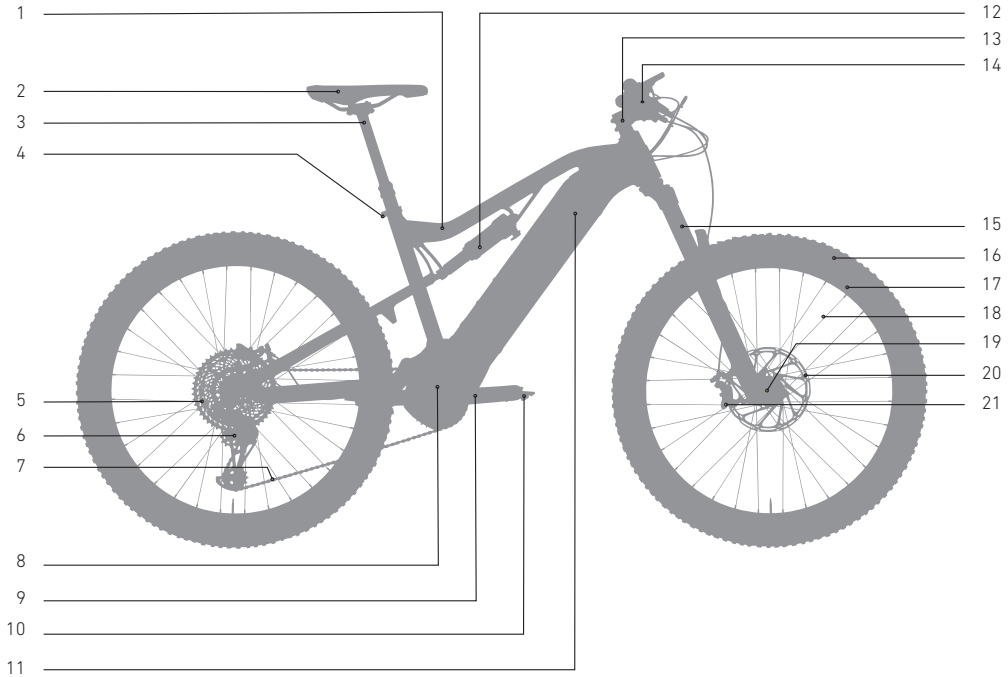
ROSE

OWNER´S MANUAL

2018.06-E-MTB_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 excellent 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 12).

Regular care and maintenance (see "8. Maintenance" on page 35) 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 important for the safe use of your bike, as well as the most important and general facts about your bike. For more detailed information on the single components of your bike please see the respective owner's manual of the manufacturer. The manuals are either included in your purchase documents or available online.

Please take the time to read this manual carefully. The sections marked with the signal words "DANGER", "WARNING" and "CAUTION" 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 29 and to have your bike serviced regularly (see "8. Maintenance" on page 35) 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 starting to ride an e-bike again 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 e.g. on assembly and adjustments or on the respective product itself. The owner's manuals of single manufacturer's might only be available online.

1.5 Tools

All works on your bicycle require appropriate tools. All nuts and bolts must be tightened using 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 add-on parts and accessories

Bicycle trailers must only be fixed to the rear axle of the bike using special 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' manuals before the installation of add-on parts and accessories.

Do not exceed the maximum system weight (see "1.10 Weight limit" on page 7) when fitting parts and accessories!

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 "8.2 Replacement of parts" on page 36). Please contact ROSE Bikes in case of any questions.

1.8 Warranty and guarantee

For all information on warranty and guarantee see rosebikes.com/content/help/terms-and-conditions.
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, 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 electric mountain bikes 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 add-on parts 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 11)
- Non-compliance with safety regulations
- Improper assembly, repair and maintenance
- Use of unapproved replacement parts and accessories
- Change of construction
- Tuning

If in doubt consult a qualified bicycle mechanic or the ROSE Bike Service.

2. Safety

2.1 General safety

DANGER

Always wear a helmet. Adapt your style of riding to your skills. Respect your limits and only ride cautiously in new situations.

DANGER

Risk of accident due to using on-board computer while riding!

Reading from the computer display or changing settings while riding may distract from the traffic situation. This may result in accidents caused by delayed or hindered rider responses!

- For all settings other than those concerning the level of assistance, you should stop off the road to enter the respective data.

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 electric mountain bikes are not intended for use on public roads. If you nevertheless want to ride your bike on public roads, 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 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 unnoticed.

- You should have your bike regularly checked for wear and damages by a qualified bicycle mechanic. Also see "8. Maintenance" on page 35. Worn or damaged components must be replaced.

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). In case of any deviations, the component manufacturer's instructions apply.

DANGER

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

Modern disc brakes have a very high braking power. Sudden braking can make you lose 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 32.

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.
- 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 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.

DANGER

Risk of injury due to escaping liquid or vapour!

- Damages or improper use may cause liquid to escape from the battery. This may cause skin irritation, eye irritation or burns!
  - Avoid contact with skin and eyes.
  - In case of contact with skin, wash off with water.
  - In case of contact with the eyes, seek medical assistance.
- Damages or improper use may cause vapours to escape from the battery. These may be irritant to the respiratory system!
  - Seek fresh air and medical attention, if need be.

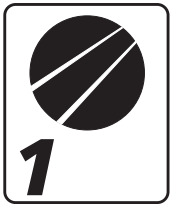
2.4 The rider's duty of care

Following the instructions specified in this manual does not absolve the rider 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 Bike 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.



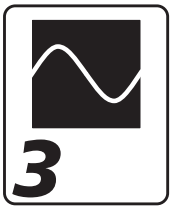
Category 1: For use on paved roads only

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 use on downhill tracks.

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 should fit the pedals and check if 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 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 keys
- Torque wrench with a 4 mm, 5 mm, 6 mm and 8 mm hex drive
- 15 mm open-ended spanner

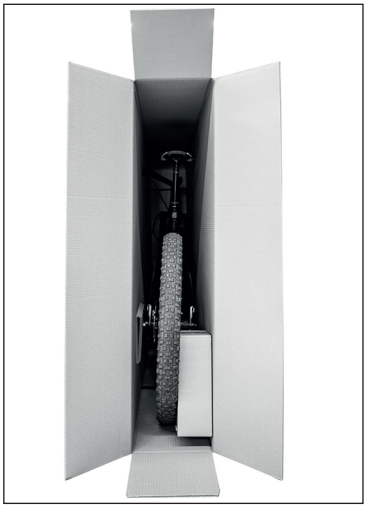
3.1 Opening the ROSE bike box and unpacking the contents

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.

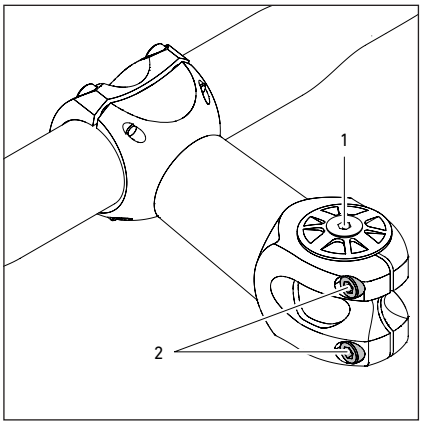


3.2 Straightening the handlebar and adjusting the steering play

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 bolt(s) (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.

   → You should not notice any play.
4. If you feel any movement inside the headset, tighten the adjusting screw for the steering play (1) 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. Tighten the stem clamp bolt(s) (2) alternately.
   You can find the required tightening torque on the stem of your bike or in chapter "8.4 Torques" on page 38.

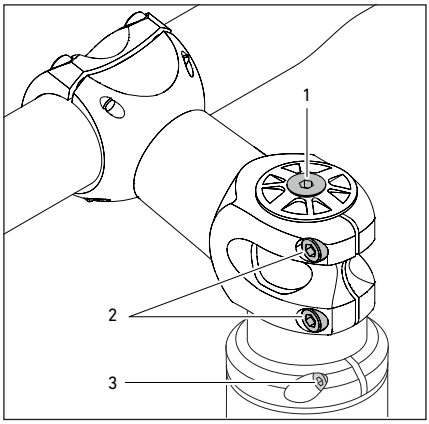
3.3 Straightening the handlebar and adjusting the steering play [ELEC TEC FS]

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 bolt(s) (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.

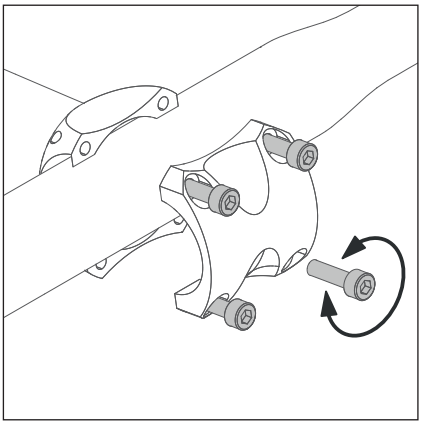


3. Check the steering bearing for play by pulling the front brake and trying to push the bike gently backwards and forwards.

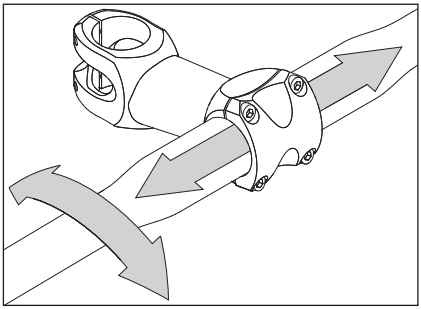
   → You should not notice any play.
4. If you feel any movement inside the headset, loosen the steering stop bolt (3) and tighten the adjusting screw for the steering play (1) a quarter turn.
5. Check the headset once again for play and repeat the previous steps, if need be, until there is no more play inside the bearing. If in doubt seek professional advice from a qualified bicycle mechanic.
6. 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 "8.4 Torques" on page 38.

3.4 Adjusting the angle of the handlebar

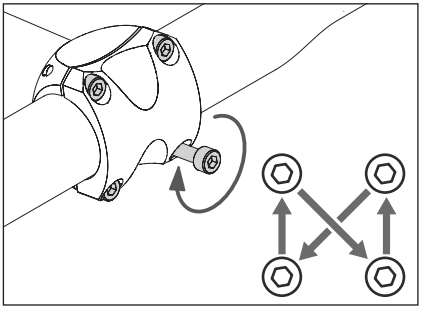
1. Loosen the handlebar clamp bolts by turning them anti-clockwise until the angle of your handlebar can be adjusted.
2. Check whether there is a protective film between handlebar and stem.
   If there is a protective film:
   2.1 Completely loosen the handlebar clamp bolts and remove the handlebar clamp(s).
   2.2 Remove the handlebar and take off the protective film.
   2.3 Re-install the handlebar and handlebar clamp(s).
   2.4 Turn the clamp bolts clockwise and tighten them just enough so that the handlebar can still be moved.



3. Centrally align the handlebar and adjust the angle.



4. Tighten the bolts of the handlebar clamp alternately in small increments until you have reached the tightening torque.
   You can find the required tightening torque on the stem of your bike or in chapter "8.4 Torques" on page 38.



3.5 Installing the front wheel

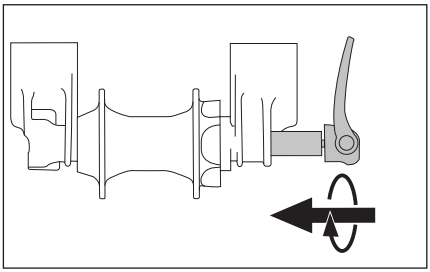
DANGER

Risk of accident due to incorrectly installed quick release axles!

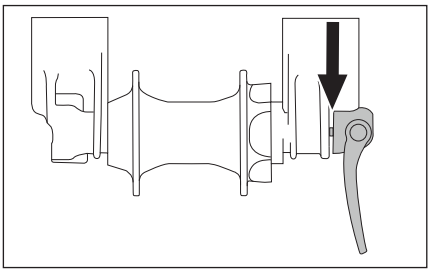
Incorrectly installed quick release skewers or bolt-on axles can suddenly fail while riding, which may cause the wheel to loosen or lock!

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

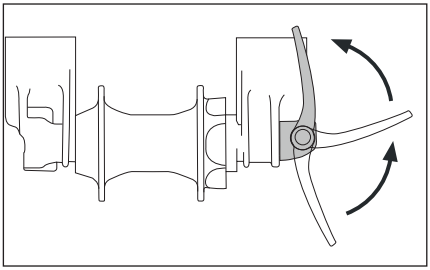
1. Remove the thru axle from the fork.
2. Check whether there is an elastic band on the front brake lever. Remove the elastic band, if need be.
3. Remove the transport securing device that is fitted between the brake pads.
   Keep the transport securing device for future transport of your bike.
4. Position 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. To tighten the axle into the dropout, turn the lever clockwise until there is a small gap between the 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.

3.6 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!

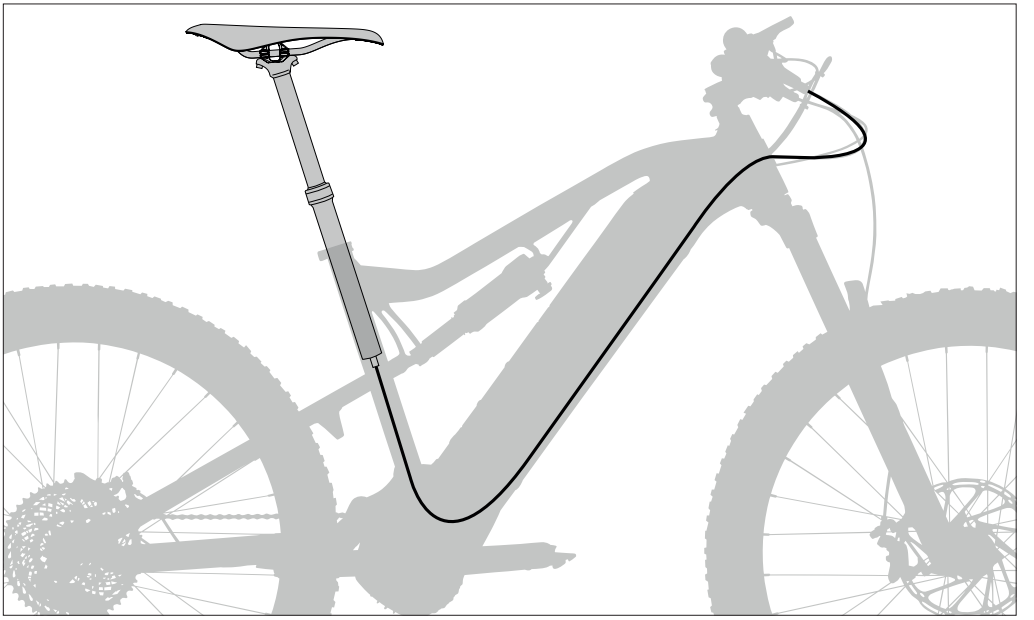
When sliding a dropper seat post with internal cable routing into the frame without running down the cable, the cable will snap off. This will result in leaking and malfunctioning.

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



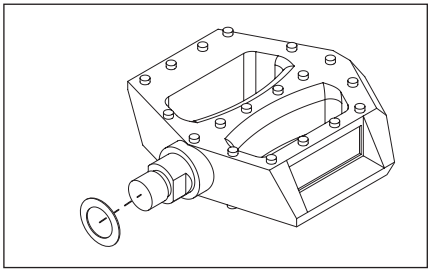
On the ELEC TEC FS, the cable of the dropper seat post is completely routed internally and only comes out of the frame at the head tube.

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.

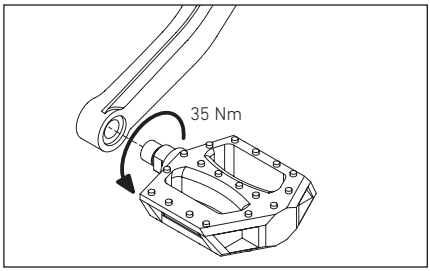
3.7 Installing the pedals

i	One of the pedals has a right- and the other a left-hand thread. 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. For more information see the manufacturer's manual.

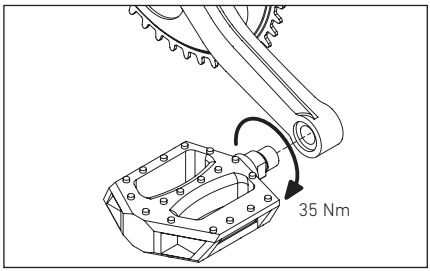
1. Check if your bike was supplied with washers and slide both washers onto the pedal axles – if present.



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.



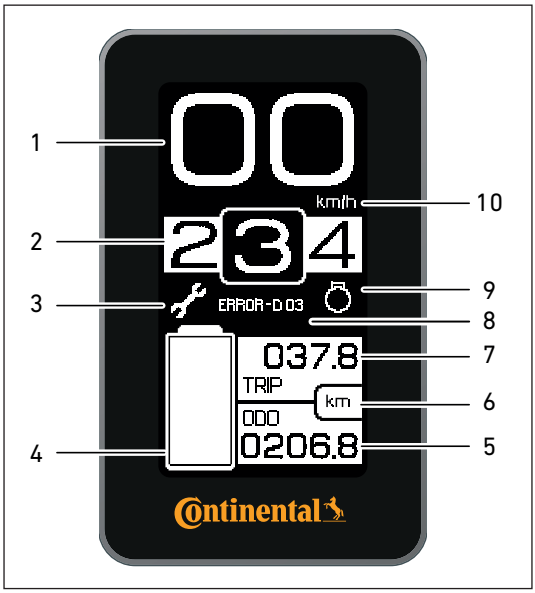
Your bike is now fully assembled. However, before you take the first ride you should follow the instructions in the chapters "5. Getting started for your first ride and getting used to your new bike" on page 28 and "6. Before and after your ride" on page 29.

4. Riding your e-bike

4.1 Information on the e-bike system

4.1.1 On-board computer

Standard display view: A clear overview of all important information.



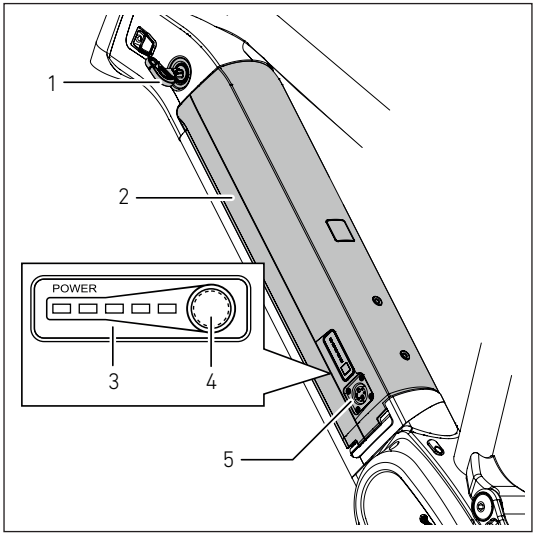
Display elements

1 Speed
2 Assistance levels
3 Service symbol
4 Battery charge indicator
5 Data field 1
6 Units
7 Data field 2
8 Diagnosis information
9 Bike & display light
10 Unit

4.1.2 Control unit

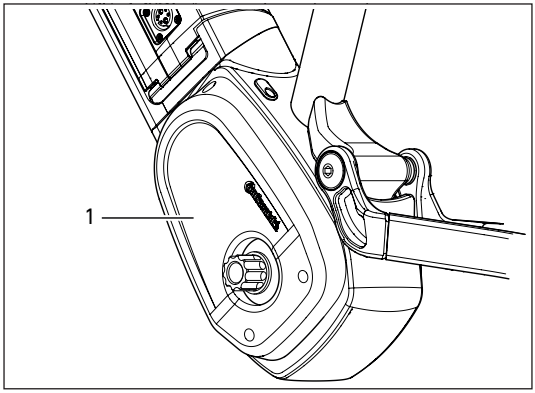
1 On/off switch
2 Button assistance level
3 Button bicycle light

4.1.3 Battery pack



1 Battery lock with key
2 Battery pack
3 Operating status and battery charge indicator
4 Button charge indicator
5 Charging socket

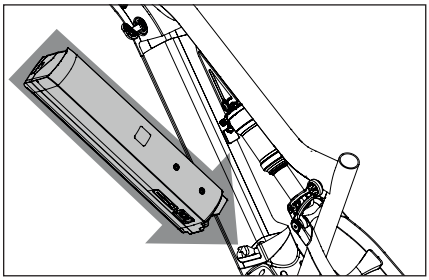
4.1.4 Drive unit



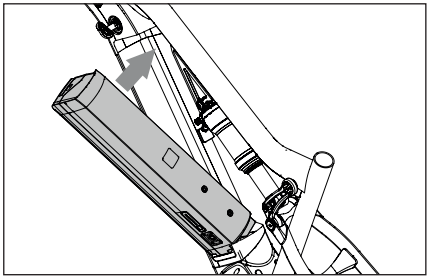
1 Drive unit

4.2.5 Inserting the battery pack

1. Switch off the battery pack and the e-bike system by pressing the ⏻ button on the control unit.
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 into the upper holder until it engages.
   → The battery pack engages with a clicking sound.
5. Check if the battery pack is tightly seated.
6. Lock the battery pack with the lock and remove the key.



4.2.6 Switching on the system

Before using your e-bike, you should switch on the system. Press the ⏻ button on the control unit for one second.

Once the system is booted up, you can see all important information on the display. The e-bike is now ready for use.

4.2.7 Setting the assistance level

You can set the level of assistance while standing or riding by using the **M** ▲▼ button on the control unit.

Pushing the **M** ▲▼ button in the direction of travel increases the assistance level, pushing the button in the opposite direction reduces the assistance level.

The selected level of assistance is shown on the display of the on-board computer (1). You can choose between the following assistance levels:

S	Walk assistance
0	Motor assistance off
1	Level 1 "Eco"
2	Level 2 "Low"
3	Level 3 "Medium"
4	Level 4 "High"

The motor provides assistance while riding and automatically adapts the assistance to your pedal force. The harder you pedal, the greater the assistance provided by the motor unit – whatever the assistance level. The torque sensor recognizes when you pedal harder and adapts the power accordingly.
The e-bike drive switches off at a speed of 25 km/h and above. As soon as the speed drops below 25 km/h, the motor provides pedalling assistance again.

4.2.8 Switching the walk assist function on/off

The walk assistance feature provides assistance up to 6 km/h while pushing your bike. When activating the walk assistance, the cranks may also shortly turn at the beginning. Therefore, you should maintain a safe distance to the cranks.

Activating the walk assist function:

1. Push the **M** ▲▼ button down until the display shows the assistance level **S** (also see "4.2.7 Setting the assistance level" on page 23).
2. Push the **M** ▲▼ button in the direction of travel and hold it down.

   → The walk assistance is activated.

As soon as you release the **M** ▲▼ button, the walk assistance will switch off.

4.2.9 Interaction of the e-bike system with bicycle gears

Depending on which gear you use, the speed, range and wear of the drive system will change. With a constant cadence of approx. 60 rpm you will ride as efficiently as possible, because at this rotational speed, the motor reaches the highest level of efficiency.

4.2.10 Switching the display light on/off

The ☀ button on the control unit allows you to select the display light mode. Simply press the ☀ button to switch between the different light modes.

You can choose between three different light modes:

Light on:
The display light is switched on. The display shows the ☀ symbol.

Light off:
The display light is switched off. The display shows the ☀ symbol.

Automatic:
The display light is controlled by a light sensor and automatically switches on and off.

If the light is switched on automatically, you will see the Ⓐ symbol on the display. If the light is switched off automatically, you will see the Ⓐ symbol.

4.2.11 Checking the battery charge

Check the battery capacity before every ride (see "4.2.15 Battery charge indicator" on page 26).

4.2.12 Display settings

DANGER

Risk of accident due to using on-board computer while riding!

Reading from the computer display or changing settings while riding may distract from the traffic situation. This may result in accidents caused by delayed or hindered rider responses!

- For all settings other than those concerning the level of assistance, you should stop off the road to enter the respective data.

By pressing the M button on the control unit, you can change the information shown in the data fields of the on-board computer.

You can choose between the following settings:

TRIP	Trip distance
ODO	Total distance travelled
AVG	Average speed
MAX	Maximum speed
TTM	Trip time in minutes
HH:MM	Time

To reset the performance data shown under TRIP, AVG, MAX and TTM press the ☀ button on the control unit for three seconds.

4.2.13 Interrupting your ride

Switch off the e-bike system when not in use (see "4.2.14 Switching off the system" on page 25).

After 5 minutes of inactivity, the system switches off automatically. The battery switches to standby to reduce the power supply of the system and avoid unnecessary energy consumption. The battery automatically switches on again as soon as the system is switched on or connected to the charger.

After 1 hour of inactivity, the battery switches to deep sleep mode. In this way, the battery deactivates the power supply of the drive system and reduces its own activity to the minimum. This helps the battery to survive longer periods without charging and prevents deep discharge. As in the standby mode, the battery pack is reactivated once the drive system is activated or connected to the charger.

4.2.14 Switching off the system

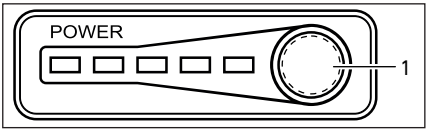
Press the ⏻ button for one second to switch off the system.

The display goes off and the system switches to standby.

Always switch off the system before removing the battery pack or disconnecting the charging cable. If the power is interrupted abruptly, the system may not shut down properly and the recorded performance data may not be saved.

4.2.15 Battery charge indicator

Checking the charge level on the battery



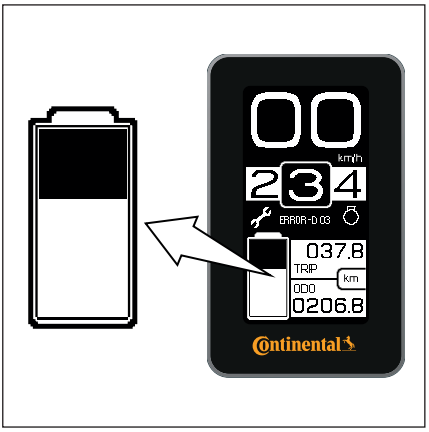
If one or five LEDs flash at the same time, the battery is defective. Do not use the battery! Get in contact with the ROSE Bike Service!

The battery charge level can be read from the LED display on the battery itself. Press the ○ button (1) on the battery and five status LEDs will indicate its charge level:

LEDs	Light signal	Charge level
1	flashes	0 - 10%
1	lights up	11 - 20%
2	lights up	21 - 40%
3	lights up	41 - 60%
4	lights up	61 - 80%
5	lights up	81 - 100%

When the remaining capacity of the battery pack is below 8%, the e-bike automatically switches to assistance level 0 (motor assistance off). From this moment on, you can ride for up to 4 hours with your lights on, yet without assistance. If the battery pack is empty, the light will switch off, too.

Checking the charge level on the on-board computer



The battery symbol on the display of the on-board computer indicates the battery charge level.

As the colours of the screen are inverted, the white section inside the battery symbol shows the remaining battery capacity. The growing black section on top shows the capacity used so far.

When the remaining capacity of the battery pack is below 8%, the e-bike automatically switches to assistance level 0 (motor assistance off). From this moment on, you can ride for up to 4 hours with your lights on, yet without assistance. If the battery pack is empty, the light will switch off, too.

4.3 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.

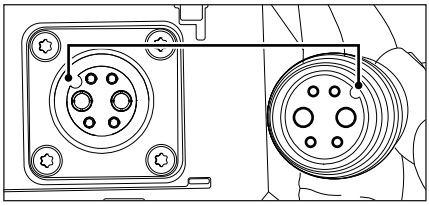
- Only use the original charger.
- Do not locate the charger or battery near inflammable materials while charging.
- Only charge the battery when dry.
- Do not leave the battery unattended while charging it.

The battery pack is integrated into the down tube of the e-bike and can either be charged when installed or when removed. The battery pack comes with a charging/discharging socket. Only charge the battery within a temperature range of + 10° to + 25 °C. Never charge the battery in temperatures below + 5 °C or above + 45 °C.

1. Make sure the plug-in connector and the charging socket on the battery are free from soil or dirt before charging, as it 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 charger plug of the power cord into the charging socket of the battery and take into account the positioning marks.

   → During the charging process, the battery charge indicator shows the current charge level. The battery is fully charged when all LEDs light up.

   → The charging time for a full charging process is up to 5 hours (depending on battery capacity and condition of battery and charger).



The current charge level is indicated during the charging process:

LEDs	Light signal	Charge level
1	flashes	0 - 10%
1	lights up	11 - 40%
2	lights up	41 - 60%
3	lights up	61 - 80%
4	lights up	81 - 99%
5	lights up	100%

4. Disconnect the battery cable after charging.

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 12).
- 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. Before and after your ride" on page 29) have been carried out.

Disc brakes:

1. Break in the brake pads.
   Choose a road away from public roads and brake 20 to 30 times 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 additionally note the instructions of the brake manufacturer (see enclosed manual).

Disc and rim brakes:

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. 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. Many brakes offer the possibility to adjust bite point and lever reach. For this, please note the brake manufacturer's instructions (see enclosed manual).

Clipless pedals:

3. Start practicing getting in and out of the pedals with one foot on the ground or when leaned against a wall. Only practice clipping in and out while riding after you have safely mastered the procedure while standing.
   The release tension of the engagement system is adjustable. For this, please see the pedal manufacturer's instructions (see enclosed manual).

Shifting system:

4. 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, your bike must be inspected by a qualified bicycle mechanic and repaired. 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. → The wheels must spin smoothly. → The wheels must run true, without moving up and down or from side to side. → 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. → There must be no play.	X	X
	Check the freehub mechanism of the rear hub to ensure proper engagement. Get on your bike, pull the front brake and put some power onto the pedals while standing. → The power must be transferred to the rear wheel. → The freehub must not slip.	X	X
	Check the tyre pressure: The best way to check the pressure of the tyres is to use a floor pump with a pressure gauge. → The tyre pressure must not fall below or exceed the minimum or maximum value (see "8.3 Tyre pressure" on page 37).	X	X
	Check the tyres for damages and wear. → The tyres must not be damaged. → 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-releases 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. → 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. → Front and rear wheel must lock when the brake lever is pulled.	X	X
	Check the brake pads for wear. → Disc brake: The thickness of each brake pad must be 0,5 mm or more. → Rim brake: You should see all grooves in the brake pad. When one or more grooves disappear, it is time to replace the brake pads.		X
	Check the brake discs for wear. → Minimum thickness of brake rotors: Avid: 1,55 mm, Magura: 1,8 mm, Shimano: 1,5 mm		X
	Check whether the brake cables and connections are losing brake fluid and check them for defects. → 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. Try to turn handlebar left and right. → 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 and try to push the bike gently backwards and forwards. → 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. → It should not be possible to turn the saddle or seat post.	X	X
	Make sure that all parts are tight. → Loose parts must be tightened to the proper torque	X	X
Frame	Check the frame for damages and deformation. → 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. → All cables must fit firmly in the cable clips.	X	X
Suspension elements	Check the suspension elements (if present) for damages. → 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 rim flanges!

Brake pads and rim flanges must be free from lubricating substances such as grease, oil (also skin oil), wax, silicon etc.! Brake pads or rim flanges contaminated in this way must not 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 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 31).

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 a loss of performance of your suspension elements.

6.2.2 Chain maintenance

The bicycle chain is the most important part of the transmission. 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. Especially for lightweight bikes, it is often enough to fall down from a standing position to damage the frame or components. Please also see "7. Transport, storage and disposal" on page 32.

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 crash, 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 damage the frame or components. When suspecting a damage, you should always consult the ROSE Bike 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 Bike 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. The use of a battery cover that protects the battery pack from heat and impacts is optimal.
- Keep the battery securely inside the car during transportation and make sure it won't move around.
- When removing the wheels, you must fit a transport lock between the dropouts of frame or fork.

7.2 Transport on a hitch or roof rack

When 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. The use of a battery cover that protects the battery pack from heat and impacts is optimal.

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

When transporting several bikes with one hitch or roof rack, please make sure there is sufficient distance 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 for 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 to store it in an enclosed area until it is used again.

The battery pack can be stored at temperatures between - 10 °C and + 60 °C. For a long battery life, however, 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.

Recharging the battery before and during storage

When not using the battery for a longer period, charge it to approximately 60% (until 3 to 4 LEDs light up on the battery charge indicator). Check the charge level again after 6 months. When only one LED on the battery charge indicator lights up, charge the battery to around 60% again.

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

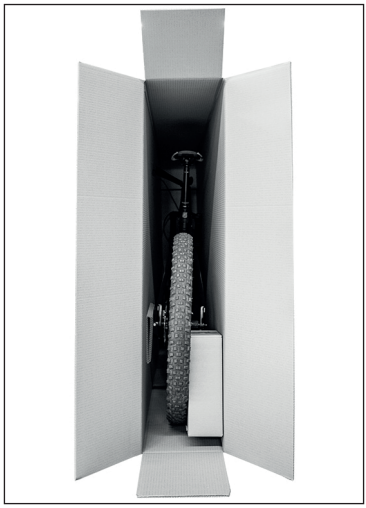
7.4 Bike storage

You should park your bike using an appropriate cycle stand which ideally only holds the rear wheel. Make sure to check the tyre pressure regularly when parking the bike for a longer 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 must 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 side of the rear derailleur.
5. Protect the top tube from damages through the handlebar by using appropriate material (e.g. foam tubing).



7.6 Battery shipping

The battery pack is subject to dangerous good regulations. Private users can transport undamaged batteries on the road without having to meet any 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 Bike 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 29). 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.

The 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, whichever comes first.

Service intervals and tasks:

- 1. servicing after 500 to 1000 km, six months after purchase date at the latest
- 2. servicing after 3000 to 4000 km or two years after purchase date
- 3. servicing after 5000 to 7000 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 gears	X	X	X
Adjustment of brakes	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

Make sure to tighten all screw connections 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	alle	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

Saddle clamps:

Manufacturer	Model	Torque
Reverse	Bolt	max. 5 Nm
Sixpack	Skywalker	max. 5 Nm
Rose		max. 6 Nm

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