

Operating instructions

Part 2 - For the customer



ZC-15-0001	Premio EVO SUV 10
ZC-15-0002	PEGASUS PREMIO EVO 10 SUV ABS
ZC-15-0005	PEGASUS CODO EVO 10
ZC-15-0006	Solero EVO 7F Belt
ZC-15-0009	Solero EVO 10
ZC-15-0010	Solero EVO 8R
ZC-15-0011	Solero Evo 8R XS 27.5"
ZC-15-0012	Solero EVO 8F
ZC-15-0013	PEGASUS CODO EVO 7F BELT
ZC-15-0014	PEGASUS SOLERO EVO 8
ZC-15-0015	Estremo EVO 9 Lite
ZC-15-0016	Estremo EVO 12 Lite
ZC-15-0029	Solero EVO 5R Belt
ZC-15-0030	Solero EVO 5F Belt
ZC-15-0050	Swing E8F Belt
ZC-15-0051	Swing NV Belt
ZC-15-0001	Premio EVO SUV 10
ZC-15-0002	PEGASUS PREMIO EVO 10 SUV ABS

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Contact if you have any questions or problems, or wish to have a printed copy of these operating instructions:

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Subject to internal changes

The information contained in these operating instructions are the approved technical specifications at the time of printing. In addition to the functions described here, the software may be modified at any time to rectify errors and extend functions. Any significant changes are included in a new published version of the operating instructions. All changes and new versions of the operating instructions are published on the following website: www.pegasus-bikes.de/gb-en/service/downloads.

1 About these instructions for use

1.1 Aim of the instructions for use

PEGASUS pedelecs are premium-quality vehicles. Final assembly is completed at the specialist dealer's. Your specialist dealer will also be happy to assist you in the future, whether you require an inspection, retrofit or repair.

The instructions for use aim to provide you with the information you need to use your new pedelec effectively and safely throughout its entire lifecycle while also avoiding misuse.

The operating instructions are designed for pedelecs that are purchased online or directly from a specialist dealer. As a result, there is no need for instruction from a specialist dealer.

Please take time to become familiar with your new pedelec. Once you have read the instructions for use, you will be able to:

- Identify and avoid dangers that the pedelec entails
- Understand the pedelec's different components
- Following an online purchase, assemble the pedelec and adjust it for the rider's size
- using the pedelec,
- Clean the pedelec
- Inspecting the pedelec,
- Detect simple faults on the pedelec, correct faults and prevent misuse
- Schedule maintenance
- Dispose of the pedelec in the correct manner.

Use the tips and suggestions in the operating instructions. They will help you to enjoy your pedelec for a long time to come.



Download the operating instructions onto your phone at the following link, so that you can use them when you are out riding:

www.bulls-bikes.com/gb-en/service/downloads#.

After purchasing the pedelec, you may request a printed copy of the manual from your specialist dealer within a month.

1.2 Manufacturer

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1.3 Frame number

Each frame has an individual frame number stamped on it or on a special sticker (see Figure 2). The frame number can be used to link the pedelec to the owner. The frame number is the most important identifier for verifying ownership.

1.4 Identifying the instructions

The instructions identification number is located in bottom left-hand corner of each page.

The identification number is composed of the document number, the version number and the release date.

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1.5 For your information

1.5.1 Warnings

Warnings indicate hazardous situations and actions. You will find three categories of warnings in the operating instructions:

⚠ WARNING May lead to serious or even fatal injuries if ignored. Medium-risk hazard.

⚠ CAUTION May lead to minor or moderate injuries if ignored. Low-risk hazard.

Notice May lead to material damage if ignored.

1.5.2 Markups

You will find the following markups in the operating instructions:

Stylised form	Use
Link	Link
✓	Requirements
▶	Instructions for actions with no specific order
1	Instructions for actions in specified order
⇒	Result of the action
•	Bulleted lists
Only applies to pedelecs with this equipment	A notice beneath the heading indicates components which can be used as an option

Table 1: Markups

1.5.3 Abbreviations

Abbreviation	Meaning/derivation
ABS	Anti-blocking system
BLE	Bluetooth® Low Energy
EPAC	Electric power-assisted cycle
PTW	Permitted total weight

Table 2: Table of abbreviations

2 Safety

2.1 Residual risk



2.1.1 Risk of fire and explosion

Never charge if there is a critical fault

If a charger is connected to the drive system when a critical fault is reported, the battery may be damaged permanently and may catch fire.

- ▶ Connect charger to fault-free electric drive system only.

Protect against water ingress

The battery is only protected from spray water. Penetration by water can cause a short circuit. The battery may self-ignite and explode.

- ▶ Never immerse battery in water.
- ▶ Take battery out of service if you suspect water has penetrated it.

Avoid heat

Temperatures over 60 °C can also cause liquid to leak from the battery and the battery will become damaged. The battery may self-ignite and explode.

- ▶ Protect the battery against heat.
- ▶ Never store the battery next to hot objects.
- ▶ Never expose battery to continuous direct sunlight.
- ▶ Avoid wide temperature fluctuations.

Never use incorrect charger

Chargers with excessive voltage damage batteries. This may cause a fire or an explosion.

- ▶ Charge approved batteries only.

Prevent short circuit due to interconnection

Metal objects may interconnect the battery's electrical terminals. The battery may self-ignite and explode.

- ▶ Never insert paper clips, screws, coins, keys and other small parts into the battery.
- ▶ Place the battery on clean surfaces only. Prevent charging socket and contacts against contamination from dirt, sand and similar.

Handling a damaged or faulty battery

Faulty batteries are hazardous goods. These include:

- Batteries which have leaked or discharged gas
- Cells or batteries which have sustained external or physical damage.

The safety electronics may fail if the batteries are damaged or faulty. The residual voltage can cause a short circuit. The battery may self-ignite and explode.

- ▶ Only use and charge battery and accessories if they are in perfect condition.
- ▶ Never open or repair the battery.
- ▶ Batteries with external damage must be removed from service immediately.
- ▶ If a battery is dropped or struck, remove it from service and keep it under observation for at least 24 hours.
- ▶ Contact specialist dealer.

Dispose of faulty batteries

- ▶ Take faulty battery to your specialist dealer in your pedelec as quickly as possible. Store the battery in the pedelec until it is taken away for transport.

Avoid overheating in the charger

The charger heats up when it is charging the battery. If it is not allowed to cool down sufficiently, it can cause a fire or burns to the hands.

- ▶ Never use charger on a highly flammable surface.
- ▶ Never cover the charger during charging.
- ▶ Never leave battery unattended during charging.



2.1.2 Hot surfaces

The brakes, hubs and the motor may become very hot when in operation. There is a risk of burns or fire in case of contact.

- ▶ Never touch the brakes or the motor immediately after a ride.
- ▶ Never place the pedelec on a flammable surface, such as grass or wood, directly after use.



2.1.3 Electric shock

Never use damaged network components

Damaged chargers, cables and plug connectors increase the risk of electric shock.

- ▶ Check the charger, cable and plug connector before each use. Never use a damaged charger.

Avoid water ingress

If water penetrates into the charger, there is a risk of electric shock.

- ▶ Use the charger indoors only.

Dealing with condensate

Condensation may form in the charger and battery when the temperature changes from cold to hot, causing a short circuit.

- ▶ Wait until both charger and battery are at room temperature before connecting them.



2.1.4 Risk of a crash

Adjusting quick release correctly

Excessively high clamping force will damage the quick release and cause it to lose its function. Insufficient clamping force will result in unfavourable transmission of force. This can cause components to break. This will result in a crash with injuries.

- ▶ Only use the clamping lever with the specified set clamping force.
- ▶ Contact specialist dealer if the quick release has lost clamping force.



2.1.5 Risk of amputation

The brake disc in disc brakes is so sharp that it can cause serious injuries to fingers if they are inserted into the brake disc openings.

The chain wheels and belt sprockets can draw in fingers, thus causing serious injuries to fingers.

- ▶ Always keep fingers well away from rotating brake discs and the chain or belt drive.

2.2 Toxic substances



2.2.1 Carcinogenic substances

Suspension oil

If you come into contact with the suspension oil in the fork or the rear frame damper, it will irritate the respiratory tract and can cause cancer, sterility and changes to the genetic make-up of germ cells oil cause.

- ▶ Never dismantle the rear frame damper or the suspension fork.



2.2.2 Toxic materials

Brake fluid

Brake fluid may leak out after an accident or due to material fatigue. Brake fluid can be fatal if swallowed or inhaled.

- ▶ Never dismantle the brake system.

Suspension oil

The suspension oil in the fork and the rear frame damper is toxic to the touch.

- ▶ Never dismantle the rear frame damper or the suspension fork.



2.2.3 Irritants and corrosive substances

Defective battery

Liquids and vapours may leak from damaged or faulty batteries. Excessively high temperatures may also cause liquids and vapours to leak from the battery. Such liquids and vapours can irritate the airways and cause burns.

- ▶ Never dismantle the battery.
- ▶ Never inhale vapours.

2.3 Vulnerable groups

- ▶ Keep batteries and the charger away from children and people with reduced physical, sensory or mental capacities or lacking in experience and knowledge.
- ▶ Children and young people must be provided with comprehensive instructions by a legal guardian.

2.4 Requirements for the pedelec rider

The pedelec rider must have adequate physical, motor and mental abilities to ride on public roads. A minimum age of 14 years is recommended. The area of use is labelled on the nameplate. Experience as defined in EN 17406 is also required.

2.5 Personal protective equipment

- ▶ Wear sturdy shoes.
- ▶ Wear tight-fitting clothes only. Wear clothing which is as bright or retroreflective as possible.
- ▶ Wear a suitable helmet.
- ▶ Wear gloves.
- ▶ Wear well-fitting glasses.

2.6 Safety guards

Three safety guards on the pedelec protect pedelec riders against heat, dirt or moving parts:

- the motor cover
 - the battery cover
 - the chain guard.
- ▶ Never remove the safety guards.
 - ▶ Check the safety guards on a regular basis.
 - ▶ Take pedelec out of service if a guard is damaged or missing. Contact specialist dealer.

2.7 Safety markings and safety instructions

Pedelec and battery nameplates contain the following safety markings and safety instructions:

Symbol	Explanation
	General warning signs
	Warning of explosive substances
	Warning of hot surfaces
	Adhere to the instructions for use
	No naked flames

Table 3: Safety markings

Symbol	Explanation
	Collect ordinary batteries and rechargeable batteries separately.
	It is forbidden to open up any type of battery.
	Protect from temperatures above 50 °C and direct sunlight

Table 4: Safety instructions

2.8 What to do in an emergency

2.8.1 Dangerous situations in road traffic

- ▶ If you encounter any hazards or dangers in road traffic, apply the brake until the pedelec comes to a halt.

2.8.2 Leaked brake fluid

- ▶ Avoid contact with skin and eyes. Wear gloves and safety glasses as protective equipment. Remove any clothing contaminated with brake fluid immediately.

- ▶ Take care with leaked brake fluid as it poses a slip hazard.
- ▶ Keep leaked brake fluid away from naked flames, hot surfaces and sources of ignition.

After skin contact

- 1 Wash affected skin with soap and water and rinse well.
- 2 Remove contaminated clothing.
- 3 Consult doctor in the event of pain or discomfort.

After contact with eyes

- 1 Rinse eyes under flowing water for at least ten minutes with the lids open; also rinse under lids.
- 2 Immediately consult a doctor in case of any pain or discomfort.

Environmental protection measures

- ▶ Never allow brake fluid to flow into sewage, water courses or groundwater.
- ▶ Notify the relevant authorities if fluid penetrates the ground, water courses or the sewage system.
- ▶ Dispose of leaking brake fluid in an environmentally responsible way in accordance with statutory regulations.
- ▶ The brake system must be repaired immediately if brake fluid leaks out. Contact specialist dealer.

2.8.3 Battery vapour emission

Vapours may be emitted if the battery is damaged or used improperly. The vapours may cause respiratory tract irritation.

- 1 Get into fresh air.
- 2 Consult doctor in the event of pain or discomfort.

After contact with eyes

- 1 Carefully rinse eyes with plenty of water for at least 15 minutes. Protect unaffected eye.
- 2 Seek medical advice immediately.

After skin contact

- 1 Remove any solid particles immediately.
- 2 Remove contaminated clothing immediately.
- 3 Rinse the affected area with plenty of water for at least 15 minutes.
- 4 Then dab the affected skin gently. Do not rub dry.
- 5 Immediately consult a doctor if there is any redness, pain or discomfort.

2.8.4 Battery fire

The safety electronics may fail if the battery is damaged or faulty. The residual voltage can cause a short circuit. The battery may self-ignite and explode.

- 1 Keep your distance if the battery becomes deformed or starts to emit smoke.
 - 2 If charging, remove the plug connector from the socket.
 - 3 Contact the fire service immediately.
- ▶ Use Class D fire extinguishers to put out the fire.
 - ▶ Never extinguish damaged batteries with water or allow them to come into contact with water.

Inhaling vapours can cause intoxication.

- ▶ Stand on the side of the fire where the wind is blowing from.
- ▶ Use breathing apparatus if possible.

2.8.5 Oil and lubricant leaks from the fork

- ▶ Dispose of leaked oils and lubricants in an environmentally responsible way in accordance with statutory regulations.
- ▶ Contact specialist dealer.

3 Description

3.1 Proper use

All checklists and instructions for actions in these operating instructions must be met. Approved accessories can be installed by specialist staff.

Use the pedelec when it is in perfect, proper working order only. National requirements may apply to the pedelec which the standard equipment may not meet. Different regulations apply across the country to the riding light, reflectors and other components when riding on public roads. The general laws and the regulations on accident prevention and environmental protection in the respective country of use must be observed.

The rechargeable batteries are designed to supply power to the pedelec motor only. Never use the batteries for other purposes.

3.1.1 Improper use

Failure to adhere to the pedelec's proper use poses a risk of personal injury and material damage. It is prohibited to use the pedelec in the following ways:

- When the electrical drive system has been manipulated
- Change, erase, make unrecognisable or otherwise tamper with the frame number, nameplate or serial number of components
- Riding with a damaged or incomplete pedelec
- Riding through deep water
- Charging with an incorrect charger
- Lending the pedelec to untrained pedelec riders
- Carry other people without a seat
- Riding with excessive baggage
- Improper servicing
- Improper repair
- Tough areas of use, such as professional competitions
- Acrobatics, riding up ramps, stunt riding or flying stunts.

3.2 Area of use

You will find your pedelec's area of use on the nameplate.

Area of use	Unsuitability
 EN 17406	Use on normal, paved surfaces where the tyres should maintain contact with the ground at average speed with occasional drops. Never ride off road. Never perform drops over 15 cm.
 EN 17406	The area of use specified in Condition 1 applies. The vehicle can also be used on unpaved roads and gravel paths with moderate upward and downward slopes. Under these conditions, the bike may come into contact with uneven terrain and tyres may lose contact with the ground repeatedly. Never ride off road. Never perform drops over 15 cm.
 EN 17406	The area of use specified in Condition 2 applies. The vehicle can also be used on rough paths, bumpy roads, difficult terrain and undeveloped tracks. Riding off-road requires skill. However, individuals without this skill may also ride this bicycle. Never perform drops over 60 cm.
 EN 17406	The area of use specified in Condition 3 applies. The vehicle can also be used for descents on unpaved roads at speeds of up to 40 km/h. Never perform drops over 120 cm.
 EN 17406	The area of use specified in Condition 4 applies. The vehicle can also be used for extreme drops and descents on unpaved roads or a combination of the two at speeds of up to 40 km/h.
 EN 17406	The area of use specified in Condition 1 applies. The vehicle can also be used in competitions or for other purposes at speeds of more than 50 km/h (e.g. descents or sprints). Never ride off road. Never perform drops over 15 cm.

Table 5: Area of use, average speed and unsuitability

3.2.1 Dimensions

The pedelec may only be loaded to its *maximum permitted total weight (PTW)*.

The maximum total permitted weight is

- the weight of the fully assembled pedelec
- plus body weight
- plus baggage (this also includes a trailer).

Type no.		Vehicle weight [kg]	PTW [kg]
ZC-15-0001	Premio EVO SUV 10	29	150
ZC-15-0002	PEGASUS PREMIO EVO 10 SUV ABS	#	#
ZC-15-0005	PEGASUS CODO EVO 10	#	#
ZC-15-0006	Solero EVO 7F Belt	29	150
ZC-15-0009	Solero EVO 10	29	150
ZC-15-0010	Solero EVO 8R	29	150
ZC-15-0011	Solero Evo 8R XS 27.5"	28	150
ZC-15-0012	Solero EVO 8F	29	150
ZC-15-0013	PEGASUS CODO EVO 7F BELT	#	#
ZC-15-0014	PEGASUS SOLERO EVO 8	#	#
ZC-15-0015	Estremo EVO 9 Lite	29	150
ZC-15-0016	Estremo EVO 12 Lite	29	150
ZC-15-0029	Solero EVO 5R Belt	29	150
ZC-15-0030	Solero EVO 5F Belt	29	150
ZC-15-0050	Swing E8F Belt	24	150
ZC-15-0051	Swing NV Belt	25	150

Table 6: Type number, vehicle weight and PTW

3.2.2 Environmental requirements

During winter use, especially at temperatures below 0 °C, we recommend that you don't insert a battery charged and stored at room temperature into the pedelec until just before setting off. We recommend using thermal protection sleeves when riding longer distances at low temperatures.

Temperatures under -10 °C and over +60 °C must be avoided as a general rule. Never put the battery in a car in summer or store it in direct sunlight.

Operating temperature	-5 ... +40 °C
-----------------------	---------------

You must also keep within the following temperature ranges.

Transportation temperature	+10 ... +40 °C
Storage temperature	+10 ... +40 °C
Charging temperature	+10 ... +40 °C
Work environment temperature	+15 ... +25 °C
Charger protection rating	IP40

The charger is protected against solid foreign objects with a diameter ≥ 1.0 mm but has no protection against water.

- Charging the pedelec in dry, dust-free, frost-protected rooms only.

Protection rating for electrical components	IP55
---	------

All electrical components on the pedelec are protected against harmful amounts of dust and are fully safeguarded against contact. The components are protected against water jets (projected by a nozzle) at any angle

- The pedelec may be used when it is raining.
- The electrical components must not come into contact with water.

Protection rating for electrical components	IP55
---	------

All electrical components on the pedelec are protected against harmful amounts of dust as a minimum and are fully safeguarded against contact. The components are protected against water jets (projected by a nozzle) at any angle

- The pedelec may be used when it is raining.

The electrical components must not come into contact with water.

3.2.3 Technical data for entire vehicle

Power output/system	250 W (0.25 kW)
Shut-off speed	25 km/h
Temperatures and protection rating	See Section 3.2.2
Service life	7 Years
Weight	See Section 3.2.1
PTW	See Section 3.2.1

Table 7: Technical data for pedelec

3.2.3.1 Emissions

The safety requirements as per Electromagnetic Compatibility Directive 2014/30/EU have been met. The pedelec and the charger can be used in residential areas without restriction.

A-weighted emission sound pressure level	<70 dB(A)
Total vibration level for the hands and arms	<2.5 m/s ²
Highest effective value of weighted acceleration for the entire body	<0.5 m/s ²

Table 8: Emissions from the pedelec

3.3 Overview of nameplate

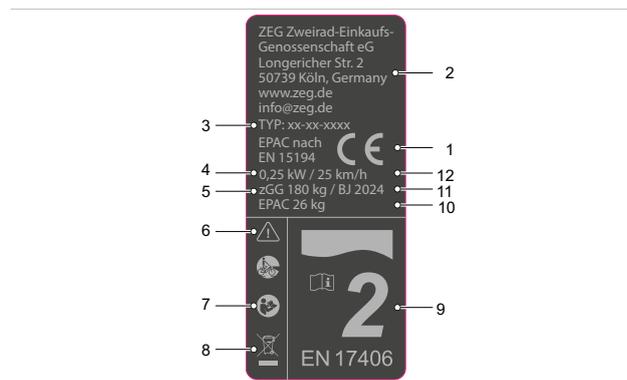


Figure 1: Example of ZEG nameplate

No.	Designation	Description
1	CE marking	The manufacturer uses the CE marking to declare that the pedelec complies with applicable requirements.
2	Fabrikant	You can contact the manufacturer at the address indicated.
3	Type number	All pedelec models have an eight-digit type number, which is used to specify the type of pedelec and the version.
4	Maximum continuous power rating	The maximum continuous power rating is the greatest possible power for the electric motor output shaft over 30 minutes.
5	Maximum permitted total weight (PTW)	The maximum total permitted weight is the weight of the fully assembled pedelec with the rider's body weight plus the baggage (this also includes a trailer).
6	Safety markings Caution	The safety markings warn of hazards.
7	Notice on operating instructions	Read operating instructions before your first ride.
8	Disposal instructions	Follow the guidelines on waste disposal when disposing of the pedelec.
9	Area of use	Ride pedelec in permitted locations only.
10	Weight of the ready-to-ride pedelec (optional; only for pedelecs 25 kg or more)	The weight of the ready-to-ride pedelec is specified as a weight of 25 kg or above and refers to the weight of a standard version at the time of purchase. Any extra accessories need to be added to the weight.
11	Year of manufacture	The year of manufacture is the year in which the pedelec was manufactured.
12	Shut-off speed	The speed that the pedelec reaches at the moment when the current has dropped to zero or to the no-load current value.

3.3.1 Overview of the pedelec

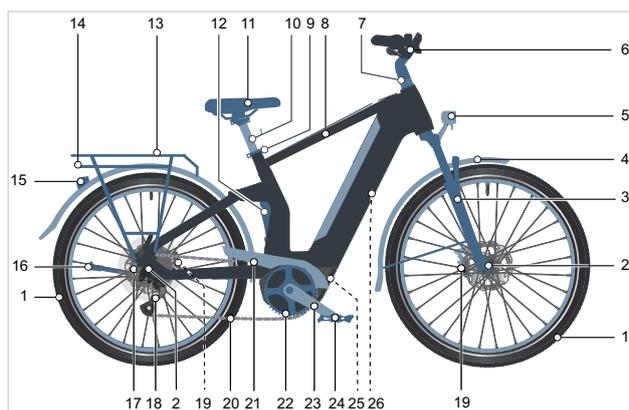


Figure 2: Pedelec viewed from right, example

1	Wheel
2	Hub
3	Fork
4	Guard
5	Front light
6	Handlebars
7	Stem
8	Frame
9	Saddle clamp
10	Seat post
11	Saddle
12	Rear frame damper
13	Pannier rack
14	Rear light
15	Reflector
16	Stand
17	Cassette
18	Rear derailleur
19	Brake
20	Chain
21	Chain guard
22	Chainring
23	Crank
24	Pedal
25	Motor
26	Battery and nameplate

3.3.2 Overview of handlebars



Figure 3: Handlebars –example with BOSCH LED Remote with Kiox 300

1	Handle
2	Hand brake (behind handlebars)
3	Bell
4	Display
5	On-board computer
6	Lockout
7	Shifter

3.3.3 Stem

The stem connects the handlebars to the fork steerer tube. The stem is used to adjust the handlebar height and the distance between the handlebars and saddle (see Section Section 6.4.4).

3.3.4 Handlebars

The pedelec is steered using the handlebars. The handlebars are used to support the upper body and mount operating and display components.

3.3.5 Suspension fork

The suspension fork helps to protect the pedelec and rider against impacts and vibrations on the front wheel caused by uneven ground. A suspension fork deflects when a steel spring, air suspension or both suspension types act on it. Read the suspension fork operating instructions.

3.3.6 Rear frame damper

The rear frame damper helps to protect the pedelec and rider against impacts and vibrations on the rear wheel caused by uneven ground. A rear frame damper deflects when steel suspension, air suspension, or both suspension types act on it. Read the operating instructions for the rear frame damper.

3.3.7 Brake

A pedelec's brake system is primarily operated using the brake lever on the handlebars.

- If the left brake lever is pulled, the brake on the front wheel is applied.
- If the right brake lever is pulled, the brake on the rear wheel is applied.

The brakes are used to regulate speed and make an emergency stop. Applying the brakes will bring the pedelec to a safe, rapid halt in an emergency.

The brake is applied using the brake lever either

- with the brake lever and brake cable (mechanical brake) or
- with the brake lever and hydraulic brake cable (hydraulic brake).

3.3.7.1 Mechanical brake

The brake lever is connected to the brake via a wire inside the shift cable (also known as a Bowden cable).

3.3.7.2 Hydraulic brake

The brake fluid is contained in a closed tube system. If the brake lever is pulled, the brake fluid transfers pressure to the brake on the wheel.

3.3.7.3 Disc brake

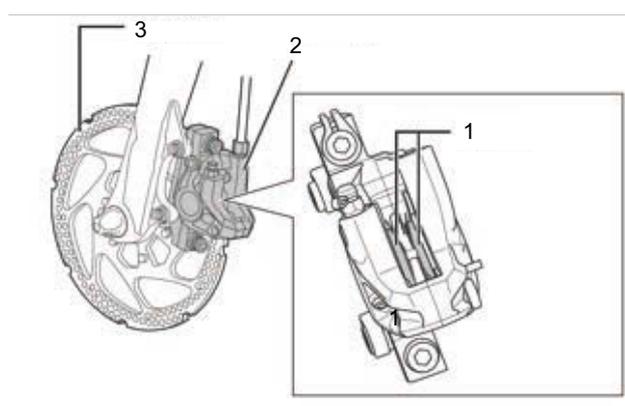


Figure 4: Brake system with disc brake – example

1	Brake lining
2	Brake calliper
3	Brake disc

On a pedelec with a disc brake, the brake disc is permanently screwed to the hub.

You increase brake pressure by pulling the brake lever. The brake fluid is used to transfer pressure through the brake cables to the cylinders in the brake calliper.

The braking force is boosted by a speed reduction and applied to the brake linings. These apply the brake disc mechanically. If the brake lever is pushed, the brake linings are pressed against the brake disc and the wheel movement is decelerated until it comes to a stop.

3.3.8 Saddle

The purpose of the saddle is to absorb body weight, provide support and allow different riding positions. The shape of the saddle thus depends on the intended use of the pedelec and the rider's physique and posture.

When riding, the rider's body weight is distributed between the pedals, the saddle and the handlebars. When the rider is an upright position, the relatively small saddle area bears about 75% of their body weight.

3.3.9 Seat post

Seat posts are not only designed to fasten the saddle but also to adjust exactly to the optimum sitting position. The seat post can:

- adjust the seat height in the seat tube
- adjust the saddle horizontally with a clamping mechanism
- adjust the saddle angle by swivelling the entire saddle clamping mechanism.

Retractable seat posts feature a remote control on the handlebars, which can be used to lower the seat post at traffic lights, for example, and then raise it again.

3.3.9.1 Suspension seat post

Suspension seat posts can reduce shock after one-time hard impacts, thus improving ride comfort significantly. However, suspension seat posts are not able to compensate for bumps in the road.

3.3.10 Mechanical drive system

The pedelec is driven by muscle power, just like a bicycle.

The force which is applied by pedalling in the direction of travel drives the front chain wheel. The chain or belt transmits the force onto the rear chain wheel and then onto the rear wheel.

The pedelec is equipped with either a chain or belt drive.

3.3.10.1 Parts of a chain drive

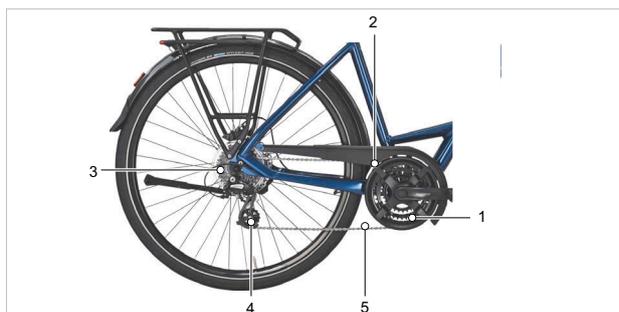


Figure 5: Diagram of chain drive with derailleurs gears

- 1 Chain wheel
- 2 Front derailleur
- 3 Cassette, sprocket
- 4 Rear derailleur
- 5 Chain

The chain drive is compatible with a

- Back-pedal brake
- Hub gear
- Seven-speed derailleurs gears

3.3.10.2 Parts of a belt drive



Figure 6: Diagram of a belt drive

- 1 Front belt sprocket
- 2 Rear belt sprocket
- 3 Belt

A belt drive is compatible with

- Back-pedal brake
- Hub gear and, very importantly
- Gears

A belt drive is not compatible with derailleurs gears.

3.3.11 Electric drive system

3.3.11.1 Motor

As soon as the muscle power required for pedalling passes a certain level, the motor is activated gently and assists the pedalling motion. The motor power always depends on the power used to pedal: Motor assistance is lower when little muscle power is used than when a great deal of muscle power is used. This happens regardless of the level of assistance.

The motor switches off automatically as soon as the rider no longer pedals, the temperature is outside the permitted range, there is an overload or the shut-off speed of 25 km/h has been reached.

The pedelec does not have a separate emergency shut-off button. The mechanical brakes are used as an emergency stop system and bring the bicycle to a quick halt safely in the event of an emergency. Observe the manufacturer's operating instructions:

Designation	Reference Part 4, Section
PINION, E1.9 [P5320]	A: 01.010
PINION, E1.12 [P5310]	A: 01.010
BOSCH, Performance Line PX ABS [BDU3473] (EB11.100.01P)	A: 01.012
BOSCH, Performance Line PX [BDU3470] (EB11.100.01H)	A: 01.012
BOSCH, Performance Line [BDU3460] (EB11.100.00L)	A: 01.012

3.3.11.2 On-board computer

The on-board computer acts as the control unit for the electric drive system. Observe the manufacturer's operating instructions. The following on-board computer can be built into the pedecec:

Designation	Reference Part 4, Section
FIT, Remote Basic E-Shift (500429)	A: 02.005, 02.006
BOSCH, Purion 200 [BRC3800] (EB13.200.03V)	A: 02.003
BOSCH, LED Remote [BRC3600] (EB13.100.00E)	A: 02.002

3.3.11.3 Display

A display is supplied with some pedecec. Device and ride information is shown on the display screen.

Observe the manufacturer's operating instructions. The following control panel can be built into the pedecec:

Component	Designation	Reference Part 4, Section
Display	BOSCH, Intuvia 100 [BHU3200] (EB13.100.00F)	A: 03.001
Display	BOSCH, Kiox 300 [BHU3600] (EB13.100.003)	A: 03.002
Display	FIT, Compact (500085)	A: 03.003

3.3.11.4 Battery

Each pedecec is supplied with a rechargeable battery. The battery powers the pedecec. The battery is a lithium ion battery which has been developed and manufactured to the latest technical standards. Each battery cell is protected by a steel cup and encased in a plastic battery housing.

The battery has an interior electronic protection circuit, which is specifically designed for the charger and the pedecec.

The battery temperature is monitored at all times.

The battery is protected against deep discharge, overcharging, overheating and short circuit. In the event of a hazard, a protective circuit switches the battery off automatically.

The battery has a high energy content when charged. You will find codes of practice for their safe handling in Section 2 *Safety* and Section 6.9 *Rechargeable battery* in the operating instructions.

The type and duration of operating conditions have a significant effect on the battery life. Just like any other lithium-ion battery, the battery will age naturally if it is not being used. The battery's service life can be extended if the battery is well maintained and stored at the correct temperature. The charging capacity will decrease with age, even if the battery is maintained properly. If the operating time is significantly shortened after charging, this is a sign that the battery has reached the end of its useful life.

Battery performance is reduced when the temperature drops since this increases electrical resistance. You should expect the range to be less than normal at low temperatures in winter. We recommend using thermal protection sleeves when riding longer distances at low temperatures.

Each battery has its own lock.

Observe the manufacturer's operating instructions. The following battery can be built into the pedecec:

Designation	Reference Part 4, Section
BOSCH, PowerPack 400 Frame [BBS265](0275.007.512)	A: 05.004
BOSCH, PowerPack 400 Rack [BBR265](0275.007.522)	A: 05.004
BOSCH, PowerPack 500 Frame [BBS275](0275.007.530)	A: 05.004
BOSCH, PowerPack 500 Rack [BBR275](0275.007.532)	A: 05.004
BOSCH, PowerPack Frame 400 [BBP3540](EB12.100.00L)	A: 05.002
BOSCH, PowerPack Frame 545 [BBP3551](EB12.100.04M)	A: 05.002
BOSCH, PowerPack Frame 725 [BBP3570](EB12.100.04P)	A: 05.002
BOSCH, PowerPack Frame 800 [BBP3570](EB12.100.00N)	A: 05.002
BOSCH, PowerTube 500 Horizontal [BBP3750](EB12.100.032)	A: 05.002
BOSCH, PowerTube 625 Horizontal [BBP290](0275.007.543)	A: 05.002
BOSCH, PowerTube 750 Horizontal [BBP3770](EB12.100.03A)	A: 05.002
BOSCH, PowerTube 800 Horizontal [BBP3880] (EB12.100.050)	A: 05.002
BOSCH, PowerPack Rack 400 [BBP3340](EB12.100.02N)	A: 05.002
BOSCH, PowerPack Rack 400 [BBP3350](EB12.100.02P)	A: 05.002
FIT, Ultracore 555 FIT 36 V battery (50083)	A: 05.009
FIT, Ultracore 720 48 V 15 AH (500081)	A: 05.010
FIT, Ultracore 960 FIT 48 V 20 AH (500256)	A: 05.006
FIT, Ultratube 700 Wh 48V # (501034)	A: 05.011

3.3.11.5 Charger

There is a specific charger designed for the battery for each pedecec. Only chargers included in the supply or approved by the manufacturer may be used.

Observe the manufacturer's operating instructions. The following charger can be supplied with the pedecec:

Designation	Reference Part 4, Section
BOSCH, 2A Charger [BPC3200](EB12.110.016)	A: 06.006
BOSCH, 4A Charger [BPC3400](EB12.110.001)	A: 06.005
FIT, FIT Standard Charger (500950)	A: 06.004

3.4 Description of controls and screens

3.4.1 BOSCH Purion 200 on-board computer

The on-board computer on the handlebars is used as a control panel. It controls the system and all indicators on the display screen using six buttons.

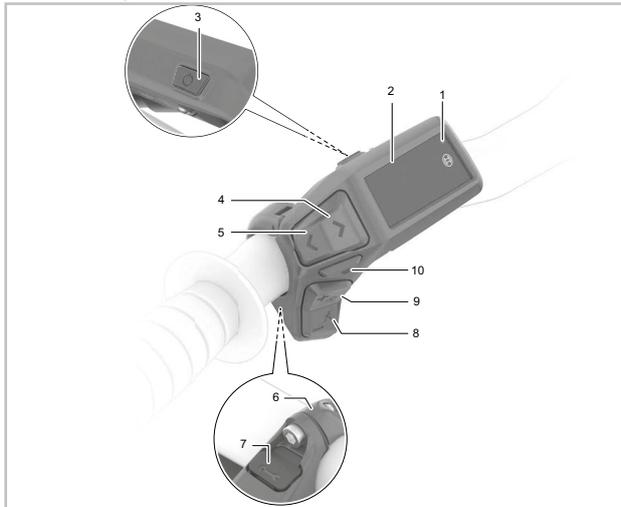


Figure 7: Overview of BOSCH Purion 200 on-board computer

1		Ambient light sensor Level of assistance indicator
2		Display ABS indicator (optional)
3		On-off button (on-board computer) Battery level indicator (on-board computer)
4	>	Increase brightness/scroll forward button
5	<	Reduce brightness/scroll backward button
6		Mount
7		Diagnosis port (for maintenance purposes only)
8	- 	Minus button push assist button
9	+ 	Plus button Light button
10		Select button

3.4.1.1 Level of assistance indicator

The higher the selected level of assistance, the more the drive system assists with pedalling.

eMTB mode is available for Performance Line CX drives. In eMTB mode, the assistance factor and the torque are dynamically adjusted depending on the pedalling force applied to the pedals. Selectable levels of assistance depend on the model.

Level of assistance	Use
OFF	When the drive system is switched on, the motor assistance is switched off. Use the pedelec like a normal pedelec by simply pedalling
ECO	Limited assistance with maximum efficiency for maximum range
TOUR	Constant assistance, for long-range tours
TOUR+	Dynamic support for sports cycling and riding in the countryside
eMTB	Powerful assistance, for sporty start-up, optimal assistance on all types of terrain
SPORT	Powerful assistance for sport rides on both mountainous routes and urban roads
TURBO	Maximum assistance up to high pedalling frequencies, for sport riding
Auto	Assistance is adapted to the ride situation dynamically
Race	Maximum assistance on eMTB race circuits; highly direct response behaviour and maximum extended boost for high power in competitions
Cargo	Uniform, powerful assistance to transport heavy loads safely
Sprint	Dynamic assistance depending on pedalling frequency – for sporty rides on gravel and roads with fast sprints and frequent climb

Table 9: Overview of levels of assistance on the BOSCH Purion 200

3.4.1.2 ABS indicator (optional)

The ABS indicator lights up on pedelecs with an ABS system when they start up. After setting off, the ABS checks its functionality internally and the ABS symbol goes out.

In the event of a fault, the ABS symbol illuminates and a message appears on the display. This means that the ABS is inactive. Press the Select button to acknowledge the fault and the ABS error message will disappear. The ABS symbol appears in the status bar and continues to notify that the ABS is switched off.

The uppermost bar will flash if the battery is charging.

3.4.2 BOSCH LED Remote on-board computer

The on-board computer on the handlebars is used as a control panel. It controls the system and all indicators on the display screen using six buttons.

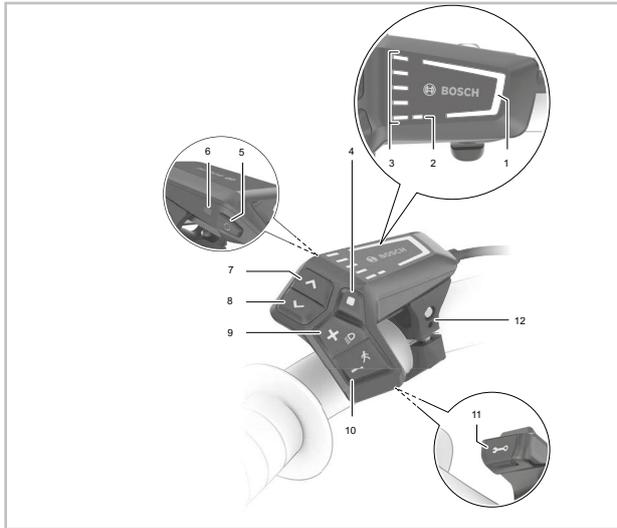


Figure 8: Overview of BOSCH LED Remote on-board computer

- | | | |
|----|---|---|
| 1 | | Selected level of assistance indicator |
| 2 | | ABS indicator (optional) |
| 3 | | Battery level indicator (on-board computer) |
| 4 | ◆ | Select button |
| 5 | ⏻ | On-off button (on-board computer) |
| 6 | | Ambient light sensor |
| 7 | > | Increase brightness button/
forward button |
| 8 | < | Decrease brightness button/
back button |
| 9 | + | Plus button/
light button |
| 10 | - | Minus button/
Push assist button |
| 11 | | Diagnosis connection (for maintenance
purposes only) |
| 12 | | Mount |

3.4.2.1 Selected level of assistance indicator

The higher the selected level of assistance, the more the drive system assists with pedalling.

eMTB mode is available for Performance Line CX drives. In eMTB mode, the assistance factor and the torque are dynamically adjusted depending on the pedalling force applied to the pedals.

Level of assistance	Colour	Use
OFF	No	When the drive system is switched on, the motor assistance is switched off. Use the pedelec like a normal pedelec by simply pedalling
ECO	Green	Limited assistance with maximum efficiency for maximum range
TOUR	blue	Constant assistance, for long-range tours
eMTB/SPORT	Purple	Powerful assistance, for sporty start-up, optimal assistance on all types of terrain
TURBO	Red	Maximum assistance up to high pedalling frequencies, for sport riding

Table 10: Overview of level of assistance

3.4.2.2 ABS indicator (optional)

The ABS indicator lights up on pedelecs with an ABS system when they start up.

The ABS will switch off if the pedelec reaches a speed of 6 km/h.

If there is a fault, the ABS indicator lights up together with the indicator of the selected level of assistance, which will flash orange.

Press the Select button to acknowledge the fault and the flashing indicator for the selected level of assistance will go out. The ABS indicator remains lit to indicate that the ABS system is not in operation.

3.4.2.3 FIT Remote Basic on-board computer

The on-board computer is operated using six buttons on the control panel.

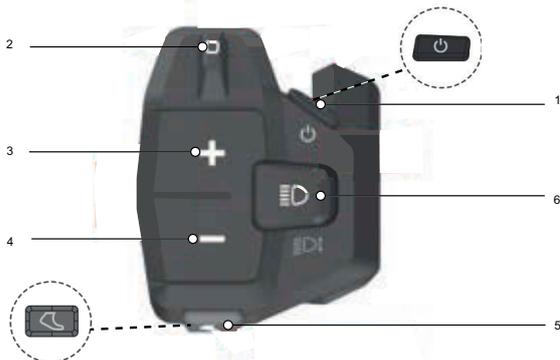


Figure 9: Overview of the FIT Remote Basic control panel

- 1 On-off button (control panel)
- 2 Navigation rocker switch
- 3 Plus button
- 4 Minus button
- 5 Push assist button
- 6 Light button



Figure 10: FIT Compact 2.0 display

Level of assistance indicator

The higher the level of assistance is, the more the drive system assists the rider when pedalling.

Level of assistance	Use
	Maximum motor assistance up to high pedalling frequencies for sports cycling.
	The motor assistance is perfect for E-MTB trails or highly agile e-biking.
	Motor assistance for energy-saving long-distance rides or moderate off-road terrain.
	Minimum motor assistance with maximum efficiency for maximum range.
	No motor assistance. You ride an e-bike like a normal bicycle. All You can access all on-board computer functions.
	You can use the Boost function to increase motor assistance to FLY briefly irrespective of the selected level of assistance (ECO, FLOW, .FLEX). This function can be switched on at a speed of 7 km/h and above and if the pedal has been rotated at least a quarter turn. The Boost function cannot be used if the push assist mode is active.

Table 11: Overview of levels of assistance

4 Transporting and storing

4.1 Transportation

CAUTION Crash caused by unintentional activation

There is a risk of injury if the drive system is activated unintentionally.

- ▶ Remove the battery.

4.1.1 Using the transport lock

Only applies to pedelecs with hydraulic disc brakes

CAUTION Oil leak if no transport lock

The brake transport lock prevents the brakes from being applied accidentally during transportation or shipment. Accidental braking could cause irreparable damage to the brake system or an oil leak, which would harm the environment.

- ▶ Never push the brake lever when the wheel has been dismantled.
 - ▶ Always use the transport lock when transporting or shipping.
 - ▶ Insert the transport securing devices between the brake linings.
- ⇒ Transport lock is squeezed between the two linings and prevents undesired, sustained braking which can cause brake fluid to leak out.

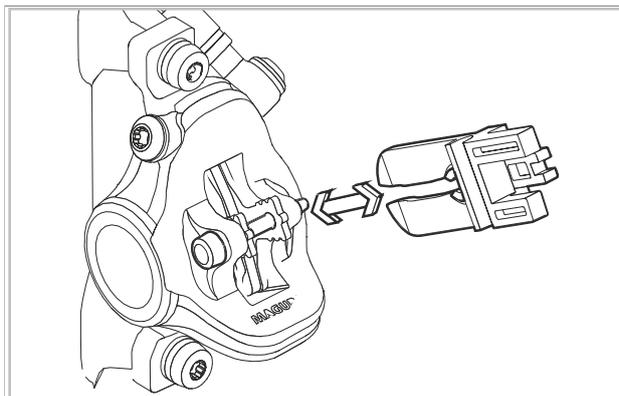


Figure 11: Fastening the transport lock

4.1.2 Transporting the pedelec

By car

Bicycle rack systems that hold the pedelec upside down cause air bubbles in the brake system.

- ▶ Remove battery (see Section 6.10.1.1 or 6.10.2.1).
- ▶ Remove all detachable components (display screen, bicycle pump, water bottle and similar) from the pedelec.
- ▶ Transport the battery in a clean, dry position where it is protected from direct sunlight.
- ▶ Never use bicycle rack systems which hold the pedelec in an upside-down position. The specialist dealer will give a consultation on correct selection and safe use of a rack system.
- ▶ Take into account the weight of the ready-to-use pedelec when transporting it.

4.1.3 Shipping a pedelec

- ▶ When shipping the pedelec, we recommend that you have the specialist dealer place it in proper packaging.

4.1.4 Transporting the battery

Batteries are subject to hazardous goods regulations. Undamaged batteries may be transported by private persons in road traffic.

4.1.5 Shipping the battery

The battery is considered a hazardous good and only trained persons may pack and ship a battery. Contact specialist dealer.

4.2 Storing

- ▶ Always store pedelec, battery, on-board computer, display and charger separately.

Storage temperature	+10 ... +40 °C
Humidity	30%...85%
Ideal storage temperature	+10 ... +20 °C
Optimum air humidity	30%...60%

Table 12: Ambient conditions for storage

- ▶ Temperatures under -5 °C or over +40 °C and air humidity over 85% must generally be avoided.
- ▶ Store pedelec, on-board computer, battery and charger in a place which is
 - dry
 - clean
 - protected from direct sunlight
 - well-ventilated
 - never store in the open air.
- ▶ Store the pedelec in a dry room.
- ▶ Store on-board computer, display and charger in a dry environment at room temperature.
- ▶ Storage at about 10 °C to 20 °C for a long battery life.
- ▶ Store batteries in rooms with smoke detectors. A protection box with an electrical connection is an optimal solution.
- ▶ Never store batteries near to inflammable or easily combustible objects.
- ▶ Never store batteries near sources of heat.

4.3 Break in operation

Notice Batteries discharge if they are not used. If the battery is stored for a longer period of time when empty, it can become damaged and its storage capacity can be greatly reduced.

- ▶ Store battery with at least 30% charge.
- ▶ Charge battery every six months.
- ▶ Charge LED on the Remote or System Controller via the USB diagnostic interface for about an hour every three months.
- ▶ Remove the on-board computer and battery from their mount if the pedelec is not going to be used for up to four weeks.
- ▶ If the pedelec is removed from service for longer than four weeks, you need to prepare it for a break in operation.

Notice The battery may become damaged if it is connected permanently to the charger.

- ▶ Never connect the battery to the charger permanently.

4.3.1 Preparing for a break in operation

- 1 The pedelec needs to be cleaned with a damp cloth and preserved with wax spray. Never wax the friction surfaces of the brake.
- 2 Have the specialist dealer carry out maintenance and basic cleaning and apply preservative agent before longer periods without use.
- 3 Remove battery
- 4 Charge battery between 30% and 60% so that two or three LEDs light up on the battery level indicator. Check the battery level after 6 months. If only one LED on the battery level indicator lights up, recharge the battery to around 30%–60%.

4.4 Assembly instructions for online sales

Your specialist dealer will complete assembly and commissioning for this pedelec. The pedals were unscrewed and the handlebars repositioned before transportation. You need these instructions to get your pedelec roadworthy and ready for use after transportation.



Crash caused by incorrectly adjusted torques

If a screw is fastened too tightly, it may break. If a screw is not fastened enough, it may loosen. This will cause a crash with injuries.

- ▶ Always observe the indicated torques on the screw, the component and in the operating instructions.
- ▶ Prior knowledge is required for assembly. If you don't have any prior knowledge, contact specialist dealer.

Crash and crushing hazard caused by unintentional activation

There is a risk of injury if the drive system is activated unintentionally.

- ▶ Remove the battery.

4.4.1 Unpacking

- ▶ The packaging material consists of cardboard. The packaging has to be disposed of in accordance with the regulations of the authorities.

Scope of delivery

<input type="checkbox"/>	1 pedelec with battery
<input type="checkbox"/>	2 pedals (already greased)
<input type="checkbox"/>	1 charger
<input type="checkbox"/>	1 set of operating instructions on CD

4.4.2 Preparing

- ▶ Assemble the pedelec in a clean, dry environment. The work environment temperature should be between 15 °C and 25 °C.
- ▶ Secure the pedelec in a fitting stand. The fitting stand used must be approved for a maximum weight of least 30 kg. Alternatively, you can get another person to hold the pedelec.
- ▶ Read the operating instructions for your pedelec.

4.4.3 Required tools

The following tools are required to assemble the pedelec:

	Screw wrench 15 mm
	Torque wrench Working range: 5- 40 Nm
	by,schulz handlebars: Torx bits: 4 mm, 5 mm and 6 mm If not: Hexagon bits: 4 mm, 5 mm and 6 mm

Table 13: Tools required for assembly

4.4.4 Straightening the handlebars

The handlebars must be turned so that they are parallel to the frame and tyres for transportation.

- 1 Turn handlebars clockwise until they are vertically aligned with the wheel and frame.
The way the handlebar is secured depends on the stem.

4.4.4.1 Stem with clamping lever version I

Only applies to pedelecs with this equipment

- 1 Open the clamping lever on the stem quick release.
- 2 Pull the locking lever on the stem upwards and simultaneously pivot handlebars 90° to the left.
⇒ You feel the handlebars click into place.
- 3 Push in the handlebars.
- 4 Close the clamping lever on the stem quick release.



Figure 12: Opened clamping lever on the stem quick release (3) on the stem (2), version I, with locking lever on the stem (1)

4.4.4.2 Stem with clamping lever version II

Only applies to pedelecs with this equipment

- 1 Open the clamping lever on the stem quick release.
- 2 Push the *unlocking knob*.
- 3 Pivot the *handlebars* 90° to the right or left.
⇒ You feel the *handlebars* click into place.
- 4 Close the *clamping lever on the stem quick release*.



Figure 13: Stem, version II with clamping lever on the stem quick release (1) and unlocking knob (2)

4.5 Stem with screw

Only applies to pedelecs with this equipment

- 1 Remove the safety cap from the stem.
- 2 Undo the screw using a 4 mm, 5 mm, or 6 mm Torx or hex key, depending on the type of screw.
- 3 Turn the handlebars into the required position.
- 4 Fasten the screw using a 4 mm, 5 mm, or 6 mm Torx or hex key, depending on the type of screw.
- 5 Refasten the safety cap on the stem.

4.5.1 Checking the stem and handlebars are in correct position

4.5.1.1 Checking the connections

- 1 Stand in front of the pedelec. Clamp the front wheel between your legs. Grasp the handlebar grips.
 - 2 Try to twist the handlebars against the direction of the front wheel.
- ⇒ The stem must not move or twist.
- 3 If the stem can be twisted, check fastening.
- ⇒ If the stem cannot be fastened, contact your specialist dealer.

4.5.1.2 Checking stem is firmly in position

- 1 Press full body weight on the handlebars.
- ⇒ The handlebars must not move downwards in the fork.

Stem with clamping lever version I

- 2 If the handlebars should move, increase the lever tension in the clamping lever.
- 3 Turn knurled nut in a clockwise direction with the clamping lever open.
- 4 Close clamping lever and check stem is firmly in position again.
- 5 If the handlebars cannot be fastened, contact your specialist dealer.

Stem with clamping lever version II and stem with screw

- If the handlebars cannot be fastened, contact your specialist dealer.

4.5.1.3 Checking the bearing clearance

- 1 Place the fingers of one hand on the upper headset cup. Pull the front wheel brake with the other hand and try to push the pedelec backwards and forwards.
Keep in mind that there may be noticeable backlash due to worn-out bearing bushes or brake lining backlash in suspension forks and disc brakes.
- ⇒ The headset cup halves must not move towards one another.
- 2 Set bearing clearance as per the stem repair manual as quickly as possible as otherwise the bearing will become damaged. Contact specialist dealer.

4.5.2 Fitting the pedals

The pedals have two different threads to ensure they don't come loose while the rider is pedalling.

- The pedal on the left facing the direction of travel has a left-hand thread and is marked L.
- The pedal on the right facing the direction of travel has a right-hand thread and is marked R.

The mark is either on the top end, the axle or the pedal body.



Figure 14: Example of markings on pedals

- 1 Coat threads in both pedals with waterproof grease.
- 2 Turn the pedal marked L anti-clockwise by hand into the crank arm on the left as seen when facing the direction of travel.



Figure 15: L pedal in the left-hand crank arm

- 3 Turn the pedal marked R anti-clockwise by hand into the crank arm on the right as seen when facing the direction of travel.



Figure 16: R pedal in the right-hand crank arm

- 4 Use a 15 mm spanner to fasten the left-hand pedal thread in an anti-clockwise direction and the right-hand pedal in a clockwise direction with a torque between 33 and 35 Nm.

5 Operation

5.1 Risks and hazards

WARNING

Injuries and death caused by blind spots

Other road users, trucks, cars and pedestrians often underestimate the speed of pedelecs. Likewise, other road users frequently do not see pedelecs. This may lead to an accident with serious injuries or even death.

- ▶ Wear a helmet. The helmet must have a reflective strip or a light in a clearly visible colour.
- ▶ Clothing should be retroreflective or as light as possible. Fluorescent materials are also suitable. High-visibility jackets and straps on your upper body ensure even greater safety.
- ▶ Always take a defensive approach to riding.
- ▶ Avoid the blind spots of vehicles turning off the road. Reduce speed as a precaution when other road users turn right.

Injuries and death caused by riding incorrectly

A pedelec is not a bicycle. Misjudging speeds and mistakes made while riding quickly lead to hazardous situations, which can cause an accident with serious or fatal injuries.

- ▶ Get used to road traffic and speed little by little before riding at speeds over 12 km/h, especially if you have not ridden a bike for some time.
- ▶ Increase the levels of assistance gradually.
- ▶ Practice braking hard on a regular basis.
- ▶ Take and complete a riding safety course.

WARNING

Injuries and death caused by distraction

A lack of concentration while riding increases the risk of an accident. This may cause a crash with serious injuries.

- ▶ Never allow yourself to be distracted by the on-board computer or your smartphone.
- ▶ Stop pedelec if you want to make inputs on the on-board computer other than change the level of assistance. Only enter data when stationary.

CAUTION

Crash caused by loose clothing

Laces, scarves and other loose items may become entangled in the spokes on the wheels and the chain drive. This may cause a crash with injuries.

- ▶ Wear sturdy footwear and close-fitting clothing.

Crash caused by difficult-to-spot damage

If the pedelec topples over or you have a fall or an accident, there may be difficult-to-spot damage to components such as the brake system, quick releases or frame. This may cause a crash with injuries.

- ▶ Take pedelec out of service. Contact specialist dealer.

Crash caused by dirt

Heavy dirt can impair pedelec functions, such as braking. This may cause a crash with injuries.

- ▶ Remove coarse dirt before riding.



Crash caused by material fatigue

Intensive use can cause material fatigue. A component may suddenly fail in case of material fatigue. This may cause a crash with injuries.

- ▶ Remove the pedelec from service immediately if there are any signs of material fatigue. Have your specialist dealer inspect the component.
- ▶ Arrange the mandatory full inspections with your specialist dealer on a regular basis. During the full inspection, the specialist dealer will check the pedelec for any signs of material fatigue on the frame, fork, suspension element mountings (if there are any) and components made of composite materials.

Carbon becomes brittle when exposed to heat radiation such as heating. This can cause the carbon component to break, leading to a crash with injuries.

- ▶ Never expose carbon components on the pedelec to strong sources of heat.

Crash caused by poor road conditions

Loose objects, such as branches and twigs, may become caught in the wheels and cause a crash with injuries.

- ▶ Be aware of the road conditions.
- ▶ Ride slowly and brake in good time.

The *tyres* may slip on wet roads. You must also account for a longer braking distance in wet conditions. The brake response will feel different to normal. This can cause loss of control or a crash, which may result in injuries.

- ▶ Ride slowly and brake in good time when it is raining.

Notice

Heat or direct sunlight can cause the *tyre pressure* to increase above the permitted maximum pressure level. This can destroy the *tyres*.

- ▶ Park pedelec in the shade.
- ▶ On hot days, check the *tyre pressure* regularly and adjust it as necessary.

High speeds may be reached when riding downhill. The pedelec is only designed to exceed a speed of 25 km/h for short intervals. The *tyres* in particular can fail if exposed to a prolonged high load.

- ▶ Use the brakes to decelerate the pedelec if you reach speeds greater than 25 km/h.

Moisture penetrating at cold temperatures may impair individual functions due to the open structural design.

- ▶ Always keep the pedelec dry and free from frost.
- ▶ If the pedelec is used at temperatures below 3 °C, the specialist dealer must perform a full inspection beforehand and prepare it for winter use.

Off-road riding subjects arm joints to severe strain.

- ▶ Take a break from riding every 30 to 90 minutes, depending on the road surface conditions and your physical fitness.

5.2 Tips for a greater range

The pedelec's range depends on many influencing factors. A single battery charge may only last fewer than 20 kilometres but much more than 100 is also possible. Test the pedelec's range before embarking on longer rides. There are a few tips which will generally help you maximize range.

Suspension elements

- ▶ Only open the suspension fork and damper on terrain or gravel paths when necessary. Block the suspension fork and damper on tarmacked roads or on hills.

Mileage

The more own physical effort the rider makes, the greater the attainable range is.

- ▶ Shift down 1 to 2 gears to increase the applied power and pedalling frequency.

Pedalling frequency

- ▶ Ride using pedalling frequencies of over 50 revolutions per minute. This optimises the electric drive's efficiency.
- ▶ Avoid pedalling very slowly.

Weight

- ▶ Minimise the total weight of pedelec and baggage.

Stopping and braking

- ▶ Ride long distances at a constant speed.
- ▶ Avoid stopping and braking frequently.

Level of assistance

- ▶ The lower the level of assistance you select is, the greater the range is.

Gear shifting habits

- ▶ Use a low gear and a low level of assistance on hills and when setting off.
- ▶ Switch up a gear, depending on the speed and terrain.
- ▶ 50-80 crank rotations per minute are optimal.
- ▶ Avoid applying great force on the crank during a gear change.
- ▶ Switch gear back in good time, e.g. before inclines.

Tyres

- ▶ Always select the right tyres for the surface type. As a general rule, narrower treads move along more easily than heavier ones. Long studs and large grooves usually have an unfavourable effect on energy consumption.
- ▶ When riding on asphalt, it is important to always use the maximum permitted tyre pressure.
- ▶ When riding off-road, on gravel tracks, in soft woodland or on soft grassy terrain, it is important to remember: the lower the tyre pressure is, the greater the rolling resistance is and thus the greater electric drive system energy consumption is.

Battery

Electrical resistance increases as the temperature drops. Battery performance is reduced. As a result, you should expect the range to be shorter than normal in winter.

- ▶ Use a thermal protection sleeve on the battery in winter.

The range also depends on the battery's age, charge level and state of repair.

- ▶ Service the battery and replace older batteries where necessary.

5.3 Instruction and customer service

The supplying specialist dealer will provide customer service. Contact details can be found on the pedecec pass for these operating instructions.

These operating instructions are provided with every pedecec so that the rider can consult them at a later stage.

The supplying specialist dealer will also perform all inspection, modifications and repairs in the future.

5.4 Adjusting the pedecec



Crash caused by incorrectly adjusted tightening torques

If a screw is fastened too tightly, it may break. If a screw is not fastened enough, it may loosen. This will result in a crash with injuries.

- ▶ Always observe the tightening torque indicated on the screw and in the operating instructions.

Only a correctly adjusted pedecec will guarantee the desired ride comfort and health-promoting activity.

All settings must be re-configured if the body weight or maximum baggage weight changes.

5.4.1 Preparing

The following tools are required to adjust the pedecec:

	Tape measure
	Scales
	Spirit level
	Ring spanners 8 mm, 9 mm, 10 mm, 13 mm, 14 mm and 15 mm
	Torque wrench Working range 5-40 Nm
	Hex key 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm and 8 mm
	Cross-recess screwdriver
	Slotted-head screwdriver

Table 14: Tools required for assembly

5.5 Accessories

Not included in price

5.5.1 Child seat



Child seats may only be used with the vehicle manufacturer's approval and only if they are approved for use on e-bikes.



WARNING

Crash caused by incorrect child seat

Pannier racks with a maximum load capacity under 27 kg and the down tube are unsuitable for mounting child seats and may break. Such an incorrect position may cause a crash with serious injuries for the pedelec rider or child.

- ▶ Never attach a child seat to the saddle, handlebars or down tube.



CAUTION

Crash caused by improper handling

When using child seats, the pedelec's handling characteristics and stability change considerably. This can cause a loss of control, a crash and injuries.

- ▶ You should practice how to use the child seat safely before using the pedelec in public spaces.

Risk of crushing due to exposed springs

The child may crush his/her fingers on exposed springs or open mechanical parts of the saddle or the seat post.

- ▶ Never install saddles with exposed springs if a child seat is being used.
- ▶ Never install suspension seat posts with open mechanical parts or exposed springs if a child seat is being used.

Notice

- ▶ Observe the legal regulations on the use of child seats.
- ▶ Observe the operating and safety instructions for the child seat system.
- ▶ Never exceed the maximum permitted total weight.

The specialist dealer will advise you on which child seat system is suitable for the child and the pedelec.

The specialist dealer must install the child seat the first time to ensure that it is safely fitted.

When installing a child seat, it must be ensured that:

- the seat and the seat fastening are suitable for the pedelec
- all components are installed and securely fastened
- shift cables, brake cables, hydraulic and electrical cables are adjusted as necessary
- the pedelec rider has optimum freedom of movement
- the maximum permitted total weight of the pedelec is observed.

The specialist dealer will provide instruction on how to handle the pedelec and the child seat.

5.5.2 Trailer



Trailers may only be used with the vehicle manufacturer's approval and only if they are approved for use on e-bikes.



Crash caused by brake failure

The braking distance may be longer if the trailer is carrying excessive load. The long braking distance can cause a crash or an accident and injuries.

- ▶ Never exceed the specified trailer load.

Notice

- ▶ The *operating* and safety instructions for the trailer system must be observed.
- ▶ Observe the statutory regulations on the use of bicycle trailers.
- ▶ Only use type-approved coupling systems.

A pedelec which is approved for towing a trailer will bear an appropriate adhesive label. You may only use trailers with a tongue load and weight which do not exceed the permitted values.

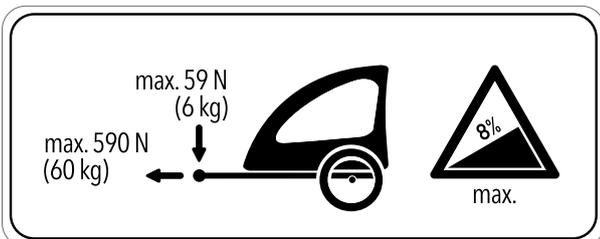


Figure 17: Trailer sign

The specialist dealer will advise you on which trailer system is suitable for the pedelec. The specialist dealer must install the trailer the first time to ensure that it is fitted safely.

5.5.2.1 Approval for trailer with Enviolo hub

Only applies to pedelecs with this equipment

Only compatible bicycle trailers are approved for ENVILO hub gears.

KETTLER

KETTLER Quadriga child trailer.

BURLY

Trailer	Adapter
Minnow Bee	Item no. 960038
Honey Bee	
Encore	
solo	
Cub	
D'Lite	
Normad	
Flatbed	
Tail Wagon	

CROOZER

Trailer	Adapter
Croozor Kid	Item no. 122003516, XL: +10 mm Item no. 122003716 Item no. 12200715 Croozor axle nut adapter with Thule coupling
Croozor Kid Plus	
Croozor Cargo	
Croozor Dog	

THULE

Trailer	Adapter
Thule Chariot Lite	Item no. 20100798
Thule Chariot Cab	
Thule Chariot Cross	
Thule Chariot Sport	
Thule Coaster XT	

5.5.2.2 Approval for trailer with ROHLOFF hub

Only applies to pedelecs with this equipment

ROHLOFF Speedhub 500/14

As a basic rule, it is permitted to use a trailer in combination with the ROHLOFF SPEEDHUB 500/14.

There must be **no component contact** with the cover of the ROHLOFF E-14 gear shift unit caused by pressure or tension at any time during assembly or when riding with the trailer **under any circumstances**.

Collision causing possible damage to the ROHLOFF E-14 gear shift unit can be avoided with suitable washers or special axle adapters (spacers or polygon) from the coupling manufacturer concerned.

Speedhub with A-12



Risk of an accident

The A-12 attachment screw has a very low screw-in depth. The screw or the thread in the axle plate can be damaged or ripped out if a trailer hitch is fitted directly onto the axle or the A-12 attachment screw. This may cause an accident with injuries.

- ▶ Never fit a trailer hitch directly on the axle and the A-12 attachment screw to a ROHLOFF Speedhub with an A-12 axle system in a 12 mm quick release axle frame.

5.5.3 Pannier rack



Front and rear pannier racks are only permitted with the vehicle manufacturer's approval and only if they are approved for use on e-bikes.

The specialist dealer will advise on choosing a suitable pannier rack.

The specialist dealer must install the pannier rack the first time to ensure that it is safely fitted.

When installing a pannier rack, the specialist dealer makes sure that the fastening mechanism is suitable for the pedelec and that all components are installed and firmly fastened. They will also ensure that shift cables, brake cables, hydraulic lines and electrical cables are adjusted as necessary, the person riding has optimum freedom of movement and the pedelec's maximum permitted total weight is not exceeded.

The specialist dealer will provide instruction on how to handle the pedelec and the pannier rack.

5.5.4 Panniers and cargo boxes



Panniers and cargo boxes are permitted if they are approved for use on e-bikes.

- ▶ Pay attention when loading the pannier rack and ensure correct load distribution.
- ▶ The maximum permitted total weight must not be exceeded during use.
- ▶ Use a paint protection film when attaching panniers. This will reduce abrasion on paint and wear on components.

The following panniers and cargo boxes are recommended:

Description	Article number
Protective cover for electrical components	080-41000 ff
Panniers, system component	080-40946
Rear wheel basket, system component	051-20603
Bicycle box, system component*	080-40947

Table 15: Recommended panniers and cargo boxes

5.5.5 Front baskets



Take care with front baskets because their load distribution is not fixed. They are only permitted with the vehicle manufacturer's approval and only if they are approved for use on e-bikes.

5.5.6 Bar ends



Handlebar ends are permissible provided they are professionally fitted to face the front at a specialist shop and only if they are approved for use on e-bikes. They must not seriously alter load distribution.

5.5.7 Kickstands



Kickstands are permitted if they are able to bear the weight of the pedelec.

We recommend a parking stand into which either the front wheel or rear wheel can be inserted securely for pedelecs which do not have a kickstand.

5.5.8 Additional battery headlight



Fitting additional battery headlights is permitted provided they comply with the laws of the country where the pedelec will be ridden and if they are approved for use on e-bikes.

5.5.9 Mobile holder

A holder for SP Connect mobile case is fitted to the stem.

- ✓ Observe the operating instructions for the mobile and the SP Connect mobile case.
- ✓ Use on tarmacked roads only.
- ✓ Protect mobile from theft.
- ▶ To attach: insert the SP Connect mobile case in the holder and turn 90° to the right.
- ▶ To release: turn the SP Connect mobile case 90° to the left and remove.

5.5.10 Suspension fork coil spring

If the desired suspension fork sag cannot be achieved after adjustment, the coil spring assembly must be replaced with a softer or harder spring.

- ▶ Fit a softer coil spring assembly group to increase the sag.
- ▶ Fit a harder coil spring assembly group to decrease the sag.

5.5.11 Fixed weather protection systems



Fixed weather protection systems are only permitted with the vehicle manufacturer's approval.

5.6 Using the battery

5.6.1 Using the integrated battery

Only applies to pedelecs with this equipment

5.6.1.1 Inserting the integrated battery

- ✓ The key is inserted in the lock.
- ✓ The lock is unlocked.

Use of bellows

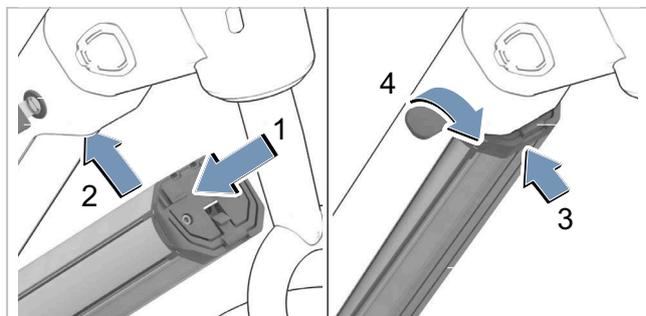


Figure 18: Inserting the integrated battery

- 1 Open the battery lid on the frame.
- 2 Place the battery into the lower mount with the contacts facing the front (1).
- 3 Flip the battery upwards so that the battery is held by the retainer guard (2).
- 4 Keep the lock open with the key.
- 5 Push the battery upwards (3).
 - ⇒ The battery can be heard locking into place.
- 6 Check battery to ensure it is firmly in place on all sides.
- 7 Lock the battery with the battery key; otherwise, the battery may fall out of the mount when the lock opens (4).
- 8 Remove the battery key from the battery lock.
- 9 Insert battery lid.
- 10 Check the battery to ensure it is firmly in place before each ride.
 - ⇒ The battery is inserted.

Insertion from above

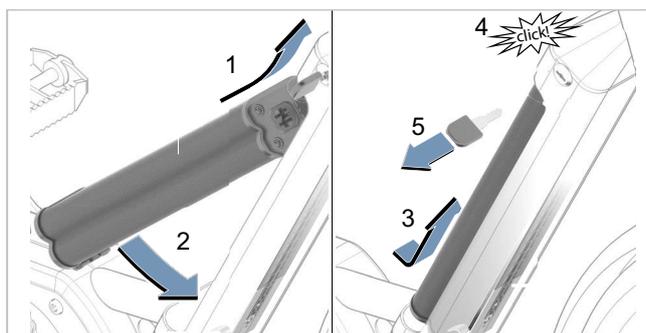


Figure 19: Inserting the integrated battery from above

- 1 Open the battery lid on the frame.
- 2 Place the battery into the top mount with the contacts facing the front (1).
- 3 Swivel the battery into the bicycle frame until it is held by the retaining mechanism (2).
- 4 Press battery into the guide rail and push as far as the battery lock (3).
 - ⇒ The battery locks into place with an audible click (4).
- 5 Remove the battery key from the battery lock (5).
- 6 Close battery lid.
 - ⇒ The battery is inserted.

5.6.1.2 Removing the integrated battery

- ✓ The pedelec is switched off.

Removing from below

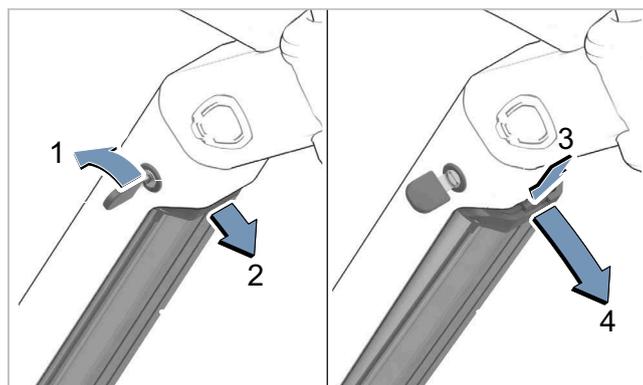


Figure 20: Removing the integrated battery from below

- 1 Open battery lid in the frame.
- 2 Open battery lock with battery key (1).
 - ⇒ The battery is released and falls into the retainer guard (2).
- 3 Hold the battery in your hand from below. Use the other hand to push on the retainer guard from above (3).
 - ⇒ The battery is released and falls into the hand (4).
- 4 Remove the battery from the frame.
- 5 Remove the battery key from the battery lock.
- 6 Close the battery lid.
 - ⇒ The battery is removed.

Removing from above

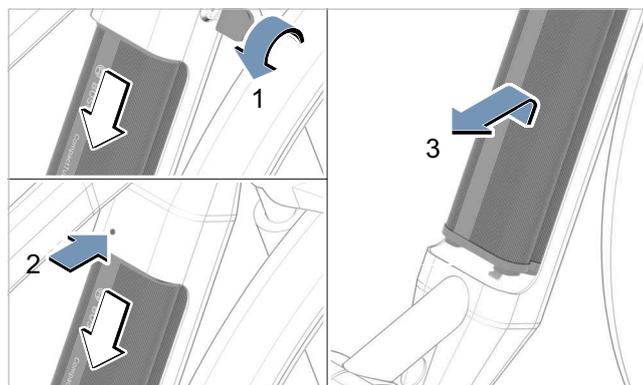


Figure 21: Removing the integrated battery from above

- 1 Open the battery lid on the frame.
- 2 Open battery lock with battery key (1).
 - or
 - 3 Press the release element with a suitable, non-pointed tool, such as a hex key (2).
 - ⇒ The battery is released and falls into the retainer guard.
- Notice** Hold the battery securely in your hand when removing it.
- 4 Gently pull the battery upwards as far as the battery lock and pull it out of the retainer guard (3).
- 5 Remove the battery key from the battery lock.
 - ⇒ The battery is removed.

5.6.2 Frame battery

Only applies to pedelecs with this equipment

5.6.2.1 Inserting the frame battery

- ✓ The key is not inserted in the lock.
- ✓ The lock is unlocked.

- 1 Place the battery into the lower mount with the contacts facing the front (1).

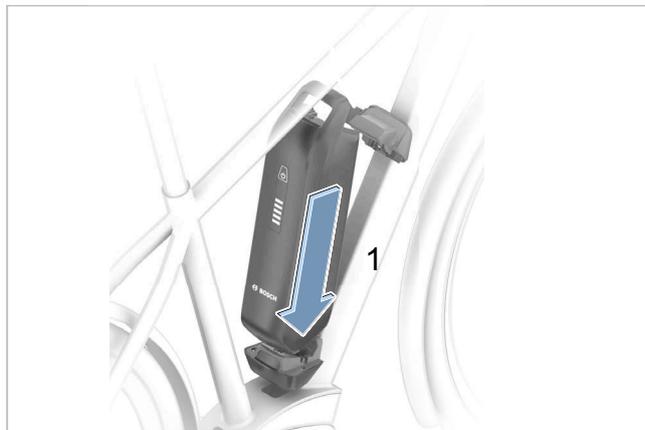


Figure 22: Insert the PowerPack battery

- 2 Move the battery upwards (2).

⇒ The battery locks into place with an audible click (3).



Figure 23: Moving the PowerPack battery upwards

- 3 Check battery to ensure it is firmly in place on all sides.
- 4 Lock the battery with the battery key; otherwise, the battery may fall out of the mount when the lock opens.
- 5 Remove the battery key from the battery lock.
- 6 Check the battery to ensure it is firmly in place before each ride.

5.6.2.2 Removing the frame battery

- 1 Open battery lock with battery key (1).

⇒ The battery is released and falls into the retainer guard.

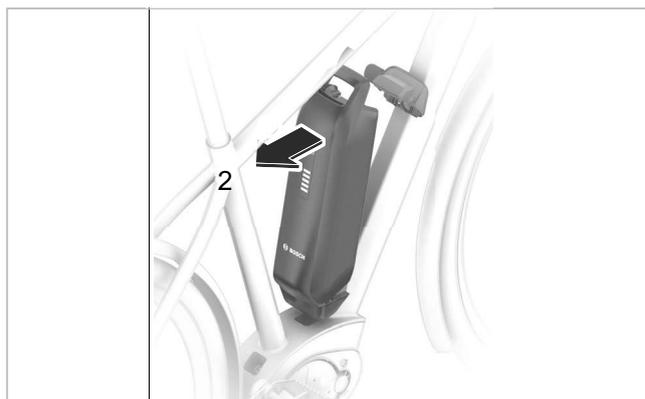


Figure 24: Opening the PowerPack battery with the key

- 2 Swivel the battery away from the mount (2) and remove.

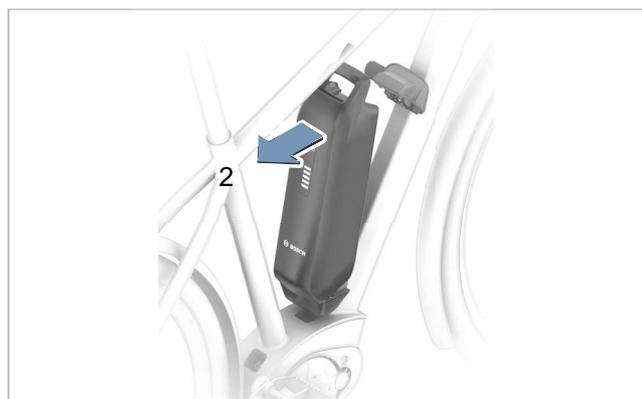


Figure 25: Opening the PowerPack battery with the key

- 3 Remove the battery key from the battery lock.

5.6.3 Pannier rack battery

Only applies to pedelecs with this equipment

5.6.3.1 Inserting the pannier rack battery

- ✓ The battery lock must be closed.
- ✓ The key must not be inserted in the battery lock.

- 1 Place the battery into the lower mount with the contacts facing the front (1).

- 1 The battery locks into place with an audible click (2).

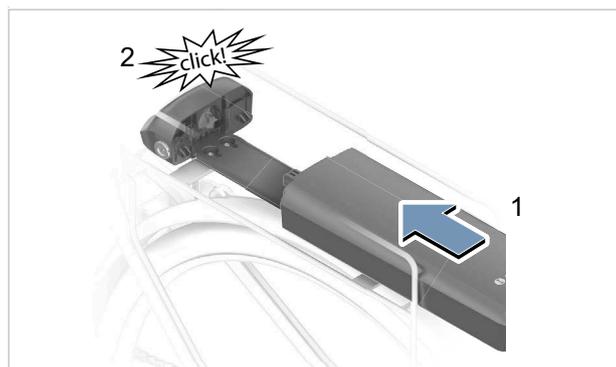


Figure 26: Inserting the PowerPack Rack battery

5.6.3.2 Removing the pannier rack battery

- ✓ The battery is switched off.

- 1 Open battery lock with battery key (1).
- 2 Pull the pannier rack battery backwards and out of its mount (2).
- 3 Remove the battery key from the battery lock.

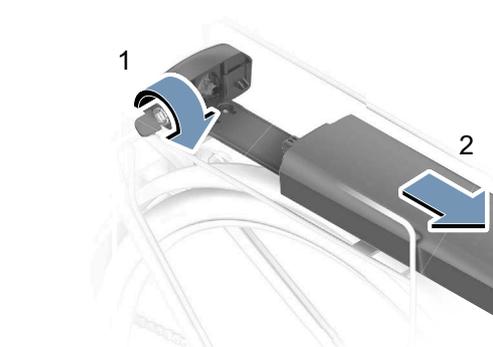


Figure 27: Removing the PowerPack Rack battery

5.6.4 Charging the battery

Follow the operating instructions for the battery and charger.

Component	Reference Part 4 Section
BOSCH, PowerPack 400 Frame [BBS265](0275.007.512)	#A: 5.004
BOSCH, PowerPack 400 Rack [BBR265](0275.007.522)	#A: 5.004
BOSCH, PowerPack 500 Frame [BBS275](0275.007.530)	#A: 5.004
BOSCH, PowerPack 500 Rack [BBR275](0275.007.532)	#A: 5.004
BOSCH, PowerPack Frame 400 [BBP3540](EB12.100.00L)	#A: 5.002
BOSCH, PowerPack Frame 545 [BBP3551](EB12.100.04M)	A: 5.002
BOSCH, PowerPack Frame 725 [BBP3570](EB12.100.04P)	A: 5.002
BOSCH, PowerPack Frame 800 [BBP3570](EB12.100.00N)	#A: 5.002
BOSCH, PowerTube 500 Horizontal [BBP3750](EB12.100.032)	#A: 5.002
BOSCH, PowerTube 625 Horizontal [BBP290](0275.007.543)	#A: 5.002
BOSCH, PowerTube 750 Horizontal [BBP3770](EB12.100.03A)	A: 5.002
BOSCH, PowerTube 800 Horizontal [BBP3880] (EB12.100.050)	#A: 5.002
BOSCH, PowerPack Rack 400 [BBP3340](EB12.100.02N)	#A: 5.002
BOSCH, PowerPack Rack 400 [BBP3350](EB12.100.02P)	#A: 5.002
FIT, Ultracore 555 FIT 36 V battery (50083)	# A: 5.009
FIT, Ultracore 720 48 V 15 AH (500081)	A: 5.010
FIT, Ultracore 960 FIT 48 V 20 AH (500256)	A: 5.006
FIT, Ultratube 700 Wh 48V # (501034)	A: 5.011
BOSCH, Compact Charger, [BCS230](0275.007.915)	DC: 2 A A: 6.002
BOSCH, 2A Charger [BPC3200](EB12.110.016)	DC: 2 A, 220-240 V, A: 6.001
BOSCH, 4A Charger [BPC3400](EB12.110.001)	DC: 4 A, 220-240 V, A: 6.001
FIT, FIT Standard Charger (500950)	A: 6.004
FIT, FIT Standard Charger (500951)	A: 6.003

5.6.5 Adjusting pinion gears

Only applies to bicycles with this equipment

5.6.5.1 Activating the SMART.SELECT automatic gear setting

- ✓ The pedelec is stationary.
- ✓ The drive system is activated.
- ▶ Activate START.SELECT by selecting the <Shift> menu in the settings on the on-board computer.
- ⇒ The system shifts into the selected starting gear automatically when the pedelec comes to a halt.

5.6.5.2 Activating the SMART.SELECT automatic gear setting

- ✓ The pedelec is stationary.
- ✓ The drive system is activated.
- ▶ PRE.SELECT can be activated in the <Shift> menu in the settings on the on-board computer.
- ⇒ The system automatically shifts into the perfect gear for the speed at the preferred pedalling frequency when the user rides without pedalling.

5.6.5.3 Activating the AUTO.SHIFT automatic gear setting

- ✓ The pedelec is stationary.
- ✓ The drive system is activated.
- ▶ Activate AUTO.SHIFT by selecting the <Shift> menu in the settings on the on-board computer.
- ⇒ The system will switch to the right gear based on the pedalling frequency.

5.6.5.4 Activating the AUTO.SHIFT.PRO automatic gear setting

- ✓ The pedelec is stationary.
- ✓ The drive system is activated.
- 1 Activate AUTO.SHIFT.PRO by selecting the <Shift> menu in the settings on the on-board computer.
- ⇒ The system automatically shifts into the perfect gear for the speed at the preferred pedalling frequency when the user rides without pedalling.
- 2 Press the rear button on the shifter for a long time.
- ⇒ The pedalling frequency originally selected is reset again.

5.7 Before each ride

- ▶ Check bicycle before each ride.

Checklist before each ride		
<input type="checkbox"/>	Check everything is sufficiently clean.	See Section 7.2
<input type="checkbox"/>	Check safety guards.	See Section 7.1.1
<input type="checkbox"/>	Check frame.	See Section 7.1.2
<input type="checkbox"/>	Checking the fork.	See Section 7.1.3
<input type="checkbox"/>	Check rear frame damper (if there is one).	See Section 7.1.4
<input type="checkbox"/>	Check pannier rack.	See Section 7.1.5
<input type="checkbox"/>	Check guards.	See Section 7.1.6
<input type="checkbox"/>	Check wheel concentricity.	See Section 7.1.7
<input type="checkbox"/>	Check quick releases.	See Section 7.1.8
<input type="checkbox"/>	Check bell.	See Section 7.1.9
<input type="checkbox"/>	Check handles.	See Section 7.1.10
<input type="checkbox"/>	Check lights.	See Section 7.1.11
<input type="checkbox"/>	Check brake.	See Section 7.1.12

- ▶ Be alert to any unusual noises, vibrations or odours while riding. Watch out for any unusual responses or behaviour when braking, pedalling or steering. This indicates material fatigue.
- ⇒ Take bicycle out of service if there are any deviations from the "Before each ride" checklist or any unusual behaviour. Contact specialist dealer.

5.8 Using the pannier rack

CAUTION Crash caused by loaded pannier rack

The bicycle's ride performance changes with a loaded pannier rack, in particular when steering and braking. This can lead to a loss of control. This may cause a crash with injuries.

- ▶ You should practice how to use a loaded pannier rack safely and reliably before using the bicycle in public spaces.

CAUTION Crushing fingers in the spring flap

The spring flap on the pannier rack operates with a high clamping force. There is a risk of crushing fingers in the flap.

- ▶ Never allow the spring flap to snap shut in an uncontrolled manner.
- ▶ Be careful where you position your fingers when closing the spring flap.

CAUTION Crash caused by unsecured baggage

Loose or unsecured objects on the pannier rack, e.g. belts, may become caught in the rear wheel. This may cause a crash with injuries.

Objects which are fastened to the pannier rack may cover the reflectors and the riding light. The bicycle may be overseen on public roads. This may cause an accident with injuries.

- ▶ Secure any objects which are attached to the pannier rack sufficiently.
- ▶ Objects fastened to the pannier rack must never cover the reflectors, the headlight or the rear light.
- ▶ Distribute the baggage as evenly as possible between the left- and right-hand side.
- ▶ We recommend using panniers and baggage baskets.

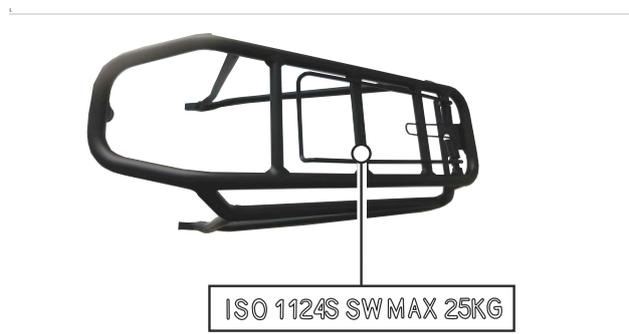


Figure 28: The maximum load bearing capacity is indicated on the pannier rack

- ▶ Pack the bicycle to its *maximum permitted total weight* (PTW) only.
- ▶ Pack the bicycle to the pannier rack's maximum load capacity only.
- ▶ Use the original or approved pannier rack only.

5.9 Raising the kickstand

- ▶ Use your foot to raise kickstand completely before setting off.

5.10 Using the pedals

- ▶ The ball of the foot is placed on the pedal when riding and pedalling.

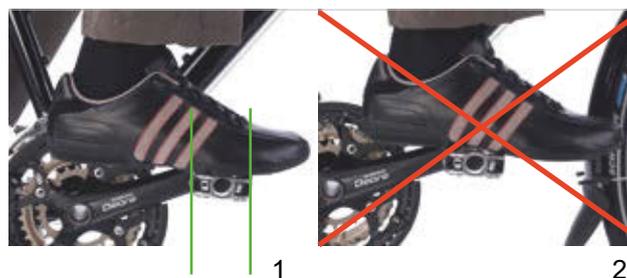


Figure 29: Correct (1) and incorrect (2) foot position on the pedal

5.10.1 Raising the saddle

- 1 Remove any pressure from the saddle.
- 2 Press the remote control operating lever.
 - ⇒ The seat post will rise.
- 3 Release the remote control operating lever when you have reached the desired saddle height.

5.11 Using the bell

- 1 Press the bell button downwards.
- 2 Let button spring back.

5.12 Using the handlebars

- ⇒ This helps protect sensitive areas of your palms.
- ⇒ This prevents overstraining and fatigue in your hands.

5.13 Using the electric drive system

5.13.1 Switching on the electric drive system

CAUTION Crash caused by failure to prepare to brake.

When it is switched on, the drive system can be activated by applying force to the pedals. There is a risk of a crash if the drive is activated unintentionally and the brake is not reached.

- ▶ Never start the electric drive system, or switch it off immediately, if the brake cannot be reached safely and reliably.
- ✓ A sufficiently charged battery has been inserted into the pedelec.
- ✓ The battery is firmly positioned and locked. The battery key has been removed.
- ✓ The speed sensor is connected correctly.
- ▶ Press the **On-Off button** on the battery, the on-board computer or control panel briefly (< 3 seconds).
- ⇒ The electric drive system is switched on.

5.13.2 Switching off the electric drive system

- ▶ Press the **On-Off button** on the battery, the on-board computer or control panel briefly (< 3 seconds).
- ⇒ The electric drive system is switched off.

5.14 Using the basic on-board computer functions

5.14.1 Using the diagnosis port

Notice A USB connection is not a waterproof plug connection. Any moisture seeping through the USB port may cause a short circuit in the control panel.

- ▶ Never connect an external device.
- ▶ Regularly check the position of the rubber cover on the USB port.

The diagnosis connection is only designed for maintenance purposes and is not suitable for connecting external devices.

- ▶ Keep the diagnosis port flap closed at all times to ensure no dust or moisture can penetrate through the port.

5.14.2 Charging the control panel battery

- ▶ Follow the on-board computer's operating instructions.

Designation	Reference Part 4 Section
BOSCH, Purion 200 [BRC3800] (EB13.200.03V)	A: 02.003

5.14.3 Using the riding light

- ▶ The electric drive system is switched on.
- ▶ Press on the light button briefly.
- ⇒ The riding light is switched on.
- ▶ Press on the light button briefly.
- ⇒ The riding light is switched off.

Using the driving light with FIT Remote Basic

Only applies to pedelecs with this equipment

- ▶ Press the *On-off button* briefly.
- ⇒ The riding light is switched on.

5.14.4 Using the main beam

Only applies to pedelecs with this equipment

- ✓ Only use the main beam when it will not dazzle other road users.
- ✓ The riding light is on and the LED in the main beam switch is green.
- ▶ Press the **main beam switch** on the handlebars.
- ⇒ The main beam is activated.
- ⇒ The LED in the main beam switch lights up blue.
- ▶ Press the **main beam switch** on the handlebars.
- ⇒ The riding light is switched on.
- ⇒ The LED in the main beam switch lights up green.

5.14.4.1 Using the headlamp flasher

- ▶ Press the **main beam switch** twice quickly.

5.14.5 Selecting the level of assistance

The control panel is used to set how much the electric drive should assist the rider when pedalling. You can change the level of assistance at any time while you are cycling.

- ▶ Press the *plus button*.
- ⇒ The level of assistance is increased.
- ▶ Press *minus button*.
- ⇒ The level of assistance is reduced.

Selecting the level of assistance with FIT Remote Basic

Only applies to pedelecs with this equipment

- ▶ Press the *>-button*.
- ⇒ The level of assistance is increased.
- ▶ Press the *<-button*.
- ⇒ The level of assistance is reduced.

Selecting the level of assistance with FIT Pure Left

Only applies to pedelecs with this equipment

- ▶ Press the *rotary switch* upwards
- ⇒ The level of assistance is increased.
- ▶ Press the *rotary switch* downwards
- ⇒ The level of assistance is reduced.

5.14.6 Using the push assist system

Only applies to pedelecs with this equipment

CAUTION Injury from pedals or wheels

The pedals and the drive wheel turn when the push assist system is used. There is a risk of injury if the pedelec wheels are not in contact with the ground when the push assist system is used (e.g. when carrying the pedelec up stairs or when placing it on a bicycle rack).

- ▶ Only use the push assist mode when pushing the pedelec.
- ▶ You must steer the pedelec securely with both hands when using push assist.
- ▶ Allow for enough freedom of movement for the pedals

The push assist system helps move the pedelec. The push assist system speed depends on the selected gear. The lower the selected gear is, the lower the speed in the push assist function is (at full power). The maximum speed is 6 km/h.

- ✓ We recommend using first gear for cycling uphill to protect the drive.

Pedelec with BOSCH Purion 200 or LED Remote System

- ✓ The drive system is switched on.
- 1 Press push assist button for longer than 1 second. Hold down the button.
- ⇒ The push assist is activated.
- 2 One of the following actions must be taken within the next 10 seconds:
 - ▶ Push pedelec forwards.
 - ▶ Push pedelec backwards.
 - ▶ Make a weaving movement with the pedelec.
- ⇒ Push assist is switched on. The motor starts to push.
- 3 Release the push assist button to switch the motor assistance off.
- ⇒ Push assist is switched off.

If motor assistance deactivates within 10 seconds, the push assist function switches off automatically.

Pedelec with FIT Remote LCD

- ✓ The drive system is switched on.
- 1 Press the push assist button briefly.
- ⇒ The push assist is activated.
- 2 Press and hold the push assist button again within 3 seconds.
- ⇒ Push assist is switched on. The motor starts to push.
- 3 Release the push assist button.
- ⇒ Push assist is switched off.

If motor assistance deactivates within 10 seconds, the push assist function switches off automatically.

5.15 Further information Using the on-board computer

- ▶ Follow the on-board computer's operating instructions.

Component	Reference Part 4 Section
PINION, E1.9 [P5320]	A: 01.010
PINION, E1.12 [P5310]	A: 01.010
BOSCH, Performance Line PX ABS [BDU3473] (EB11.100.01P)	A: 01.012
BOSCH, Performance Line PX [BDU3470] (EB11.100.01H)	A: 01.012
BOSCH, Performance Line [BDU3460] (EB11.100.00L)	A: 01.012

5.16 Using the brake

⚠ WARNING Crash caused by brake failure

Oil or lubricant on the brake disc in a disc brake or on the rim of a rim brake can cause the brake to fail completely. This may cause a crash with serious injuries.

- ▶ Never allow oil or lubricant to come into contact with the brake disc or brake linings or on the rim of a rim brake.
- ▶ If the brake linings have come into contact with oil or lubricant, contact specialist dealer to have the components cleaned or replaced.

If the brakes are applied continuously for a long time (e.g. while riding downhill for a long time), the fluid in the brake system may heat up. This may create a vapour bubble. This will cause air bubbles or water contained in the brake system to expand. This may suddenly make the lever travel wider. This may cause a crash with serious injuries.

- ▶ Release the brake regularly when riding downhill for a longer period of time. Use the front and rear wheel brakes alternately.

The motor's drive force is switched off during the ride as soon as the pedelec rider is no longer pedalling. The electric drive system does not switch off when braking.

- ▶ In order to achieve optimum braking results, do not pedal while braking.

5.16.1 Using the handbrake

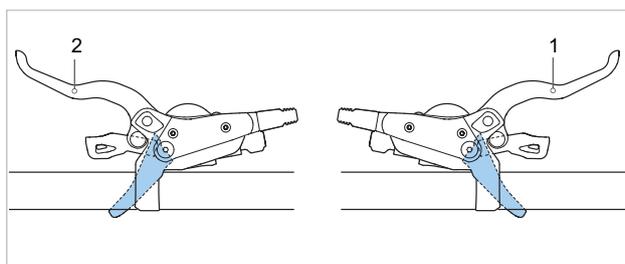


Figure 30: Handbrake, front (2) and rear (1) – SHIMANO brake used as an example

- ▶ Pull the *left handbrake* to apply the *front wheel brake*.
- ▶ Pull the *right handbrake* to apply the *rear wheel brake*.

5.16.2 Using the back-pedal brake

Only applies to pedelecs with this equipment

- 1 Move pedals a little beyond the 3 o'clock and 9 o'clock position.
- 2 Pedal in the opposite direction to the *direction of travel* until the desired speed has been reached.

5.17 Gear shift

The selection of the appropriate gear is a prerequisite for a physically comfortable ride and making sure that the electric drive system functions properly. The ideal pedalling frequency is between 70 and 80 revolutions per minute.

- ▶ Stop pedalling briefly when changing gears. This makes it easier to switch gears and reduces wear on the drivetrain.

5.17.1 Using the derailleur gears

The speed and range can be increased while applying the same force if you select the right gear.

- ✓ Stop pedalling briefly when changing gears. This makes it easier to switch gears and reduces wear on the drivetrain. However, keep the crank moving while switching gears.

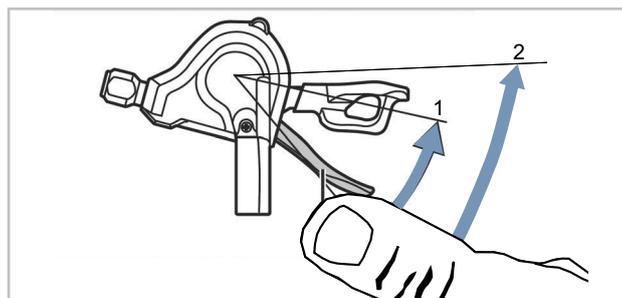


Figure 31: Switching gears with lever A, using gear shift SL-M315 as an example

Lever A switches up from the smallest sprocket to the largest sprocket.

- ▶ Place shifter A in position 1.
- ⇒ System shifts one sprocket higher.
- ▶ Place shifter A in position 2.
- ⇒ System shifts two sprockets higher.

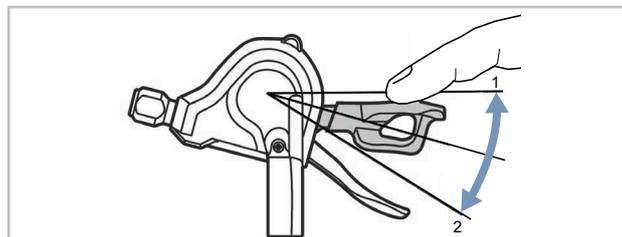


Figure 32: Switching gears with lever B, using gear shift SL-M315 as an example

Lever B switches down from the largest sprocket to the smallest sprocket. There are two ways to switch down a gear:

- ▶ Place shifter B in position 1.
- ⇒ System shifts one sprocket lower.
- ▶ Place shifter B in position 2.
- ⇒ System shifts one sprocket lower.

Switching gears

- ▶ Select the appropriate gear with the gear shift unit.
- ⇒ The gear shift switches gear.
- ⇒ The shifter returns to its original position.
- ▶ Clean and lubricate the rear derailleur if gear changes block.

5.17.2 Using pinion gears

5.17.2.1 Shifting gear manually with E-Trigger TE1

Only applies to vehicles with this equipment

Pinion gears switch between 9 or 12 speeds. It is possible to switch between several gears at once (e.g. from 6th to 2nd). Changing gear is possible while stationary or with the crank stationary or turning backward and is gentle on the gears.

It is possible to shift down gears (12-11-10 ... -01) without any restrictions when under load. The gear change will not be completed if there is too much pressure on the crank or on the pedal.

A mechanism in the gears allows the ride to shift up gears (01-02-03 ... -12) under load. This is possible for all gear shifts, except a change of gear between the different half-gears. The rider needs to take pressure off the pedals briefly in this case.

- ▶ Push the front shifter (4) backwards to shift up.
- ▶ Push the rear shifter (5) backwards to shift down.
- ▶ Always reduce pressure on the pedals when shifting down gears (12-11-10 ... -01).

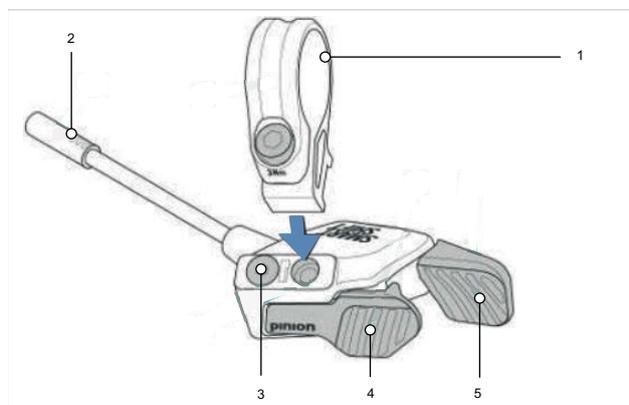


Figure 33: Parts of Pinion E-Trigger TE1

- | | |
|---|------------------------------------|
| 1 | Ring clamp with screw |
| 2 | Connector |
| 3 | Screw-on position with blind screw |
| 4 | Front shifter |
| 5 | Rear shifter |

Applies to P1.12 motor

- ▶ Always reduce the pressure on the pedals when shifting up a gear from 04 to 05 or from 08 to 09.

Applies to P1.9 motor

- ▶ Always reduce pressure on the pedals when shifting up a gear from 03 to 04 or from 06 to 07.
- ⇒ The crank occasionally drops about 10° after a gear change. This causes the bike to jerk until the pawl is securely engaged in the next tooth. This phenomenon cannot always be eliminated but will not cause damage to the gears.

5.17.2.2 Changing pedalling frequency with Auto.Shift activated

- ▶ Then push the rear shifter (4) backwards.
- ⇒ Pedalling frequency is increased.
- ▶ Push the rear shifter (5) backwards.
- ⇒ The pedalling frequency is reduced.
- ▶ Press the rear button on the shifter for a long time.
- ⇒ The pedalling frequency is reset to the initial value.

5.17.2.3 Switching gears with Auto.Shift activated

- ▶ Then push the rear shifter (4) backwards.
- ⇒ The gears shift to one gear higher.
- ▶ Push the rear shifter (5) backwards.
- ⇒ the gears shift to one gear higher.
- ▶ Press the rear button on the shifter for a long time.
- ⇒ The pedalling frequency is reset to the initial value.

5.17.3 Using a SHIMANO hub gear

Only applies to pedelecs with this equipment

⚠ CAUTION Crash caused by incorrect use

If the rider applies too much pressure on the pedals during a gear change and activates the shifter or changes several gears at a time, their feet may slip from the pedals. This may cause a crash or flip-over with injuries.

Switching down several gears to a low gear may cause the twist grip shifter outer sleeve to come off suddenly. This will not prevent the twist grip shifter from functioning correctly since the outer guide returns to its original position after the gear change is complete.

- ▶ Apply little pressure on the pedals while changing gears.
- ▶ Never change more than one gear at a time.

Notice The interior hub is not completely waterproof. If water gets into the hub, it may rust and the gear switch function may no longer function as a result.

- ▶ Never use the pedelec in places where water may get into the hub.

Notice In rare cases, noises may be heard from the rear derailleur in the hub interior after a gear change. This is normal when gears are changed.

Notice Never detach the hub yourself. Contact specialist dealer.

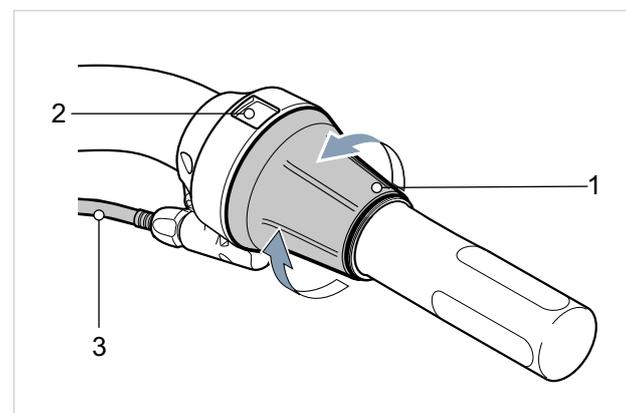


Figure 34: SHIMANO SL-C30000-70 gear shift

- ▶ Turn the twist grip shifter (1) backwards to switch up a gear.
- ▶ Turn the twist grip shifter (1) forwards to switch down a gear.
- ⇒ The gear shift switches gear.
- ⇒ The screen display (2) shows the changed gear.

5.18 Using the suspension fork

Follow the fork's operating instructions.

Designation	Reference Part 4, Section
SR SUNTOUR, Mobie25 Air DS LOR 15LH 700C CTS	A: 7.002
SR SUNTOUR, Mobie34 BOOST DS LO 15AH2-110 20"	A: 7.002
SR SUNTOUR, NCX32-D-5TA AIR LO DS CTS 29"	A: 7.002
SR SUNTOUR, NVX30 DS 29"	A: 7.002
SR SUNTOUR, NVX30 DS 29" CTS	A: 7.002
SR SUNTOUR, NVX32 DS 5TA 27.5"	A: 7.002
SR SUNTOUR, NVX32 DS 5TA 29"	A: 7.002
SR SUNTOUR, NVX32 DS 5TA 29"	A: 7.002
SR SUNTOUR, NVX32 DS 5TA 29"	A: 7.002

5.19 Parking

Notice

Heat or direct sunlight can cause the *tyre pressure* to increase above the permitted maximum pressure level. This can destroy the *tyres*.

- ▶ Never park the pedelec in the sun.
- ▶ On hot days, check the *tyre pressure* regularly and adjust it as necessary.

Moisture penetrating at cold temperatures may impair individual functions due to the open structural design.

- ▶ Always keep the pedelec dry and free from frost.
- ▶ If the pedelec is used at temperatures below 3 °C, the specialist dealer must perform maintenance beforehand and prepare it for winter use.

The pedelec's force of weight may cause the kickstand to sink into soft ground, possibly causing the pedelec to topple over as a result.

- ▶ The pedelec must be parked on firm, level ground only.

- 1 Switch off the drive system.
- 2 After getting off, use your foot to lower the kickstand completely before parking. Ensure that it is stable.
- 3 Park the pedelec carefully and check that it is stable.
- 4 Protect saddle with saddle cover if you park the pedelec outside.
- 5 Lock the pedelec with the bicycle lock.
- 6 Remove battery to protect it against theft.
- 7 Clean and service pedelec after every ride; see Section 6.2.

Checklist after each ride

Cleaning		
<input type="checkbox"/>	Lights and reflectors	See Section 6.2.5
<input type="checkbox"/>	Brake	See Section 6.2.5
<input type="checkbox"/>	Suspension fork	See Section 6.2.1
<input type="checkbox"/>	Suspension seat post	See Section 6.2.6
<input type="checkbox"/>	Rear frame damper	See Section 6.2.7
<input type="checkbox"/>	Pedal	See Section 6.2.4
Servicing		
<input type="checkbox"/>	Suspension fork	See Section 3

5.19.1 Screwing in the quickly adjustable stem

Only applies to pedelecs with this equipment

Screw in the quickly adjustable stem to save space when parking.

- 1 Open stem clamping lever.

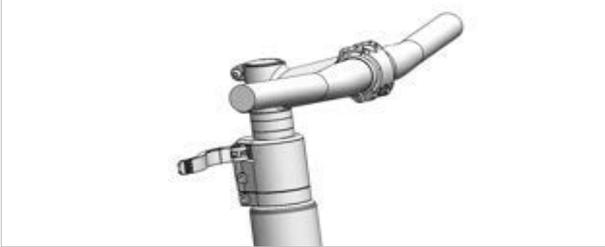


Figure 35: Example of All Up with open stem clamping lever

- 2 Pull handlebars into highest possible position.

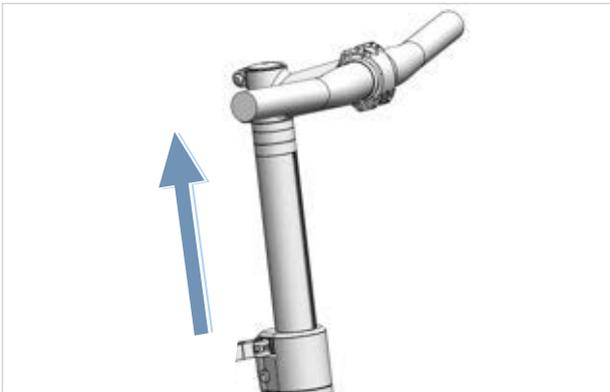


Figure 36: Example of All Up pulled into highest possible position

- 3 Turn handlebars 90° in a clockwise direction.

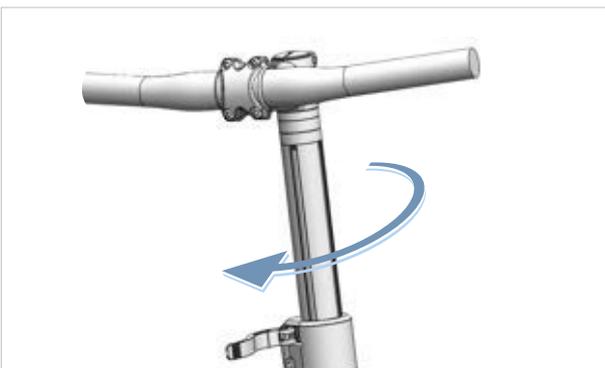


Figure 37: Example of All Up screwed in

- 4 Place handlebars at required height.
- 5 Close stem clamping lever.

6 Cleaning, servicing and inspection

- Clean, service and inspect pedelec as indicated on checklists.

Complying with these cleaning instructions can increase operational reliability, reduce wear on components, extend the service life of components and ensure safety.

Checklist: Before each ride		
<input type="checkbox"/>	Check everything is sufficiently clean	See Section 6.2
<input type="checkbox"/>	Check the guards	See Section 6.1.1
<input type="checkbox"/>	Check battery to ensure it is firmly in place	
<input type="checkbox"/>	Check lights	See Section 6.1.13
<input type="checkbox"/>	Check brake	See Section 6.1.14
<input type="checkbox"/>	Check the suspension seat post	See Section 6.1.9
<input type="checkbox"/>	Check the pannier rack	See Section 6.1.5
<input type="checkbox"/>	Check the bell	See Section 6.1.10
<input type="checkbox"/>	Check handles	See Section 6.1.11
<input type="checkbox"/>	Check the rear frame damper	See Section 6.1.4
<input type="checkbox"/>	Check wheel concentricity	See Section 6.1.7
<input type="checkbox"/>	Check frame	See Section 6.1.2
<input type="checkbox"/>	Check the quick releases	See Section 6.1.8
<input type="checkbox"/>	Check mudguards	See Section 6.1.6
<input type="checkbox"/>	Check USB cover	See Section 6.1.12
Checklist: After every ride		
<input type="checkbox"/>	Clean lights	See Section 6.2.1
<input type="checkbox"/>	Clean reflectors	See Section 6.2.1
<input type="checkbox"/>	Clean brake	See Section 6.2.5
<input type="checkbox"/>	Clean suspension fork	See Section 6.2.2
<input type="checkbox"/>	Service suspension fork	See Section 3
<input type="checkbox"/>	Clean the suspension seat post	See Section 6.2.6
<input type="checkbox"/>	Clean the rear frame damper	See Section 6.2.7
<input type="checkbox"/>	Clean the pedals	See Section 6.2.4

Checklist: Weekly tasks		
	Clean the chain	See Section 6.3.19
	City, folding, cargo and children's bikes and bicycles for young adults	In dry conditions: Every 10 days In wet conditions: Every 2–6 days
<input type="checkbox"/>	Trekking and racing bikes	In dry conditions: Every 140... 200 km In wet conditions: Every 100 km
	Mountain bikes	In dry conditions: Every 60... 100 km In wet conditions: After every ride
<input type="checkbox"/>	Belt (every 250–300 km)	See Section 6.3.18
	Service chain	See Section 6.4.16 and 6.4.16.1
	City, folding, cargo and children's bikes and bicycles for young adults	In dry conditions: Every 10 days In wet conditions: Every 2... 6 days
<input type="checkbox"/>	Trekking and racing bikes	In dry conditions: Every 140... 200 km In wet conditions: Every 100 km
	Mountain bikes	In dry conditions: Every 60... 100 km In wet conditions: Service all the time
<input type="checkbox"/>	Service all-round chain guard.	See Section 6.4.16.1
<input type="checkbox"/>	Check tyre pressure (at least once a week)	See Section 6.5.1.1
<input type="checkbox"/>	Check tyres (every 10 days)	See Section 6.5.1.2
<input type="checkbox"/>	EIGHTPINS seat post Refill oil (every 20 hours)	See Section 6.4.19

Checklist: Monthly tasks	
<input type="checkbox"/> Clean battery	See Section 6.3.2
<input type="checkbox"/> Clean on-board computer	See Section 6.3.1
<input type="checkbox"/> Clean on-board computer	See Section 6.3.1
<input type="checkbox"/> Check disc brake linings (once a month or after braking 1,000 times)	See Section 3.3.6.3
<input type="checkbox"/> Check rim brake linings (once a month or after braking 3000 times)	See Section 6.5.1.3
<input type="checkbox"/> Check the rim braking surface for wear	See Section 7.5.2.6
<input type="checkbox"/> Clean handbrake	See Section 6.3.16.1
<input type="checkbox"/> Clean the brake disc	See Section 6.3.17
<input type="checkbox"/> Check brake disc	See Section 6.5.2.4
<input type="checkbox"/> Check brake Bowden cables	See Section 6.5.2.3
<input type="checkbox"/> Clean pannier rack	See Section 6.3.4
<input type="checkbox"/> Clean handles	See Section 6.3.7
<input type="checkbox"/> Service the handles	See Section 6.4.8
<input type="checkbox"/> Check handbrake	See Section 6.5.2.1
<input type="checkbox"/> Check the hydraulic system	See Section 6.5.2.2
<input type="checkbox"/> Clean cassette	See Section 6.3.15
<input type="checkbox"/> Cleaning chain and all-round chain guard	See Section 6.3.19.1
<input type="checkbox"/> Clean chain wheels	See Section 6.3.15
<input type="checkbox"/> Clean leather handles	See Section 6.3.7.1
<input type="checkbox"/> Service leather handles	See Section 6.4.8.2
<input type="checkbox"/> Clean leather saddle	See Section 6.3.9.1
<input type="checkbox"/> Service leather saddle	See Section 6.4.11
<input type="checkbox"/> Clean handlebars	See Section 6.3.6
<input type="checkbox"/> Clean motor	See Section 6.3.3

Checklist: Monthly tasks	
<input type="checkbox"/> Clean hub	See Section 6.3.12
<input type="checkbox"/> Clean frame	See Section 6.3.4
<input type="checkbox"/> Clean tyres	See Section 6.3.10
<input type="checkbox"/> Check back-pedal brake	See Section 7.5.2.5
<input type="checkbox"/> Clean saddle	See Section 6.3.9
<input type="checkbox"/> Clean seat post	See Section 6.3.8
<input type="checkbox"/> Service seat post	See Section 6.4.9
<input type="checkbox"/> Clean shifter	See Section 6.3.14.1
<input type="checkbox"/> Clean gear shift	See Section 6.3.13
<input type="checkbox"/> Clean shift cables	See Section 6.3.13
<input type="checkbox"/> Check the disc brake	See Section 6.5.2.4
<input type="checkbox"/> Clean mudguard	See Section 6.3.4
<input type="checkbox"/> Clean kickstand	See Section 6.3.4
<input type="checkbox"/> Clean the spokes and spoke nipples	See Section 6.3.11
<input type="checkbox"/> Service spoke nipples	See Section 6.4.13
<input type="checkbox"/> Clean rigid fork	See Section 6.3.4
<input type="checkbox"/> Clean transmission	See Section 6.3.13
<input type="checkbox"/> Clean front derailleur	See Section 6.3.15
<input type="checkbox"/> Clean the stem	See Section 6.3.5

Checklist: Quarterly tasks	
<input type="checkbox"/> Check brake pressure point	See Section 6.5.2.1
<input type="checkbox"/> Check rim brake (100 hours trip time or every 2,000 km)	See Section 7.5.2.6
<input type="checkbox"/> Check the spokes	See Section 6.5.1.3

Checklist: Tasks performed at least every six months (or every 1,000 km)	
<input type="checkbox"/>	Check Bowden cables gear shift See Section 6.5.10.2
<input type="checkbox"/>	Service handbrake See Section 6.4.18.1
<input type="checkbox"/>	Service carbon seat post See Section 6.4.9.2
<input type="checkbox"/>	Check gear shift electric cables See Section 6.5.10.1
<input type="checkbox"/>	Service suspension seat post See Section 6.4.9.1
<input type="checkbox"/>	Service rims See Section 6.4.10
<input type="checkbox"/>	Check rims See Section 6.5.1.3
<input type="checkbox"/>	Check rim hooks See Section 6.5.1.3
<input type="checkbox"/>	Service fork See Section 6.4.2
<input type="checkbox"/>	Check gear shift See Section 6.5.10
<input type="checkbox"/>	Service pannier rack See Section 6.4.3
<input type="checkbox"/>	Check chain See Section 6.5.10
<input type="checkbox"/>	Check derailleur gears See Section
<input type="checkbox"/>	Check chain tension
<input type="checkbox"/>	Check wheel See Section 6.5.1
<input type="checkbox"/>	Service handlebars See Section 6.4.7
<input type="checkbox"/>	Check handlebars See Section 6.5.6
<input type="checkbox"/>	Check light See Section 6.5.4
<input type="checkbox"/>	Service hub See Section 6.4.12
<input type="checkbox"/>	Check hub See Section 6.5.10.4
<input type="checkbox"/>	Check nipple holes See Section 6.5.1.4
<input type="checkbox"/>	Service pedals See Section 6.4.15
<input type="checkbox"/>	Check pedal See Section 6.5.8
<input type="checkbox"/>	Service frame See Section 6.4.1
<input type="checkbox"/>	Check belt tension See Section 6.5.3.3
<input type="checkbox"/>	Check saddle See Section 6.5.7
<input type="checkbox"/>	Service shifter See Section 6.4.14.2
<input type="checkbox"/>	Service rear derailleur articulated shaft See Section 6.4.14.1
<input type="checkbox"/>	Service rear derailleur jockey wheels See Section 6.4.14.1
<input type="checkbox"/>	Service kickstand See Section 6.4.5
<input type="checkbox"/>	Check kickstand stability See Section 6.5.10.9
<input type="checkbox"/>	Check steering headset See Section 8.5.6

Checklist: Tasks performed at least every six months (or every 1,000 km)	
<input type="checkbox"/>	Service stem See Section 6.4.6
<input type="checkbox"/>	Check stem See Section 6.5.5

Checklist: Annual tasks (or every 2000 km)	
<input type="checkbox"/>	Adjust hub with cone bearing See Section 8.5.6
<input type="checkbox"/>	Check nipple well (every 1,000 hours or every 2,000 km) See Section 6.5.1.5

 **WARNING**
Crash caused by brake failure

Oil or lubricant on the brake disc in a disc brake or on the rim of a rim brake can cause the brake to fail completely. This may cause a crash with serious injuries.

- ▶ Never allow oil or lubricant to come into contact with the brake disc or brake linings or on the rim of a rim brake.
- ▶ If the brake linings have come into contact with oil or lubricant, contact specialist dealer to have the components cleaned or replaced.
- ▶ After cleaning, servicing or repair, carry out a few test brake applications.

The brake system is not designed for use on a pedelec which is placed on its side or turned upside down. The brake may not function correctly as a result. This can cause a crash, which may result in injuries.

- ▶ If pedelec has been placed on its side or turned upside down, apply the brakes a couple of times before setting off to ensure they work as normal.

The brake seals are unable to withstand high pressures. Damaged brakes can fail and cause an accident with injury.

- ▶ Never clean the pedelec with a pressure washer or compressed air.

Take great care when using a hosepipe. Never point the water jet directly at the seal section.

 **CAUTION**
Crash and falling caused by unintentional activation

There is a risk of injury if the electric drive system is activated unintentionally.

- ▶ Remove the battery before cleaning.

Notice

Water may enter the inside of the bearings if you use a steam jet. This dilutes the lubricant inside, the friction increases and, as a result, the bearings are permanently damaged in the long term. Water may also penetrate the electric components and damage them permanently.

- ▶ Never clean pedelec with a pressure washer, water jet or compressed air.

Greased parts, such as the seat post, the handlebars or the stem, may no longer be safely and reliably clamped.

- ▶ Never apply grease or oil to parts which are clamped.

Harsh cleaning agents such as acetone, methylene and trichloroethylene and solvents such as thinners, alcohol and corrosion protection can attack pedelec components and damage them permanently.

- ▶ Use approved care and cleaning products only.

7 Inspection and maintenance

⚠️ WARNING Injury due to damaged brakes

Special tools and specialist knowledge are required to repair the brakes. Incorrect or unauthorised assembly can damage the brakes. This may lead to an accident with serious injuries.

- ▶ Only specialist dealers may carry out repairs on brakes.

⚠️ CAUTION Crash caused by material fatigue

If the service life of a component has expired, the component may suddenly fail. This may cause a crash with injuries.

- ▶ Have the specialist dealer carry out basic cleaning of the pedelec every six months, preferably at the same time as the required servicing work.

Notice The motor is maintenance-free and only qualified specialist personnel may open it.

- ▶ Never open the motor.

7.1 Initial inspection

Vibrations produced while riding can cause screws and springs that were tightened when pedelec was manufactured to settle or come loose.

- ▶ Have the initial inspection carried out after 200 km or 4 weeks after purchase.
- ▶ Arrange an appointment for the initial inspection intermediately when purchasing the pedelec.
- ▶ Have the initial inspection entered and stamped in the maintenance book.

7.2 Major inspection

You must have your specialist dealer perform a major inspection every twelve months or after 1,000 km of use as a minimum. This is the only way to ensure that the pedelec remains safe and fully functional.

The tasks require technical expertise, special tools and special lubricants. The pedelec may become damaged if the stipulated major inspection and procedures are not carried out. This is why only specialist dealers may carry out the major inspection.

- ▶ Contact your specialist dealer and arrange an appointment.
- ▶ Enter and stamp major inspection tasks in the maintenance book.

7.3 Component-specific maintenance

High-quality components require extra maintenance. The tasks require technical expertise, special tools and special lubricants. The pedelec may become damaged if the stipulated maintenance intervals and procedures are not observed. This is why only specialist dealers may carry out maintenance.

Correct maintenance on the fork not only guarantees a long service life, but also ensures optimal performance.

Each maintenance interval shows the maximum cycling hours for the required type of maintenance that the component manufacturer recommends.

- ▶ Optimise performance with shorter maintenance intervals, depending on use, terrain and environmental conditions.

Inspection and maintenance intervals for suspension fork		
SR SUNTOUR suspension fork		
<input type="checkbox"/>	Maintenance 1	Every 50 hours
<input type="checkbox"/>	Maintenance 2	Every 100 hours
Inspection and maintenance intervals for rear frame damper		
RockShox rear frame damper		
<input type="checkbox"/>	Service air chamber Monarch, Monarch Plus, Deluxe, SIDLuxe (2021+), Super Deluxe, Vivid Air (2011-2022)	Every 50 hours
SR SUNTOUR rear frame damper		
<input type="checkbox"/>	Complete shock absorber service, including damper reassembly and air seal replacement	Every 100 hours
Inspection and maintenance intervals for motor		
pinion E1.12, E1.9		
<input type="checkbox"/>	Oil change	Every 10,000 km
Inspection and maintenance intervals for hub		
All other SHIMANO gear hubs		
<input type="checkbox"/>	Lubricate internal components	1,000 km after start of use, then every 2 years or 2,000 km

8 Repair

Components deteriorate over time due to normal wear and tear during use. Components must be replaced regularly and are thus considered wear parts.

The following components on the pedelec are often wear parts.

Wear parts	
<input type="checkbox"/>	Battery
<input type="checkbox"/>	Lighting
<input type="checkbox"/>	Brake lining
<input type="checkbox"/>	Brake disc
<input type="checkbox"/>	Rims
<input type="checkbox"/>	Handles/saddle
<input type="checkbox"/>	Chain
<input type="checkbox"/>	Crank
<input type="checkbox"/>	Bearing
<input type="checkbox"/>	Motor
<input type="checkbox"/>	Tyres and tubes
<input type="checkbox"/>	Belt
<input type="checkbox"/>	Sprocket, chainring or belt sprocket
<input type="checkbox"/>	Shift cables/brake cables

8.1 Repairs at the specialist dealer

Expert knowledge, a workshop, special tools and additional training are required for many repairs. Contact your specialist dealer if you are unable to carry out work on your pedelec yourself, you feel unsure or you do not have the right tools.

You can perform the following steps yourself:

- Replacing tyres and tube Never perform replacement yourself if you have a motor hub.
- Replacing handles with bolt clamp
- Attaching approved accessories (mirror, bar ends)
- Replacing the bell
- Replacing pedals if the pedal is not wider than the original component
- Replacing the guards and the chain case

9 Recycling and disposal



This device is marked according to the European Directive 2012/19/EU on waste electrical and electronic equipment – WEEE and the European Directive 2006/66/EC on accumulators. The

directive provides the framework for returning and recycling used devices across the EU. Consumers are legally required to return all used batteries of any type. It is forbidden to dispose of batteries in domestic waste.

The battery manufacturer is legally obliged to take back used and old batteries free of charge according to Section 9 German Batteries Act. The pedelec frame, battery, motor, on-board computer and charger are recyclable materials. You must dispose of and recycle them separately from domestic waste in compliance with the applicable statutory regulations. Collecting and recycling items separately safeguards reserves of raw materials and ensures that all the regulations on health and environmental protection are observed when recycling the product and/or the battery.

- ▶ Never dismantle the pedelec, battery or charger for disposal.

The pedelec, the on-board computer, the unopened and undamaged battery and the charger can be returned to any specialist dealer free of charge. Further disposal options may be available, depending on the region.

- ▶ Store the individual parts of the decommissioned pedelec in a dry place, free from frost, where they are protected from direct sunlight.

10 Glossary

Bicycle for young adults

Source: ISO 4210-2: S pedelec designed for use on public roads by a young adult whose weight is less than 40 kg, with maximum saddle height of 635 mm or more and less than 750 mm (see ISO 4210).

Brake lever

Source: EN 15194:2017: lever used to apply the brake.

Braking distance

Source: EN 15194:2017: distance travelled by a pedelec between the commencement of braking and the point at which the pedelec comes to rest.

Cargo bike

Source: DIN 79010: pedelec mainly designed to carry goods.

CE marking

Source: Directive on Machinery: the manufacturer uses the CE marking to declare that the pedelec complies with the applicable requirements.

City and trekking bicycle

Source: EN-ISO 4210 - 2: pedelec designed for use on public roads primarily for means of transportation or leisure.

Consumables

Source: EN 82079-1: any part or material that is needed to continue using or maintain the product.

Continuous power rating

Source: ISO 15194:2017: output power specified by the manufacturer at which the motor reaches its thermal equilibrium under the specified ambient conditions.

Decommissioning

Source: DIN 31051: intentional, unlimited interruption in an object's functional capability.

Disc brake

Source: EN 15194:2017: brake in which brake pads are used to grip the lateral faces of a thin disc attached to or incorporated into the wheel hub.

Drive belt

Source: EN 15194:2017: seamless ring belt which is used as a means of transmitting drive force.

Electrical control system

Source: EN 15194:2017: electronic and/or electrical component or an assembly of components provided for installation into a vehicle, together with all electrical connections and associated wiring for the motor electrical power assistance.

Electrically power assisted cycle, pedelec

Source: EN 15194:2017: electrically power assisted cycle pedelec EPAC bicycles, equipped with pedals and an auxiliary electric motor, which cannot be propelled exclusively by means of the auxiliary electric motor, except in start-up assistance mode.

Emergency stop

Source: ISO 13850:2015: to avert arising or reduce existing hazards to persons, damage to machinery or to work in progress; – to be initiated by a single human action.

Fault

Source: EN 13306:2018-02, 6.1: state of an item (4.2.1) characterized by its inability to perform a required function (4.5.1), excluding such inability during preventive maintenance or other scheduled actions or due to lack of external resources.

Folding bicycle

Source: ISO 4210-2: pedelec designed to fold into a compact form, making it easy to transport and store.

Fork steerer

Source: EN 15194:2017: part of a fork that rotates around the steering axis of a pedelec frame head tube. It is normally connected to the fork crown or directly to the fork legs, and is normally the point of connection between the fork and the handlebar stem.

Fracture

Source: EN 15194:2017: unintentional separation into two or more parts.

Maintenance

Source: DIN 31051: maintenance is generally performed at regular intervals and often carried out by trained technical staff. This ensures a maximum service life and low wear and tear for the maintained items. Proper maintenance is often also a pre-requisite for providing a warranty.

Manufacturer

Source: Directive 2006/42/EC on Machinery, 17.05.2006 Any natural or legal person who designs and/or manufactures machinery or partly completed machinery covered by this Directive and is responsible for the conformity of the machinery or the partly completed machinery with this Directive with a view to its being placed on the market, under his own name or trademark or for his own use.

Maximum continuous power rating

Source: ZEG: the maximum continuous power rating is the maximum power for the electric motor output shaft during 30 minutes.

Maximum permitted total weight

Source: EN 15194:2017: weight of the fully assembled pedelec plus the rider and baggage, as specified by the manufacturer.

Maximum saddle height

Source: EN 15194:2017: vertical distance from the ground to the point where the top of the seat surface is intersected by the seat-post axis, measured with the saddle in a horizontal position and with the seat-post set to the minimum insertion-depth mark.

Maximum tyre pressure

Source: EN 15194:2017: maximum tyre pressure recommended by the tyre or rim manufacturer for a safe and efficient performance. If the rim and tyre both indicate a maximum tyre pressure, the maximum inflation pressure is the lower of the two pressures indicated.

Minimum insertion depth

Source: EN 15194:2017: mark indicating the minimum insertion depth of handlebar stem into fork steerer (fork stem) or seat post into frame.

Model year

Source: ZEG: the model year refers to the first production year that the series-manufactured pedelec was manufactured in the version in question and is not always identical with the year of manufacture. The year of manufacture may be before the model year in some cases. If no technical modifications are introduced to the series, production may continue of pedelecs from a previous model year.

Mountain bike, MTB

Source: ISO 4210-2: pedelec designed for use off-road on rough terrain, on public roads, and on public pathways, equipped with a suitably strengthened frame and other components, and, typically, with wide-section tyres with coarse tread patterns and a wide range of transmission gears.

Negative deflection

Negative deflection or sag is fork compression caused by body weight and gear (e.g. a backpack), the rider's position and the frame geometry.

Off-road rough terrain

Source: EN 15194:2017: rough gravel tracks, forest trails and other generally off-road tracks where tree roots and rocks are likely to be encountered.

Operating instructions

Source: ISO/DIS 20607:2018: part of the user information that machine manufacturers provide to machine operators; it contains guidance, instructions and tips related to the use of the machine in all its life cycle phases.

Placing on the market

Source: Directive 2006/42/EC on Machinery, 17.05.2006, Making available for the first time in the Community machinery or partly completed machinery with a view to distribution or use, whether for reward or free of charge.

Pressure point

Source: ZEG: the pressure point on a brake is the point on the brake lever where the brake disc and brake pads respond and the braking process is initiated.

Quick-release device, quick release

Source: EN 15194:2017: lever actuated mechanism that connects, retains or secures a wheel or any other component.

Racing bicycle

Source: ISO 4210-2: bicycle intended for high-speed amateur use on public roads and having a steering assembly with multiple grip positions (allowing for an aerodynamic posture), a multi-speed transmission system, tyre width not greater than 28 mm and a maximum mass of 12 kg for the fully assembled bicycle.

Rebound

The rebound defines the speed at which the fork rebounds after being loaded.

Rechargeable battery, battery

Source: DIN 40729:1985-05: a rechargeable battery is an energy storage device that can store supplied electrical energy as chemical energy (charging) and release it as electrical energy when required (discharging).

Seat post

Source: EN 15194:2017: component that clamps the saddle (with a bolt or assembly) and connects it to the frame.

Shut-off speed

Source: EN 15194:2017: speed reached by the pedelec at the moment the current has dropped to zero or to the no load current value.

Slippage

Source: DIN 75204-1:1992-05: the difference in relation to vehicle speed between the vehicle speed and the speed of its wheels at their circumference.

Spare part

Source: EN 13306:2018-02, 3.5: item intended to replace a corresponding item in order to retain or maintain the original required function of the item.

Suspension fork

Source: EN 15194:2017: front wheel fork incorporating controlled, axial flexibility to reduce the transmission of road-shocks to the rider.

Suspension frame

Source: EN 15194:2017: frame incorporating controlled, vertical flexibility to reduce the transmission of road-shocks to the rider.

Terrain

Source: ISO 4210-1:2023-05, EN 15194:2017: coarse pebble tracks, forest trails and other general off-road tracks where tree roots and rocks are likely to be encountered.

Total deflection

Source: Benny Wilbers, Werner Koch: Neue Fahrwerkstechnik im Detail (*New chassis technology in detail*): The distance that the wheel travels between an unloaded and a loaded position is called total deflection. When at rest, the vehicle's mass is applied to the springs and reduces the total deflection by the negative deflection to the positive deflection.

Wear

Source: DIN 31051: reduction in useful life (4.3.4), caused by chemical and/or physical processes.

Weight of the ready-to-ride pedelec

Source: ZEG: the indicated weight for a ready-to-ride pedelec refers to the weight of a pedelec at the time of sale. The weight of each additional accessory must be added to this weight.

Wheel

Source: ISO 4210-2: unit or combination of hub, rim and spokes or disc, but excluding tyre assembly.

Work environment

Source: EN 9000:2015: set of conditions under which work is performed.

Year of manufacture

Source: ZEG: the year of manufacture is the year in which the pedelec was manufactured. The production period is always from May to July the following year.

11 Appendix

11.1 Declaration of conformity with RED Directive Biketec

DE: Hiermit erklärt die Biketec GmbH, dass der Funkanlagentyp 500093, 501262, 501263, 501264, 501301, 500429 den Richtlinien 2014/53/EU entspricht. The complete EU Declaration of Conformity is available online at:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

FR: Le soussigné, Biketec GmbH, déclare que l'équipement radioélectrique du type 500093, 501262, 501263, 501264, 501301, 500429 est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

NL: Hierbij verklaar ik, Biketec GmbH, dat het type radioapparatuur 500093, 501262, 501263, 501264, 501301, 500429 conform is met Richtlijn 2014/53/EU. De volledige tekst van de EUconformiteitsverklaring kan worden geraadpleegd op het volgende internetadres:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

EN: Hereby, Biketec GmbH, declares that the radio equipment type 500093, 501262, 501263, 501264, 501301, 500429 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

ES: Por la presente, Biketec Gmb, declara que el tipo de equipo radioeléctrico 500093, 501262, 501263, 501264, 501301, 500429 es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

IT: Il fabbricante, Biketec GmbH, dichiara che il tipo di apparecchiatura radio 500093, 501262, 501263, 501264, 501301, 500429 è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

DA: Hermed erklærer Biketec GmbH, at radioudstyrstypen 500093, 501262, 501263, 501264, 501301, 500429 er i overensstemmelse med direktiv 2014/53/EU. EUoverensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

PL: Biketec GmbH, niniejszym oświadczam, że typ urządzenia radiowego 500093, 501262, 501263, 501264, 501301, 500429 jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

HU: Biketec GmbH, igazolja, hogy a 500093, 501262, 501263, 501264, 501301, 500429 típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

HR: Biketec GmbH, ovime izjavljuje da je radijska oprema tipa 500093, 501262, 501263, 501264, 501301, 500429 u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o skladnosti dostupan je na sljedećoj internet-skoj adresi:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

CS: Tímto Biketec GmbH, prohlašuje, že typ rádiového zařízení 500093, 501262, 501263, 501264, 501301, 500429 je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

SL: Biketec GmbH, potrjuje, da Per tip radijske opreme 500093, 501262, 501263, 501264, 501301, 500429 skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

RO: Prin prezenta, Biketec GmbH, declară că tipul de echipamente radio 500093, 501262, 501263, 501264, 501301, 500429 este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

LT: Aš, Biketec GmbH, patvirtinu, kad radijo įrenginiu tipas 500093, 501262, 501263, 501264, 501301, 500429 atitinka Direktyva 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu:

<https://fit-ebike.com/service/konformitaetserklaerungen>.

11.2 Declaration of conformity with RED Directive BOSCH

DE: Hiermit erklärt die Robert Bosch GmbH, Bosch eBike Systems, dass der Funkanlagentyp BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 den Richtlinien 2014/53/EU entspricht. The complete EU Declaration of Conformity is available online at: www.ebike-connect.com/conformity.

FR: Le soussigné, Robert Bosch GmbH, Bosch eBike Systems, déclare que l'équipement radioélectrique du type BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: www.ebike-connect.com/conformity.

NL: Hierbij verklaar ik, Robert Bosch GmbH, Bosch eBike Systems, dat het type radioapparaat BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: www.ebike-connect.com/conformity.

EN: Hereby, Robert Bosch GmbH, Bosch eBike Systems, declares that the radio equipment type BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.ebike-connect.com/conformity.

ES: Por la presente, Robert Bosch GmbH, Bosch eBike Systems declara que el tipo de equipo radioeléctrico BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: www.ebike-connect.com/conformity.

IT: Il fabbricante, Robert Bosch GmbH, Bosch eBike Systems, dichiara che il tipo di apparecchiatura radio BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: www.ebike-connect.com/conformity.

DA: Hermed erklærer Robert Bosch GmbH, Bosch eBike Systems, at radioudstyrstypen BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: www.ebike-connect.com/conformity.

PL: Robert Bosch GmbH, Bosch eBike Systems, niniejszym oświadczam, że typ urządzenia radiowego Purion 200 BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: www.ebike-connect.com/conformity.

HU: Robert Bosch GmbH, Bosch eBike Systems igazolja, hogy a BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: www.ebike-connect.com/conformity.

HR: Robert Bosch GmbH, Bosch eBike Systems ovime izjavljuje da je radijska oprema tipa BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o skladnosti dostupan je na sljedećoj internetskoj adresi: www.ebike-connect.com/conformity.

CS: Tímto Robert Bosch GmbH, Bosch eBike system prohlašuje, že typ rádiového zařízení BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: www.ebike-connect.com/conformity.

SL: Robert Bosch GmbH, Bosch eBike Systems ovime izjavljuje da je radijska oprema tipa BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 u skladu s Direktivom 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: www.ebike-connect.com/conformity.

RO: Prin prezenta, Robert Bosch GmbH, Bosch eBike Systems declară că tipul de echipamente radio BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: www.ebike-connect.com/conformity.

LT: Aš, Robert Bosch GmbH, Bosch eBike Systems, patvirtinu, kad radijo įrenginio tipas BRC3600, BSP3200, BRC3800, BCM3100, BHU3200, BRC3100, BRC3300 atitinka Direktyva 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: www.ebike-connect.com/conformity.

11.3 Translation of the original EC/EU Declaration of Conformity

Manufacturer

ZEG Zweirad-Einkaufs-Genossenschaft eG
Longericher Str. 2
50739 Köln, Germany

Authorised representative for documentation*

Janine Otto
c/o ZEG Zweirad-Einkaufs-Genossenschaft eG
Longericher Str. 2
50739 Köln, Germany

The machine, pedelec types:

ZC-15-0001	Premio EVO SUV 10
ZC-15-0002	PEGASUS PREMIO EVO 10 SUV ABS
ZC-15-0005	PEGASUS CODO EVO 10
ZC-15-0006	Solero EVO 7F Belt
ZC-15-0009	Solero EVO 10
ZC-15-0010	Solero EVO 8R
ZC-15-0011	Solero EVO 8R XS 27.5"
ZC-15-0012	Solero EVO 8F
ZC-15-0013	PEGASUS CODO EVO 7F BELT
ZC-15-0014	PEGASUS SOLERO EVO 8
ZC-15-0015	Estremo EVO 9 Lite
ZC-15-0016	Estremo EVO 12 Lite
ZC-15-0029	Solero EVO 5R Belt
ZC-15-0030	Solero EVO 5F Belt
ZC-15-0050	Swing E8F Belt
ZC-15-0051	Swing NV Belt

From year of manufacture 2025, it complies with the following applicable EU provisions:

- Machinery Directive 2006/42/EC.
- RoHS Directive 2011/65/EU
- Electromagnetic Compatibility Directive 2014/30/EU.

The safety objectives in the Low Voltage Directive 2014/35/EU have been met in compliance with Appendix I, No. 1.5.1 of the Machinery Directive 2006/42/EC.

The safety objectives in the Low Voltage Directive 2014/35/EU have been met in compliance with Appendix I, no. 1.5.1 of the Machinery Directive 2006/42/EC.

The following harmonised standards have been applied:

EN 15194:2017 Cycles – Electrically power assisted cycles – EPAC bicycles
except Section 6 Instructions for use

EN ISO 20607: 2019 Safety of machinery – Instruction handbook – General drafting principles.
except Section 7 Form of publication

The following other technical standards have been applied:

EN ISO 11243:2023, Cycles – Luggage carriers for bicycles – Requirements and test methods
EN 17406:2021-11 Classification for bicycles usage



The image shows the CE mark on the left and a handwritten signature in cursive on the right. The signature appears to be 'F. Schierenbeck' followed by a stylized flourish.

Cologne, 09.04.2025, Management Board: Fred Schierenbeck (Chair), Jens Stahlschmidt ZEG Zweirad-Einkaufs-Genossenschaft eG

* Community member who is authorised to compile the technical documentation

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