
Water ingress can damage the motor.

3. Leave to dry.

3.17 Wheel

3.17.1 Replacing the rear wheel

Removing the rear wheel

1. Remove the Pedelec battery.
2. Switch the chain to the smallest sprocket.
3. Then disconnect the cable between the drive and battery.

Refer to the "General Original Operating Instructions" ⇨ *II. Component guides Page US-7* on handling disc brakes.

4. Undo the axle nuts (M12) using an 0,708661" spanner turning anticlockwise.
5. Take off the chain.

6. Then remove the rear wheel from the frame. Turn the gears slightly to the rear, so that it is easier to guide the sprocket.

Inserting the rear wheel

1. Attach the chain.
2. Insert the rear wheel centrally in the drop-outs as far as it will go.

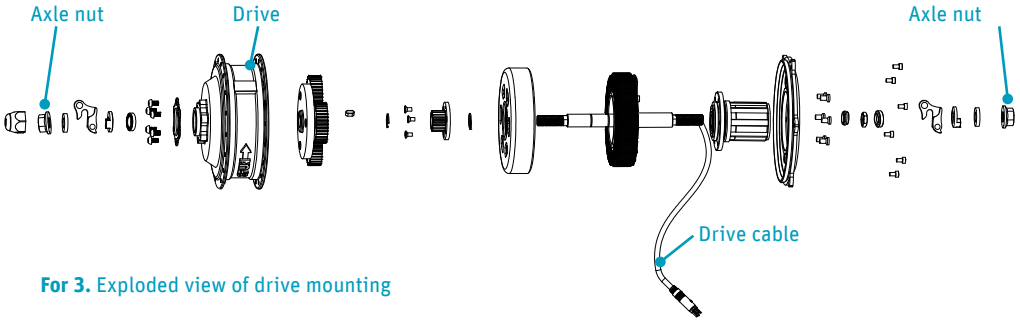
NOTICE

The opening for the cable guide must face downwards, and/or upwards for overhead mounting.

Make sure that the brake disc is placed exactly in the middle between the brake shoes.

Do not forget to install all the washers.

3. Tighten the axle nuts (M12) using an 0,708661" spanner turning clockwise and tighten via torque wrench of 22,1269 ft·lb to 29,5025ft·lb. Ensure that the rear wheel is correctly centred.



For 3. Exploded view of drive mounting

4. Reinsert the Pedelec battery.

WARNING

Observe the prescribed tightening torque. Failure to comply can result in screws/bolts becoming loose, tearing away or fracturing. If that happens while you are riding the bike, components may come off and you could have a severe crash. If screws are overtightened, components can also be damaged.

If no value is shown on the component, use the torque settings from Section ⇨ *10. Torque settings Page US-67.*

3.17.2 Replacing the front wheel

Removing the front wheel

1. Remove the Pedelec battery.

NOTICE

Detach all cables from the front wheel (e.g. light cables), otherwise you could tear them.

2. Insert a 0.236" Allen key into the threaded axle and turn anticlockwise until it releases.
3. Remove the threaded axle.
4. Remove the front wheel.

Inserting the front wheel

1. Push the front wheel into the front forks and align with the axle holes.
2. Lift the frame slightly and screw in the threaded axle.
3. Tighten the threaded axle with a 12 - 14 Nm torque clockwise using a 0.236" torque wrench.

WARNING

Observe the prescribed tightening torque. Failure to comply can result in screws/bolts becoming loose, tearing away or fracturing. If that happens while you are riding the bike, components may come off and you could have a severe crash. If screws are overtightened, components can also be damaged.

If no value is shown on the component, use the torque settings from Section ⇨ *10. Torque settings Page US-67*.

Reattach any cables disconnected before (such as light cables), otherwise you could tear them.

3.17.3 Rims

Cleaning

1. Remove the Pedelec battery.
2. Brush the rims with a hand brush. Heavier soiling can be removed with a soft, damp cloth.

NOTICE

When you are cleaning the rims, make sure that no water gets into the drive. Water ingress can damage the drive.

3. Leave to dry.

3.17.4 Tyres

WARNING

Do not either overinflate or underinflate the tires. If the tire pressure is too high, at worst, the tire could burst, causing you to fall off. On the other hand, if the tire pressure is continuously too low, the tire can wear out prematurely. The maximum permissible pressure is marked on the side of tire in bar and pounds per square inch. You can check the tire pressure for yourself using a tire pressure gage. Alternatively, you can ask your dealer.

To check if the tires are in good shape, spin each wheel slowly and look for cuts in the tread and sidewall. Replace damaged tires before riding the bike.

We highly recommend that you carry a spare inner tube when you ride your bike, unless the bike is fitted with tubeless tires. Patching a tube is an emergency repair. If you do not apply the patch correctly or apply several patches, the tube can fail, resulting in possible tube failure, which could cause you to lose control and fall. Replace a patched tube as soon as possible.

3.18 Suspension fork

The suspension forks support the front wheel.

CAUTION

Familiarize yourself with how the suspension responds to brake application and rider weight shifts ⇨ *3.13 Brakes Page US-29***.**

Suspension can change the way a bike performs. Follow the suspension manufacturer's instructions for use, adjustment and care ⇨ *II. Component guides Page US-7*.

3.18.1 Compression rate

The compression rate refers to the speed at which a spring is compressed. To adjust the compression rate, move the rotary controller towards - (= greater compression rate) or + (= lower compression rate).

Adjust the compression rate

3.18.2 Rebound damping

Rebound damping describes the speed at which a spring expands. To adjust the rebound damping, rotate the red setting wheel on the underside of the fork to the open position (= greater spring expansion speed) or to the closed position (= lower spring expansion speed).

3.18.3 Lockout system

If your suspension forks are fitted with a lockout system it is possible to lock the suspension. There are some riding situations where that can be useful: for example, if you riding up a hill or if you are standing up from the saddle when accelerating. To switch the suspension to fixed, turn the rotary control on the right hand side of the fork to 'LOCK' (or alternatively: 🔒). To reactivate the suspension, turn the control to the 'OPEN' position.

LOCK, 🔒	Suspension locked
OPEN	Suspension activated

WARNING

Do not ride over rough terrain with the suspension locked. It can damage the suspension forks. A broken fork could cause you to fall off and seriously injure yourself.

3.18.4 Air system

On some suspension forks it is possible to alter the air pressure. To do that you will need the assistance of your dealer – or if you feel confident of doing it yourself – a suspension fork pump with a pressure gage and the suspension fork manufacturer's installation manual. The valve with cap (e.g. marked 'AIR') is usually located on the left hand side of the fork.

4. Before every trip

WARNING

Have damaged components (tears, cracks etc.) replaced before you use the bike again. If not, important components may fail, causing you to fall off.

Do not ride the bike if it is not in a technically satisfactory condition.

Do not ride a bike or component with any crack, bulge or dent, even a small one. Riding a cracked frame, fork or component could lead to complete failure, with risk of serious injury or death. If you are not sure, have it checked out by your dealer.

Inspect your pedelec before every trip, and after each time it has been transported anywhere or has been left unattended. Use the following checklist to help you.

Checklist

Type	Characteristics
Frame/forks	Check the frame and forks for visible warping, cracks and damage.
Handlebars / front stem	Check they are seated securely
	Check that the bell is working and attached correctly and securely.
Saddle / saddle post	Check that the quick-release skewers / through-axles (if available) are secure.
Wheels	Check the condition (damage, foreign bodies), concentricity and pressures of the tires.
	The maximum permissible pressure is marked on the side of a tire in bar and psi (pounds per square inch).
	Check the valves are seated securely.
	Visually inspect the rims for damage and wear.
	Check that the quick-release skewers / through-axles (if available) are secured correctly.
Chain	Check the chain, pinions and sprockets for wear and damage.
Brakes	Check that the brake system (including brake levers) is working and attached correctly and securely.
	Visual inspection of the brake pads/disks.
Lights	Check that the light system is adjusted and in working order.
	Check that reflectors are affixed in accordance with applicable national traffic regulations.
Threaded joints	Check that all threaded joints are tightened as specified.
Luggage	Check it is attached securely.

4.1 If your bike sustains an impact

1. First, check yourself for injuries, and take care of them as best you can. Seek medical help if necessary.
2. Next, check your bike for damage.

WARNING

After any crash, take your bike to your dealer for a thorough check. A crash or other impact can put extraordinary stress on bike components, causing them to fatigue prematurely. Components suffering from stress fatigue can fail suddenly and catastrophically, causing loss of control, serious injury or death. Carbon composite components, including fames, wheels, handlebars, stems, cranksets, brakes, etc. which have sustained an impact must not be ridden until they have been disassembled and thoroughly inspected by a qualified mechanic.

4.2 Nothing lasts forever, including your bike

WARNING

When the useful life of your bike or its components is over, continued use is hazardous.

Every bike and its component parts have a finite, limited useful life. The length of that life will vary with the construction and materials used in the frame and components; the maintenance and care the frame and components receive over their life; and the type and amount of use to which the frame and components are subjected. Use in competitive events, trick riding, ramp riding, jumping, aggressive riding, riding on severe terrain, riding in severe climates, riding with heavy loads, commercial activities and other types of non-standard use can dramatically shorten the life of the frame and components. Any one or a combination of these conditions may result in an unpredictable failure.

All aspects of use being identical, lightweight bikes and their components will usually have a shorter life than heavier bikes and their components. In selecting a lightweight bike or components you are making a tradeoff, favoring the higher performance that comes with lighter weight over longevity. So, if you choose lightweight, high performance equipment, be sure to have it inspected frequently.

5. Drive and display element

5.1 Safety information

WARNING

Do not allow yourself to be distracted by the display on the display element and/or your Smartphone. If you do not fully concentrate on the traffic, you risk being involved in a serious accident or fall with fatal consequences.

Do not attempt any modifications to the drive. For example, it is not permitted to raise the cut-off speed above 20 mph. Pedelecs with modified drive power may no longer comply with the legal requirements of the relevant country. You may be liable to prosecution if you ride on public roads with a “tuned” Pedelec. There is also a risk of a technical failure. Modified bikes of this type are excluded from the warranty and guarantee.

WARNING

Always remove the battery before starting to work on the Pedelec. Accidental activation of the ⏻ button may lead to severe injuries.

CAUTION

Do not open up the drive. There is a risk of electric shock. It will also invalidate any warranty claim. Only have repairs to the drive carried out by trained cycle dealers.

Do not touch the drive after a long downhill ride - it can become very hot. You could burn yourself if you touch it.

NOTICE

All components mounted on the drive and all other drive components may only be replaced with identical components or those approved specially for your Pedelec by the manufacturer. Otherwise it may result in overloading and damage.

Do not open up the display element. You may damage it beyond repair.

5.2 Technical details

Drive

Type	**Rear wheel drive**
	Free-wheel
Tyre size	28 inch
Nominal power	250 W
Nominal torque	20 Nm
Max. torque	32 Nm
Nominal voltage	36 V
Cut-off speed	20 mph
Permissible ambient temperature in operation	14 °F to 104 °F
Storage temperature	14 °F to 122 °F
Recommended storage temperature	64.4 °F to 73.4 °F
Protection class	IP 54
Weight	7,4957 lb

5.3 Overview and basic functions

Display element

No.	Symbol	Function
1	⏻	a) Switch on the Pedelec b) Switch off the Pedelec
2	●●○○	LEDs light in blue: Battery charge level
	●●○○	LEDs light in green: Assistance mode
3	SET	a) Configure/confirm b) Change assistance mode c) Show assistance mode

5.3.1 Switching on the Pedelec

The Pedelec can only be switched on if a sufficiently charged battery has been inserted.

WARNING

Only ride the Pedelec when you can safely reach the brakes
⇨ *3.13 Brakes Page US-29*. You must activate the brakes to stop the cycle quickly in a dangerous situation. The maximum brake force is greater than the propulsion force possible. This means stopping is guaranteed at all times by pressing the brakes. Note that the Pedelec Groove Next does not switch off automatically after braking. Switch the drive system to idle after braking.

1. Press the ⏻ button on the display element briefly. The Pedelec Groove Next will start. The LEDs on the display element will light in blue and display the battery charge level ⇨ *5.3.3 Display of the battery charge level Page US-45*.
2. Press the SET button briefly to see which support mode was last used ⇨ *5.3.4 Display of the assistance mode Page US-45*. To change modes, press the SET button within three seconds. Otherwise, the LEDs lit in blue will return to the battery charge level.
3. You will receive support for the selected support mode once you step on the pedals.

5.3.2 Switching off the Pedelec

1. Press the ⏻ button on the display element for one second.
   The Pedelec Groove Next will switch off.

If the Pedelec remains stationary for about 10 minutes, it switches off itself.

5.3.3 Display of the battery charge level

Display	Description	Battery charge level
●●●●	Four LEDs light up	76 – 100 %
●●●○	Three LEDs light up	51 – 75 %
●●○○	Two LEDs light up	26 – 50 %
●○○○	One LED lights up	11 – 25 %
☀○○○	One LED flashes	0 – 10 %

5.3.4 Display of the assistance mode

1. To change the support mode, press the
   SET button briefly.

2. Keep pressing the SET button until the desired support mode is displayed.

Display	Assistance	Power consumption
●●●●	POWER: Assistance function is working with a high power.	High
●●●○	SPORT: Assistance is working with a medium power.	Centre
●●○○	ECO: Assistance is working with a low power.	Low
●○○○	OFF: No assistance	Very low

3. Assistance for the selected mode starts working as soon as you start pedalling. Assistance cuts out as soon as you stop pedalling or when you have reached a speed of 20 mph.

There is no drive support during charging.

5.4 Tips

5.4.1 Transporting your Pedelec

WARNING

Remove panniers and other attachments during transport. Also remove the battery from the down tube. They can come off and cause serious accidents. The battery could also fall from the down tube and be damaged. Use a special battery bag that protects the battery from heat, shocks and impacts.

By car: The bike rack must be designed for the higher weight of the Pedelec ⇨ *V.III The maximum permissible total weight Page US-11***,** otherwise it can break and cause a serious accident. It is important to follow the guidance of the bike rack manufacturer.

NOTICE

Pedelec carried on a rear-mounted bike rack must have a suitable weather protection. Water ingress can damage the drive and its components.

Bus, train and plane: Find out from your travel company well in advance if their regulations allow you to take your Pedelec with you.

5.4.2 Trailer bikes and trailers

The use of trailer bikes and trailers is generally permitted for the Pedelec Groove Next, but please observe the following safety instructions:

WARNING

Do not exceed the overall weight of the Pedelec because parts important for safety might fracture or fail. If this happens while you are riding the bike, it can lead to severe falls – with fatal consequences ⇨ *V.III The maximum permissible total weight Page US-11*.

Trailer bikes and trailers alter the riding characteristics. Adapt your riding style accordingly. If you do not adapt your riding style, you could seriously injure or kill yourself or the child in the trailer. The braking distance becomes longer, thus you should start braking earlier, and the steering response becomes more sluggish. Practise starting, braking, going around corners and up and down hills, start with an empty trailer bike or trailer.

Only use trailer bikes and trailers that conform to the relevant national regulations. In addition, they should be designed and tested in accordance with DIN EN 15918. Otherwise components could break while you are riding the bike; resulting in serious or even fatal injuries for you and/or your child. Please consult your cycle dealer if you want to purchase a trailer bike or trailer.

We recommend Weber (www.weber-products.de), Croozer (www.croozer.com) and Thule Chariot (www.thule.com) bike trailers and couplings. Ask your cycle dealer for advice.

5.4.3 Luggage rack

Position	Over the rear wheel
Maximum carrying capacity	25 kg*
Tested	in accordance with DIN EN 14872.

WARNING

***Check for different specifications on the luggage rack itself or in the luggage rack manufacturer's installation instructions.** Otherwise it may result in the luggage rack fracturing. If this happens while you are riding the bike, you can seriously injure yourself. The maximum carrying capacity is specified on the luggage rack carrier or on the mounting of the rear light.

5.4.3.1 Safety information

WARNING

Attach any luggage securely and regularly check it. If it is not secure, straps, etc. can get caught up in the spokes and/or rotating wheels. Serious falls can result.

Do not exceed the overall weight of the Pedelec because parts important for safety might fracture or fail. If this happens while you are riding the bike, it can lead to severe falls – with fatal consequences ⇨ *V.III The maximum permissible total weight Page US-11*.

WARNING

Modifying the luggage rack in any way is not permitted, otherwise it may result in the luggage rack fracturing. If this happens while you are riding the bike, you can seriously injure yourself.

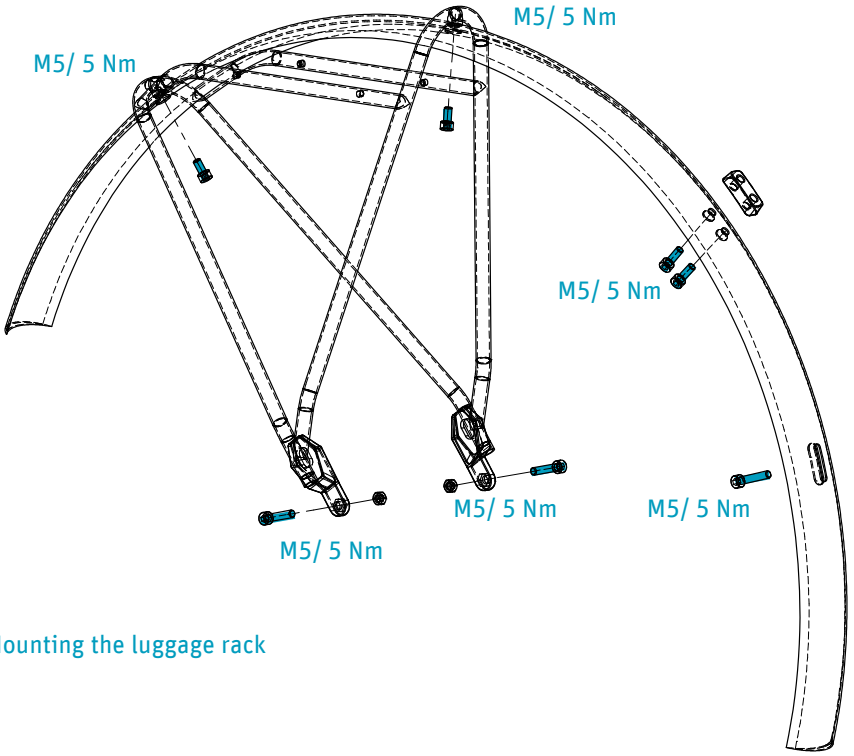
The maximum carrying capacity of the luggage rack must not be exceeded, otherwise it may result in the luggage rack fracturing. If this happens while you are riding the bike, you can seriously injure yourself.

Luggage alters the handling characteristics of the bike. Adapt your riding style accordingly. If you do not adapt your riding style, you could seriously injure or kill yourself. The braking distance becomes longer, thus you have to start braking earlier, and the steering response becomes more sluggish.

Make sure that the luggage does not obscure the view of the reflectors and rear lights, and that they are easily visible to other road users. Otherwise there is a risk of not being seen in unfavourable light conditions (fog, rain, dusk, darkness) which could result in you being seriously injured.

Carry your luggage in side-mounted panniers. Distribute the weight evenly to ensure safer riding characteristics.

5.4.3.2 Assembly



Mounting the luggage rack

5.4.4 Storage

1. Remove the battery from the Pedelec.
2. Store the battery in a dry, not excessively warm room. The battery should not be exposed to direct sun. The recommended storage temperature range is from 64.4 °F to 73.4 °F.

5.4.5 Cleaning

WARNING

Remove the battery before cleaning the Pedelec. Accidental activation of the ⏻ button can result in severe injuries.

NOTICE

Do not clean the Pedelec and its components with a water hose or high pressure washer. Damage may still result even though the components are sealed. Clean the bike with a soft, damp cloth.

Do not immerse the drive or components into water. Damage may still result even though the components are sealed.

Do not use any alcohol-, solvent-based or abrasive cleaners for cleaning. No coarse sponges or brushes may be used either. They leave scratches and cause the surface to become dull. Clean the bike with a soft, damp cloth.

Do not allow dirt to dry out. It is best to clean the cycle immediately after your ride.

Drive

CAUTION

Do not clean the drive when it is warm (e.g. straight after a ride). You may burn yourself otherwise. Wait until the drive unit has cooled down.

1. Remove the battery from the Pedelec.
2. Clean the outside of the drive with a soft, damp cloth.

Display element

1. Clean the outside of the display element with a slightly moist, soft cloth.

6. Kalkhoff Display App

You can turn your Smartphone into a Pedelec display with the free Kalkhoff Display App. You can use this to display information on your cycling behaviour, set cycling profiles and maintenance intervals or navigate to your destination.

6.1 Technical requirements

In order to be able to use the Kalkhoff Display App on your Smartphone, the following conditions must be fulfilled:

Operating system	iOS	> 9.0
	Android	> 6.0
Wireless technology	> BTLE 4.0	

6.2 Connecting the Smartphone with the Pedelec

1. Switch the Pedelec on.
2. Enable Bluetooth on your Smartphone.
3. Open the Kalkhoff Display App. All the active Groove Next Pedelecs within a range of 10 m will be displayed on the Smartphone display under “Connect My Bike”.
4. Hold the SET button on the Pedelec display element down for three seconds. The Pedelec ID number will light for three seconds.
5. Connect the Smartphone to your Pedelec by pressing “Connect”. The ⏻ button for the selected Pedelec will flash for three seconds. The first and fourth LEDs will also flash in blue three times before returning to display the battery charge level.

Even when no support (●○○○) is selected, the display element remains Bluetooth-enabled.

6.3 Disconnecting Smartphone from Pedelec

1. To disconnect the Smartphone and Pedelec press “Connect” on the “Connect My Bike” display. Alternatively you can press the “Connect” button on another Pedelec that you want to connect.

6.4 Menu

The display lighting activates automatically after a certain time. This is so that you can navigate home safely, even in the dark.

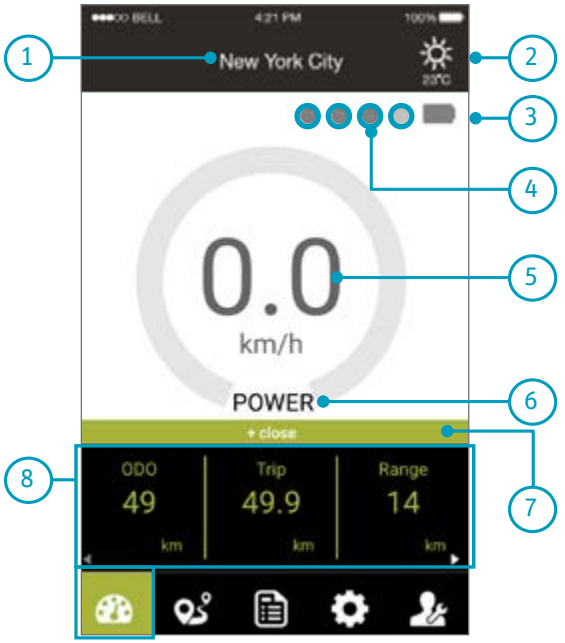
6.4.1 Overview

Ride data display **Navigation** **Ride profiles** **Settings** **Service**

Kalkhoff Display App menu items

If the Smartphone is not connected to the bike, only **Ride data display** ⇨ *7.4.1 Range Page US-59* and **Navigation** ⇨ *6.4.3 Navigation Page US-51* can be used.

6.4.2 Ride data display



No.	Meaning
1	Location
2	Weather conditions
3	Battery charge level ⇨ *7.3.1.1 Battery charge level Page US-56*
4	System support
5	Speed
6	Assistance mode ⇨ *5.3.4 Display of the assistance mode Page US-45*
7	Maximise or minimise display field
8	Display panel

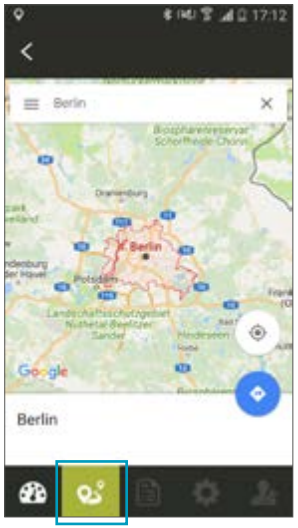
No.	Display panel	Meaning
8	TOTAL (in km)	Total number of kilometres ridden
	TRIP (in km)	Trip (e.g. day trip, short trip) in kilometres
	RANGE (in km)	Remaining kilometres for which the system will still provide support
	RPM	Revolutions per minute
	HEIGHT (in Meter)	Height above the sea level in metres
	Ø SPEED (in km/h)	Average speed in kilometres per hour
	MAX. SPEED (in km/h)	Maximum speed in kilometres per hour
	TRIP TIME (in 00:00:00)	Duration of trip (e.g. day trip, short trip) in hours, minutes and seconds.

6.4.3 Navigation

1. Open **Navigation** menu item.

2. Enter a location or tap on the map.

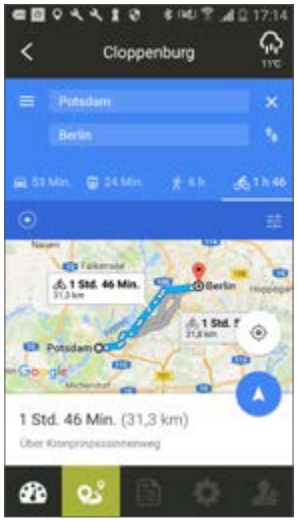
3. Tap on .



4. Click on “Your location” or enter the desired starting position.

5. Select your desired means of transportation.

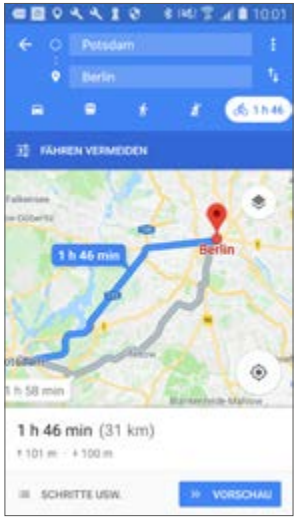
6. Tap on . You will be asked whether you want to use voice-supported navigation.



For 5. Select the desired means of transport

7. Tap on “Use app”. The desired route will be displayed.

For 7. Use the app



For 7. The route is displayed

6.4.4 Ride profiles

System

The software and hardware status of the display elements, drive and battery can be found here.

Cycling

If you want to know how long and how many kilometres you have travelled in individual support modes, go to “Cycling”.

Offline Record

Allows you to see how long and how many kilometres you have travelled with the Kalkhoff Display App without connecting your Smartphone to the Pedelec.

Power

Here you will find information on the number of charging processes and full charging processes.

6.4.5 Settings

Performance

You can select from the following: **Dynamic**, **Regular** and **Relax**. Each profile has an effect on the power at start-up, power delivery, maximum power and power consumption.

Ride profile	Characteristics			
	Power on start-up	Power delivery	Maximum power	Power consumption
Dynamic	High	High	High	High
Regular	Medium	Medium	Medium	Medium
Relax	Low	Low	Low	Low

Select the ride profile in line with the routes you ride. For a leisurely tour with friends at the weekend, the “Relax” assistance level is the right choice. If you often speed from one appointment to the next, the “Dynamic” setting can inject the necessary pace.

Ride data display panel

This is where you select which ride data you want to display in the maximised display panel of the ride data display.

Language

The **Language** option allows you to select the language in which the display text appears

Name your bike

Give your Pedelec a name.

Service reminder

To help you remember to maintain your bike, you can set the total kilometres or a date after which you will be reminded.

6.4.6 Service

System diagnostics

Tap on **Go** to perform a system diagnostics.

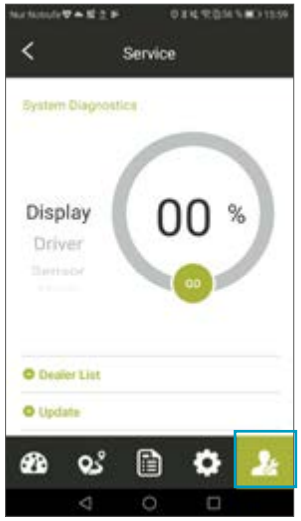
List of dealers

This displays allthe dealers in your vicinity.

Update

Update the display and drive controller by tapping on **Go**. During the update process, the LEDs on the display element will flash from right to left and back again until the update process is completed.

To update your battery please contact your dealer.



Perform system diagnostics

Perform an update

7. Battery

7.1 Safety information

WARNING

People (including children) who are unable to use batteries because of their physical, sensory or intellectual capabilities, or because of their lack of experience or knowledge, , are prohibited from using them unless supervised or under the instruction of a responsible person. Otherwise there is a risk of mishandling with consequential very serious injuries.

Only operate your Pedelec with a suitable original battery. The use of other batteries can cause explosions, serious burns and fires. Further consequences can include malfunctions and a limited battery life.

Only use the correct original battery charger to charge your battery. The use of other battery chargers can cause explosions, serious burns and fires. Further consequences can include malfunctions and a limited battery life.

Always remove the battery before starting to work on the Pedelec. Accidental activation of the ⏻ button can result in serious injuries.

WARNING

Keep batteries away from sparks and fires. Prevent batteries from heating up too much. They can explode and cause serious burns and fires. Further consequences can include malfunctions and a limited battery life. Keep batteries away from sources of heat (e.g. direct sunlight and radiators). When charging the battery, ensure that there is an adequate ventilation and observe the permitted ambient temperature range: 32 °F to 104 °F. Do not extinguish a burning battery with water, only the surrounding burning material. Fire extinguishers with metal fire powder (Class D) are the most suitable. If it is possible to take the battery safely outside, smooth the fire with sand.

Batteries must not be short-circuited. They can explode and cause serious burns and fires. Further consequences can include malfunctions and a limited battery life. Do not store batteries in a box or drawer where they can be short-circuited by contact with each other or with conductive materials (screws, paper clips, keys, coins, nails or other small metal objects).

Batteries must not be destroyed, shredded, taken apart, opened or repaired. They can explode and cause serious burns and fires. Contact your cycle dealer for help if you have problems with the battery.

WARNING

Damaged batteries must not be charged, used or transported.

» They can explode and cause serious burns and fires.

» Gases can be released and irritate the respiratory tract. Ensure that there is a supply of fresh air and consult a doctor in case of feeling discomfort.

» Liquid can escape and cause skin irritation. Prevent contact with it. In case of accidental contact, wash off the liquid with water. If the liquid gets into eyes, rinse the eyes with a plenty of water and

» seek for a medical help.

Do not send batteries by post. Batteries are dangerous goods that under certain conditions may explode, causing severe burns and fires. Only trained personnel may prepare and transport batteries. If you have a complaint about a battery, please always go through your cycle dealer. Dealers are able to have batteries collected free of charge under hazardous goods regulations.

CAUTION

Batteries must not be immersed in water. This presents a risk of explosion. Do not extinguish a burning battery with water, only the surrounding burning material. Fire extinguishers with metal fire powder (Class D) are the most suitable. If it is possible to take the battery safely outside, smooth the fire with sand. But you need not to be afraid of the battery exploding under you when you ride the cycle under the rain. The battery is sealed to prevent moisture and spray water from entering.

NOTICE

Batteries must not be subjected to mechanical impact. This poses a risk of damage. A battery can still be damaged after dropping or knocking it even if there are no visible signs of damage. A battery which looks fine on the outside should, therefore, also be subjected to an inspection. Please contact your cycle dealer.

Perform a 'learning cycle': You should completely run down a new, **fully** charged battery once until the drive assistance stops and without recharging it in between. In that way the battery 'learns' its capacity, and the actual capacity will agree with the level indicated on the battery status display. As soon as the battery enters Sleep mode, press the battery button for one second. Then the learning cycle can be continued. Please perform a learning cycle every six months or 3106 miles. When the battery becomes older and you do not repeat the cycling from time to time, the difference between the actual battery capacity and charge level display will become greater and greater.

Only use the battery to operate this Pedelec, otherwise there is a risk of damage to the device.

Batteries are subject to the dangerous goods regulations. Private users are permitted to transport them on the road without further conditions. When transported by commercial third parties (such as by air, freight forwarders and logistics firms), special requirements of packaging and labelling must be observed. Please contact your cycle dealer if you have any questions about transportation.

7.2 Technical details

* With a 2 A charger until battery is fully charged (95 % battery capacity).

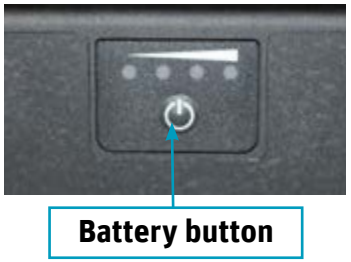
** Measured in the lowest assistance mode under optimal conditions and with a fully charged battery of the highest capacity.

Type	7 Ah
Position	Down tube
Nominal capacity	6.3 Ah
Nominal voltage	36 V
Power	252 Wh
Weight	4.1887 lb
Charge cycles	1,100 full cycles
Charge time*	Approx. 3.5 hours
Cell	Li-ion (20 cells)
Range**	Up to 37mi
Permissible ambient temperature for charging	32 °F to 104 °F
Storage temperature	14 °F to 122 °F
Permissible ambient temperature in operation	14 °F to 104 °F
Recommended storage temperature	64.4 °F to 73.4 °F

7.3 Overview and basic functions

Winter cover: You can purchase a neoprene winter cover (KD170618502) from your cycle dealer to protect the clip lock of the battery from moisture and dust in any weather.

7.3.1 Display panel



On the outside of the battery there are the button and the display panel with four LEDs. The LEDs light up in blue when you press the battery button. The number and type of lighting provide information on the battery.

7.3.1.1 Battery charge level

1. Briefly press the battery button. The battery charge level is displayed for 10 seconds.

Display	Description	Battery charge level
●●●●	Four LEDs light up	76 – 100 %
●●●○	Three LEDs light up	51 – 75 %
●●○○	Two LEDs light up	26 – 50 %
●○○○	One LED lights up	11 – 25 %
☀○○○	One LED flashes	0 – 10 %

7.3.1.2 Capacity

Capacity indicates the quantity of electric charge that the battery can deliver or store. It is specified in ampere hours (Ah). Even when used properly, the capacity diminishes over time due to chemical reactions (ageing). Thus it reduces with every charging cycle. The battery also ages slightly when it is not used.

A charging cycle is the complete charging of a battery from 0 to 100% capacity. It follows that not every charging process equates to a charging cycle. For example, a charge from 50 to 100% capacity is only half a charging cycle.

1. Press and hold the battery button for 10 seconds. The maximum available capacity (state of health) of the battery will be displayed.

Display	Description	Capacity
●●○○	The third and fourth LEDs light for two seconds	Capacity exceeds 60 %
○○●●	The first and second LEDs light for two seconds	Capacity is less than 60 %

The battery may need to be replaced when the capacity is below 60 %. Discuss how to proceed with your cycle dealer.

7.3.1.3 Sleep mode

If you do not use your Pedelec for an extended period, the battery management system (BMS) will switch to sleep mode and thus prevent any deep discharge. Your battery reverts to Sleep mode after a maximum of 24 hours (depending on charge level).

To wake from Sleep mode

1. There are three ways to wake the battery:

a) Press the battery button briefly or

b) Press the ⏻ button briefly on the display element or

c) Connect the battery to the charging unit plugged into the mains supply.

2. Once the battery has been woken, all the LEDs will light up consecutively in blue and then switch off again consecutively.

Initiating Sleep mode

1. Press the battery or ⏻ button twice quickly in succession. The first and fourth LEDs flash twice.

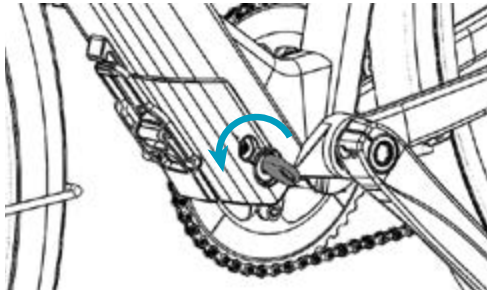
Display	Description
✹○○✹	The first and fourth LEDs flash twice.

2. The battery is now in Sleep mode.

7.3.2 Removing the battery

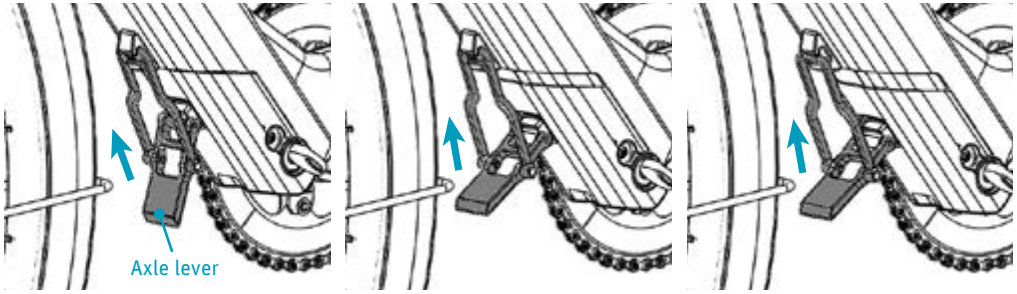
When removing the battery, make sure that the pedals and pedal cranks do not cover the battery lock.

1. Lift the protective cap, put the key into the lock and turn anticlockwise. The battery is unlocked.



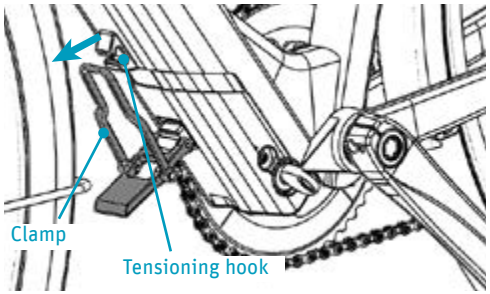
For 1. Unlocking the battery

2. Move the axle lever upwards until the battery is released.



For 2. Push the axle lever upwards

3. Push the clamp out of the tensioning hook.

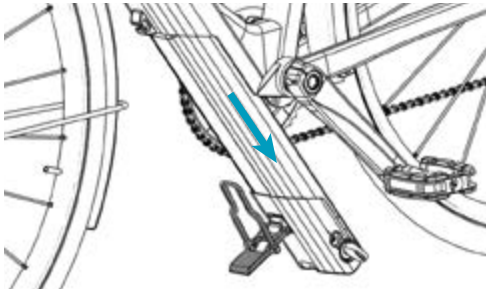


For 3. Loosen the tensioning clamp

NOTICE

Hold the battery tight so it does not fall. It can be damaged if it drops.

4. Remove the battery from the down tube.



For 4. Removing the battery

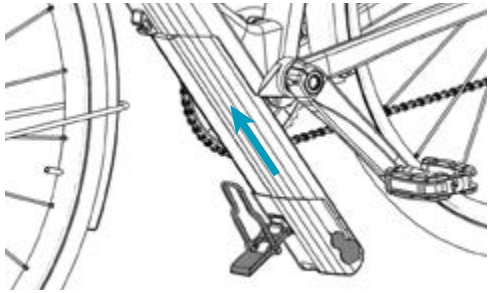
7.3.3 Inserting the battery

When inserting the battery, make sure that the pedals and pedal cranks do not cover the battery lock.

NOTICE

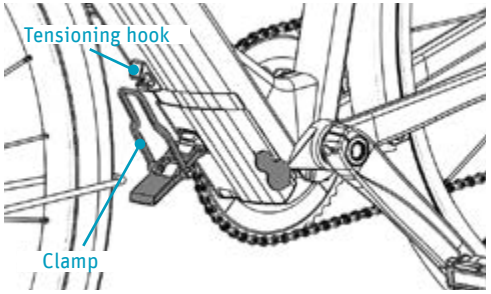
Hold the battery tight so it does not fall. It can be damaged if it drops.

1. Push the battery from below into the down tube.



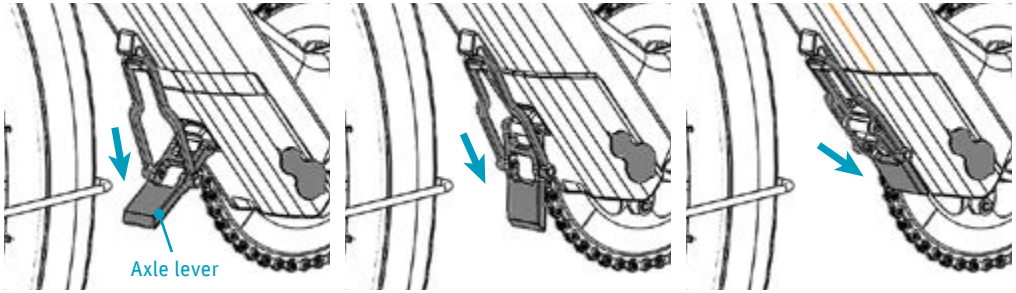
For 1. Slide the battery into the down tube

2. Position the clamp in the tensioning hook.



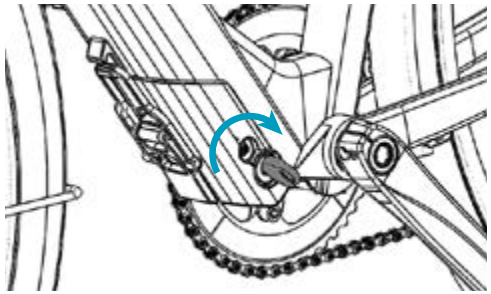
For 2. Position the clamp in the tensioning hook

3. Push the axle lever downwards and allow it to lock in place.



For 3. Push the axle lever downwards

4. Lift the protective cap, put the key into the lock and turn clockwise. The battery is now locked in place.



For 4. Locking the battery

NOTICE

The recommendation is to remove the key now and keep it in a safe place so it does not break off and is not lost.

7.4 Tips

7.4.1 Range

Various factors determine how far you can go with your battery:

When you go on a long trip it is worth taking a spare battery or battery charger with you.

Ride profile: You need the most power in the highest ride profile (POWER). The range becomes shorter.

Select the ride profile in line with the routes you ride. For a leisurely tour with friends at the weekend, the “ECO” assistance level is the right choice. If you often cycle at greater speed (such as to work), the “Power” setting can inject the necessary pace.

Assistance mode: You consume the most battery power in the highest assistance mode. The range decreases, the higher the selected assistance mode is.

Vary the assistance modes you use. If there is a tailwind when going downhill or on flat surfaces, you can still go fast with a lower assistance mode.

Tyre pressure: If the tyre pressure is too low it is harder for the tyres to rotate. The drive unit needs to provide more assistance and the range decreases.

Riding style: A low pedalling speed combined with high gears results in a high-power consumption.

Switch on a low gear in good time to maintain constant cadence, especially when starting.

Your fitness level: The fitter you are, the less assistance you will need.

Total weight: The lower the total weight supported by the bike, the easier it will be to ride ⇨ *V.III The maximum permissible total weight Page US-11*.

Outside temperatures: The lower the outside temperatures (e.g. cold in winter), the shorter the range.

Insert the battery just before starting off with your Pedelec. This way you prevent low temperatures shortening the range.

Battery capacity: A much shorter service life after the charging process indicates that the battery has lost considerable capacity.
⇨ *7.3.1.2 Capacity Page US-57*.

The battery may have to be replaced. Discuss how to proceed with your cycle dealer.

Route selected: You need to pedal harder when cycling uphill or against strong head wind. This is registered by the power sensor which in turn requires the drive to work harder.

7.4.2 Storage

1. Remove the battery from the Pedelec.
2. Store the battery in a dry, not excessively warm room. The battery should not be exposed to a direct sun. The recommended storage temperature range is from 64.4 °F to 73.4 °F.

NOTICE

The battery should not be stored in a fully charged state. A charge level between 51 and 75 % (●●●) is ideal. Since the battery loses charge very slowly, you should recharge it when only one or two LEDs illuminate, but after six months at the latest.

7.4.3 Cleaning

WARNING

If you wipe the battery avoid touching the contacts, otherwise there is a risk of the electric shock.

Remove the battery from the Pedelec before cleaning. Unintentionally pressing the ⏻ button represents a risk of injury.

CAUTION

Batteries must not be immersed in water. This presents a risk of explosion. Do not extinguish a burning battery with water, only the surrounding burning material. Fire extinguishers with metal fire powder (Class D) are the most suitable. If it is possible to take the battery safely outside, smooth the fire with sand. But you need to not be afraid of the battery exploding under you when you ride the cycle through rain. The battery is sealed to prevent moisture and spray water from entering.

NOTICE

Do not spray the battery with a water hose or wash it with a high-pressure cleaner. Damage to the battery may still result even though the components are sealed. Clean the battery with a soft, damp cloth.

Do not use any alcohol- or solvent-based, or abrasive cleaners while cleaning. No coarse sponges or brushes may be used either. They leave scratches and cause the surface to become dull. Clean the battery with a soft, damp cloth.

Do not allow dirt to dry out. It is best to clean the battery immediately after your ride.

1. Remove the battery from the Pedelec.
2. Clean the housing with a slightly damp, soft cloth.
3. If the battery terminals are dirty, clean them with a dry, soft cloth.

You can use terminal grease to protect the contacts from oxidation.

Apply a protective spray every once in a while to the battery lock. Follow the instructions of the protective spray manufacturer.

4. Clean the battery holder on the inner side of the down tube with a slightly damp, soft cloth. Use a bottlebrush if necessary.

8. Battery charger

8.1 Safety information

WARNING

Battery chargers are not a toy and must not be used by children under the age of 8 years. Older children must be sufficiently trained on how to use the battery charger. People who are unable to use battery chargers because of their physical, sensory or intellectual capabilities, or because of their lack of experience or knowledge, are prohibited from using them unless supervised or under the instruction of a responsible person. Otherwise there is a risk of mishandling with consequential very serious injuries.

Only use the correct, original charger to charge the battery. The use of other battery chargers can cause explosions, serious burns and fires. Further consequences can include malfunctions and a limited battery life.

Only charge the correct, original battery with the charger. The use of other batteries can cause explosions, serious burns and fires. Further consequences can include malfunctions and a limited battery life.

Check the charger, cable and plug before every use. Do not use the charger if you detect signs of damage. Do not open the charger yourself and only have it repaired by qualified experts using original spare parts. This poses a risk of fire and explosion. Damaged chargers, cables and plugs also increase the risk of electric shock.

WARNING

The charger is only intended to be used indoors. Keep the charger away from rain and moisture. If water gets into the charger, there is a risk of electric shock. If water has penetrated the casing, unplug the device immediately and have it checked out by your dealer. Condensation might form on the charger when the temperature suddenly changes from cold to warm. When this happens wait about an hour. This is the time a charger needs to reach the temperature of the warm surroundings. Prevent this happening by storing the charger where it is used.

The charger and battery may not be covered during the charging process. Do not use the charger and battery on materials which can catch fire easily (such as paper and textiles) or within a combustible environment. This also applies when the battery is charged when fitted to the Pedelec. In this case, the Pedelec must be positioned so that a potential fire cannot spread quickly (exercise caution with carpeted floors). Do not expose the battery and Pedelec to a direct sun above 40°C. The charger heat generated during the charge process represents a risk of fire. When there is smoke or an unusual smell, immediately unplug the mains connector of the charger from the socket and disconnect the battery from the charger. An overheated battery is damaged and may not be used again. Always stay with the charger when it is in use.

Keep battery chargers away from sparks and fires. It can explode causing severe burns and fires. Further consequences can include malfunctions and a reduced service life. Ensure there is an adequate ventilation while charging.

NOTICE

The mains voltage must match the supply voltage of the battery charger, otherwise there is a risk of damage to the device. The supply voltage for the charger is specified on the label on the back of the device.

Do not charge batteries for a long period if they are already fully charged or are not being used. Electrical storms, voltage fluctuations and short circuits can damage the battery.

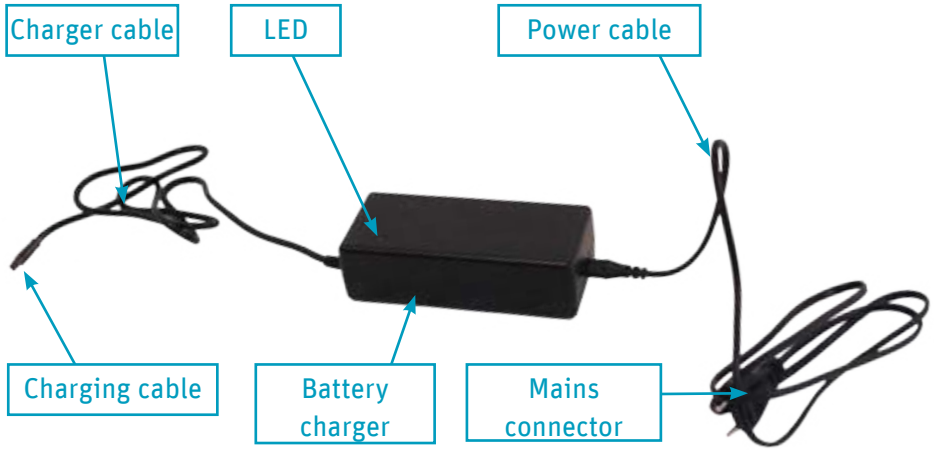
Keep the battery charger clean. If the contacts are dirty, the dirt can burn during charging, leaving burn marks. The charger may need to be replaced in such cases ⇨ *8.5.1 Cleaning Page US-64*.

8.2 Technical details

Battery voltage	36 V
AC input voltage	100 – 240 V
Frequency	50 – 60 Hz
Max. DC output voltage	42 V
Max. charge current	2 A
Dimensions (L I W I H)	160 mm I 70 mm I 46 mm (charger)
Permissible ambient temperature when charging	32 °F to 104 °F
Storage temperature	14 °F to 122 °F
Recommended storage temperature	64.4 °F to 73.4 °F
Weight	706 g (charger)

Protection class	⚠	**The charger and the charging station is only intended for interior use.** Keep the charger away from rain and moisture. If water gets into the charger there is a risk of electric shock.

8.3 Overview



8.3.1 LED

Display	Description	Meaning
☀	LED flashes green	Standby
●	LED lights up red	Battery is charging
☀	LED flashes red	Charging fault
●	LED lights up green	Battery is fully charged

8.4 Functions

8.4.1 Charging a battery

WARNING

Read and follow the information on the charger specification plate, otherwise there is a risk of misuse resulting in serious injuries.

Damaged batteries must not be charged.

The battery can remain on the Pedelec during the charging process. It can also be removed and charged elsewhere.

1. Fold the protective cap to the side.
2. Connect the charger plug to the battery (it clicks into place).
3. Insert the mains plug into a power socket.
4. All four LEDs ●●●● light continually on the battery when it is fully charged. No LED flashes.
5. Remove the power cable from the socket after completing the charging process.
6. Remove the charging cable from the battery charging socket.

Display	Description	Battery charge level
☼○○○	The first LED flashes.	0 – 25 %
●☼○○	One LED lights continuously. The second LED flashes.	26 – 50 %
●●☼○	Two LEDs light up continuously. The third LED flashes.	51 – 75 %
●●●☼	Three LEDs light up continuously. The fourth LED flashes.	76 – 99 %
●●●●	Four LEDs light up continuously.	100 %

If you charge the battery in the Pedelec, the charging progress will be displayed on the display element in the top tube.

8.5 Tips

8.5.1 Cleaning

WARNING

Always unplug the charger from the mains before cleaning and especially before wiping it, otherwise you could get an electric shock if you touch the contacts.

NOTICE

Do not immerse the charger in water. Damage may still result even though the components are sealed.

Do not use any alcohol- or solvent-based, or abrasive cleaners while cleaning. No coarse sponges or brushes may be used either. They leave scratches and cause the surface to become dull. Clean the charger with a soft, damp cloth.

1. Remove the charging cable from the battery charging socket.
2. Unplug the charger from the mains socket.
3. Clean the casing with a slightly damp, soft cloth.
4. If the contacts are dirty, clean them with a soft, dry cloth.

8.5.2 Storage

1. Store the battery charger in a dry, not excessively warm room. The charger should not be exposed to a direct sun. The recommended storage temperature range is from 64.4 °F to 73.4 °F.

9. Faults

9.1 Drive and display element

Description	Cause	Remedy
No drive support	a) Battery is in Sleep mode.	a) Wake battery from Sleep mode. If the battery does not respond, briefly connect it to the battery charger ⇨ *8.4.1 Charging a battery Page US-64*.
		⚠ **If the battery still does not respond or the LEDs flash in an unusual way, the battery is damaged and must be removed from the charger.**
	b) Battery is defective.	b) Insert a new battery.
	c) The Pedelec is OFF. The Groove Next switches itself off after 10 minutes if there is no call for power from the drive (e.g. because the Pedelec is stationary).	c) Switch on the Pedelec ⇨ *5.3.1 Switching on the Pedelec Page US-44*.

9.2 App

If error codes appear in the Kalkhoff Smartphone App on your Smartphone display, please contact your cycle dealer.

9.3 Battery

Display	Description	Cause	Remedy
○○●○	Only the 3rd LED flashes.	The ambient temperature is too high or too low.	The permissible ambient temperature when charging is 0 to +40°C.
○○○●	Only the 4th LED flashes.		Please contact your cycle dealer.
	The range appears too short.	a) The range depends on: » Assist mode » Tyre pressure » Riding style » Physical condition » Overall weight » Outside temperatures » Battery capacity » The route selected	a) There are many reasons why the range may seem low ⇨ *7.4.1 Range Page US-59*.
	Battery key lost.	Order another key. We recommend making a note of the key number on the sales receipt/document. This number can be used to order a replacement key. **1.** Go to website www.trelock.de **2.** Select your language. **3.** Select “Your service”, then “Trelock key service”. **4.** Follow the instructions. If you no longer have the key number, replacing the lock is the only option. Contact your cycle dealer for this.	
	The battery does not charge.	a) Ambient temperature too high or low.	a) You can charge the battery at ambient temperatures of between 32 °F to 104 °F.
		b) Damaged battery.	b) **Damaged batteries must not be charged or used for any other purpose.** Contact your cycle dealer. The battery may have to be replaced.
		c) Battery charger faulty.	c) Have your charger checked out by your cycle dealer; it may have to be replaced.

Display	Description	Cause	Remedy
	Battery is damaged.	Accident or fall involving the Pedelec or the battery has been dropped.	**Damaged batteries must not be charged or used for any other purpose.** Contact your cycle dealer. The battery may have to be replaced.
	Battery does not "wake up" from Sleep mode	a) Battery is flat.	a) Briefly charge the battery.
			a) **If the battery still does not respond or the LEDs flash in an unusual way, the battery is damaged and must be removed from the charger.**
		b) Damaged battery.	b) **Damaged batteries must not be charged or used for any other purpose.** Contact your cycle dealer. The battery may have to be replaced.

9.4 Battery charger

Display	Description	Cause	Remedy
	The red LED flashes continuously.	There is a charging fault.	**Unplug the charger from the mains immediately.** If the problem reoccurs, a new battery charger is required.

10. Torque settings

WARNING

Only use appropriate tools to tighten screws and bolts. Observe the specified torque setting. The component manufacturer's torque settings take precedence (where available). Failure to comply can result in screws/bolts becoming loose, tearing away or fracturing. If that happens while you are riding the bike, components may come off and you could have a severe crash. If screws are overtightened, components can also be damaged. Tighten all screws and bolts that are relevant for safety with a torque wrench. This indicates the corresponding torque in newton metres (Nm).

If no values are shown on the component or component manuals, use the torque settings from the following table.

Screw fixing	Thread	Tightening torque [Nm]
Front light	M5	3
Rear light	M4	Hand-tightened
Handle bars	M4 / M5	M4: 3 / M5: 5
Drive controller bolt	M5	7
Foot pedal	M8	35 – 40
Pedal	9/16	40
Seatpost bolt	M8	12 - 15
Seat clamping bolt	M6	12
Gear lever clamp	M5	5
Brake lever	M5	Ref. manufacturer's spec.
Shimano disc brake caliper	M6	6 – 8
Rear wheel axle nut	M12	30 - 40
Front wheel threaded axle	M12	12 - 14
Bolts on the display element	M3	0.9
Luggage rack	M5	5
Smartphone holder	M4	3

11. Spare parts

Your cycle dealer will be able to replace a wide range of parts in case of loss, wear, etc.

11.1 Battery parts

1.	Battery	KD170418006
2.	Battery lock with bolts	KD170418503
3.	Protective cover	KD170418504
4.	Rubber cover (self-adhesive)	KD170418505
5.	Battery cover	KD170418506
6.	Bolts for battery cover (4 x)	KD170418507
7.	Axle lever	KD170418508
8.	Clamp	KD170418509
9.	Bolts (3 x) for no. 7 and 8	KD170418510
10.	Lock washers (3 x) for no. 9	KD170418511
11.	Protective film	KD170418501
12.	Winter cover	KD170618502

Sets

BG 1	Spare parts set (2 + 3 + 4)	KD170418601
BG 2	Spare parts set (7 + 8 + 9 + 10)	KD170418602
BG 3	Spare parts set (3 + 4 + 6 + 11)	KD170418603

12. Service intervals

To ensure continued enjoyment of your bike, please adhere to the service intervals.
This is also important for the following reasons:

- Regular checks are worth it for the sake of your own safety.
- Higher resale value, because the bike had been regularly serviced.
- Regular servicing saves you major repairs.
- Less likely to break down.
- Longer life.
- Peace of mind that your bike is safe and comfortable.

Please note that this service is not free of charge, as these are normal service intervals.

Service interval 1
After no more than 62 miles or six weeks after the purchase date.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Test ride completed

Parts replaced:

_____

_____

_____ _____
Date Stamp and signature of the dealer

Service interval 2
After no more than 310 miles or 6 months.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

_____

_____

_____ _____
Date Stamp and signature of the dealer

Service interval 3
After no more than 620 miles or one year.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date

Stamp and signature of the dealer

Service interval 4
After no more than 1250 miles or two years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date

Stamp and signature of the dealer

Service interval 5
After no more than 1850 miles or three years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date

Stamp and signature of the dealer

Service interval 6
After no more than 2500 miles or four years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date | Stamp and signature of the dealer

Service interval 7
After no more than 3100 miles or five years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date | Stamp and signature of the dealer

Service interval 8
After no more than 3750 miles or six years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date | Stamp and signature of the dealer

Service interval 9
After no more than 4350 miles or seven years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date | Stamp and signature of the dealer

Service interval 10
After no more than 4900 miles or eight years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date | Stamp and signature of the dealer

Service interval 11
After no more than 5600 miles or nine years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date | Stamp and signature of the dealer

Service interval 12
After no more than 6200 miles or
ten years.

- ○ Screws tightened
- ○ Wheel bearings checked and adjusted
- ○ Bottom bracket checked
- ○ Wheel checked and centered
- ○ Brakes checked and adjusted
- ○ Brake pads checked for wear
- ○ Brakes tested
- ○ Rim wear indicator checked
- ○ Gears checked and adjusted
- ○ Chain checked
- ○ Handlebar unit checked
- ○ Headset checked and adjusted
- ○ Tires checked
- ○ Safety components checked and changed, if necessary
- ○ Test ride completed
- ○ Software version

Parts replaced:

Date

Stamp and signature of the dealer

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