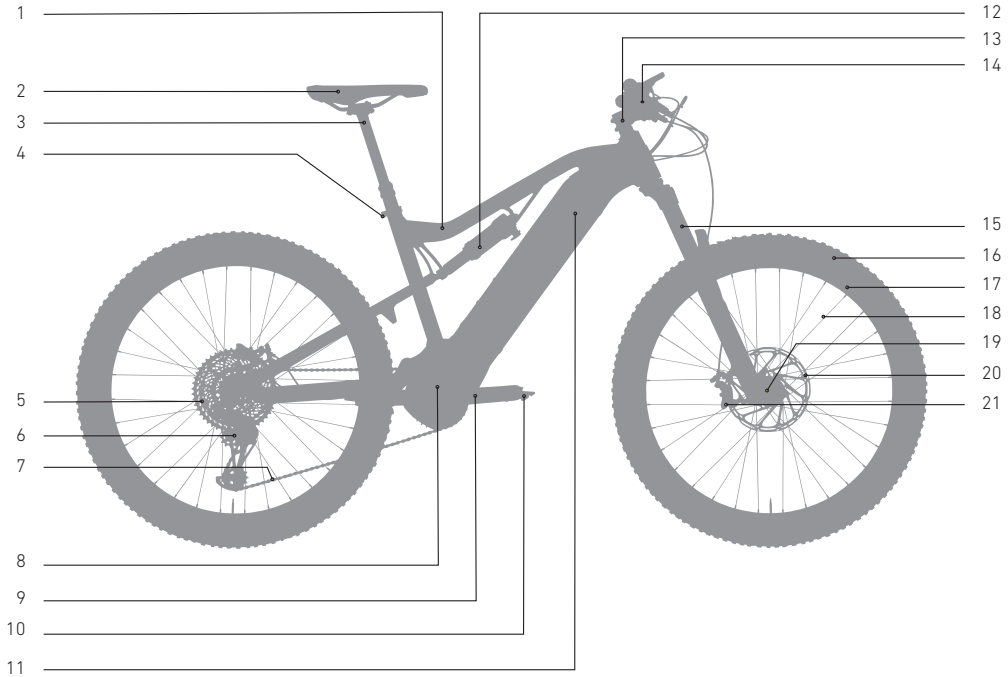
ROSE

# OWNER'S MANUAL

2018.10-E-MTB_BLE_EN




| | | | |
|---|---|---|---|
| 1 | Frame | 12 | Rear shock |
| 2 | Saddle | 13 | Stem |
| 3 | Seat post | 14 | Handlebar with grips, brake and shift levers |
| 4 | Saddle clamp | 15 | Suspension fork |
| 5 | Cassette | 16 | Tyre |
| 6 | Rear derailleur | 17 | Rim |
| 7 | Chain | 18 | Spoke |
| 8 | Drive unit | 19 | Hub |
| 9 | Crank with chainring | 20 | Brake disc |
| 10 | Pedal | 21 | Brake caliper |
| 11 | Battery pack | | |

Congratulations on the purchase of your ROSE dream bike!

We are pleased that you have decided to buy a ROSE bike and are sure that your new bike will put a smile on your face every day.

Your bike is unique – before it has found its way to your home, this bike was individually assembled by hand by a skilled mechanic and carefully inspected by another specialist to ensure it meets our highest quality standards. We thus guarantee that your bike offers reliability and state-of-the-art technology. Easy-to-use gears and brakes, an excellent design and great value for money are just some of the reasons why you will love your bike.

Some components were removed or adjusted for shipping. However, they can be easily re-assembled or re-adjusted in just a few simple steps (see "3. Bike assembly" on page 13).

Regular care and maintenance (see "8. Maintenance" on page 32) will prolong the life of your beloved bicycle. This manual includes all information on handling, maintenance and care you need to properly care for your bike.
We recommend you to carefully check and service your bike at regular intervals. Your safety and a long life of your bike should be worth the effort.

This manual describes all details you need for a safe use of your bike, as well as the most important and general facts about your bike. For more detailed information on single bike components, please see the respective owner's manual of the manufacturer. These are included in the purchase documents of your bike or available online.

Please take the time to read this manual carefully. The sections marked with the signal words "DANGER" and "WARNING" are of particularly high importance. The instructions contained in these warnings must be followed. Moreover, we recommend you to follow the steps described in "6. Before and after your ride" on page 26 and to have your bike serviced regularly (see "8. Maintenance" on page 32) to ensure your safety on every ride.

Have fun with your dream bike!

Your ROSE Bikes team

## 1. General information

This manual is the most important element to prevent any damages and risks during the assembly, use and servicing of your new bike. It is provided to give you the most important technical information on your bike, to support you during bike assembly and to give you helpful tips over the entire life of your bicycle. If in doubt about maintenance works, please consult a qualified bicycle mechanic.

Please read this manual carefully before taking the first ride on your new bike and make sure you understand everything. Ensure that third-party users are also informed about the contents of this manual and that they understand and follow all instructions.

Keep this manual for future reference. If you sell or give away your bike, please also include the owner's manual.

This manual is additionally available as a pdf file on rosebikes.com/manuals.

### 1.1 Explanation of symbols used

**DANGER**

...indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

**WARNING**

...indicates a hazard with a medium level of risk which, if not avoided, may result in minor or moderate injury.

**CAUTION**

...indicates a hazard with a low level of risk which, if not avoided, may result in minor or moderate injury.

**NOTE**

...indicates a potentially hazardous situation that may result in damage to property.

...indicates additional information.

### 1.2 Target group

This manual is intended for you, the owner of the ROSE bike.
Assembly and maintenance works require basic knowledge in bicycle technology. If in doubt, consult a qualified bicycle mechanic. Improper assembly or maintenance of your bike may result in serious injury or death!

### 1.3 Requirements to operate an e-bike

The rider should be able to ride a bike, this means that he/she must have basic cycling skills and sufficient balance to safely ride and steer a pedelec. The rider must be mentally and physically able to safely operate the bicycle over a longer period of time and longer distances.
For newcomers and those getting back into e-bike riding after a long time special cycling skills courses for pedelecs are recommended.

### 1.4 Owner's manuals supplied by component manufacturers

This manual contains all information you need for a safe use of your bike. However, apart from this manual, the documents supplied with your bike also include some product information or manuals of different component manufacturers. If need be, you can use those documents for further information on the respective product, its assembly and setup. The owner's manuals of some manufacturers might only be available online.

### 1.5 Tools

All works on your bicycle require appropriate tools.
All nuts and bolts must be tightened with an appropriate torque wrench. Proper use prevents overtightening and breaking of the bolts.

A proper installation and removal of components can only be guaranteed when using perfectly functioning and undamaged tools.

### 1.6 Installation of components and accessories

Bicycle trailers must only be fixed to the rear axle of the bike using special hitching devices. Child seats and trailers for clamp mounting on seat post or frame must not be used. Racks must only be attached to special fixing points designed for this purpose.

Please read the manufacturers' manual before the installation of components and accessories.

Make sure to not exceed the maximum system weight (see "1.10 Weight limit" on page 7) even with all add-on parts and accessories fitted!

### 1.7 Replacement of parts

As e-bike components are subjected to heavy loads, you cannot simply replace them. In most cases, you must obtain approval from ROSE Bikes or the component manufacturer before replacing a component. Also see "8. Maintenance" on page 32. Please contact ROSE Bikes in case of any questions.

### 1.8 Warranty and guarantee

For all information on warranty and guarantee see rosebikes.com/termsandconditions.

Tuning the e-bike will invalidate the warranty.

### 1.9 Wearing parts

As a technical product, a bicycle consists of many components which are all subject to wear given the nature of their function. Therefore, the components listed below should be checked regularly and replaced, if necessary:

- Battery pack and drive unit
- Tyres and tubes
- Rims
- Brake pads
- Bearings (headset bearings, bottom bracket bearings, rear triangle bearings, hub bearings)
- Chain, cassette and sprockets
- Handlebar and stem
- Grips
- Saddle and seat post
- Grease, lubricant, hydraulic oil and brake fluid
- Inner and outer brake and gear cables
- Suspension fork and rear shock
- Stickers and paintwork

### 1.10 Weight limit

ROSE e-MTBs are designed for a maximum weight of 140 kg. The maximum weight is derived from the weight of the rider, bicycle, gear (helmet, backpack, shoes, clothes), luggage, parts and accessories (see "1.6 Installation of components and accessories" on page 6).

### 1.11 Exclusion of liability

The tasks described in this manual require special knowledge and should only be carried out by people with sufficient expertise.

The user is liable for damages resulting from:

- Misuse or any other cause beyond the range of the intended use (see "2.5 Intended use" on page 12)
- Non-compliance with safety regulations
- Improper assembly, repair and maintenance
- Use of unapproved replacement parts and accessories
- Change of construction
- Tuning

If in doubt, please consult the ROSE service or a qualified bicycle mechanic.

# 2. Safety

## 2.1 General safety

### DANGER

**Risk of injury due to insufficient protective equipment!**

Effective safety equipment contributes to your personal safety.

- Always wear a helmet.
- Always wear highly visible and reflective clothing.

### DANGER

**Risk of accident due to misjudgement through other road users!**

Other road users mostly misjudge the speed of e-bike riders.

- Always ride carefully and never rely on other road users to react properly.

### DANGER

**Risk of accident due to insufficient equipment for use on public roads!**

ROSE e-mountain bikes are not intended for use on public roads. If you nevertheless want to ride your bike on public roads, you will have to consult a qualified bicycle mechanic to retrofit all components required according to the national road traffic regulations (lighting system, reflectors etc.).

### DANGER

**Risk of accident due to improperly installed components!**

Improperly installed components may loosen during the ride!

- Always follow the installation instructions included in this manual.
- If in doubt, please consult the ROSE service or a qualified bicycle mechanic.

### DANGER

**Risk of injury due to accidental activation of the e-bike drive system!**

- Always remove the battery pack from the e-bike before working on the electric bicycle (e.g. servicing, repair, assembly, maintenance works), as well as before transport (e.g. by car or plane) and storage.

### DANGER

**Risk of accident due to sudden total failure of pre-damaged or worn components!**

Bicycles are subject to high stress and wear. A fall or unforeseeable manoeuvres cause unpredictable peak loads. These loads can pre-damage components of your bike.

- You should have your bike checked for wear and damages by a qualified bicycle mechanic regularly. Also see "8. Maintenance" on page 32. Worn or damaged components must be replaced.

## DANGER

**Danger caused by increasing the maximum speed or speed limitation of the e-bike!**

Pedelec tuning bears incalculable liability risks as well as the risk of irreversible damage to the system!

- It is not permissible to modify the e-bike drive system.
- It is not permitted to mount any products that might be able to increase the power of the e-bike system.
- Improper use of the drive system endangers your safety and the safety of other road users.
- When causing accidents due to manipulations, you risk high liability costs and criminal prosecution.
- All components are adapted to the original performance data of the e-bike. Higher loads may overload the system, reduce its life and irreversibly damage the system on the long term.
- Guarantee and warranty claims are lost.

### 2.2 Safe use of the brakes

## DANGER

**Risk of accident due to reduced braking performance caused by brake pads that are not broken in!**

Disc brakes can only achieve full braking power when the brake pads are broken in. Choose a place off public roads to break in the pads.

- Brake 20 to 30 times with the front or rear brake from a speed of 30 km/h down to 5 km/h and repeat the process for the second brake. You should brake as hard as possible without locking one of the wheels.
- Please also note the instructions of the brake manufacturer (see enclosed manual).

## DANGER

**Risk of accident due to high braking power of the disc brakes!**

Modern disc brakes have a very high braking power. Sudden braking may cause losing control of your bicycle.

- Become familiar with the power and operation of your disc brakes off public roads.

### 2.3 Safe use of the battery pack

In addition to the safety instructions below, please also follow the instructions described in "7. Transport, storage and disposal" on page 29.

**DANGER**

**Risk of injury due to escaping liquids or vapours!**

Damages or improper use may cause liquid or gas to escape from the battery. This can lead to skin irritation, eye irritation, respiratory irritation or burns!

- Avoid contact with escaping gas or liquid.
- In case of contact with skin, wash off with water.
- In case of contact with the eyes, seek medical assistance.
- If irritation of the respiratory tract occurs, supply fresh air and consult a doctor if necessary.

**DANGER**

**Risk of injury due to a damaged battery!**

E-bike batteries have a very high energy density. Damages to the battery and a sudden discharge may cause dangerous situations!

- If you find any damages, please contact the ROSE Bike Service!
- In the following cases, the battery must no longer be used:
  - The battery is damaged or deformed or the housing is cracked.
  - Liquids or vapours escape from the battery.
  - The battery heats up strongly or becomes very hot.
  - In the event of malfunctions.
- If one of the above-mentioned errors occur, the following measures must be taken:
  - Go away from the battery far enough to not inhale escaping vapours and not get in touch with escaping liquids.
  - Remove all flammable materials around the battery.
  - Make sure the area around the place of storage is safe.
  - Store the battery in a fireproof container or on the ground.

**DANGER**

**Risk of accident due to incorrect handling of the battery or its use in a way that is not intended!**

- Only use the battery in combination with the appropriate e-bike drive system.
- The battery is designed for use in accordance with the intended use of your e-bike (see"2.5 Intended use" on page 12). Any other use may cause damages to the battery.
- The battery is designed for the following temperature ranges:
  - Charging: 0°C to +45°C
  - Discharging: -20°C to +60°C
  - Storage: +10°C to +25°C
- The battery needs to be recharged at least every 3 months when not in use in order to avoid a deep discharge.
- Only use approved models when replacing the battery pack.

## DANGER

**Risk of injury due to short circuit, explosion and electrical fire!**

- Batteries must not be subjected to mechanical impacts.
- Do not open the battery pack. Otherwise, there is the risk of a short circuit.
- Keep the battery away from heat (and out of permanent sunlight) and fire and never drop it into water.
- Do not store or operate the battery near hot or inflammable objects.
- Keep the battery away from paper clips, coins, keys, nails, screws or other metal items when not in use to prevent shorting exposed battery contacts.

## DANGER

**Risk of injury due to improper charging of the battery!**

Improper charging may cause the battery or other inflammable materials nearby to catch fire.

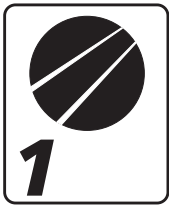
- Only use the original charger.
- Do not locate the charger or battery near inflammable materials while charging.
- Only charge the battery when dry.
- Do not leave the battery unattended while charging it.
- The surrounding temperature during charging may not be below 0°C or above +45°C.

### 2.4 The rider's duty of care

Following the instructions specified in this manual does not absolve the riders from their duty of care to ensure that their bike is always in good condition. If there are any questions consult a qualified bicycle mechanic or the ROSE Service.

## 2.5 Intended use

The intended use of ROSE bikes is divided into five different categories – ranging from the use on paved roads through to downhill or freeride use. The bikes must only be used in accordance with their intended purpose/use. Otherwise, the user takes responsibility.
A sticker on the frame of your bike will show you the intended use.




**Category 1: For use on paved roads only**

Category 1 includes all bikes and components that should only be used on paved roads.

The wheels are always in contact with the ground.


**Category 2: For use on and off the road and for drops of up to 15 cm**

Category 2 includes all bikes and components that can be used in conditions described under category 1, as well as on gravel roads and moderate trails. The wheels may also loose contact with the ground. Drops should not be higher than 15 cm.


**Category 3: For use in rough terrain and for jumps of up to 61 cm**

Category 3 includes all bikes and components that can be used in conditions described under category 1 and 2, as well as on rough trails and rough and unpaved roads that require good cycling skills. Jumps and drops should not be higher than 61 cm.


**Category 4: For use in rough terrain and for jumps of up to 122 cm**

Category 4 includes all bikes and components that can be used in conditions described under category 1, 2 and 3, as well as for higher speeds on rough and steep trails. Jumps should not be higher than 122 cm.


**Category 5: Extreme biking (Downhill, Freeride, Dirt)**

Category 5 includes all bikes and components that can be used in conditions described under category 1, 2, 3 and 4, as well as for extreme jumps and high speeds on rough trails and in bike parks.

Dirt and slopestyle bikes are not designed for downhill riding. For high drops or jumps with flat or rough landings, you need a long-travel bike (freeride or downhill bikes). Dirt bikes are designed for dirt jumping and for use in skateparks or on pump tracks. The riders should always use protective clothing and armour like a helmet/full face helmet, knee pads, elbow guards, back protectors and gloves.

When using your bike regularly in conditions described under category 5, you should check and replace the most stressed components more often.

## 3. Bike assembly

This chapter aims at helping you remove your bike from the ROSE bike box and re-assemble it.

Depending on the bike model, different components may have been removed or repositioned for shipping. In addition, you have to fit the pedals and check whether your bike is in a roadworthy condition.

**DANGER**

**Risk of accident due to improperly installed components!**

Improperly installed components may loosen during the ride!

- Always follow the installation instructions included in this manual.
- If in doubt, please consult the ROSE service or a qualified bicycle mechanic.

In addition to this manual, you will find some videos on how to assemble your bike at rosebikes.com.

**Required tools**

Depending on bike model and equipment, you will need the following tools for assembly:

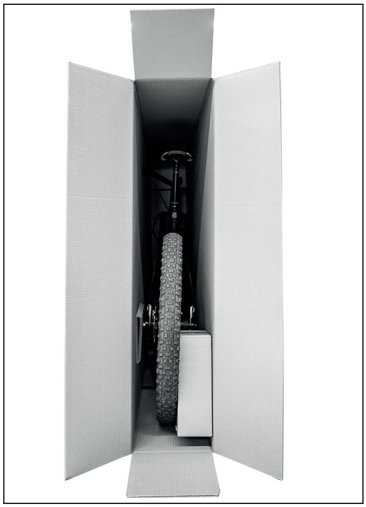
- 4 mm, 5 mm, 6 mm, 8 mm hex wrench
- Torque wrench with a 4 mm, 5 mm, 6 mm and 8 mm hex drive
- 15 mm open-ended spanner

### 3.1 Opening the ROSE bike box and unpacking the contents

Before opening, check the ROSE bike box for any damages. After that, check the contents for completeness! Please notify all possible defects immediately!
The bike box of ROSE e-bikes is designed to allow you to wheel the bike out of the box. For this, please open the box on the small side.

1. Carefully open the ROSE bike box on one of the narrow sides. Make sure not to damage any parts especially when using a knife.
2. Wheel the bike out of the bike box and unpack all other contents.
3. Remove – if present – any transport locking devices from the frame.

Keep hold of the ROSE bike box! You might need it to return the bike for servicing or repair.



### 3.2 Straightening the handlebar and adjusting the steering play

The ROSE Elec Tec FS comes with a headset with a steering stop. This headset makes sure the handlebar cannot be fully turned to one side, which prevents the top tube of the frame from damages through the fittings in case of a fall.

**CAUTION**

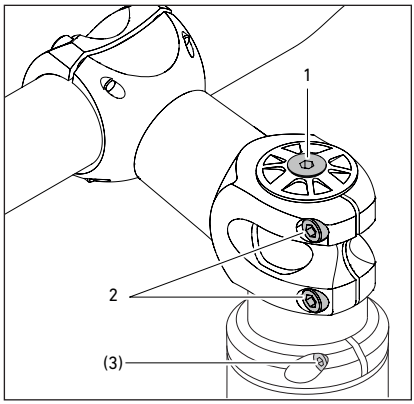
The adjusting bolt for the steering play (1) does not serve to tighten the stem, but only to adjust the play in the steering bearing!

1. Loosen the stem clamp bolts (2) with a hex wrench. Do not loosen the adjusting bolt for the steering play (1).
2. Turn the handlebar through 90 degrees and align it with the front wheel.
3. Check the steering bearing for play by pulling the front brake and trying to push the bike gently backwards and forwards.

   → There must be no play.
4. If you feel any movement inside the headset:

   4.1 Elec Tec FS only: Loosen the steering stop bolt (3).

   4.2 Tighten the adjusting screw for the steering play (1) clockwise a quarter turn.
5. Check the headset once again for play and repeat the previous steps, if need be, until there is no more play inside the bearing. If in doubt, seek professional advice from a qualified bicycle mechanic.

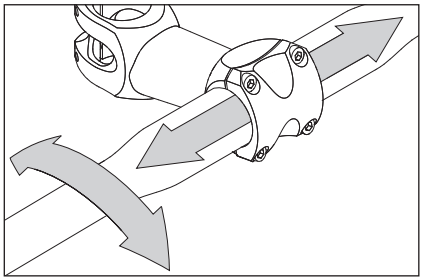



6. Elec Tec FS only: Tighten the steering stop bolt (3) to a torque of 4,5 Nm.

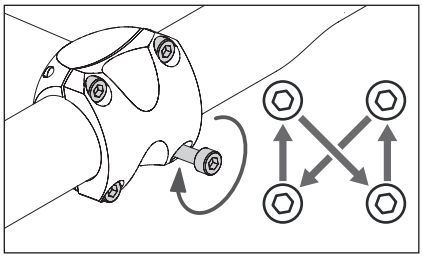
   → Make sure the slot of the clamp points into the direction of the seat post!
7. Tighten the stem clamp bolt(s) (2) alternately. For the required tightening torque see the stem of your bike or chapter "8.4 Torques" on page 35.

### 3.3 Adjusting the angle of the handlebar

1. Loosen the handlebar clamp bolts by turning them anti-clockwise until the angle of your handlebar can be adjusted.
2. Centrally align the handlebar and adjust the angle.



3. Tighten the bolts of the handlebar clamp alternately in small increments until you have reached the tightening torque. For the required tightening torque see the stem of your bike or chapter "8.4 Torques" on page 35.



### 3.4 Installing the front wheel

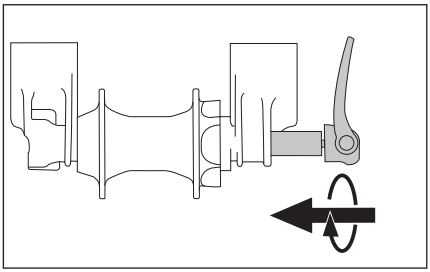
**DANGER**

**Risk of accident due to incorrectly installed quick release axles!**

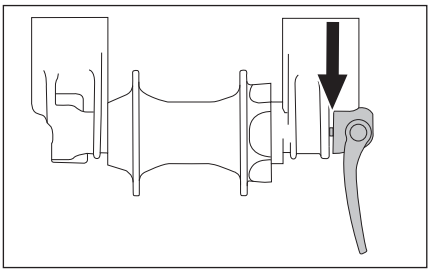
Incorrectly installed quick release skewers or bolt-on axles can suddenly fail while riding, which may cause the wheel to loosen or lock!

- Only tighten quick-release axles by hand and without using any tools.
- If in doubt consult the ROSE service or a qualified bicycle mechanic.

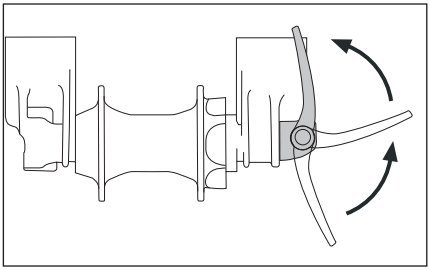
1. Remove the thru axle from the fork.
2. Check whether there is an elastic band on the front brake lever. Remove the elastic band, if need be.
3. Remove the transport securing device that is fitted between the brake pads.
   Keep the transport securing device for future transport of your bike.
4. Position the front wheel into the dropouts of the fork.
5. Open the lever of the thru axle and slide the axle through the non-drive side (left in the direction of travel) fork dropouts and hub of the wheel.



6. Rotate the lever clockwise until there is only a small gap left between lever head and dropout.



7. Close the lever of the thru axle.
   → There must be no gap between lever head and dropout.
   → The lever should leave an imprint on your hand. To increase lever tension, open the lever and turn it clockwise. Close the lever to recheck lever tension. Repeat until the tension is sufficient, then close the lever.



The axle lever can be adjusted to close anywhere around the axle so it does not interfere with the frame or any components. Please see the manual of your RockShox Maxle Ultimate thru axle for instructions.

### 3.5 Adjusting the saddle height of dropper seat posts with internal cable routing

**NOTE**

**Risk of damage of the seat post due to improper saddle height adjustment!**

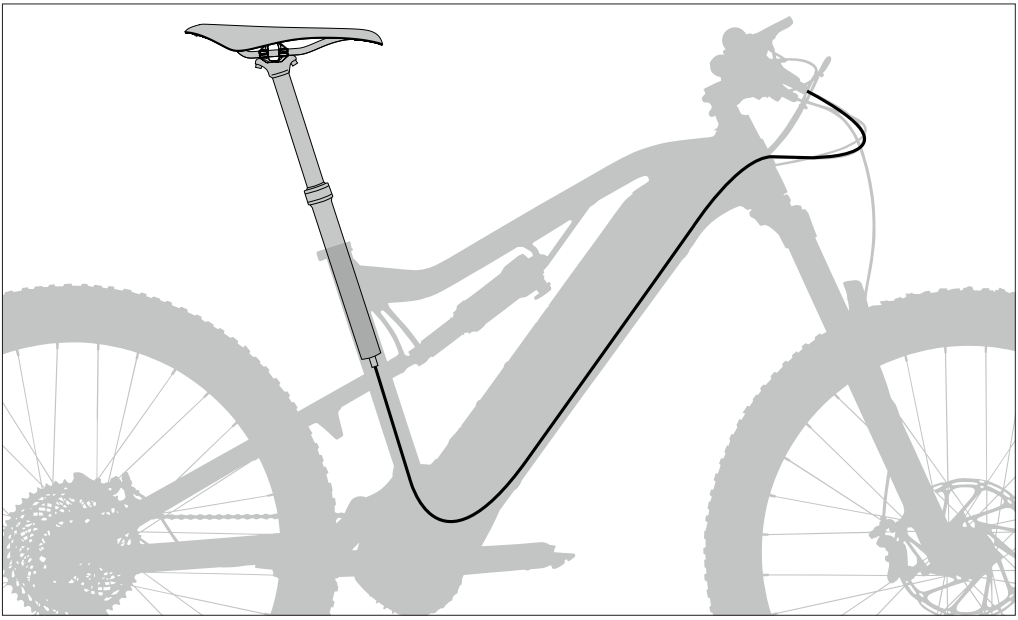
When sliding a dropper post with internal cable routing into the frame without running down the cable, the cable will snap off. This will result in leaking and malfunctioning.

**Elec Tec**

On the Elec Tec, the cable of the dropper seat post comes out of the lower end of the seat tube and enters the frame below the drive unit. From there, the cable is routed inside the frame until it comes out again in the headset area.

1. Open the saddle clamp.
2. Carefully insert or pull out the seat post and pull the cable out of the opening in the seat tube of the frame or push the cable through the opening in the headset area.
3. Route the cable without tensioning or bending it.
4. Close the saddle clamp.

**Elec Tec FS**



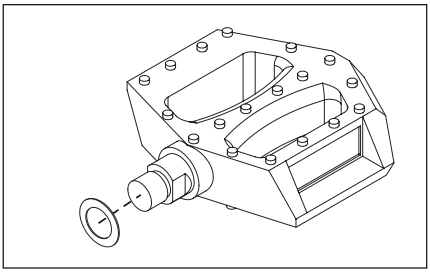
On the Elec Tec FS, the cable of the dropper seat post is completely routed internally and only comes out of the frame at the head tube.

1. Undo the hose clamp bolt in the headset area using a 4 mm hex wrench.
2. Open the saddle clamp.
3. Carefully insert or pull out the seat post and pull the cable out of or push it into the opening in the headset area.
4. Route the cable without tensioning or bending it.
5. Close the saddle clamp.
6. Tighten the hose clamp bolt in the head tube area using a 4 mm hex wrench.

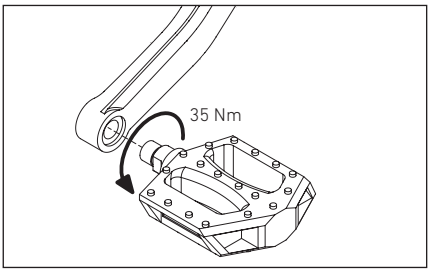
### 3.6 Installing the pedals

| | |
|---|---|
| i | One of the pedals has a right- and the other a left-hand thread.<br>Most pedals have the letter "L" and "R" stamped on the end of the thread. Some pedals come with a groove in the flange of the left pedal.<br>For more information see the manufacturer's manual. |

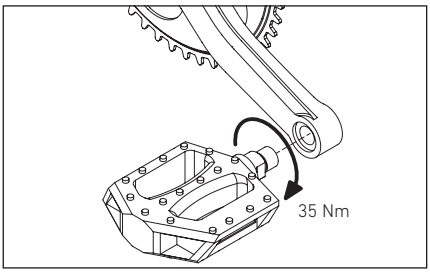
1. Check if your bike was supplied with washers and slide both washers onto the pedal axles – if present.



2. Turn the left pedal counter-clockwise to screw it into the thread of the left crank arm and tighten the pedal to a torque of 35 Nm.



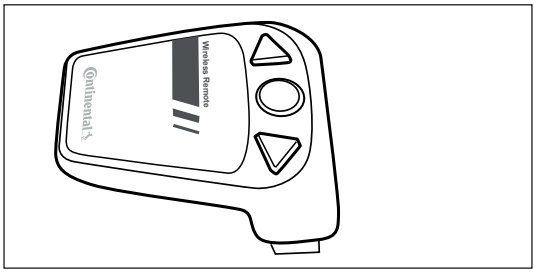

3. Turn the right pedal clockwise to screw it into the thread of the right crank arm and tighten the pedal to a torque of 35 Nm.



# 4. Riding your e-bike

## 4.1 Information on the e-bike system

### 4.1.1 Control unit on handlebar

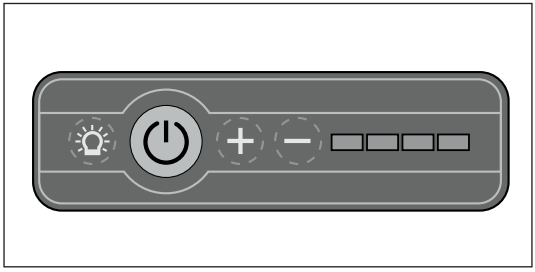



Increase assistance level

On/off

Reduce assistance level

### 4.1.2 Control panel on battery pack



Light

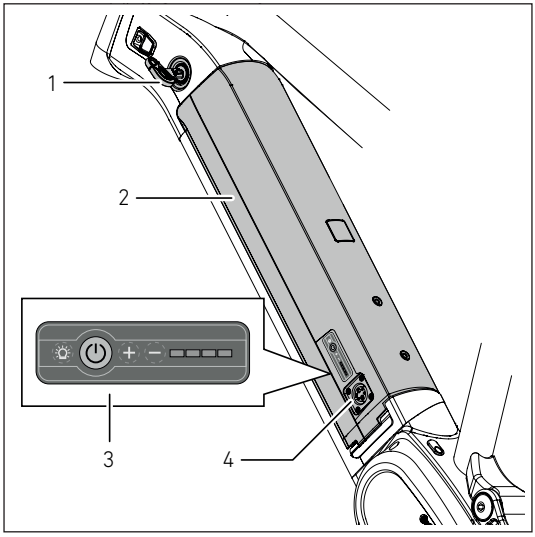
On/off

Increase assistance level

Reduce assistance level

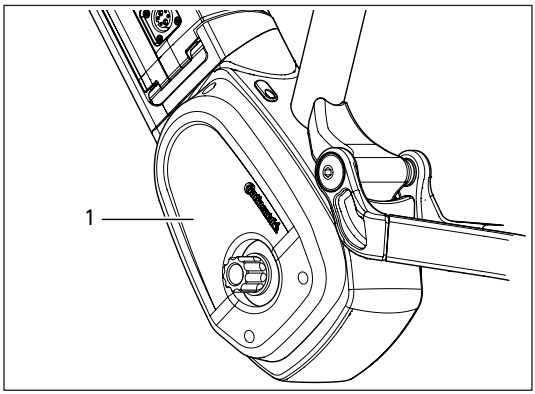
LED display

### 4.1.3 Battery pack




1 Battery lock with key
2 Battery pack
3 Control unit
4 Charger socket

### 4.1.4 Drive unit




1 Drive unit

### 4.1.5 Functioning of the Conti eBike system

The Continental e-bike system provides pedalling assistance when riding your e-bike. The assistance provided is adapted to the rider's pedalling power. The harder you pedal, the more assistance you get. This applies independently of the assistance level selected. At a speed of 25 km/h, the assistance turns off automatically. As soon as the speed falls below 25 km/h, the e-bike system will provide pedalling assistance again.

The selected assistance level has an effect on the speed, range and wear of the system. The most efficient way of riding is a cadence of approx. 80 rev/min. This is when the motor is most effective.

### 4.1.6 Range

The range you can achieve with your e-bike primarily depends on the following factors:

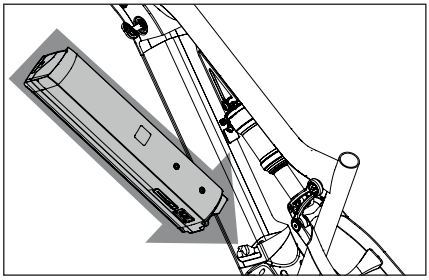
- Rider exertion
- Battery's age and state of repair
- Assistance level
- Type and characteristics of the route
- Shifting behaviour
- Headwind
- Type of tyres
- Surrounding temperature
- Tyre pressure
- Total weight (e-bike + rider + luggage)

All these factors lead to a very broad spectrum of ranges that can be achieved with the e-bike.

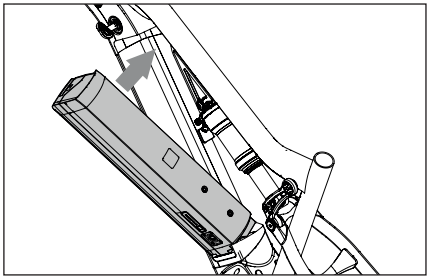
## 4.2 Riding

### 4.2.1 Inserting the battery

1. Press the ⏻ button to switch off the battery.
2. Make sure the contacts on the lower holder are free from dirt and other particles.
3. Place the battery pack with the contacts on the lower holder on the e-bike.

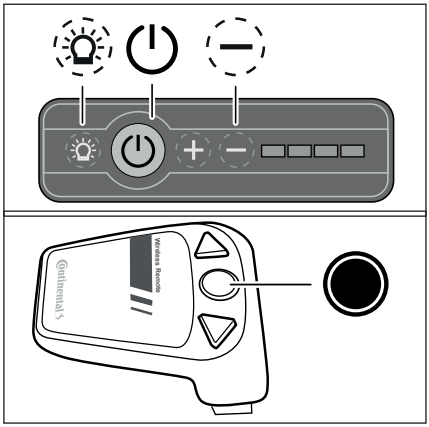


4. Tilt the battery all the way down into the upper holder.
   → The battery engages with a clicking sound.
5. Check whether the battery pack is seated properly.
6. Lock the battery pack and remove the key.



### 4.2.2 Switching on the system

1. Press the ⏻ button on the battery and hold it for three seconds.
   → The system is switched on.
   → After 1 to 2 seconds, a green LED light shows the current charging status of the battery.
   → The e-bike is now ready for use.



### 4.2.3 Switching on the control unit

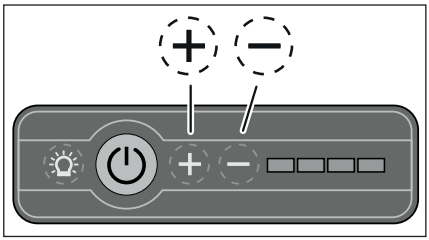
1. Press the ◉ button on the control unit.
   → If the green LED light of the control unit lights up, the connection between control unit and system has been successfully established.
   → If the red and green LED light of the control unit are blinking, the connection between control unit and battery could not be established. The control unit must be paired with the system once again (see "4.2.9 Connecting the control unit with the system" on page 24).

### 4.2.4 Setting the assistance level

You may set the level of assistance on the battery or control unit while standing or riding. Once the assistance level has been changed, the LED lights on the battery pack will blink five times. Afterwards, you can read the battery charge from the permanently lit LED lights.

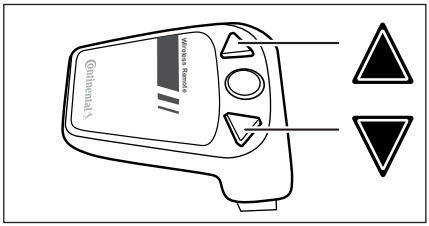
**Setting the assistance level on the battery pack**

Press the **+** or **-** button on the battery to increase or reduce assistance.

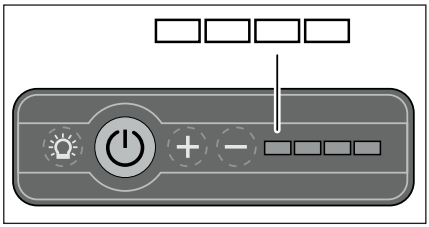


**Setting the assistance level on the control unit**

Press the ▲ or ▼ button on the control unit to increase or reduce assistance.




Once the assistance level has been changed, the LED lights on the battery pack will flash five times. The number of flashing LED lights corresponds to the selected assistance level.
You can choose between the following assistance levels:



| | |
|---|---|
| No LED light is flashing | Motor assistance is switched off |
| One LED light is flashing | Level 1 "Eco" |
| Two LED lights are flashing | Level 2 "Low" |
| Three LED lights are flashing | Level 3 "Medium" |
| Four LED lights are flashing | Level 4 "High" |

The motor assists you while riding and automatically offers the appropriate amount of power assist based on your pedalling speed and power. The harder you pedal, the more assistance you get. This applies independently of the assistance level selected. A sensor detects how hard you are pedalling and provides a corresponding amount of power from the motor.
The e-bike drive automatically switches off at a speed of 25 km/h. As soon as the speed falls below 25 km/h, the motor turns back on to provide pedalling assistance.

### 4.2.5 Interrupting your ride

When the e-bike is not in use you should switch off the system (see "4.2.6 Switching off the system" on page 22).

After the selected standby time is over, the system switches off automatically. The battery switches into sleep mode to reduce the energy consumption of the system. The battery automatically turns back on when the system is switched on or the charger is connected.

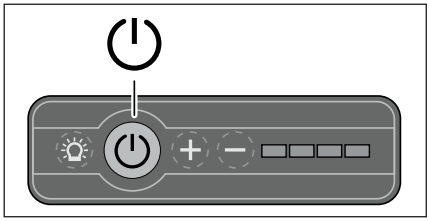
After 1 hour of inactivity, the system automatically switches to deep sleep mode. The battery deactivates the power supply to the system. This allows the battery to survive extended breaks between charges and protects it from total discharge. The battery automatically turns back on when the system is switched on or the charger is connected.

### 4.2.6 Switching off the system

Press the ⏻ button on the battery and hold it for three seconds.

→ The system switches to standby mode.

You should always switch off the system before removing the battery or disconnecting the cable. An abrupt power interruption may prevent the system from shutting down properly and saving the recorded data.

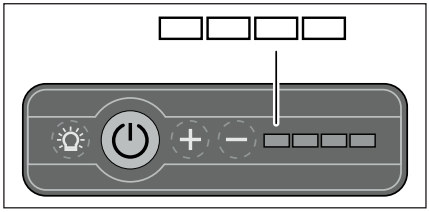


### 4.2.7 Battery charge indicator

When the system is switched on, the battery status will be displayed by the four green LED lights.

The battery is defective when four LEDs are flashing simultaneously. Do not use the battery! Please contact the ROSE Bike Service!

If the battery capacity is below 24 Wh, the system automatically switches off motor assistance. The battery will continue to power the e-bike's display for approx. 2 hours. If the battery is completely empty, the lights and the system will turn off.



### 4.2.8 Charging the battery

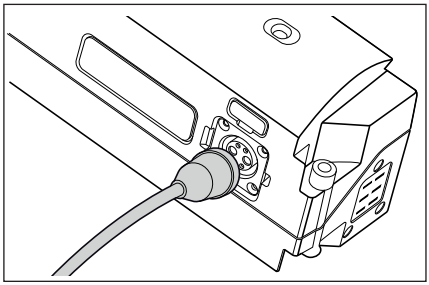
**DANGER**

**Risk of injury due to improper charging of the battery!**

Improper charging may cause the battery or other inflammable materials nearby to catch fire.

- Only use the original charger.
- Do not locate the charger or battery near inflammable materials while charging.
- Only charge the battery when dry.
- Do not leave the battery unattended while charging it.
- The surrounding temperature during charging may not be below 0°C or above 45°C.

The battery is integrated into the down tube of the e-bike and can either be charged when fitted or removed. The surrounding temperature during charging may not be below 0°C or above +45°C. The ideal surrounding temperature during charging is between +10°C and +25°C.



1. Always check that there are no particles or dirt on the charging plug or charger socket of the battery before charging, as this might prevent a correct connection or cause a malfunction.
2. Connect the mains cable of the charger to a 230 V mains socket.
3. Plug the charging cable into the charger socket and take into account the position markers.

   → During charging, the battery charge indicator LEDs show the current battery status. Once all LEDs are lit the battery is fully charged.

   → The full duration of charging the battery is up to 5 hours (depending on charge capacity, status of the battery and charger). The current charge status is displayed during charging:

| Light signal during the charging process | Charge status |
|---|---|
| 1st LED is flashing. | 0 - 25% |
| 1st LED is on, 2nd LED is flashing. | 26–50% |
| LEDs 1-2 are on, 3rd LED is flashing. | 51–75% |
| LEDs 1-3 are on, 4th LED is flashing. | 76–99% |
| Steady light on all 4 LEDs | 100% |

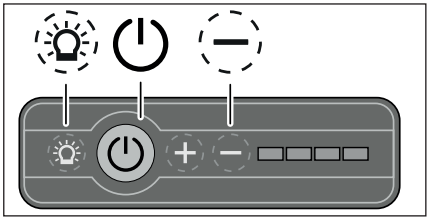
If the fully charged battery remains connected to the charger, the LEDs will switch off automatically after some time. When disconnecting the charger plug or pressing the ⏻ button on the battery the charge status will again be displayed on the battery.

4. Remove the charging cable after charging is complete.

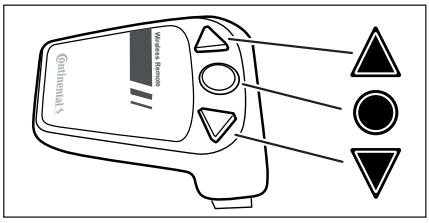
### 4.2.9 Connecting the control unit with the system

The control unit is linked with the system before delivery. If you cannot control the system with the operating panel, you should pair the control unit with the system once again.

1. Press the ⏻ button on the battery and hold it for three seconds.
   → The system is switched on.
2. Press the ☼ and **-** button on the battery simultaneously and hold for three seconds.
   → The battery is in pairing mode when the LEDs light up separately from left to right.



3. Press the ● button on the control unit and hold for three seconds.
4. Press the ▲ and ▼ button on the control unit simultaneously and hold for three seconds.
   → The red and green LED light up and start to blink.
5. Press the ● button on the operating panel repeatedly.
   → After successful pairing of control unit and battery, the two LEDs in the middle of the battery will blink three times.
   → If control unit and battery cannot be paired with each other, the system switches to the uncoupled mode after 30 seconds.



## 5. Getting started for your first ride and getting used to your new bike

Make yourself familiar with the handling, brakes, shifting system and – if available – with the suspension elements of your bike away from public roads. Do not forget to wear a helmet! Only slowly increase the difficulty of the terrain or manoeuvres.

Requirements:

- The bike is assembled in accordance with chapter "Bike assembly" (see "3. Bike assembly" on page 13).
- The saddle height is properly adjusted to guarantee a comfortable ride and to ensure you will get on and off the bike easily.
- All tasks from the chart "Before your ride" (see "6.1 Before your ride" on page 26) have been carried out.

1. Break in the brake pads.
   Choose a road away from public roads and brake 20 to 30 with the front or rear brake from a speed of 30 km/h down to 5 km/h. You should brake as hard as possible without locking one of the wheels. Repeat the process for the other brake. Only then the brake can show its full braking power.
   Please also note the instructions of the brake manufacturer (see enclosed manual).
2. Check the functioning of the brakes while riding.

| | |
|---|---|
| i | Normally, the rear brake is located on the right-hand side of the handlebar, and the front brake is on the left-hand side. However, if required, the brake levers can also be mounted the other way around.<br>If the positioning of the brake levers on your bike is new and unfamiliar, you will have to be careful on your first rides. Make yourself familiar with the functioning and power of the brakes while riding at reduced speed.<br>Many brakes offer the possibility to adjust bite point and lever reach. note the brake manufacturer's instructions for more information (see enclosed manual). |

**Shifting system:**

3. Shift through all gears while riding at reduced speed and choose the right gear.
   → You can shift into all gears.
   → In the highest and lowest gear, the limit screws don't allow the chain to drop off the cassette.

# 6. Before and after your ride

## 6.1 Before your ride

To make sure your bike is safe to ride, you should carry out certain tasks before your ride. This is for your own safety in particular, yet also for your riding pleasure. Nothing is more annoying than having a defect on a bike tour.

If there are any defects or flaws, you should have your bike inspected and repaired by a qualified bicycle mechanic. Never ride with a defective bicycle!

| | Task/Check | Before your first ride | Before every ride |
|---|---|---|---|
| Wheels | Check that the wheels are straight. Lift the wheels one after the other and spin them.<br>→ The wheels must spin smoothly.<br>→ The wheels must run true, without moving up and down or from side to side.<br>→ The tyres must not rub against the frame. | X | X |
| | Check the wheels for play in the hubs. Lift the wheels one after the other and move the wheels to the side.<br>→ There must be no play. | X | X |
| | Check the freehub mechanism of the rear hub to ensure proper engagement:<br>Sit down on your bike, pull the front brake and pedal with moderate force when standing.<br>→ The power must be transferred to the rear wheel.<br>→ The freehub must not slip. | X | X |
| | Check the tyre pressure:<br>The best way to check the pressure of the tyres is to use a floor pump with a pressure gauge.<br>→ The tyre pressure must not fall below or exceed the minimum or maximum value (see "8.3 Tyre pressure" on page 34). | X | X |
| | Check the tyres for damages and wear.<br>→ There must be no damages.<br>→ The tyres must not be worn so that the puncture protection belt or the carcass threads can be seen through the tread. | X | X |
| | Check whether the quick-release skewers and thru axles are properly attached. | X | X |

| | | | |
|---|---|---|---|
| Brakes | Check the bite point of the brakes: Pull one brake lever after the other while standing.<br>→ The bite point must be felt around half way down the brake lever travel. | X | X |
| | Check the braking performance: Pull one brake lever after the other while standing and push the bike backwards and forwards.<br>→ The front and rear wheel must lock when the brake lever is pulled. | X | X |
| | Check the brake pads for wear.<br>→ Disc brake: The brake pads with a metal backing plate must be at least 0,5 mm thick.<br>→ Rim brake: You should still see all grooves in the brake pad. When one or more grooves disappear, it is time to replace the brake pads. | | X |
| | Check the disc rotor for wear.<br>→ Minimum thickness of brake rotors:<br>Avid: 1,55 mm, Magura: 1,8 mm, Shimano: 1,5 mm. | | X |
| | Check whether the brake hoses and connections are losing brake fluid and check them for defects.<br>→ Brake fluid must not escape at the connections. | X | X |
| Parts | Verify the tight fit of the stem: Stand in front of the bike with the front wheel between your knees and try to turn the handlebar left and right.<br>→ It should not be possible to turn the handlebar with normal force. | X | X |
| | Check the headset for play: Stand next to your bike with both hands on the handlebar. Pull the front brake lever and gently push the bike backwards and forwards.<br>→ You should not notice any play. | X | X |
| | Verify the tight fit of the seat post: Stand behind your bike, hold the saddle with one hand and try to turn it left and right.<br>→ It should not be possible to turn the saddle or seat post. | X | X |
| | Make sure that all parts are tight.<br>→ Tighten the parts to the proper torque, if need be. | X | X |
| Frame | Check the frame for damages and deformation.<br>→ There must be no damages. | X | X |
| | Check whether all cables and hoses are in the cable clips and verify the tight fit of the clips.<br>→ All cables must fit firmly in the cable clips. | X | X |
| Suspension elements | Check the suspension elements (if present) for damages.<br>→ There must be no damages. | X | X |

## 6.2 After your ride

**DANGER**

Brake failure or reduced braking power due to dirty brake pads or disc rotors!

Brake pads and disc rotors must be free from lubricating substances such as grease, oil (also skin oil), wax, silicone etc.! Brake pads or disc rotors contaminated in this way must no longer be used!

### 6.2.1 Cleaning your bike

After your ride, you should clean your bike thoroughly using a soft cloth and clear water. Never use a high pressure washer!

Stubborn dirt can be removed with a gentle cleaning agent. In this case, it is best to use washing up liquids for domestic needs. Pay attention to the notes and recommendations for use printed on the respective cleaner.

In addition, you will find numerous cleaning and care products for your bike on www.rosebikes.com.

After having cleaned your bike, you must lubricate the chain (see "6.2.2 Chain maintenance" on page 28).

If your bike comes with suspension elements, make sure all moving parts in this area are free from dirt. Dirt in this area may cause premature wear and thus decrease the performance of your suspension elements.

### 6.2.2 Chain maintenance

The bicycle chain is the most important part of the drivetrain system. An oily chain attracts dirt and thus accelerates wear.

Please regularly follow the steps below to ensure a long and reliable service life of your chain:

1. Clean the chain with an oil-soaked cloth.
2. Lubricate the chain using chain oil.
3. Wipe away excess oil with a dry, lint-free cloth.

### 6.2.3 Parking your bike

Bicycles should always be protected against falling down. Especially for lightweight bikes, it is often enough to fall down from a standing position to permanently damage frame or components. Also see "7. Transport, storage and disposal" on page 29.

## 6.3 After a crash

**DANGER**

Risk of accident due to damaged or broken components!

Crashes or exceptional stresses may cause unnoticed and invisible damages.

- Riding with damaged, bent or even torn parts is extremely dangerous.
- After a fall, the bike and its components must be checked by the ROSE service or by a qualified bicycle mechanic.
- Never fix bent parts yourself, but replace them for your own safety.

Especially for lightweight bikes, it is often enough to fall down from a standing position to permanently damage frame or components. When suspecting a damage, you should always consult the ROSE service or a qualified bicycle mechanic.

Damages on aluminium parts are indicated by dents, cracks, deformations or discolorations. If you notice any sign of damage, the component or bike must no longer be used. When suspecting a damage, you should always consult the ROSE service or a qualified bicycle mechanic.

## 7. Transport, storage and disposal

### 7.1 Transport by car

The best and safest way to transport your bike is by car. Here, your bike is perfectly protected from the elements and from theft. Yet there are some things you should bear in mind:

- Do not expose the battery pack to direct sunlight. Cover the battery for protection. It's best to use a battery cover that protects the battery pack from heat and impacts.
- Keep the battery securely inside the car during transportation and make sure it won't move around.
- When removing the wheels, make sure to fit a transport lock between the dropouts of frame or fork.

### 7.2 Transport on a hitch or roof rack

Before transporting your e-bike on a car bike rack you should remove the battery. Cover the contacts on battery pack and bicycle. Keep the battery securely inside the car during transportation and make sure it won't move around. It's best to use a battery cover that protects the battery pack from heat and impacts.

Rims must be padded before fitting lashing straps or ratchet systems.

When transporting several bikes on one hitch or roof rack, please make sure that there is sufficient space or padding between the bikes.

Please also note the instructions of the bike rack manufacturer.

### 7.3 Battery storage

We recommend you to remove the battery pack from the bike before storage.

Store the battery in a dry, well ventilated place. Protect the battery pack from moisture and water. In unfavourable weather conditions, it is recommended to remove the battery pack from the bike and store it in an enclosed area until it is used again.
The battery should not be stored outside the temperature range between +10°C and +25°C. For a long battery life, it's advantageous to store it at approx. +20°C. Don't exceed the maximum storage temperature. Don't leave the battery pack in the car during summer and do not expose it to direct sunlight.

**Recharge the battery before and during storage.**

When not using the battery for a longer period, charge it to approximately 60% (until 2 charge indicator LEDs light up). Check the charge level again after 6 months. If only one LED on the battery charge indicator lights up, charge the battery to around 60% again. Recharge the battery at least every 3 months to prevent a deep discharge.

Note: Storing an empty battery pack for a longer period may damage the battery despite its low self-discharge and reduce the battery capacity. It is not recommended to have the battery pack permanently connected to the charger.

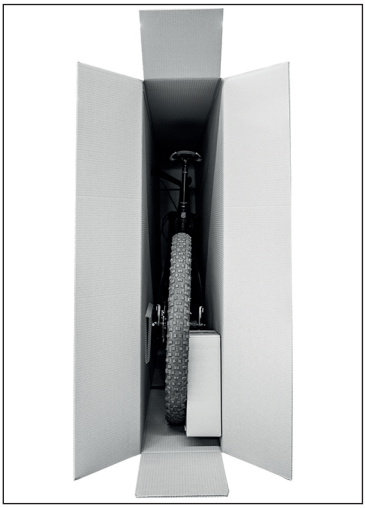
### 7.4 Bike storage

You should park your bike using an appropriate cycle stand which ideally only holds the rear wheel. Make sure to check the tyre pressure when the bike has stood for a long time. You should not park your bike for longer with no air in the tyres.

### 7.5 Bike shipping

The e-bike can be pushed into the bike box for shipping.

1. Turn the handlebar down.
2. Turn the handlebar through 90 degrees.
3. Secure or cover all loose or moving parts properly. Sharp or pointed components have to be wrapped additionally to make sure they won't damage other parts of your bike and won't tear through the outer packaging.
4. Position the cardboard at the rear on the drive side.
5. Protect the top tube from damages through the handlebar by using appropriate material (e.g. foam tubing).



### 7.6 Battery shipping

The battery is subject to the Transportation of Dangerous Goods (TDG) Act and its regulations. Private users can transport undamaged battery packs by road without further requirements.

When shipped by commercial users or transported by third parties (e.g. air transport or forwarding company) though, the battery must meet special packing and labelling instructions (e.g. as laid out in the transport regulations of the ADR):

- Only ship the battery pack when the housing is undamaged.
- Mask off all battery contacts and carefully wrap the battery pack so it won't move inside the packaging.
- Make the parcel service aware of the fact that the package contains dangerous goods.
- Additionally observe any supplementary national regulations.

If you have any questions regarding the transport of your battery pack, please contact a qualified bicycle mechanic or the ROSE service.

## 7.7 Disposal

**Information in accordance with the German Batteries Act (BattG)**

In connection with the distribution of batteries and battery packs, we as a distributor are obliged according to the German Batteries Act to inform you as our customer about the following: You are legally obliged to return batteries. You can return them after use in one of our stores, at a local collection point or in a local store. Batteries containing harmful substances are labelled with the symbol of a crossed out, wheeled bin as well as with the chemical symbol (Cd, Hg or Pb) that represents the decisive factor for the classification as a heavy metal containing hazardous substances. Used batteries can be handed over to:

ROSE Bikes GmbH
- Logistics Centre-
Isselburger Str. 17
46395 Bocholt
Germany

The possibility to return batteries is limited to those types of batteries we have or have had in our range as well as to the quantity end consumers usually dispose.

**Information in accordance with the German Electrical and Electronic Equipment Act (ElektroG)**

In connection with the distribution of electrical appliances, we as a distributor are obliged according to the German Electrical and Electronic Equipment Act to inform you as our customer about the following: You are legally obliged to return waste electrical and electronic equipment. You can return it after use in one of our stores, at a local collection point or in a local store. Waste electrical and electronic equipment can be handed over to:

ROSE Bikes GmbH
- Logistics Centre-
Isselburger Str. 17
46395 Bocholt
Germany

The possibility to return waste electric and electronic equipment is limited to those types of equipment we have or have had in our range as well as to the quantity end consumers usually dispose.

## 8. Maintenance

Regular care and maintenance will prolong the life of your new bicycle. You should carry out easy cleaning, servicing and repair tasks yourself (see "6. Before and after your ride" on page 26). The required services must be performed by a qualified bicycle mechanic.

### 8.1 Bike servicing

**DANGER**

**Risk of accident due to overdue maintenance and service!**

When neglecting maintenance and servicing, worn components may cause accidents.

- The service works and intervals mentioned in this manual must be observed.
- Service and maintenance works must be carried out by the ROSE service or a qualified bicycle mechanic.

A bike service includes a complete check of all components. Servicing is required after a specific period of time or after a certain amount of kilometres ridden. The first case to occur shall be decisive.

Service intervals and tasks

- 1. servicing after 500 to 1 000 km, six months after purchase date at the latest
- 2. servicing after 3 000 to 4 000 km or two years after purchase date
- 3. servicing after 5 000 to 7 000 km or three years after purchase date

| Task | 1. Servicing | 2. Servicing | 3. Servicing |
|---|---|---|---|
| Visual inspection of all components | X | X | X |
| Check of all bearings and screw connections | X | X | X |
| Check of spoke tension | X | X | X |
| Wheel truing | X | X | X |
| Adjustment of the gears | X | X | X |
| Adjustment of the brake | X | X | X |
| Check of rim flanges (in case of rim brakes) or brake rotors for wear | X | X | X |
| Check of chain, brake pads and tyres for wear and replacement, if necessary | | X | X |
| Check of software status and update, if need be | X | X | X |

## 8.2 Replacement of parts

Not all components of your e-bike might be changed or replaced without approval. The two German associations "*Zweirad Industrie Verband*" (ZIV) and "*Verbund Service und Fahrrad*" (VSF) have agreed on a uniform guideline. This guideline defines the conditions under which e-bike components can be replaced. The document divides the e-bike components in four categories:

**Category 1: Components which can only be replaced after approval by the electronic drive system provider or ROSE Bikes**

- Motor
- Sensors
- Electronic control unit
- Electronic cables
- Control unit on handlebar/display
- Battery pack/charger

**Category 2: Components which can only be replaced after approval by ROSE Bikes**

- Frame
- Rear shock
- Rigid or suspension fork
- Brake system
- Pannier rack (racks directly affect the load distribution on a bicycle. Both negative and positive changes result in a different road behaviour than the one originally intended by the manufacturer.)

**Category 3: Components which can only be replaced after approval by ROSE Bikes or the component manufacturer**

- Crank (provided that the distance between crank – centre of the frame (Q factor) is observed)
- Wheel (provided that the ETRTO is observed)
- Chain/belt (provided that the original width is observed)
- Rim tape (rim tape and rim must be compatible with each other. Modified combinations may result in rim tape shifting and thus in defective inner tubes.)
- Tyres (stronger acceleration, additional weight and more dynamic cornering require the use of tyres approved for e-bike use. It is important to observe the ETRTO.)
- Brake cables/brake hoses
- Brake pads
- Handlebar and stem (provided that there is no need to change the length of cables and/or hoses.)
- Saddle and seat post (provided that the offset to the rear does not exceed 20 mm compared to the original saddle/seat post combination. A modified load distribution beyond the intended adjustment range may possibly lead to critical steering properties. The length of the saddle rails and the shape of the saddle are also important.)
- Headlight (headlights are designed for a specific voltage which must be compatible with the battery pack of the respective e-bike. In addition, the electromagnetic compatibility (EMC) must be guaranteed, whereas the headlight may be responsible for a part of the potential disturbance.)

**Category 4: Components which can be replaced without approval**

- Headset
- Bottom bracket
- Pedals (provided that the pedals are not wider than the series/original pedals)
- Front and rear derailleur (all shifting components must be suitable with the number of gears and compatible with each other)
- Shifter/twist shifter
- Shift cables and housings
- Chainrings/cassette (provided that number of teeth and diameter are identical to the original)
- Spokes
- Inner tube (with identical design and identical valve)
- Rear light, reflector, spoke reflectors
- Kickstand
- Grips with screw clamp
- Bell

### 8.3 Tyre pressure

The maximum tyre pressure depends on the tyre width and the inner rim width. The following table might be of help when adjusting the tyre pressure. Do not exceed the maximum tyre pressure!

On bicycles with originally fitted tyres, the maximum tyre pressure can be determined from the tyre width. You can find the tyre width on the sidewall of the tyre.

On many bikes, it makes sense to choose a tyre pressure that is lower than the maximum pressure for higher riding comfort. The minimum tyre pressure is also marked on the tyre sidewall and you should not fall below this value either.

| Inner rim width | Tyre width | | Maximum tyre pressure | |
|---|---|---|---|---|
| | [mm] | [inches] | [bars] | [psi] |
| 15 mm | 20 | 0.8 | 9.5 | 138 |
| 17 mm | 23 | 0.9 | 9 | 131 |
| | 25 | 1 | 8.5 | 123 |
| 19 mm | 28 | 1,1 | 7.8 | 113 |
| | 30 | 1.2 | 7.2 | 104 |
| 21 mm | 32 | 1.25 | 6.8 | 99 |
| | 35 | 1.35 | 6 | 87 |
| 23 mm | 37 | 1.4 | 5.7 | 83 |
| | 40 | 1.5 | 5.5 | 80 |
| 25 mm | 42 | 1.6 | 5.2 | 75 |
| 27 mm | 44 | 1.7 | 5.0 | 73 |
| 29 - 40 mm | 47 | 1.8 | 4.7 | 68 |
| | 50 | 1.9 | 4.4 | 64 |
| | 52 | 2 | 4.1 | 59 |
| | 54 | 2.1 | 3.8 | 55 |
| | 57 | 2.2 | 3.5 | 51 |
| 40 - 50 mm | 60 | 2.3 | 3.2 | 46 |
| | 62 | 2.5 | 2.9 | 42 |
| | 66 | 2.6 | 2.7 | 39 |
| | 69 | 2.7 | 2.5 | 36 |
| | 71 | 2.8 | 2.3 | 33 |
| | 74 | 2.9 | 2.1 | 30 |
| | 76 | 3 | 2.0 | 29 |
| 50 - 80 mm | 81 | 3.2 | | |
| | 89 | 3.5 | | |
| | 102 | 4 | | |
| | 107 | 4.2 | | |
| | 114 | 4,5 | | |
| | 122 | 4.8 | | |
| | 127 | 5 | | |

### 8.4 Torques

All nuts and bolts must be tightened with an appropriate torque wrench. Proper use prevents overtightening and breaking of the bolts.

The torques indicated below are for unlubricated threads. Lubrication affects the friction coefficient, so that you need to choose a lower torque for lubricated bolts.

The following table shows all necessary torques for your bike.

**Stems:**

| Manufacturer | Model | Torque |
|---|---|---|
| Race Face | Turbine | Steerer clamp: 9 Nm |
| | | Handlebar clamp: 6.2 - 7.4 Nm |
| Race Face | Atlas | Steerer clamp: 10.8 - 13.6 Nm |
| | | Handlebar clamp: 8.4 - 9.6 Nm |
| Race Face | Chester | Steerer clamp: 12 Nm |
| | | Handlebar clamp: 7 Nm |
| Race Face | Ride | Steerer clamp: 10 Nm |
| | | Handlebar clamp: 6.2 - 7.5Nm |
| Ritchey | all | Steerer clamp: max. 5 Nm |
| | | Handlebar clamp: max. 5 Nm |
| Spank | Spoon | Steerer clamp: 9 Nm |
| | | Handlebar clamp: 9 Nm |
| Spank | Spike Race | Steerer clamp: 9 Nm |
| | | Handlebar clamp: 9 Nm |
| Level Nine | Race | Steerer clamp: 8 Nm |
| | | Handlebar clamp: 8 Nm |

**Saddle clamps:**

| Manufacturer | Model | Torque |
|---|---|---|
| Reverse | Bolt | max. 5 Nm |
| Sixpack | Skywalker | max. 5 Nm |
| Rose | | max. 4 Nm |

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