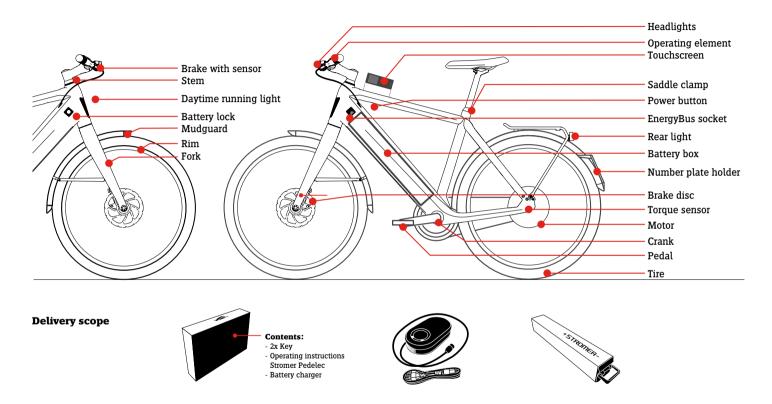
# The Swiss driving experience.



EPAC | PEDELEC DIN EN 15194 EPAC



#### COMPONENTS FOR THE STROMER PEDELEC



The Pedelec bought by you may look different. These instructions describe Pedelecs.

These operating instructions are part of the Pedelec delivery scope and only apply for these models.

#### DEAR CUSTOMER.

We would like to start by congratulating you on your new Stromer and provide you with some important information regarding your new premium vehicle.

It will help you use this technology more effectively and prevent risks. Please carefully read these operating instructions and keep them in a safe place.

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

It is assumed that the bike's user has acquired the basic and needed knowledge to operate this pedelec. All persons involved in

- · using,
- · repairing or maintaining,
- cleaning
- · or disposing of

this pedelec must have fully read and understood the content and meaning of these operating instructions. Make sure to ask a Stromer dealer if you have any questions or when some issues are not clear to you, to ensure your own safety. All information in these operating instructions relate to structure, technology, care and maintenance. Please adhere to this information, as it is often safety-related and disregard it may lead to severe accidents and economic damage.

We have only described the most important issues, as modern Pedelecs have very powerful technology.

The instructions of the respective manufacturers of the components used must be consulted for special, technical details. They can be found on the Internet at www.stromerbike.com/support

Check which driving license you need to ride a Stromer before starting your first ride!



#### SAFETY INFORMATION

Please thoroughly read all of the warnings and instructions in this operating manual before you begin riding the Pedelec. Please always store these operating instructions near your Pedelec, so that they are accessible at any time.

Before the first ride, please be sure to read the chapters "Before the first ride" and "Before every ride"!

Should you hand your Pedelec to third parties, make sure to hand over these operating instructions with it. These instructions include symbols that require your special attention. Whenever these symbols are shown, there is a risk that the problem described actually occurs! The area to which the explicit warning applies is identified by red lettering.

Note: This symbol provides you with information about handling the product or the part covered in the instruction manual and should be read with attention.

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

**Danger:** This symbol indicates a possible risk of injury when the appropriate, required actions are not implemented or the respective precautionary measures are not taken.

Important screw joint: Here, you must tighten with the exact torque. To find out the correct tightening torque, you can either look at the bike part itself or in the table listing the tension values, which is found on page 31. A torque wrench must be used to apply the exact tightening torque value. If you don't have a torque wrench, bring your bike to a Stromer shop for repair! Parts that have been installed incorrectly may fall off or break! This may result in severe falls!

Modern pedelec technology is high-tech! Working on it requires technical knowledge, experience and special tools! Do not work on your pedelec by yourself! Take your pedelec to a specialist workshop when it is in need of repair, maintenance or restoration!

Regularly check that all screw connections are tight and all components are undamaged.

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# QUICK START GUIDE FOR STROMER

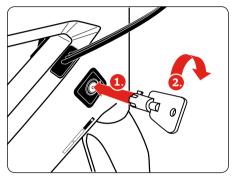
These are brief operating instructions intended for experienced Pedelec riders. You must read the entire original operating instructions to ensure safe riding, even when you already have experience with Pedelecs!

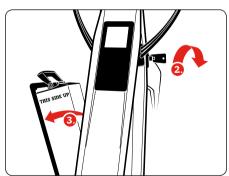
Detailed supplementary information regarding the functions and settings are provided by the Stromer app or on the Internet at www.stromerbike.com/support

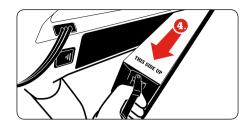
#### 1) Completely charge the battery before the first ride, internally or externally.

a) External charging:

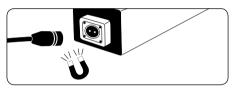
#### Removing the battery





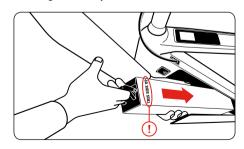


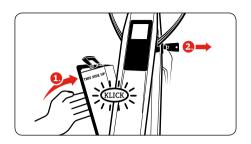
Charge battery externally



Only charge the Stromer battery with a Stromer charger.

#### Inserting the battery





The writing "THIS SIDE UP" must be visible on the top.

#### b) Charge battery internally

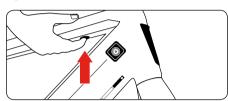




Only charge the Stromer battery with a Stromer charger.

#### 2) Switch on the electrical system

The power button is located at the bottom of the top tube, below the touch screen.



The motor of the Stromer only starts up once a minimum speed has been reached to ensure your safety. Always keep one brake engaged before placing the first foot onto the pedal. The strong acceleration feels very unfamiliar. Uncontrolled starting up in road traffic or on loose ground can lead to a fall or severe injuries. Practice operating and riding your Stromer in a quiet and safe place before you take to public roads!

Never ride when the battery is not inserted. The battery compartment can in this case not be locked. This poses an additional risk of falls and injuries.

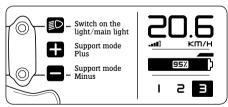
The Stromer can obviously also be used like a normal bicycle without a motor.

The motor support depends on the force that acts on the pedals. The more firmly you step onto the pedals, the stronger the support from the motor. The motor support stops when you stop pushing the pedals during the ride. Motor support is only reactivated when you start working the pedals.

Your ST1X has a built-in pushing aid. Move mode assists you when you want to push your ST1X, e.g. out from an underground parking lot.

#### **Operating element**

Important functions of the Stromer can be controlled while riding and without taking your hands off the handlebar, by using the operating element on the handlebar.



Basic settings Driving mode

Touchscreen display



### 3) Switch the electrical system off after the ride

- Press the Power button to get to the shortcut display.
- 2. Select OFF

#### Sleep mode

When the Stromer is not switched off, it will switch to sleep mode after approx. 5 minutes of inactivity. The sensor system remains active during sleep mode. The system wakes up by itself as soon as you move the Stromer.



#### FOR YOUR SAFETY

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

In some countries you may need a licence for riding a pedelec. Please check the legal requirements in each country before use.

The operating instructions assume that you can ride a bicycle. These instructions are not intended to teach you how to ride an Pedelec. They are also not intended to provide information regarding the

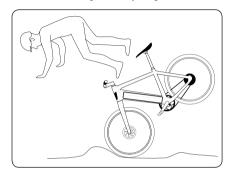
assembly or repair of an Pedelec or how to assemble and repair your Stromer.

Remain aware that riding an Pedelec is generally and always associated with risks. You, the rider, are particularly at risk. Always remain aware that you are not as protected as you would be, for example, in a car. You have no airbag and no protective car body. You are nevertheless faster and drive on other parts of the road than pedestrians or many cyclists, who do not have a sufficiently strong auxiliary drive. Pay particular attention to others on the road.

The following information regarding the rider must also be considered:

- Always wear a fitted and suitable Pedelec helmet. Use it each time you ride!
- Read the instructions of the helmet manufacturer to learn about fitting the helmet correctly.
- Whenever you ride, wear bright clothing or sports clothes with reflective elements (e.g. reflective vest); This is important to ensure that you are seen in time by other traffic participants.
- Tight clothes and trouser clips are mandatory to wear. Your shoes should have an anti-skid, stiff sole.
- · Never ride hands-free!
- Never ride with headphones. Never talk on the phone while riding your Pedelec. Never ride your bike if you are not in a situation where you are completely able to control it. You must always be fully fit to ride.

 Under wet and slippery conditions, alter your way of riding accordingly. In this case, you should ride more slowly and apply your brakes earlier and more gradually as the braking distance becomes significantly longer.



 Ride at an appropriate speed and in accordance with the terrain and your riding capabilities.

Take note that you are exposed to special risks when participating in traffic on an Pedelec. Protect yourself and others by riding responsibly and safely!

Please note that you often travel faster on a pedelec than on a bicycle without an electric drive. Other traffic participants might misjudge that. Only use your Pedelec in an appropriate manner. Important, relevant information is provided in the "Appropriate use" section. Ask your Stromer dealer if you are not sure about the purpose of use and the limits of the appropriate use of an Pedelec.

#### INSTRUCTIONS ABOUT ELEC-TRICS AND ELECTRONICS

You can find information about the bike's operation, maintenance, upkeep and technical data in this Instruction Manual, under

www.stromerbike.com/support and on each of the component manufacturer's websites.

The electrical installation of your Pedelec is very powerful. Correct and safe operation requires you to have your Stromer regularly maintained by a Stromer dealer. Have your Pedelec regularly maintained by a Stromer dealer. They will check the current software status and ensure that important updates that affect the safety and riding comfort are installed.

Immediately switch off the electrical system and remove the battery when you notice damage to the electrical system or, for example, when live parts are exposed after a fall or accident.

Always contact your Stromer dealer when you require repairs, want to ask a question, experience problems or discover a defect. A lack of technical knowledge can lead to severe accidents or damage!

Always turn off the electrical system and remove the battery before doing any kind of work on your Pedelec. Ensure that the charger is not connected.

If your Stromer Pedelec does not start, although no error message is shown, check whether both brake levers are in their initial position! No motor power is transmitted when one of the brake levers is activated!

#### LIGHTING SYSTEM

When the daytime running light is activated, it is on whenever the Stromer is switched on. (See daytime running light www.stromerbike.com/com/support). The daytime running light is dimmed when the headlight is switched on, so that drivers in oncoming vehicles are not blinded.

The daytime running light is not legal in certain countries and can accordingly not be activated there. Please stay informed regarding the legal situation!

We recommend activating the daytime running light at all times, as far as this is permitted in the respective country. You can then more easily be seen by other traffic participants and thus increase road traffic safety.

A working lighting system is essential for your safety! Have the installation, inspection and repair performed by a Stromer dealer.

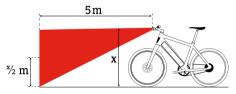
Pedelecs used on public roads have to be equipped with a generator, a battery providing a nominal voltage of 6 V (permanent battery lighting) or a rechargeable energy storage device as

an energy source for powering the head light and the tail light. The lighting system of the Stromer is powered by the battery or, when this has been drained, by a motor with dynamo function.

Stromer Pedelecs are provided with lights based on the latest LED technology.

(i) It is not possible to replace the bulbs in modern LED lights. Clean your reflectors and lights on a regular basis. Warm water with cleaning fluid or washing up liquid is suitable here.

It is recommended to adjust the headlight pointing downwards so that the center of the light cone emitted drops to half its height between the headlight and a point at a distance of 5 m. The law in Germany prescribes this setting.



Changes to the lighting system are not permitted and may lead to a loss of warranty, guarantee and insurance cover!

Additional information regarding this issue is provided at www.stromerbike.com/support



#### CHILD SEATS, CHILD TRAIL-ERS AND LOAD TRAILERS

A child under seven years may only ride in a child seat approved by the licensing authority. The maximum capacity of the luggage carrier is 17 kg. This would be quickly exceeded by the addition of a child safety seat. Stromer therefore does not recommend the use of child safety seats.

Do not let children who are unattended ride the Pedelec without first thoroughly instructing them in how to use it! Explain to children the dangers of using electrical devices.

If a child wants to ride the Pedelec, check whether the child has reached the prescribed age and has the appropriate driving permit as required!

Always check the applicable national regulations before using child trailers and load trailers. These may also concern the permitted maximum speed and the permitted total weight! In some countries, the use of child trailers in conjunction with a pedelec is prohibited.

#### **Trailer**

For operation with trailers, please research the applicable regulations in your country.

Only use your Stromer with trailers that have explicitly been released for use with Pedelecs. Take note that many countries prohibit the transport of children in a trailer attached to an Pedelec.

Please take note that the driving characteristics of the Stromer change when attaching a trailer. Some trailers tend to tilt in tight bends. Drive carefully and adapt your speed and riding style to the situation.

Some trailers are only approved to a limited extent by their manufacturers for use in conjunction with bicycles or pedelecs (pedal assistance up to 25 km/h).

#### Legal situation in Switzerland

Transporting a trailer is permitted under certain circumstances as long as certain restrictions are adhered to (Swiss federal road traffic regulations (VRV) Art. 68 para. 1 in connection with Art. 68 para. 7).

At most two children in protected seats may be transported in one trailer (VRV Art. 63 para. 3 Letter d).

Children are permitted to ride in a trailer attached to a pedelec with pedal assistance of up to 25 km/h. A child seat and a child trailer must not be operated at the same time. (VRV [German federal road traffic regulations] Art. 63 para. 3 lett. d. VrV)

It is permitted to transport a child on a trailing unit (according to VTS [Swiss technical requirements for road vehicles] Art. 210 para. 5) such as the one made by FollowMe, when the child can use the pedals while sitting (VRV Art. 63 para. 3 Letter b).

Children being transported are not obliged to wear a helmet in Switzerland. However, we recommend

that children in the trailer always wear a helmet and to buckle them in with the trailer's internal safety belt system.

Please check the legal requirements of your country.

#### **Installation**

(i) Have the trailer and its attachment mounted by a Stromer dealer.

The installation of the following trailer connection systems was tested by Stromer.

- Thule ezHitch, Weber-E and Burley couplings can be mounted on the optional Stromer trailer plate kit.
- Various manufacturers offer optional fullaxle couplings/adapters with the dimensions M10x1. These couplings make it possible to mount, for example, a BobYak or a FollowMe to the Stromer Trailer Plate Kit (Art. 221019).

Get advice from a Stromer dealer on the operation of the trailer.

# Instructions for parents and guardians

As a legal guardian, you are responsible for watching over the child and his or her safety. This includes taking care of the Pedelec's technical state and supervising the rider.

You must be sure that the child has learned safe handling of the Pedelec and fulfills all legal and

country-specific requirements, e.g. has reached a possibly prescribed minimum age and has the appropriate driving license as required.

Ensure that your child has learned and understood safe and responsible handling of their Pedelec in the appropriate environment.

Do not let children who are unattended ride the Pedelec without first thoroughly instructing them in how to use it! Explain to children the dangers of using electrical devices.

#### BEFORE THE FIRST RIDE

Please thoroughly read all of the warnings and instructions in this operating manual before you begin riding the Pedelec.

Please also consider the operating instructions of the individual component manufacturer, which are available on the Internet.



Your specialist Stromer dealer will be happy to answer any further questions you have after reading this manual. Ensure that the S pedelec is ready for use and adjusted to fit your body. This includes:

- Setting the position and fixture of the seat and handlebars
- Checking the assembly and settings of the brakes
- · Securing the wheels into the frame and forks

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

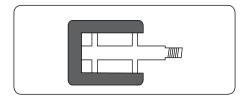
- Adjust the seat to a safe and comfortable position for you (see page 48).
- Allow your Stromer dealer to set up the brakes so that the brake levers are always within easy reach.
- Ensure that you know which lever operates which brake.

Familiarize yourself with the new bicycle in a protected area.

Modern braking systems can have significantly stronger and different braking effects to the brakes you are familiar with. Please get to know the brakes on a safe piece of land before setting off on your first ride with the bicycle!

Also remember that the effectiveness of brakes can be dangerously different in wet conditions or on slippery surfaces. Please take the possibility of longer braking distances and slippery surfaces into account when riding!

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



Ensure that the wheels are securely fastened in the frame and fork. Check the firm attachment of the quick-release axles and all important fastening screws and nuts (see section "Screw connections").

If you hear rattling or other unusual noises during operation, have your Stromer dealer determine the cause and remove it before you continue riding.

Push the Pedelec forwards while pulling the brake lever. The back brake should completely prevent the back wheel from moving, while the front brake should lift the back wheel off the ground with its braking effect. The bicycle's steering should not rattle while braking or exhibit any play.

Please take an initial test ride in a safe place where you can familiarize yourself with the new brakes! Modern brakes have a very strong braking effect.

Check the air pressure in the tires. You will find instructions as to the correct tire pressures on the sides of the tires. Please adhere to the required minimum and maximum pressure!

If you cannot find any recommended pressures, 2.5 bar is a suitable pressure for most tires.

Hint: As a general rule of thumb when you are out on a ride, you can check the tire pressure by



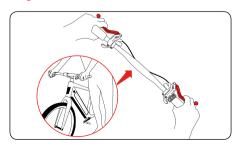
doing the following: If you place your thumb on a pumped up tire, you should not be able to significantly change its shape by applying pressure. Check the tires and rims. Scan them for any damage, cracks or deformations, as well as embedded particles, e.g. shards of glass or sharp stones.

If you should find any cuts, rips or holes, please refrain from riding! First have your Pedelec checked by a specialist.

It is also necessary for you to check the following components of your Pedelec:

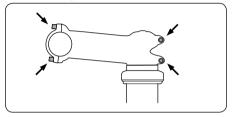
- Check that the battery box is safely closed with the battery inside.
- Check the charging state of the battery to ensure that the charge is sufficient for the drive planned.
- Familiarize yourself with the functions of the operating element.

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



## Setting up the position of the handlebars/stem

Consider that not every stem is suitable for every steer tube when retrofitting your pedelec! Only use Stromer stems. Only allow Stromer dealers to work on your handlebars and stem!



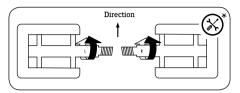
Possible positions for adjusting bolted connections.



Positions of screw connections for adjusting the sitting position

#### Installing pedals

If your pedelec was supplied without the pedals pre-installed, these have to be attached with the correct wrench. Please note that the pedals have to be screwed on in different directions and secured with a high mounting torque (see page 31). Apply assembly grease to both threads.



Ensure that you have read the manufacturer's instructions before using step-in or clipless pedals.

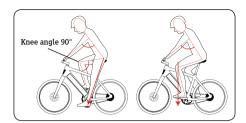
Practice clipping your shoes in and out of the pedals' locking system before your first ride in a quiet, safe place. Clipless pedals which do not properly release are a safety hazard.

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

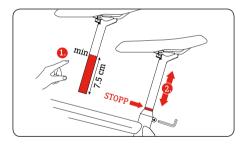
#### Setting up the seating position

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

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

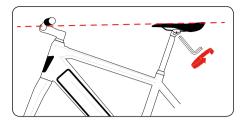


When adjusting the height of the seat, never pull the seat post further out than the maximum extension length marked! If your tube does not have a maximum marking, then you must leave a minimum insertion length of 7.5 cm.



#### Setting up the angle of the seat

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



#### **BEFORE EACH RIDE**

Before every ride, please check:

- That the bell/hooter, all electrical plug-in connectors and lighting function correctly and are safely attached
- That the brakes are working safely and are properly secured
- That the battery box is safely closed with the battery inside.
- The tightness of the pipes and connections
- Tires and rims for damage, eccentricity and penetrating alien objects, particularly after rides off fortified roads
- · That the tires have a sufficient tread depth
- That the suspension components are working properly and are safely secured
- The firm attachment of screws and nuts of quickrelease axles (see "Screw connections" section), even when the vehicle was only unsupervised for a short time.
- That the frame and forks are not misshapen or damaged
- That the handlebars, stem, seat post and seat are both correctly and securely fastened as well as set up in the right position

- That the seat post and seat are secure. Try turning the seat or tipping it upwards or downwards. It should not move.
- When you are riding with clipless/step-in pedals: Functional testing is required. The pedals must release easily and without problems.

Do not ride off when you are not completely sure that your Pedelec is in flawless condition. Have it inspected by a Stromer dealer.

It is particularly important if you use your Pedelec a lot, either for sport or daily use, that you regularly have all the important parts checked by a Stromer dealer.

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

Components might spontaneously fail when the predetermined usage period or service life is ex-

ceeded. This can lead to falls and serious injury!

Please make these checks before continuing after a fall or if your Pedelec falls over! Aluminum parts cannot be safely bent back into shape, while carbon components can sustain damage which is not recognizable to the eye!

#### If you have fallen

Check the whole of th Pedelec for changes. These may be dents and cracks in the frame and the fork, but also bent components. You must also check the function and safe attachment of parts that have been shifted or twisted, e.g. the handlebars or the seat.



If you notice any changes to your Pedelec, DO NOT continue cycling. Do not re-tighten any loose parts without first checking them and always use a torque wrench.

Bring your Pedelec to a Stromer dealer, describe the fall and get your Pedelec inspected!

#### LUGGAGE AND LOAD TRANSPORT

Attached accessories must always be installed according to the regulations and instructions. You must ensure the correct fastening torques for all screw connections (see "Screw connections" on page 31)

- Only use add-on parts that comply with the respective legal regulations and road traffic regulations.
- The use of unlicensed parts may lead to accidents. You should therefore only use original accessories and add-on parts which fit your Pedelec.
- Use the advice of a Stromer dealer.





#### **Rack**

Only retrofit luggage racks to Pedelecs that have been approved by Stromer for this purpose. Use only the intended fixing devices.

Ask your Stromer dealer whether and how luggage may be transported when using add-on parts made of carbon. Don't fix racks to the seat post! It

is not constructed for this use. Overloading of the seat post with a luggage rack may break the seat post and lead to serious accidents.

The permitted total weight of the vehicle may not be exceeded, even when a luggage rack with a higher carrying capacity would enable that!

#### Front-wheel luggage carriers

Front-wheel luggage carriers may not be installed or operated.

#### Safety information for luggage transport

Luggage loads change the behavior of your Pedelec. They extend the braking distance, among other things. This may lead to severe accidents or falls. Adapt your riding style to different driving characteristics, i.e. brake earlier and consider the more sluggish steering properties. Only transport luggage on the luggage rack intended for this purpose! Child seats may not be installed or operated.

Please ensure that nothing can get caught in the spokes and turning wheels.

Distribute luggage evenly. Lights and reflectors must not be covered.

(i) If you are riding with luggage, ensure that you do not exceed the maximum permissible weight of the Pedelec. Information on the weight capacity of the rack is also stated here.

Additional information regarding this issue is provided at www.stromerbike.com/support

#### **LEGAL REQUIREMENTS**

The regulations and requirements for e-bikes are continuously being revised and may change at any time. Obtain information regarding the valid legal requirements so that you are always up to date.

For Pedelecs, special provisions apply for their limit of use. This means that e-bikes are sometimes operated like a bicycle and at other times not.

Before riding on public roads with your Stromer, inform yourself about the current legal requirements enforced in your country.

This information can be found at your Stromer dealer, the respective national bike or e-bike associations and online.

There you can obtain information on how your Stromer must be equipped in order to drive in traffic on public roads. These sources describe, for example, which lighting systems have to be installed and which brakes the Pedelec must have. The currently valid, national regulations also deal with age restrictions and specify from which age people are allowed to drive on which part of the road and whether certain driving permits are required. The regulations for children riding on public roads are also found here. It will be made clear if a helmet is required to be worn by law.

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

#### APPROPRIATE USE

Pedelecs are means of transport designed to be ridden by one person.

Carrying another person using the pedelec, e.g. in a child carrier, is only permitted within the framework of the relevant national legislation. We urgently advise against transporting additional persons, even in specific cases where this might be permitted.

If you would like to transport luggage, this requires that your Pedelec is fitted with suitable equipment. In Switzerland, children may only be transported in trailers intended for this purpose. We recommend not taking any chances when it comes to quality in this area! Please take note of the permitted total weight and the stipulated maximum speed for the trailer.

The total weight of the Stromer Pedelec is 140 kg. Permitted total weight: Weight of driver + weight of Pedelec, including weight of battery + weight of luggage + weight of trailer (if trailer is permitted).

Use as intended also includes adherence to the operating, servicing and maintenance conditions that are described in this manual.



Stromer Pedelecs may be used on public roads and fortified paths when they are equipped as prescribed by national law.

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

- · Use on terrain
- · Overloading, or
- · The incorrect remedying of defects

Stromer Pedelecs have not been designed for extreme loads, e.g. driving over stairs, rider tricks or jumps.

# REPLACING PARTS ON YOUR PEDELEC

If parts are subsequently changed, use original parts or replacement parts for which there is a certificate approving use with your pedelec.

Parts which must only be replaced like-for-like or with approved parts are as follows:

Frame
 Front light
 Fork
 Rear light

3. Motor unit 13. Number plate holder

 4. Battery
 14. Side stand

 5. Tires
 15. Handlebars

 6. Rims
 16. Stem

 7. Brake system
 17. Seat post

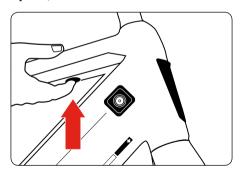
8. Charger 18. Control electronics 9. Display 19. Electric cables

10. Operating element

#### RIDING A STROMER

#### **Power button**

The power button is located at the bottom of the top tube, below the touch screen.





The power button has the following functions:

- · Waking up from sleeping mode
- · Change from shortcut display to riding display
- · Change from riding display to shortcut display
- Change from any point in the menu to the shortcut display

#### Switching on

Press the power button to switch on.

When your Stromer has been locked with a PIN, you must unlock your Stromer after switching it on before you can use it. (See "Theft protection" chapter)

#### **Switching off**

- Press the Power button to get to the shortcut display.
- 2. Select OFF.

#### Sleep mode

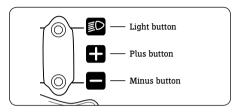
When the Stromer is not switched off, it will switch to sleep mode after approx. 5 minutes of inactivity. The sensor system remains active during sleep mode. The system wakes up by itself as soon as you move the Stromer.

Alternatively, you can also wake up your Stromer by using the power button.

(1) Always switch off your Stromer by using the touch screen when you want to prevent it from switching itself on.

#### **OPERATING ELEMENT**

Important functions of the Stromer can be controlled while riding and without taking your hands off the handlebar, by using the operating element on the handlebar.



#### **Support levels**

The + and - buttons of the operating element on the handlebar make it possible to change between the following support modes:

Bicycle mode: The motor is switched off.

**Support mode 1:** Low motor support, optimized for large driving range.

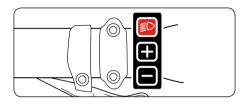
**Support mode 2:** Medium motor support – this support mode can be fine-tuned by using the Stromer app.

**Support mode 3:** High motor support for maximum speed.

The motor support depends on the force that acts on the pedals. The more firmly you step onto the pedals, the stronger the support from the motor. The motor support stops when you stop pushing the pedals during the ride. Motor support is only reactivated when you start working the pedals.

#### **Lighting system**

A daytime running light is integrated into your Stromer to increase safety in daily traffic.



Press the light button on the operating element on the handlebar to switch the headlight on or off. In some countries, the daytime running light can not be turned off.

When you are traveling and your battery is drained, the motor of the Stromer assumes the function of a dynamo. This ensures that enough electricity is produced to power the lighting. Thus you can always ride safely with your Stromer.

#### **Braking mode/Recuperation**

Stromer Pedelecs can also generate energy with their motor and thus charge the battery, for example, when driving downhill. In this case the motor acts like a dynamo, i.e. it performs a braking function and thus generates the power that charges the battery. This may significantly extend the driving range for a tour. Recuperation can further be used as a convenient "engine brake" on steep or long declines.

As soon as you brake, the motor switches to recuperation/brake mode and supports your braking effort.

The braking energy is stored in your battery and therefore increases the driving range of your Stromer.

The Stromer offers a braking aid for prolonged downhill drives. To use this, keep the minus-button pressed for 2 seconds. The braking force of your Stromer can now be adjusted by again pressing the plus or minus button.

To terminate recuperation, again keep the + or - button pressed for another 2 seconds.

A weak recuperation level brakes less and is therefore suitable for flat declines, while strong recuperation levels brake significantly more. The range is therefore easily and conveniently optimized.

The recuperation is automatically terminated when the speed falls below a certain minimum and you step onto the pedals. This speed varies according to the version of the firmware loaded. It is usually below 10 km/h.

#### Move mode - pushing aid

Your ST1X has a built-in pushing aid. Move mode assists you when you want to push your ST1X. Press the Power button to access the shortcut display. Select MOVE from the shortcut display. Press and hold the Plus button on the handlebar, for as long as you require the pushing aid. Move mode is deactivated by pressing the Power button.



#### **TOUCHSCREEN / DISPLAY**

#### Touchscreen

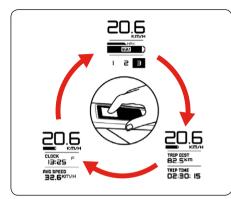
The display of the Stromer is equipped with a resistive touch screen.



That means that the touch screen does not respond to touch, like capacitive touch screens, but responds to gentle finger pressure and can therefore easily be operated with gloves. Gentle pressure on the touch screen is sufficient to navigate through various menus or change to the riding display.

#### Riding display

The touchscreen changes to the driving display as soon as you start riding your Stromer.



The riding display shows your speed and information regarding the ride. You can change between riding displays by pressing the touch screen until the desired information is being displayed.

#### Theft protection

#### Activate lock

The Stromer offers optimal theft protection. You can lock the Stromer with a PIN when you switch it off. The Stromer can then only be switched on by re-entering your PIN.

- Press the Power button to get to the shortcut display.
- 2. Select LOCK.

The theft mode is activated when the locked Stromer is moved.

The Stromer can in this case only be returned from theft mode by using the Stromer OMNI App. This makes the Stromer very unattractive for thieves.

Your Stromer automatically switches off when it



has not been switched off or locked, but has not been used for a prolonged period. However, the lock is not activated in this case

#### Deactivating the lock

Proceed as follows to deactivate the lock:

- 1 Press the Power hutton
- 2. Enter your PIN using the touch screen.

#### **Stromer OMNI App**

Get the maximum out of your Stromer. Install the Stromer app on your smartphone and discover the world of Stromer.

The Stromer app is the easiest way to configure your Stromer for your needs. Fine-tune the support mode to your personal needs.

The app also shows you the position and the battery charging state – even when you are not near the Stromer.

#### RANGE

The achievable range per charge is dependent on various factors:

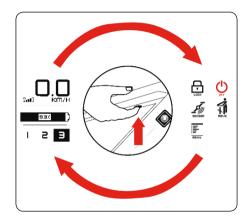
- Support level: The higher the support level used, the lower the range.
- Riding style: You can save energy with the optimal use of the gear shift. In lower gears you need to use less power, the support will be less and your Pedelec's drive consumes less energy.
- Ambient temperature: A battery discharges faster in cold weather

- Weather and vehicle weight: In addition to the ambient temperature, wind conditions also have influence on the range. More force has to be applied while riding through strong headwinds. The weight increases with luggage etc. and more power is also then needed.
- Technical condition of your Pedelec: Too low air pressure in the tires increases the rolling resistance. Dragging brakes also affect range.
- Battery capacity: The battery capacity indicates the capacity of a fully charged battery, to store a certain amount of electricity. As the capacity decreases with the increasing age of a battery, the amount of storable energy in a full charge also decreases.
- Road quality and the route profile: Rough pavement or gravel reduce the range. You can ride
  much further on flat surroundings than when
  riding on slopes.

#### **MENU AND SETTINGS**

#### **Menu structure**

Pressing the power button takes you to the shortcut display. Here you have direct access to all functions and settings:



Pressing the power button again brings you back to the driving mode display.

#### Time

You can individually set the time and the display format.

- 1. Go to MENU and SETTINGS.
- The **TIME** section can be used to select the desired display format and to set the time.

#### Languages

The Stromer supports the following languages: German, English, French, Italian and Dutch.

- 1. Go to **MENU** and press **SYSTEM**.
- Select the language required in the LAN-GUAGE section.

#### Units (km/miles)

The Stromer supports metric (km; km/h; Wh/km) and imperial (Mi; mph; Wh/Mi) measuring units.

- 1. Got to MENU and press SYSTEM.
- The **UNITS** section can be used to select the preferred measuring units.

Detailed information regarding the individual settings is provided in the respective sub-chapters or online at www.stromerbike.com.

The function of the settings described may change after a software update. A description of the current functions is provided online at www. stromerbike.com.

The menu us only available when the Stromer stands still. As soon as you start moving, the touch screen changes to the riding display. You cannot call up the menu during the ride for your own safety.

#### Break mode

You can adjust the strength of the motor braking of the Stromer to your driving style with the braking strength.

- 1. Go to MENU and press BIKE.
- The strength of the brake mode can be set in the BRAKEMODE section.

#### Setting the PIN

- Press the Power button to get to the shortcut display.
- Select MENU in the shortcut display and then press SETTINGS.
- 3. The **PIN** column can be used to set a new PIN. Your first locking code is randomly generated and will be sent to you by SMS to the registered mobile number and by e-mail to the registered e-mail address when your Stromer is activated.

if your Stromer was locked with a PIN, you must unlock your Stromer after switching it on before you can use it (see "Theft protection" above).

#### **Torque sensor**

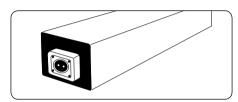
You can adapt the response characteristics of your Stromer to your riding style. The ratio between rider power and motor support is controlled by the sensor sensitivity.

- 1. Go to **MENU** and press **BIKE**.
- You can set the sensitivity of the sensor in column TORO. SENS.

Higher sensitivity implies that your Stromer will respond more to low pressure on the pedals.

(i) A change of sensor sensitivity influences the response behavior of the Stromer at all support levels. Higher sensitivity reduces the driving range.

#### HANDLING THE BATTERY



# Safety notes concerning the battery

- Only charge the battery with the charger it belongs to. The use of other chargers poses the risk of fire.
- Do not drop or throw the battery and avoid strong impacts. The battery might otherwise leak fluid, start a fire or explode.
- Do not apply force to the battery. The integrated protection mechanism may be damaged when the battery is deformed. This may result in fire and explosion.
- Do not use the battery when it is damaged. The liquid contained may leak and contact with the eyes may result in blindness! Avoid contact, otherwise rinse off the liquid with lots of water and immediately consult a doctor.



· Obtain information regarding the currently valid regulations when you want to transport the Pedelec, e.g. by car.

The battery is considered a hazardous good! Remove the battery when you want to perform any kind of work on the Pedelec, e.g. maintenance or assembly. Unintentionally activating the On/Off switch might lead to injury or an electric shock.

- · Don't ever open up the battery; This can cause the battery to short circuit. All warranty and quarantee claims expire when the battery was opened.
- · Do not store the battery with metal objects that may cause shorts, e.g. office clips, nails, screws, keys, coins. A short circuit may cause burns or fires.
- · Keep the battery away from heat, e.g. strong sunlight and fire. There is a risk of explosion.
- · Protect the battery from coming into contact with water and other fluids. Contact may damage the protective circuit and the protective mechanism of the battery. This may cause fire and explosions.
- · Do not clean the battery with a pressure washer. Use a damp rag when cleaning the battery. Never use corrosive cleaning solutions.
- · In the event that fumes escape after inappropriate use or damage, ensure exposure to fresh air and consult a doctor if you experience any medical problems. Before starting a ride,

- the battery must be fully locked in place in its holder and the battery box must be closed. You may otherwise lose the battery while riding.
- Prevent deep discharging of the battery. It may cause irreversible damage to the cells.
- · The battery is exclusively intended for use with Stromer electrical bicycle drives, Inappropriate use or wrong handling may cause injury or a fire. Stromer is not liable for damage caused by inappropriate use.
- · Never send a battery in the mail! Batteries are hazardous goods. Only send batteries for your Pedelec through your Stromer dealer. The battery may overheat and catch fire under certain circumstances.
- The battery may not be disposed of with domestic waste. The sales outlet will take it back and will ensure appropriate disposal.
- · Never store several batteries on top or next to each other. This may lead to overheating and fire.

#### **Storing the battery**

Store the battery in a dry and well-ventilated place. A room temperature of approx. 20 °C is optimal to prevent loss of capacity. Only use the battery for rinding the Stromer in cold conditions. Store it in a warm environment, which increases the range. Ensure that the Stromer is switched off when you want to store your battery in your bike. Check its charging level approx, every 4-8 weeks and recharge it as required.

Store the battery with a battery charging state of at least 40% when you do not intend to use it for a prolonged period, e.g. during a winter break.

This is the most effective way of preventing deep discharging. Ensure that the battery is never stored in a fully discharged state, as this may lead to deep discharging and irreversible cell damage. Possible guarantee or warranty claims may then become void.

The battery must be recharged within 2-3 days after it has been fully discharged in order to prevent deep discharging.

Storage at a battery charging level of 40-60% is best suited to preserving your battery. Please consider that this shortens the period after which deep discharging is possible when compared to a fully charged battery! The capacity of a battery decreases with age, even when it is well-maintained.

You should change a battery that has not been used or recharged for a prolonged period before vou install it in vour Pedelec.

Permissible storage temperature range:

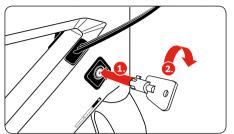
 $-20 - 60 \,^{\circ}$ C

Permissible discharging temperature range: -20 - 60 °C

Permissible charging temperature range: 0 – 50 °C

#### Removing the battery

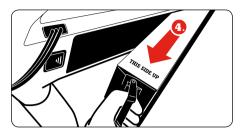
Open the battery box with the appropriate key.



Push the key into the lock applying gentle pressure and turn it in a clockwise direction until the battery box opens.



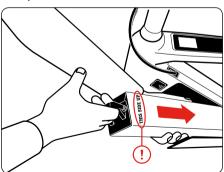
Pull out the battery.



The battery is very heavy, so take care not to drop it. You could get injured and/or the battery might get damaged.

#### Inserting the battery

Place the battery into the battery box. Take care that the connector points downwards and that the lettering **THIS SIDE UP** is visible on top. Push the battery downwards until it latches.



Close the battery box. Press with your flat hand onto the flap until it latches with a soft click and then pull the key out of the lock.



Never leave the key in the lock. You might get injured by the protruding key or clothes might get caught on it, which might lead to a fall.

Always pull the key out of the lock and keep it at a safe place to ensure that it does not break or get lost.

# Safety information regarding the charger





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

You can change the battery of your Stromer while it is installed in your Pedelec. However, you can also remove the battery from the Pedelec and charge it in another place. It is particularly advantageous to charge it in a warmer environment (room temperature) when it is cold outside, in order to shorten the charging period. Avoid charging processes below 0 °C or above 40 °C and in tightly sealed spaces. The charging process is automatically stopped at temperatures below 0 °C or above 40 °C.

Please note that a sudden change of temperature from cold to warm can cause condensation to build up in the charger. Avoid this by storing the battery in the same place where it is charged. Only use the charger supplied or a charger released by Stromer to avoid the risk of fire.

Use the charger in a dry room and don't cover it up while it is in use. It could otherwise short circuit or cause a fire.

Check the mains voltage before connecting the charger! The voltage of the power source must correspond to the information on the type plate of the charger.

- Always pull the plug out of the socket before cleaning the charger.
- The charger should be disconnected from the mains once the charging process has been completed.

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

A defective battery should neither be charged nor used any further. A battery can become warm while charging. It must not get hot. When the battery heats up strongly, immediately terminate the charging process.

Never ride when the battery is not inserted. The battery compartment can in this case not be locked. This poses an additional risk of falls and injuries.

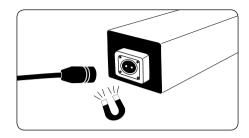
#### **Charging the battery**



Always read the charger information first.

### Charging the battery externally, outside the Pedelec

First connect the charger to the mains pug (LEDs light up red and green) and then to the battery. Hold the charging cable loosely in your hands and bring it gradually closer to the socket of the battery.



The magnets will help you to position the plug correctly.

The LEDs in the charger light up in orange and green during the charging process.

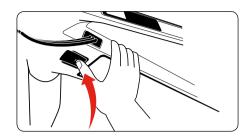
The LEDs in the charger light up in green when the battery has been fully charged. Separate the battery/Stromer from the Stromer charger and then the charger from the mains connector.

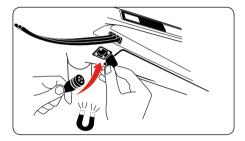
### Charging the battery internally in the Pedelec

The connection for the charging cable is located on the left side of the down tube, slightly below the connection to the head tube.

Open the cover of the charging socket.

- Connect the charger to the power mains. The integrated LEDs light up in red and green.
- Hold the charging cable loosely in your hands and slowly move it near the socket of your Stromer. The magnets will help you to position the plug correctly.
- 3. Connect the Stromer charger with the Stromer. The LEDs light up in orange and green.





#### **Charging duration**

The charging time may vary according to the version and the model of the battery and the charger. Accurate charging times are provided in the information at www.stromerbike.com/support.

#### **Charging status indicator**

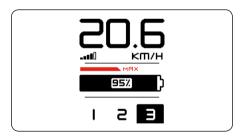
The driving display provides the option of tracking the battery charge status of your Stromer. The battery charge status is shown in the form of a bar and a percent value. The Stromer automatically switches off the motor and changes to bicycle mode (no support) when the battery is empty. The bar above the battery charge status indicates

the current energy flow. The display helps to ride in an energy-saving way with a large driving range. The longer the bar, the higher the energy flow.

The bar points from right to left as soon as the motor provides support.



The battery is charged during brake mode, so the dark bar points from left to right.



A small part of the battery energy is saved in order to sustain the basic functions of your Stromer and keep you safe. The lighting and display still work for approximately another hour when the battery is empty and the motor support has stopped.

#### SERVICE / MAINTENANCE

Regularly have your Pedelec inspected by a Stromer dealer. These experts can identify damaged and worn parts and are able to advise you in selecting replacements. They will also check the current software status and ensure that important updates that improve safety and riding comfort have been installed.

Refrain from repairing key parts yourself (frame, forks, handlebars, stem, headset, brakes, lights).

Your Pedelec can only function safely and effectively if you replace parts with suitable, authorized replacements. Please consult your manufacturer, importer or Stromer dealer for advice on suitable replacement parts.

Only replace broken or wom parts with original replacement parts from the manufacturer or parts approved by your manufacturer. This is prescribed for some components and an appropriate list is provided in the "Exchange of components of the pedelec" section.

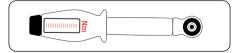
In this case, using non-original or non-approved parts also invalidates the registration of the Pedelec. The use of other non-approved parts generally invalidates the warranty and guarantees with the manufacturer for other parts.



If you install non-original or the incorrect replacement parts, this can lead to a severe loss of function! Tires with bad grip or tires that were not designed for use in Pedelecs, brake pads with inappropriate friction coefficient and wrongly used or badly designed light-weight components can cause accidents with the most severe of consequences. The same applies for improper assembly!

#### Screws and torque spanners

When working on the Pedelec, please ensure that all screws are tightened to the correct torque. The required torque is printed on many parts with a screwed connection. This amount is stated in Newton meters (Nm) and this work should be carried out using a torque wrench. Best suited are torque wrenches that slip and provide an acoustic signal when the predefined fastening torque is reached. Otherwise, screws may snap or break. If you don't own a torque wrench then you should always leave this work to a Stromer dealer! A table with the most important fastening torques for screw connections is provided in the "Screw connections" section.



Torque spanners

- Open live parts should only be maintained and cleaned at a Stromer dealer!
- Remove the battery before cleaning your Pedelec. Ensure that the battery box is again completely closed.
- Ensure that you do not touch and thus possibly connect contacts when cleaning the battery.
   You risk being hurt and the battery may suffer damage if the contacts are live.
- Cleaning with a high-pressure cleaner may damage the electrical system. The high pressure might also push cleaning liquid into sealed parts and thus damage them.
- Avoid damage to cables and electrical components. When this has happened, the Pedelec must be deactivated until it has been inspected by a Stromer dealer!

Switch off the electrical system, remove the battery and close the battery box before performing any kind of work on your Pedelec.

#### Chain / Drive

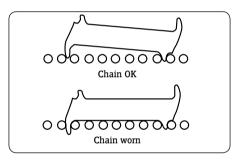
The drive chain must be regularly cleaned and lubricated to ensure appropriate functioning (see the "Deadlines and inspection work" section). Dirt can be removed with the normal pedelec wash. Otherwise you can clean the chain by rubbing it with an oily cloth. When the chain is clean, it should be greased at the joints with suitable lubricant. After being left to soak, the excess lubricant should then be removed.

#### Chain tension

To ensure that the chain and gears can work safely, the chain must have a certain level of tension. Otherwise it can come off and lead to a fall. Chain gear systems tense the chain automatically.

Dirt and permanent strain wear the chain. The chain should be replaced as soon as it can be significantly lifted (approx. 5 mm) from the front chain ring with your fingers.

Replacement of the chain is to be expected after approx. 1500 km, depending on the load.



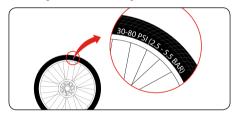
Many modern chains for derailleur gear systems no longer have chain connectors. Special tools are required to open/exchange/close them. They should be exchanged by a Stromer dealer.

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

#### Rims/Tires

Rims are subject to a great deal of strain and are vital to your safety on the bike. They wear during riding. Do not ride with a rim once you can see damage. Have them checked by a Stromer dealer and replaced, as required. Wear can weaken rims and lead to falls and serious accidents.

You should also regularly check your pedelec's tires. The minimum and maximum permitted tire pressure is printed on the side of the tires. Please adhere to these levels, otherwise the tires could slip off the rims or explode!



Tires are wear parts. You should therefore regularly check the pressure, tread and condition of your tires. Not every tire is designed for every type of use.

The tires of an Pedelec may only be exchanged for authorized products that were approved by the manufacturer. Attention must be paid here to the correct size and suitability for pedelecs. It is essential to get advice from a Stromer dealer when selecting tires.

There are special tires for use in winter. Ask your Stromer dealer for tires with a special profile and a suitable rubber compound.

Stromer recommends the following tire dimensions for the ST1X:

#### **Customs designation ETRTO size**

26x1.75 47-559

26x2.00 50-559

26x2.10 53-559

26x2.10 54-559

26x2.15 55-559

#### **Dealing with punctures**

You need the following equipment to repair a tire puncture:

- Plastic tire lever
- · Allen key for quick-release axles
- Air pump
- · Spare tube

The quick-release axle must first be removed with an Allen key before the wheel can be removed. Please obtain information from the operating instructions of the component manufacturers, which are available online.

### Flat tire and removal of the running wheels

Tire exchange works similarly to a normal bicycle in the event of a flat tire. Please contact a Stromer dealer when you are not sure how to change a tire. Please remove the battery from the battery box before performing any maintenance work. Never separate or connect an electrical connection while

the battery is in the battery box. This prevents the risk of an electrical shock and the risk of injury.

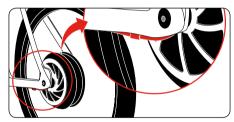
#### Front wheel

Release the quick-release axle with a 6 mm hexagonal spanner and pull out the quick-release axle.

## Rear wheel removal and mounting for the Stromer ST1X

#### Removal

First switch the gear to the smallest sprocket (highest gear) so that the rear derailleur is less of an obstacle when removing the rear wheel.



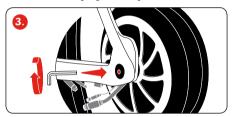


• Pull the cable with plug down from the cable guide (1).





· Unscrew both plugs and separate them (2).



 Loosen the quick-release axle by turning it counterclockwise. Hold the wheel tightly to keep it from falling. (3)

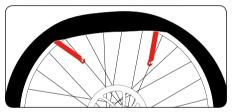


Take the wheel down from the mounts. Also remove the chain from the sprocket (4).

#### Removing the tire and inner tube

Unscrew the valve cap, the fastening nut and possibly the cap nut from the valve. In the case of Dunlop or Express Valves, remove the valve stem.

- Release all of the remaining air from the inner tube.
- Insert the tire lever opposite the valve on the inside of the tire.
- Insert the second tire lever approx. 10 cm from the first, between the rim and tire.
- Lift the tire wall over the edge of the rim.
- Repeat this lifting action around the wheel until the entire tire is free.
- · Remove the inner tube from the tire.



Change the inner tube
Switch the inner tube for an intact one

#### Reassembling the tire and inner tube

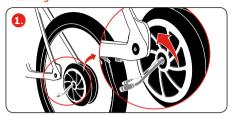
Please take note of the running direction of the tire when installing it.

Prevent foreign bodies from entering the tire. Ensure that the inner tube does not have any folds and is not squashed. Ensure that the rim tape covers all spoke nipples and does not have any damage.

Place one edge of the rim into the tire.

- Push one side of the tire completely into the rim.
- Insert the valve through the valve hole in the rim and put the inner tube into the tire.
- Pull the second side of the tire into the rim with the balls of your hands.
- Ensure that the inner tube is correctly positioned.
- In the case of Dunlop or Express Valves: Push the valve stem into the correct position and tighten the cap nut.
- · Pump the inner tube up a little.
- Check that the tire is properly in place and runs true, using the control ring on the side of the tire. Adjust the positioning of the tire with your hand if it does not quite run true.
- Pump the inner tube up to the recommended tire pressure.

#### Mounting



- Guide the wheel between the mounts from the bottom. The hub has to slide into the groove provided in the left mount. (1)
- The cable running from the motor must be located under the chain stay.
- Ensure that the chain is correctly positioned on the sprocket.



 Insert the quick-release axle in to the mounts and hub. Tighten it to 20 Nm. (2)



• First, put the small plug (a) together and screw it shut. Then, put the large plug (b) together and screw it (3).



 First, insert the thinner cable (a) in the cable guide. Push it down until it clicks into place.
 Then insert the larger cable (b) in the cable guide. Also press this cable in until it clicks. (4)



- Position cable and plug back in the starting position. (5)
- · Do not touch the brake disc or the wheel.

Make extra sure that the brake disks are correctly located between the brake pads after reinstallation!

Tighten all screws with the prescribed fastening torque (see "Torques" section). Failing to do so could cause the screws to tear and components to come apart.

- Check that the brake pads are aligned with the brake surfaces.
- · Test the brakes.

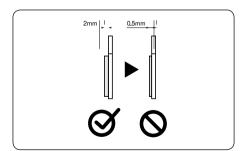
Read the instructions of the gear unit manufacturer to ensure correct and safe installation and setting of derailleur systems.

#### **Brakes**

Your Stromer is equipped with a hydraulic disk brake.

Brakes are vital to your safety on the bike. You should therefore maintain them on a regular basis. This requires specialist knowledge and special tools. Leave all work on your Pedelec to your Stromer dealer! Work that is improperly carried out endangers your safety on the Pedelec!

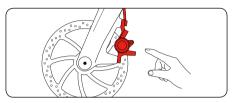
Brake discs and brake pads are particularly subject to wear. Please allow a specialist retailer to check these key parts on a regular basis and replace any worn parts if necessary.



Source: Shimano® techdocs



Do not touch the brake disk while it is rotating or directly after braking. This could result in injury or burns.



# Safety instructions for hydraulic disk brakes

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

The brake lever must not be applied if the Pedelec is on its side or upside down. Otherwise air bubbles can enter the hydraulic system which could cause the brakes to fail. After transporting the bicycle, check if the pressure point of the brakes seems softer than it was before. Slowly apply the brakes several times. This allows the braking system to discharge any bubbles.

If the pressure point remains soft, please refrain from riding. The Stromer dealer must bleed the brake. You can avoid this problem by applying the brake lever before transport and then fixing it in this position using a strap. This prevents any air from entering the hydraulic system.

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

You can get more information about your Pedelec's brakes as well as cleaning and maintenance in the operating manual provided by your manufacturer or on the manufacturer's website: www.stromerbike.com/support

#### **Gears**

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

Information regarding the gears of your Pedelec can be found in the manufacturer's instructions at www.stromerbike.com/support and on their websites on the Internet

#### **Inspection plan**

Modern Pedelec technology provides high performance, but must be regularly maintained by qualified persons. This requires specialist knowledge and specialist tools. Leave the work on your Pedelec to your Stromer dealer!

Work that you can safely perform yourself is highlighted in **bold**. To ensure that your bicycle remains in a safe condition and fulfills the conditions of the warranty, the following terms apply:

- Clean your Pedelec after every ride and check it for possible damage.
- Have inspections carried out by the Stromer dealer.
- Check your Pedelec every 300 500 km or every three to six months.
- Check that all screws, nuts and quick release axles are secure.
- Use a torque wrench to tighten screw joints!
- Clean and grease moving parts (excluding brake surfaces) according to the manufacturer's instructions.
- · Have paintwork touched up.
- Ask a specialist retailer to replace any broken and worn parts.

You can get more information about your bicycle's parts as well as cleaning and maintenance in the operating manual provided by your manufacturer or on the manufacturer's website:

www.stromerbike.com/support

#### Schedule and inspection work

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



#### Work to be undertaken

Check the following:

· Tires and wheels

#### Torques:

- Handlebars
- Cranks

Make any adjustments to the following components:

- Headset
- Brakes
- Pedals
- · All mounting screws
- · Seat post
- Seat
- · Gear system
- · Suspension elements

#### Before each use of the Pedelec

Work to be undertaken

Maintenance / Inspection:

Check the following:

- Spokes
- · Rims for wear and concentricity
- · Tires for damage and foreign bodies
- · Ouick release axles
- · The functionality of the gear system
- · The functionality of the brakes
- Hydraulic brakes: Tightness
- Lighting
- · Bell or hooter
- Tubed tire and tubeless Tires: Safe seat and correct air pressure

#### Every 300 to 500 kilometers

Work to be undertaken

Check the following:

- · Drive chain
- Check the brake pads for wear, replace them if required

Clean:

· Drive chain

Grease:

· The chain with suitable lubricant

Check the following:

· All screw joints are secure

#### Every 3000 kilometers

Work to be undertaken

To be checked, cleaned, and possibly replaced by the Stromer dealer:

- Hubs
- Pedals
- Brakes
- Headset
- Gear system

#### After rides in the rain

Work to be undertaken

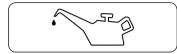
- Remove humidity, dry Cleaning and greasing:
- Gears
- Chain

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



#### Lubrication

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



#### Lubrication schedule

What must be lubricated?	At what intervals?	With which lubricants?
Chain	after removing dirt, after riding in the rain, every 250 km	chain oil
Gear cables	when not functioning well, once a year	silicon-free grease
Wheel bearings, pedal bearings, inside bearing	once a year	bearing grease
Thread during mounting	during mounting	mounting grease
Contact surfaces of carbon parts	during mounting	carbon mounting paste
Sliding surfaces of screw joints	once a year	grease, spray oil
Metal seat post in metal frame	during mounting	grease
Gear joints	when not functioning well, once a year	spray oil
	when not functioning wett, once a year	opiny oil

#### **Screw connections**

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

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

When a screw connection was treated with threadlocking adhesive (screw adhesive, e.g. Loctite), threadlocking adhesive must be used whenever this connection is opened, loosened or retightened.

Component	ST1X	Torque
Clamping handles (Ergon GS1-L) – handlebar	-	5 Nm
Clamping handles (Velo) – handlebar	*	2 Nm
Clamping brake lever (Tektro) — handlebar	*	5-7 Nm
Clamping brake lever (Magura) – handlebar	-	4 Nm
Clamping gear lever (Shimano SLX) — handlebar	*	3 Nm
Clamping gear lever (Shimano Alfine Di2) – handlebar	-	5-7 Nm
Clamping stem - handlebar	*	6 Nm
Clamping stem – steer tube (carbon)	-	5 <b>N</b> m
Clamping stem – steer tube (aluminum)	*	5-6 Nm
Clamping headset top cap — steer tube	-	2,5 Nm
Clamping saddle underframe	-	13 – 15 Nm
Clamping saddle angle	-	10 – 12 Nm
Clamping seat rails and seat angle	*	12 – 15 <b>N</b> m
Clamping saddle clamp – frame – saddle post	*	10 Nm
Front axle	*	20 Nm
Rear axle	*	20 Nm
Brake disk (6-hole, Tektro)	*	6-8 Nm
Brake disk (6-hole, Magura)	-	4 Nm
Brake disk (4-hole, Syno Drive & CYRO Drive HR-hub)	¥	7 Nm



#### General torque for bolted connections

Component	ST1X	Torque
Bottom bracket, FSA MegaExo	*	40-50 Nm
Pedal crank arm, FSA MegaExo	*	38-41 Nm
Pedals	*	40 Nm
Front derailleur	-	5-7 Nm
Gear changer	*	8-10 Nm
Battery box	*	0,5 Nm
Drinks bottle holder	*	4 Nm
Caliper (Magura)	-	6 Nm
Caliper (Tektro)	¥	6-8 Nm
Special items		
Fender to frame bridge screw	*	3 Nm
Baggage carrier top screw	*	3 Nm
Baggage carrier rear screw near light	*	2 Nm
Torx baggage carrier bottom screw in mounts	*	7 Nm
Taillight screw	*	2 Nm
Front light clamp	*	3 Nm
Front light M99 Supernova clamp	-	6 Nm

Steel screws in alumin	um thread
M4	2 Nm
M5	4 Nm
M6	7 Nm
M8	15 Nm
M10	32 Nm
Steel screws in steel th	nread
M4	2 Nm
M5	4 Nm
M6	7 Nm
M8	17 Nm
M10	35 Nm

#### WARRANTY, DEFECTS, WEAR

You were given the warranty and limitation of liability separately at the time of purchase of your Pedelec. You can also consult them anytime at www.stromerbike.com/support.

#### Wear

Take note that the components of the Pedelec are subject to higher wear than the components of a bicycle without an additional drive. This is due to the greater weight of the vehicle and the higher average speed that is achieved through the propulsion.

This higher wear is not a defect and is not subject to warranty.

Typical components affected are:

Tires

- · Drive components
- Brake pads
- Spokes

The battery is subject to aging and therefore a wearing part. Please take note that age and duration of use affect the battery, e.g. result in a clearly reduced driving range. This must be considered when planning trips. Exchange our battery in due time for a new one. Replacement batteries are available from your Stromer dealer.

#### **TECHNICAL DATA**

Permitted total weight of Stromer Pedelec: 140 kg Vehicle including battery + driver + luggage + trailer

	ST1X
MOTOR	CYRO Drive*
MOTOR SUPPORT	up to 25 km/h
PERFORMANCE	250 W
TORQUE	35 Nm
RANGE	up to 150 km

<sup>\*</sup> Depending on the location of use, a driving permit and insurance/number plate may be required.

CHARGERS	CR245 (ST2)	CR245 (ST2S)	CR190 (ST1X)
INPUT	100-240VAC ~	100-240VAC ~	100-240VAC ~
	50-60 Hz	50-60 Hz	50-60 Hz
	3A	3A	3A
OUTPUT	54.6VDC/4.5A	54.6VDC/4.5A	54.6VDC/3.5A
	11.2VDC/1A	11.2VDC/1A	11.2VDC/1A
OPERATING TEMPERATURE RANGE [°C]	040°C	040°C	040°C



LI-ION BATTERIES	BQ618	BQ814	BQ983 Model ST1306AC	BQ983 Model ST983
VOLTAGE [V]	47,45	48	48	47,06
CAPACITY [AH	12,3	15,9	19,8	20,4
ENERGY [WH]	618	814	983	983
CHARGING TIME WITH CHARGER CR190 [H:MIN]	4:50	5:30	6:30	6:30
CHARGING TIME WITH CHARGER CR254 [H:MIN]	4:00	4:45	5:30	5:30
PERMITTED STORAGE TEMPERATURE RANGE [°C]	-2060°C	-2060°C	-2060°C	-2060°C
PERMITTED DISCHARGING TEMPERATURE RANGE [°C]	-2060°C	-2060°C	-2060°C	-2060°C
PERMITTED CHARGING TEMPERATURE RANGE [°C]	050°C	050°C	050°C	050°C
APPROXIMATE WEIGHT [KG]	5	5	5	5

if the charging time indicated is clearly exceeded, discontinue the charging process. Have the battery and the charger checked by the Stromer distributor.

#### **ENVIRONMENTAL TIPS**

Take care to dispose of all packaging material according to the regulations and sorted by waste type.

#### **General care and cleaning products**

Please take the environment into account when caring for and cleaning your Pedelec. You should use care and cleaning products which are biodegradable wherever possible.

Please ensure that no cleaning fluid enters the drainage system. When cleaning the chain, use a suitable chain cleaning tool and dispose of chain lubricant properly at a suitable waste disposal site.

#### **Brake cleaner and lubricants**

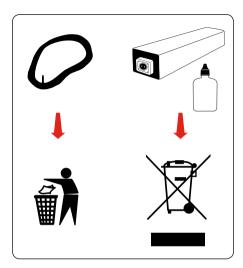
Take the same approach to using brake cleaner and lubricants as you do to general care and cleaning products.

#### Tires and inner tubes

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

#### Pedelec batteries

Batteries belonging to Pedelecs should be treated as hazardous and are therefore subject to compulsory special labeling. They have to be disposed of by Stromer dealers or manufacturers.



#### LEGAL DISCLOSURE

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This operation manual covers the requirements and scope of DIN EN ISO 4210, DIN EN 15194 standards and the Machinery Directive.

In case of delivery and use outside of this scope, the manufacturer of the vehicle must supply the required manuals.

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