

CRUSSIS

CZECH MANUFACTURER OF E-BIKES

Electric bicycle user manual

Panasonic

GX Ultimate | GX Power Plus

PAN-Guera 8.8

PAN-Atland 8.8

PAN-Fionna 8.8

PAN-Largo 8.8

PAN-Guera 9.8

PAN-Atland 9.8

PAN-Fionna 9.8

PAN-Largo 9.8

PAN-Cross 9.8

PAN-Cross low 9.8

ONE-PAN Guera 8.8

ONE-PAN Largo 8.8

ONE-PAN Guera 9.8

ONE-PAN Largo 9.8

ONE-PAN Cross 9.8

ONE-PAN Cross low 9.8

Enjoy your ride!

**/MTB
SERIES**

**/CROSS
SERIES**

ONE
CRUSSIS



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FOREWORD


Dear users,

thank you for purchasing a CRUSSIS e-bike! We appreciate you choosing our product. For proper operation of the CRUSSIS e-bike, read the product information carefully before using it. In this manual we inform you about all the details related to the use of the e-bike (including the installation of the device, settings and normal use of the display). This manual will also help you solve any ambiguities and problems.

CRUSSIS ELECTROBIKES s.r.o wishes you many beautiful and safe kilometers on the new e-bike.

A list of CRUSSIS dealers can be found on the website **www.cruassis.com**.

WHAT IS AN E-BIKE?

It is a classic bicycle that is equipped with an electric motor. This can be located in the centre, rear or front hub. The maximum assist speed is limited to 25 km/h and this limitation corresponds to the European standard EN 15194-1 (the electric motor is switched off when exceeding this speed and switches on as soon as the speed falls below this limit). Furthermore, the bike is equipped with a battery that can be placed in the frame or on the rear rack. The most important parameters of the battery are voltage and capacity. The higher the values, the greater the range of the e-bike. Currently, lithium-ion (Li-ion) batteries are the most commonly used. The advantage of these batteries is mainly in their low weight and long service life. It is important to keep the battery regularly recharged to prolong its life. The communication between the individual electrical components is provided by a control unit that evaluates the data from the individual sensors, according to which it controls the performance of the electric motor. Operation of the electric motor is provided by a control panel which provides information on battery status, support level and remaining range. Time, speed and distance travelled are standard on most displays. The motor function is activated by pedalling, which is sensed by a special sensor located in the pedal centre. So you have to keep pedaling the e-bike, the motor only helps you. The pedalling sensor is responsible for informing the control unit whether the rider has started or stopped pedalling and informs about the pedalling frequency. This function is taken care of by either a magnetic waist sensor or a torsion sensor. The magnetic waist sensor is a basic sensor that works on the magnetic principle. This sensor, which is installed on the center axis, checks the pedaling frequency. Activation of the sensor by back pedalling is impossible due to the magnets being out of phase. Torsion sensors are used on more expensive sports bikes. Compared to magnetic sensors, they provide information about both the frequency of pedalling and the force exerted on the pedal. A torsion sensor is ideal for off-road riding where there are frequent changes in pedaling frequency. If we need to pedal with more force, the motor will immediately help us with more power. On the other hand, when riding downhill, when less pedal pressure is applied, the motor function is reduced, thus saving battery power. You can set the e-bike in motion using the control button , which is located on the display controller, but only up to the maximum speed limit, i.e. 6km/h (used to assist walking). On an electric bicycle that complies with the European standard

EN 15194-1, is considered as a normal bicycle in terms of the Road Traffic Act. This means that you can ride on cycle paths, you do not need a driving licence and a helmet is only compulsory up to the age of 18. We recommend the use of a bicycle helmet to all users regardless of age.

Switching on the e-bike

1. Press the on/off button on the battery briefly to switch on the battery (see page 12 for more information),
2. press the on/off button on the display for approx. 2 seconds to switch on the display,
3. select the desired level of assistance on the display (see page 14 for more on displays).

Switching off the e-bike

1. press the on/off button on the display briefly to switch off the display,
2. press the on/off button on the battery for approx. 2 seconds to switch off the battery.

Electric bike components



1 battery

2 motor

3 control panel (lcd display)

4 torque sensor (inside of the motor)

5 brake levers

6 battery lock

7 brakes

8 shifter lever

9 cranks and pedals

10 quick release skewer

11 derailleur

12 tire and rim

GENERAL WARNINGS

Riding an e-bike, like other sports, can pose a risk of injury and damage. If you want to use an e-bike, you must learn and follow the rules of safe riding, proper use and maintenance of an e-bike. Regular maintenance and proper use will reduce the risk of injury and extend the life of the product.

The electric bike models PAN-Guera, PAN-Atland, PAN-Fionna, PAN-Largo, ONE-PAN Guera, ONE-PAN Largo are suitable for riding on paved roads, cycle paths, gravel and forest roads, off-road riding. The e-bikes are equipped with tires with a coarser tread pattern to ensure sufficient grip for off-road riding. Therefore, vibrations may occur when riding on smooth surfaces (asphalt, concrete...).

The PAN-Cross, ONE-PAN Cross, PAN-Cross low, ONE-PAN Cross low models are suitable for riding on paved roads, bike paths, gravel and forest roads.



E-bikes should not be used for wading, for any jumping and impacts from height, do not use them for extreme riding in difficult terrain (downhill, enduro, riding on obstacles)!

We recommend that you have your e-bike assembled and adjusted by a professional e-bike workshop.

The e-bike can be used as a conventional bicycle without the assistance of an electric motor. During unassisted riding (i.e. assistance OFF), every e-bike puts some resistance caused by the transmission in the motor.

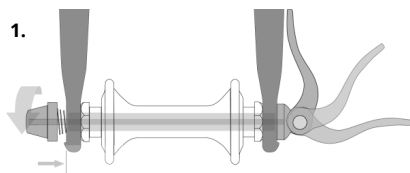
Check before your first ride:

- The right size of e-bike: An inappropriately chosen bike size can affect the handling of an e-bike.
- Saddle adjustment: the correct height and position of the saddle affects the comfort and handling of the bike. The position of the saddle on the seat tube is determined by the scale on the seat rails, there is a marking for the maximum distance and proximity to the handlebars! Please note: The maximum permissible height of the seat tube is marked with a line on the seat tube. Never set the seat tube above this height! This will prevent damage to the frame of the e-bike or the seat tube and possible injury.
- The correct height of the stem and handlebars.

Regular check:

Check the condition of your e-bike regularly before each ride. In this way, many technical problems can be prevented in time. The consequences of an irregular check can be disastrous in many cases. The life expectancy of the frame or components is influenced by the construction and material used, as well as maintenance and intensity of use. Regular inspections by qualified professionals should be a matter of course. Lift the e-bike to a height of 5-10 cm above the ground and drop it. This should reveal any loose components. Then carry out a visual and tactile check of the whole e-bike, especially the correct tightening of all bolts, nuts, pedal centre, pedals etc.

Wheels and tires: Check that the tires are properly inflated. Riding on an underinflated or overinflated tire can lead to poor e-bike control. We recommend to follow the maximum and minimum pressure values specified by the manufacturer on the tire. Check the tires for wear and proper shape. If bumps or cracks appear on the tires, you must replace the tires before use. Then check whether the wheels are correctly centered by turning them. Check if spokes are tight or are not missing. Make sure that the front and rear wheels are properly secured (Fig. 1). If it is a wheel with a Thru-Axle, make sure that the axle is fitted in the correct direction (at the front wheel).



Brakes: Check the function of the brakes. Press both brake levers and push the e-bike forward. Are the brake pads in full contact with the disc without the levers touching the handlebars? If not, the brakes must be adjusted (bled). Check the brake pads for wear. Brake pads and discs are worn out during use, so it is necessary to service the brakes regularly and replace worn parts in time.

Gear shifting and chain: The chain requires regular maintenance to extend its lifetime. Before lubrication, it is advisable to clean the chain and pinions first. Lubricate the chain with the lubricant designated for the bicycle chain. The chain stretches over time. The lifespan of the chain is very individual and depends on the quality of the chain, the mileage, the riding style and the terrain in which you ride. Regular replacement is necessary. The condition of the chain can be checked with a special gauge. A stretched or damaged chain can damage the gears and pinions. During shifting, the shifter cable becomes worn and stretched. The shifting needs to be adjusted regularly to switch correctly. By loosening or tightening the bowden nut at the shifter lever, fine corrections can be achieved.

Forks: You can find different types of forks on Crussis e-bikes.



You should never lock the fork when riding off-road or jumping. The fork may be damaged when compressed under heavy loads. This can also result in an accident and injury.



Also note that the fork is not intended for extreme terrain, jumps, downhill, freeride or dirt jumps. Failure to follow this information may result in damage to the fork, accident or death. Failure to follow this information will void the warranty.

ROCKSHOX suspension fork

RockShox FS Judy Silver TK Solo Air 29"

(PAN-Fionna 8.8-M / 9.8-M,
PAN-Largo 8.8-M / 8.8-L / 9.8-M / 9.8-L,
ONE-PAN Largo 8.8-M / 9.8-M)
Stroke: 100 mm
Fork column: 1 1/8"
Suspension: Solo Air
Locking: from fork (crown)
Axis: RU 9 mm

RockShox FS Judy Silver TK Solo Air 27,5"

(PAN-Atland 8.8-M / 8.8-L / 9.8-M / 9.8-L, PAN-Gu-
era 8.8-M / 9.8-M,
ONE-PAN Guera 8.8-M / 9.8-M)
Stroke: 100 mm
Fork column: 1 1/8"
Suspension: Solo Air
Locking: from fork (crown)
Axis: RU 9 mm

RockShox FS Paragon Gold RL Solo Air 700c

(PAN-Cross 8.8-M, ONE-PAN Cross 8.8-M, PAN-Cross low 8.8-M, ONE-PAN Cross low 8.8-M)

Stroke: 65 mm

Fork column: 1 1/8"

Suspension: Solo Air

Locking: from fork (crown)

Axis: RU 9 mm



IMPORTANT SAFETY INFORMATION

1. It is very important to have the RockShox suspension fork installed correctly by a qualified bicycle mechanic. Improperly installed forks are extremely dangerous and can cause serious or fatal injuries.

2. The fork on your bike is designed for use by a single rider on mountain roads and similar terrain conditions. **It is not advisable to drive off-road when the fork is locked.**

3. Before driving, make sure that the brakes are properly installed and adjusted. Use the brakes carefully and familiarize yourself with their properties and braking performance in non emergency conditions. Hard braking or improper use of the front brake can cause you to fall. If the brakes are not properly adjusted or improperly installed, the rider can be seriously or fatally injured.

4. The fork may malfunction under certain circumstances. For instance if oil is lost, components or parts of the fork are bent or cracked. The fault in the fork may not be visible. Do not ride a bicycle if you notice bent or broken fork parts, oil loss, sounds due to excessive suspension, or other indications of a possible fork defect, such as loss of shock absorbing properties. Take your bike to a qualified dealer for inspection and repair. Damage to the fork may result in wheel damage or personal injury. Suspension forks and rear shock absorbers contain highly pressurized liquids and gases. The warnings in this manual must be followed to prevent injury or death. Never try to open the cartridge or the rear silencer, they are under a lot of pressure, as mentioned above. If you try to open the cartridge or the rear absorber, you risk serious injuries.

5. Always use genuine RockShox parts. The use of non-original spare parts will void the warranty and may cause a structural defect in the fork. A structural failure can cause you to lose control of your bicycle with possible serious or fatal injuries.

6. If you use a bike carrier on a car, the instructions for use of the bike carrier must be followed during any handling. If you are carrying the bike in a carrier on or behind the car in bad weather, you need to protect the bike from water with a suitable cover. Because when driving in the rain, e-bike is exposed to pressure of the water and it is equal to a pressure washing, which can seriously damage the bike.

7. The fork is designed to secure the front wheel with a quick release or thru-Axle . Make sure you understand which shaft your wheel has and how to handle it properly. Do not use a screw on the shaft. An incorrectly mounted wheel can allow the wheel to move or release, this can cause the da

mage to the bicycle and serious injury or death to the rider.

8. Follow all instructions in the user manual regarding care and maintenance of this product.

INSPECTION AND MAINTENANCE

Before each ride

If you find any cracks, dents, abrasions, deformations, or oil leaks on the fork or other components, contact a qualified mechanic to inspect the fork or e-bike.

Check air pressure. Load the fork with all your weight. If you find it soft, pump the fork to the required hardness. (For more information, see the section „Setting the air pressure“).

Check the wheel mounting and cable and bowdens routing - they must not restrict the movement of the handlebars.

After each ride

Clean all dirt. Do not use high-pressure cleaners - water may flow through the dusters into the fork. Lubricate the dust seals and fork legs. Do not use other oil than designed for forks lubrication. Consult your dealer for the use of a suitable oil.

Every 25 hours of drive

Oil inspection.

Check the correct tightening torque of the fork holders and other components.

Cleaning and lubrication of the outer cable and bowden cable.

Every 50 hours of drive

Removal of shock absorbers, cleaning / checking inserts and changing oil (if necessary).

Cleaning and lubrication of the air damper mounting kit.

Every 100 hours of drive

Complete cleaning of the fork inside and out, cleaning and lubrication of dust caps and cleaning rings, oil change in the damping system, tightening control and adjustment to the driver's preferences.

Prior to disassembly, check the fork clearance by braking the front wheel and gently pushing the stem forwards and backwards. If there is clearance in the fork, contact a qualified mechanic.

AIR PRESSURE ADJUSTMENT

1. Unscrew the valve cap. Screw the pump inflator onto the valve.

2. Pump the fork to the required pressure. Never exceed the maximum permissible pressure from the manufacturer. The recommended pressure and maximum pressure can be found in the table below or on the **fork leg**.



Use only pumps designed to inflate forks and shock absorbers to inflate RockShox forks. Using an unsuitable inflator can damage the fork! The fork must be unlocked when inflating, otherwise there is a risk of damage! Note that all Rock Shox forks are subject to normal wear and tear and that their durability and proper functioning are very individual and depend on the mileage, driving style, terrain and environment in which you ride. We do not recommend using oils containing Teflon on a fork with plastic bushings, there is a risk of etching the bushing.



Frame: Do not use a bent or cracked frame. You must never repair or straighten the frame under any circumstances. Consult your Crussis e-bike dealer for frame damage. Crussis frames have a mounting place for bottle holder. We recommend using side bottle holder (to remove the bottle to the side) to avoid breaking the screws.

E-bike load: The e-bike load stated in the specifications of the individual models is the sum of the rider's weight and the weight of the bike and the weight of all currently attached accessories (carrier, fenders, child seat, bags) and cargo!

Always keep all components clean.

If you wash the e-bike with water (do not use high-pressure cleaners to clean the e-bike or its parts) - always remove the battery from the e-bike before washing. Dry the e-bike before returning the battery. We recommend drying the e-bike after each ride, especially all electrical components. In winter, pay special attention to the maintenance of the e-bike, always clean the components from salt and moisture after riding. Perform maintenance at regular intervals. Information on the recommended tire pressure can be found directly on the side of the tire!



This manual is universal for Panasonic GX series drive system

All the Panasonic 8.8 models are equipped with the GX Power Plus motors.

All the Panasonic 9.8 models are equipped with the GX Ultimate motors.

System: **Panasonic GX power plus**

Torque: 75 Nm

Rated Power: 250 W

Weight: 3,2 kg

Resistance: IPX5

Pedal sensor: Torque and speed sensor

System: **Panasonic GX Ultimate**

Torque: 95 Nm

Rated Power: 250 W


Weight: 2,95 kg

Resistance: IPX5

Pedal sensor: Torque and speed sensor



ELECTRIC BIKE SYSTEM

The motor is activated by means of a torsion (pressure, force) sensor integrated into the central axis. The torsion sensor evaluates the frequency and force of pedaling, which it transmits to the control unit, which doses the motor power according to the force you pedal with. The e-bike motor switches on after about one turn of the pedal cranks. It switches off again after 1-2 sec. when you stop pedalling. The motor disengages when the speed reaches 25 km/h and re-engages when the speed drops below this limit. It thus complies with all European standards and is still a bicycle. The e-bike is equipped with an LCD panel that controls the electric drive. On the display (LCD panel) it is possible to select different modes of assistance OFF - HIGH. The highest assistance mode is HIGH, the OFF assistance mode is without the help of the electric motor. The LCD panel also contains a „walking assist“  function. In this mode the bike travels at speeds up to approx. 6 km/h without pedal assistance. The pedestrian assist helps when pushing or starting. The function is not intended for continuous riding.

Optional driving programs:

[HIGH] *1 Strong motor assistance is provided on straight and uphill roads.

[AUTO] *1 Motor assistance changes automatically depending on road conditions.

[STD] *1 Medium motor assistance is provided on flat roads and uphill roads.

[ECO] *1 On flat and uphill roads, little motor assistance is provided.

[OFF] *1 No motor assistance.

*1 Motor assistance may vary depending on weather conditions, road conditions, bicycle or driving style.

The motor assistance can vary depending on weather conditions, road conditions, the bicycle or driving style. The engine assistance modes are graded, i.e. ECO (lowest assistance) - HIGH (highest assistance) up to a speed of 25 km/h. The torsion sensor transmits information about the pedaling force, the more you pedal, the more the electric motor assists. Walk assist: the bike rides on its own at speeds up to approx. 6 km/h and helps when starting or pushing. This function is not intended for continuous riding! The speed and power of the walking assist is dependent on the gear (larger pinion less speed but more power, can be used on hills - smaller pinion more speed but less power, can be used on flat ground). We recommend using smaller pinions for proper function of the walking assist.



BATTERY INFORMATION

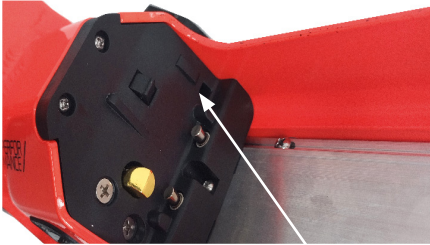
Lithium-ion (Li-ion) batteries are the most commonly used batteries today. The advantage of these batteries is mainly their light weight and long life. Li-ion batteries have a very low self-discharge rate. From the first charge, the battery needs to be kept in its working cycle (discharge/charge), even when not in use, the battery discharges naturally. It is recommended to recharge the battery regularly even when not using the electric bike about once a month and store it charged to 60 - 80% capacity. Otherwise, the battery may be damaged, which may cause a shorter range or, in the worst case, complete non-functionality. By recharging regularly you extend the life of the battery. We recommend that you fully charge the battery before first use. Since batteries do not have a memory effect, they can be recharged at any time. The maximum capacity is reached after approx. 5 - 10 charges. Always keep the battery charged and recharge it after a ride, not before the next ride. Li-Ion batteries are 100% recyclable. You can drop off the battery at any collection point or directly at the dealer. The battery is recharged using the included 230/240V charger, charging time is approximately 5 - 9 hours (depending on battery capacity and state of discharge). The battery can be left on the bike while charging, or it can be removed. To remove the battery, turn the key and then remove the battery.

Always switch off the e-bike system before charging the battery! Never immerse the battery in water (any liquids), store it in a humid environment or disassemble it. Please make sure the battery is properly seated and locked before each ride. There are several types of batteries available with Crussis e-bikes.



To unlock the battery, turn the key to the left to release it. To lock it, turn it to the right. Or you can unlock the battery by turning the key to the left and lock it by snapping the battery into the frame. Some models may be equipped with a latch pin, see picture below. To remove the battery, the latch pin must be pushed down towards the motor.

Frame battery - fully integrated



Tucked latch pin

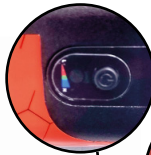
First, attach the connector, then push the battery towards to the lock



Battery lock



Battery indicator, power button



Charging battery connector for connecting the charger



Battery latch



To switch on the battery, briefly press the power button and the LED located next to the power button starts flashing green-blue-red. The last colour, which stays on and goes off after about 4 seconds, indicates the current state of charge of the battery.

If the battery is switched on, a short press of the button can be used to check the battery charge status. The battery LED lights up in the colour corresponding to the current battery charge.

- 100 - 71% blue light on
- 70 - 31% green light on
- 30 - 11% red light on - the assist strength may gradually decrease
- 10 - 0% red light flashes until 0%

The battery charge status shown on the control panel display is for reference only. If the motor stops running smoothly and runs intermittently, the battery capacity is too low. In this case, the electric drive system must be switched off. Continue riding without motor assistance and ensure that the battery will be recharged.

Turn off the battery by pressing the button for about 3 seconds until the LED flashes green-blue-red. When the battery is inserted into the e-bike, the battery always turns itself on, while the battery LED flashes green-blue-red. If you do not want to use the e-bike immediately, we recommend that you turn off the battery by long pressing the battery button.



The color behavior of the battery LED may vary depending on the battery firmware. Do not turn on the display while charging the bike battery. If you turn it on while charging, it will turn itself off after about 3 seconds.



The battery charge status shown on the display is for reference only. In case of excessive overheating, the battery will automatically shut down. The battery is protected by a temperature sensor. Once the battery has cooled down to operating temperature, it is possible to continue driving. Overheating of the battery is a common phenomenon associated with battery operation. If you leave the e-bike in a public place, we recommend locking the battery with a key. We recommend separating the keys of the battery, do not carry them all in one bundle in case of loss.

Charging



The battery must be turned on before charging, so turn on the battery. Connect the charger to the battery and only then to the electrical socket. As soon as the charger is connected to the el. socket, a red LED on the charger lights up to signal the start of the charging process. In the process of charging, the LED on the battery will flash green. At the end of the charging process, the green LED on the battery will change color to blue. This means that the battery is charged to 100%. If the LED on the charger is red after charging, it means balancing the cells. After balancing the cells, the LED on the charger lights up green again. Only at this moment is the battery fully charged and the battery is ready to use. The balancing time will increase depending on the age of the battery. We recommend that the charging process including balancing the cells be carried out at least every third charge. Charging time of the battery up to 100% takes 5 - 9 hours according to the state of discharge and battery capacity. After completing the charging process, first disconnect the charger from the el. socket, then from the battery. Interrupting the charging process does not damage the battery. The battery is of the Li-ion type and its nominal voltage is 36V, fully charged it reaches 42V.



Recharge the battery at room temperature (approx. 20°C). Always keep the battery (e-bike) under supervision when charging. Charging the battery at temperatures below 10°C and above 40°C can seriously damage the battery. Only use the charger that came with your e-bike to charge the battery. The battery is sensitive to accurate charging, using a different charger may result in damage to the battery or other parts of the e-bike. If the charger (or its cables) is damaged, never connect it to the electric bike or el. socket. The battery must be switched on and the e-bike system switched off before charging!

FACTORS AFFECTING THE RANGE OF THE ELECTRIC BIKE

It is not possible to determine the range of an e-bike accurately because it is influenced by many factors.

- 1. Route profile and surface:** on flat terrain, the range is higher than when riding on long steep climbs and worse surfaces.
- 2. Rider and load weight:** higher rider and load weight means higher energy consumption.
- 3. Inflation and tire tread:** correct tire inflation is important. Riding on under-inflated tires reduces the range of the e-bike.
- 4. Battery condition:** a fully charged, new battery has a greater range than a battery that has been charged and discharged many times. The battery capacity also has an effect on the range. Higher capacity = higher range. The battery reaches its maximum capacity after 5-10 charges.
- 5. Assist mode:** more motor assistance means lower range.
- 6. Driving style and smoothness:** if you pedal a lot, the motor uses less energy. The smoothness of the drive also its influence, as frequent ride start reduces the range.
- 7. Weather conditions:** temperatures around 20°C and no wind are ideal. If the temperature is lower and there is a strong headwind, the range is reduced.

E-BIKE CONTROL (COLOUR LCD DISPLAY)

The Panasonic control panel with its high-contrast LCD display provides all the important information that displays seamlessly even in direct sunlight. Handlebar control provides good feedback and ease of use. The user interface is clearly legible and intuitive. The control panel and display is protected against water and dirt ingress. It meets protection class IP 65. The system must be switched on when the bike is stationary (when the bike is not in motion). If the system is switched on while the bike is in motion, the assist may not work.



If the system is switched on while driving, error E-001 may be displayed. This error will remain on the display and the display cannot be operated at this time. You must switch the display off by briefly pressing the on/off button and switch the system on again when the bike is stationary (if the e-bike is not in motion).



Read this first!

For Your Safety

To reduce the risk of injury, loss of life, electric shock, fire, malfunction, and damage to equipment or property, always observe the following safety precautions.

Explanation of symbols

The following symbols are used to classify and describe the level of hazard, injury, and property damage caused when the warning is disregarded and improper use is performed.



DANGER

Denotes a potential hazard that will result in serious injury or death.



WARNING

Denotes a potential hazard that could result in serious injury or death.



CAUTION

Denotes a hazard that could result in minor injury or damage to the unit or other equipment.

The following symbols are used to classify and describe the type of instructions to be observed



This symbol is used to alert users to a specific operating procedure that must not be performed.



This symbol is used to alert users to a specific operating procedure that must be followed in order to operate the unit safely.



WARNING

Console (Display)

Do not modify or disassemble the console.

Do not use or leave the console lying around in high temperatures.

- This may cause damage or heat, which may lead to fire.

Do not use the bicycle mark button (Walk assistance) when the wheels of the electric bicycles are not in contact with the ground.

- It may cause injury.

If a problem occurs when charging a USB device, disconnect the USB cable.

(Smoke is emitted, a strange smell or noise is present, the console or the USB cable is damaged, or water gets inside the device.)

- Continued use in such circumstances can cause fire and electric shocks.

(Switching the device on/off, assist mode switching, light operation, etc.)

- If assistance deactivates when on a slope, when setting off, or due to erroneous operation, you may suffer an injury due to losing your balance or falling over due to riding one-handed.

Bluetooth



Do not use the device near automatic doors, fire alarms, or other such automatic control devices.

- Radio waves emitted by this device may interfere with automatic control devices, and this may result in accidents due to malfunction.

Do not use the device in hospitals or in places where electronic medical devices are present.

- Radio waves emitted by this device may interfere with electronic medical devices, and this may result in accidents due to malfunction.




Keep this device at least 15 cm away from the part of the body where a cardiac pacemaker is in place if you wear one.

- Radio waves emitted by this device may interfere with the operation of your pacemaker.



CAUTION

Console (Display)

When the electric bicycle is walked along while the Bicycle mark button  (Walk assistance) is pressed, the pedals will still rotate.

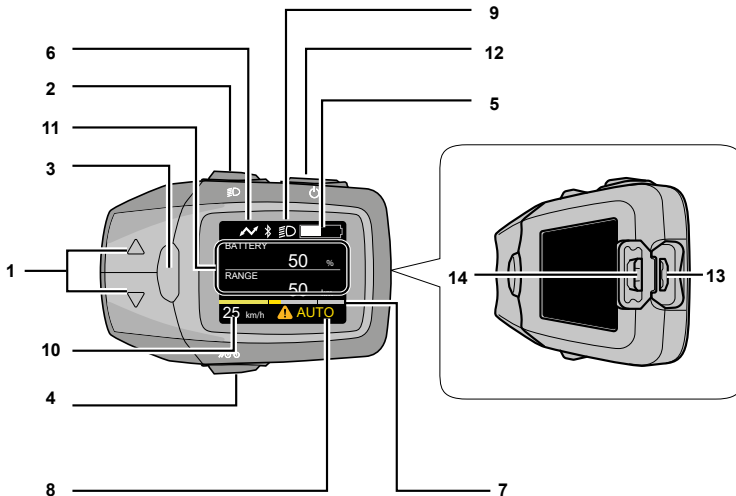
- Please be careful as injuries can occur.

Do not use smartphones, cellphones, or other such devices when riding.

- Doing so may lead to injury through accidents.

Do not stare at the screen when riding.

Doing so may lead to injury through accidents.



1 Assist mode select buttons (Δ/∇)

Selects the assist mode from [HIGH], [STD], [ECO], [OFF] and[AUTO].

2 Night mode button

Lights the backlight of the side display.
When power is supplied to the head light or tail lamp from the battery on the electric bicycle, the head lamp or tail lamp lights. It depends on local regulation. (➔page 35)

3 information button

Switches display items such as distance traveled. (➔page 21)

4 Bicycle mark button (Walk assistance)

Drive can be assisted up to 6 km/h when pushing the electric bicycle with a heavy load on it.

5 Battery level display

Displays the battery remaining capacity.

6 USB connection mark

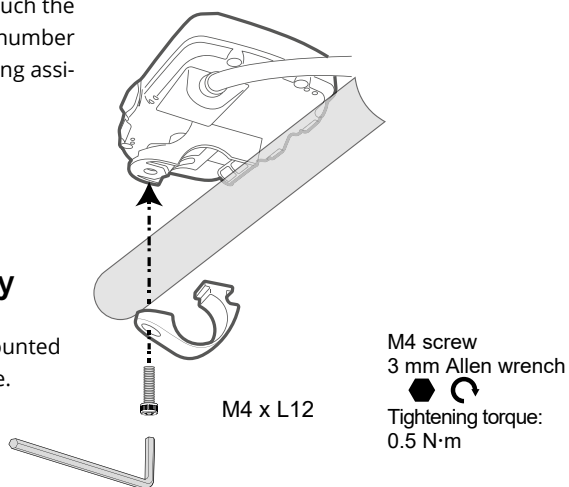
Displayed when an external device (e.g. mobile phone) is connected to the side display for charging.

7 Assist power indicator

Displays in the form of a graph how much the rider is being assisted. The larger the number on the graph, the more the rider is being assisted.

Mounting the side display of the console

Insert the side display on the band mounted on the handlebar of the electric bicycle.



8 Text indication

Displays the current assist mode, etc.

9 Night mode indicator

Lights when the night mode button is pressed.

10 Speed indication

ZDisplays the current travel speed.

11 Value indication

Displays distance traveled, total distance traveled, maximum speed, etc.

12 Power button

Turns on and off the electric bicycle system.


13 USB Micro-B port

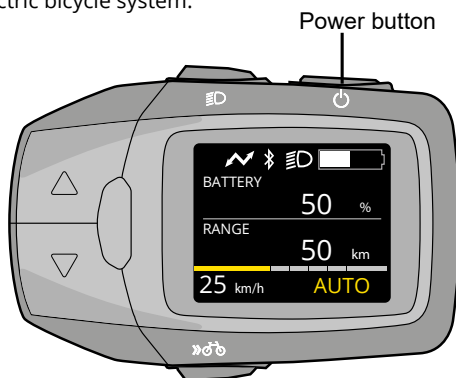
Used to charge an external device (e.g. mobile phone). (➔page 35-36)

14 Rubber cap

Protects the USB Micro-B port.

Methods of Use

To enable the assist function or display the various indications, press the power button  on the console to turn on the electric bicycle system.



Turning on the electric bicycle system

Press the power button on the side display.

- The system starts with "OFF", unless the bicycle maker prepared it to an assist function. To change the assist mode, refer to page 20.

Attention

- Before pressing the power button, do not place your feet on the pedals of the electric bicycle. Otherwise, this will result in a torque sensor error or weak assist force. Press the power button again without placing your feet on the pedals.
- While pressing the power button, do not press any other buttons, otherwise an error may be displayed. In this case press the power button again without your feet on the pedals.
- Do not turn on/off the power button during riding. If the assist function is not required, press the assist mode select buttons (Δ/∇) to select [OFF].

Note

- The assist function of the electric bicycle will not work in the following cases:
 - When you stop pedalling
 - When a speed of 25 km/h is reached (The assist function starts to work by starting pedalling again at 25 km/h or less.)
 - When there is no remaining battery power

Turning off the electric bicycle system

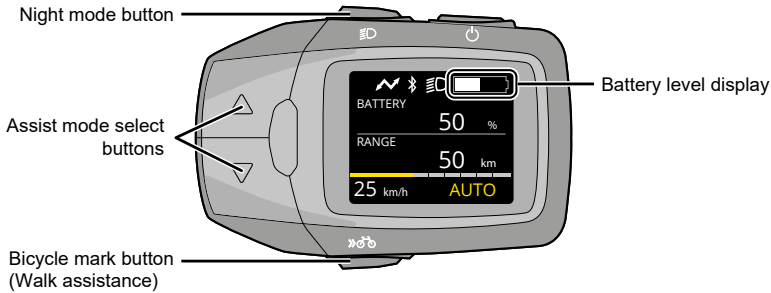
Press the power button on the console when the electric bicycle system is turned on.

Note

- Even if the power button is not pressed to turn off the electric bicycle system, the power automatically turns off to save energy if the electric bicycle is not used for about ten minutes (for example, when the electric bicycle is parked).

Console (Display)

Use the buttons on the Side display to change the assist mode. This is shown as well as the remaining capacity of the bicycle battery in the side display.



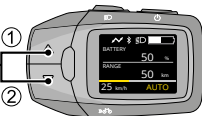
Battery level display

The battery charge status indicates the remaining capacity of the battery in the electric bicycle. The charged state of the battery on the electric bicycle can also be checked by the battery LED.

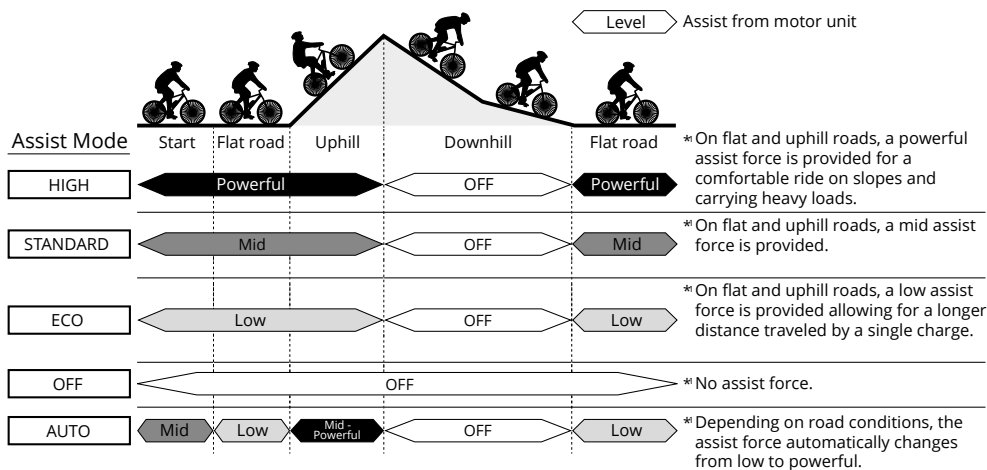
Side Display LCD screen display	Battery level (%)				Guide
	20	40	60	80	
Display full	[Full bar]				<p>Ride assistance available</p> <p>When you turn the side display on after charging it, the battery level display will decrease in increments of 1/10. The percentage display for battery level will decrease in increments of 1%.</p>
Display 9/10 full	[9/10 bar] 91% - 100%				
Display 8/10 full	[8/10 bar] 81% - 90%				
Display 7/10 full	[7/10 bar] 71% - 80%				
Display 6/10 full	[6/10 bar] 61% - 70%				
Display 5/10 full	[5/10 bar] 51% - 60%				
Display 4/10 full	[4/10 bar] 41% - 50%				
Display 3/10 full	[3/10 bar] 31% - 40%				
Display 2/10 full	[2/10 bar] 21% - 30%				
Display 1/10 full and red	[1/10 bar] 11% - 20%				
Display empty with diagonal line	[Empty bar] 0% - 10%				
OFF: Assistance stopped	[Diagonal line] 0%				<p>Charging required notification</p> <p>Assist force may gradually decrease.</p>
					<p>Ride assistance stopped</p> <p>The battery needs to be charged. If it is not charged, you can ride the bicycle unassisted.</p>

Assist mode select buttons

The five assist modes can be selected by pressing the assist mode select buttons.

		Assist Mode
 <p>Assist mode select buttons</p>	[HIGH] *1On flat and uphill roads, a powerful assist force is provided for a comfortable ride on slopes and carrying heavy loads. ① ↓ ↑ ②
	[AUTO] *1Depending on road conditions, the assist force automatically changes from low to powerful. ① ↓ ↑ ②
	[STD] *1On flat and uphill roads, a mid assist force is provided. ① ↓ ↑ ②
	[ECO] *1On flat and uphill roads, a low assist force is provided allowing for a longer distance traveled by a single charge. ① ↓ ↑ ②
	[OFF] *1No assist force.
*1 The assist force may change depending on weather conditions, road conditions, bicycle conditions, or riding styles.		

• Change in assist force



*1 The assist force may change depending on weather conditions, road conditions, bicycle conditions, or riding styles.

Press the assist mode select buttons (△/▽) until the desired assist mode is displayed.

- Side display on the console: The assist mode selected in the assist mode display is displayed.


Bicycle mark button (Walk assistance)

This is the push-assistance function that assists you by providing drive up to 6 km/h, for example, when you are carrying a heavy load.

Hold down the bicycle mark button (Walk assistance).

- When you release your finger from the bicycle mark button (Walk assistance), or the electric bicycle exceeds a speed of 6 km/h, the function will not be activated.


Note

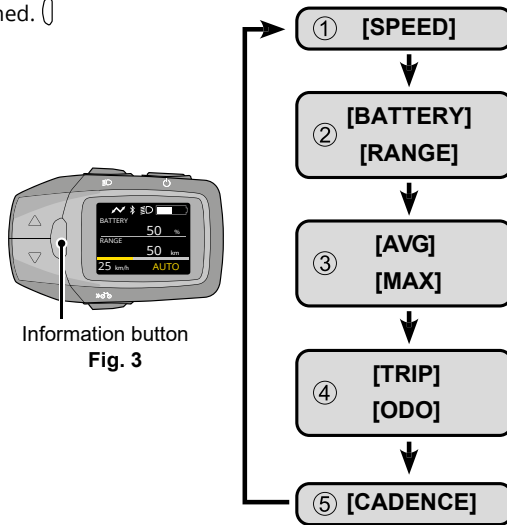
- When the pedals hit the curb or other objects and the push-assist function stops, hold down the bicycle mark button  (Walk assistance) again.

Indication of speed, distance

The current speed is displayed at Speed indication at all times. (Fig. 3)

For the distance display and battery level, items and numerical values are displayed at Text indication and Value indication, respectively. (Fig. 3)

Items can be switched. 





- ① Displays the current speed.
- ② Displays the approximate battery level as a percentage. Displays the approximate remaining distance*1 for assisted riding.
- ③ Displays the average speed calculated using the riding and stopped time. Displays the maximum speed.
- ④ Displays the total distance traveled since the last reset. Displays the total distance traveled (total of all travel distances).
- ⑤ Displays the crank RPM during travel.

*1 This is a rough value because the remaining battery capacity is calculated using the amount consumed.

Press the information button on the side display. (Fig. 3)

- Each press of the button switches the item.

■ **If you want to simultaneously reset distance traveled (TRIP), average speed (AVG), and maximum speed (MAX).**

- ① Use the information button  to display [TRIP], [AVG] or [MAX].
- ② Hold the information button  down until the display shows 0.
- It is not possible to reset values individually.



Basic settings

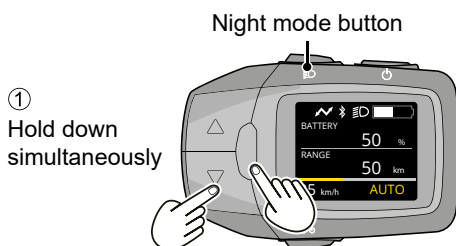
Basic settings such as the language displayed on the side display, adjustment of backlight brightness and time can be changed. Access the basic setting menu, and change the settings as desired. In the basic setting menu, the following items can be switched and set.

Setting		Description
[DISPLAY]	[BRIGHTNESS]	The brightness of the backlight of the side display can be adjusted in 10 stages. The brightness can be set separately for when the night mode indicator is turned on and when it is turned off. * When light settings are disabled, the night mode indicator does not light up but the backlight switches.
	[LANGUAGE]	The language displayed on the side display can be switched. The language can be selected from the following ten languages: English, German, Dutch, French, Italian, Spanish, Danish, Slovak, Polish, Czech.
[BIKE]	[UNIT]	The display unit for speed and distance can be toggled between kilometers and miles.
	[WHEEL]	The tire circumference matched to the electric bicycle currently in use can be set.
	[ODO]	The display of the total distance traveled can be changed.
[Bluetooth]	[CPP]	Uses the Cycle Power Profile to connect to the corresponding smartphone app.
	[NAVIGATION]	Hides and displays the navigation screen (komoot).
	[komoot]	Connects to komoot (smartphone app).
[CERTIFICATION]		Displays Technical Standards Conformity information.
[FACTORY RESET]		Resets the Side Display to factory settings.

Changing the settings and display

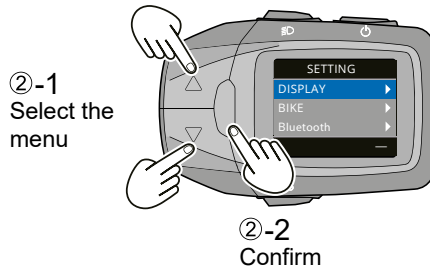
■ **Operation method for the settings menu**

- ① With the Side Display turned ON, press both the  button and [information] button  for more than 3 seconds.



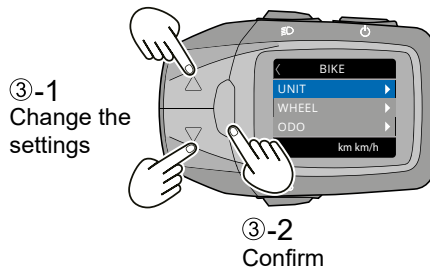
② Use the assist mode select buttons (Δ/∇) to select the desired menu, and then press the [information] I button.

- The system then enters the setting mode for the selected menu.



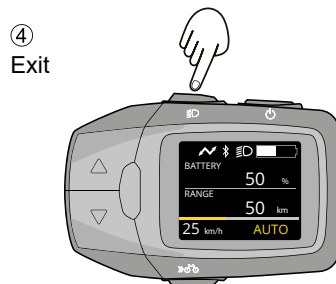
③ Use the assist mode select buttons (Δ/∇) to change the settings, and confirm by pressing the [information] I button.

- If you wish to continue configuring the settings, repeat steps ② and ③.



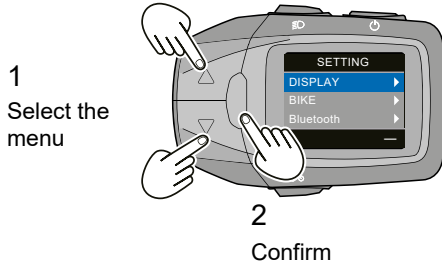
④ Press the night mode button.

- The system returns to normal mode.



■ **Configuring [DISPLAY] settings**

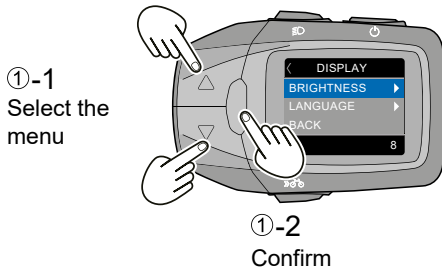
Select [DISPLAY] from the settings menu, and then press the [information] (i) button.



1) Setting [BRIGHTNESS]

① Use the assist mode select buttons (Δ/∇) to select [BRIGHTNESS], and then press the [information] (i) button.

- The current setting is displayed.



② Use the assist mode select buttons (Δ/∇) to adjust the brightness, and then press the [information] (i) button.

- Settings are changed.

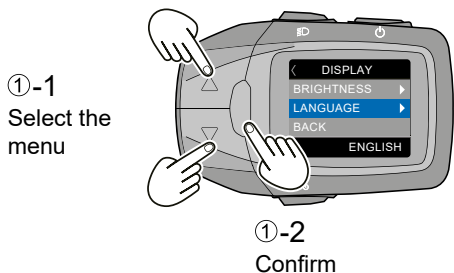
Backlight brightness value options	Max: 10	Min: 1

You can adjust the brightness of the backlight for when lights are off and when lights are on. Use the night mode (N) button to select the state of the lights for which you want to configure the settings (i.e. when lights are on or off), and then use the settings menu.

2) Setting [LANGUAGE]

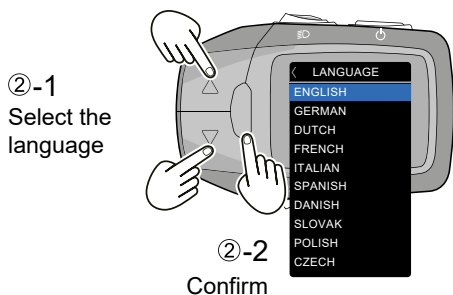
① Use the assist mode select buttons (Δ/∇) to select [LANGUAGE], and then press the [information] (i) button.

- The current setting is displayed.



② Use the assist mode select buttons (Δ/∇) to select the language, and then press the [information] (i) button.

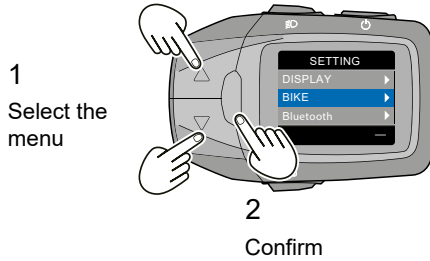
- Settings are changed.



No.	Language
1	ENGLISH
2	GERMAN
3	DUTCH
4	FRENCH
5	ITALIAN
6	SPANISH
7	DANISH
8	SLOVAK
9	POLISH
10	CZECH

■ Configuring [BIKE] settings

Select [BIKE] from the settings menu, and then press the [information] button.

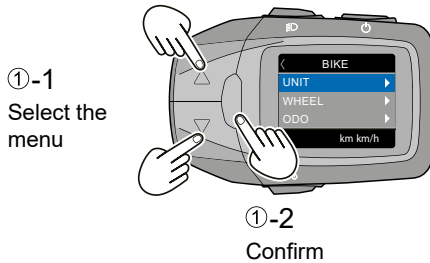


1) Setting [UNIT]

Perform this procedure to switch the units for speed and distance.

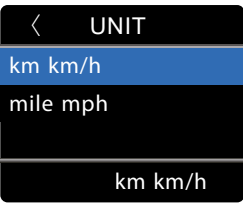
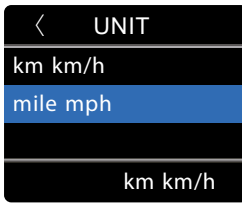
① Use the assist mode select buttons (Δ/∇) to select [UNIT], and then press the [information] button.

- The current setting is displayed.



② Use the assist mode select buttons (Δ/∇) to select the units, and then press the [information] button.

- Settings are changed.

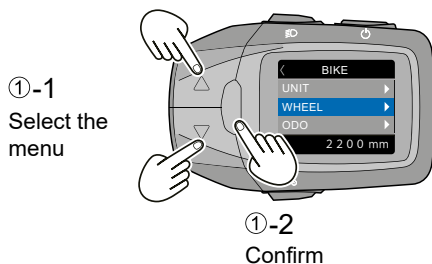
Unit options	
	

2) Setting [WHEEL]

Perform this procedure to set the tire circumference to match the tires on the bicycle.

① Use the assist mode select buttons (Δ/∇) to select [WHEEL], and then press the [information] (i) button.

- The current setting is displayed.



② Use the assist mode select buttons (Δ/∇) to set the thousands place of the number for the circumference of the tires, and then press the [information] (i) button.

- The settings changes, and the underbar moves to the hundreds place of the number. Repeat this process until you reach the ones place.

*Tire circumference is only saved if you set all places of the number.

*It is not possible to move the underbar back to a previous place.


Tire circumference value input	Max: 2499	Min: 1000
<p>WHEEL 2200 mm 220 0 mm</p>	<p>WHEEL 2499 mm 2200 mm</p>	<p>WHEEL 1000 mm 2200 mm</p>

Notifications

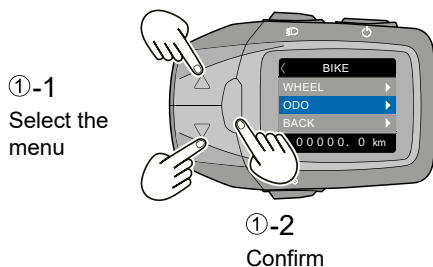
- The factory setting for tire circumference is 2200 mm. This must be changed if you change the tires on your bicycle.
- If you do not change this setting, speed and distance will not be accurately displayed.


3) Setting [ODO]

Perform this procedure to modify the total distance that is automatically displayed.

① Select [ODO] from the settings menu, and then press the [information]  button.

- The current setting is displayed along with an underbar under the tens of thousands place of the new number.





② Use the assist mode select buttons (Δ/∇) to set the tens of thousands place of the total distance, and then press the [information]  button.


- The settings changes, and the underbar moves to the thousands place of the number. Repeat this process to set the total distance to the first decimal place.

*The total distance is only saved if you set all places of the number.

*It is not possible to move the underbar back to a previous place.

Total distance value entry	Max: 99999.9	Min: 00000.0
		

■ Performing a factory reset

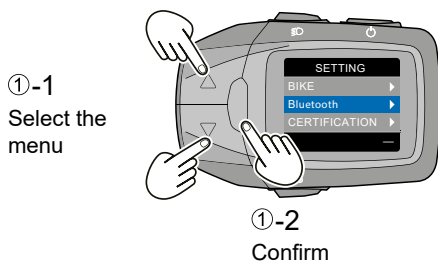
① Select [FACTORY RESET] from the settings menu and press the [information]  button.

- It is not possible to reset values individually.

■ Pairing with and connecting to a Bluetooth device

Preparations

- Ensure that the Bluetooth device is within 1 m of the Side Display.
 - If necessary, check the operation method and other information in the user manual for the Bluetooth device.
 - Turn the Bluetooth device on, and enable the Bluetooth function.
- ① Select [Bluetooth] from the settings menu, and then press the [information] button.



1) Setting [CPP]

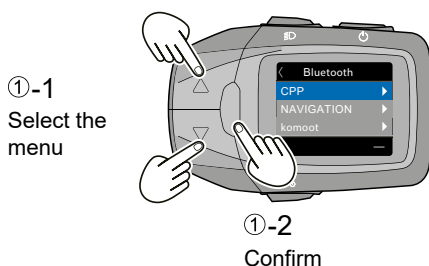
Perform this procedure to pair with a device that supports CPP.

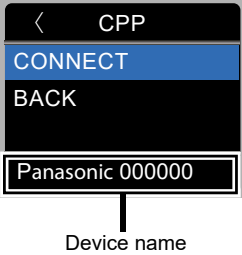
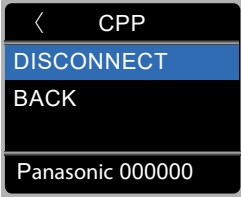
① Use the assist mode select buttons (Δ/∇) to select [CPP], and then press the [information] button.

② Select [CONNECT] to start pairing with the Side Display.

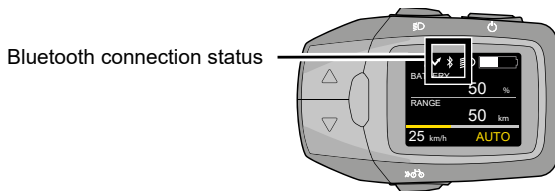
- While not connected: [CONNECT] and [BACK] are displayed.
- While connected: [DISCONNECT] and [BACK] are displayed. Select [DISCONNECT] to cancel the pairing with the device that is currently connected.

* The device name for this device when paired is [Panasonic + 6 alphanumeric characters] as shown at the bottom of the CPP screen.



While not connected	While connected
 <p style="text-align: center;">Device name</p>	

- ③ Start pairing on the Bluetooth device. On the Bluetooth device, select the device name [Panasonic + 6 alphanumeric characters].
- ④ Check that the Side Display and Bluetooth device are connected.



When using Bluetooth devices...

- Specified frequency band

The 2.4 GHz frequency band used by this product is also used by industrial, scientific, and medical equipment such as microwave ovens, as well as premises radio stations (license required) used for identification of moving objects in factory production lines and in other such places, specified low-power radio stations (no license required), and amateur radio stations (license required).

- ① Before using this device, check that there are no premises radio stations used for identification of moving objects, specified low-power radio stations, or amateur radio stations nearby.
- ② If this device causes interference with premises radio stations used for identification of moving objects, you should immediately change the place you use it in or halt the use of radio waves.

■ Device certification

This device has received a Technical Standards Conformity Certification based on the Radio Act, so it does not require a radio station license. However, the following acts are punishable by law if performed on this device.

- Disassembly/modification

■ Usage limitations

- This device is not guaranteed to be able to communicate wirelessly with every Bluetooth® device.

- Any Bluetooth® device with which wireless communication is to be performed must be certified as compliant with the standards set by Bluetooth SIG, Inc. However, it may not be possible to connect to a device even if it is certified as being compliant with these standards due to its usage and settings, and no guarantees are made regarding the operating method, display, or operation.

- This device supports security functions that conform to Bluetooth® standards, but security may not be sufficient depending on the usage environment and details of the settings. Please be aware of this when using wireless communication.

- Please understand that Panasonic shall accept no responsibility for any data or information leaks that occur during wireless communication.

■ Usable range

Use a Bluetooth® device within 1 m of this device. The usable range may be shorter depending on whether the surrounding environment has any obstacles or any other devices that may cause interference. Please note that the usable range above is not guaranteed..

■ Impact from other devices

- Do not use the device in places where magnetic fields, static electricity, or radio wave interference occur. If used in the vicinity of the following, communication may be lost or experience delays.
 - Microwave ovens
 - Digital cordless telephones
 - Other devices that use radio waves in the 2.4GHz band (wireless audio devices, game consoles, etc.)
 - Metal objects and other such objects that are prone to reflecting radio waves
- In the vicinity of broadcasting stations and other such things where the radio waves in the periphery are very strong, the device may not work correctly.

■ Restrictions on purpose of use

This device assumes general usage, and it is not designed or manufactured for high-safety usage*. Do not use for any purpose that requires high safety.

* High-safety purposes refer to uses that require an extremely high level of safety in controls that involve a major direct risk to life or risk of injury.

Examples: Control of nuclear reactions in nuclear power facilities / automatic flight control in aircraft / air traffic control / transport control in high-volume shipment systems / medical devices for life support / missile launch control in weapons systems, etc.

2) Setting [NAVIGATION]

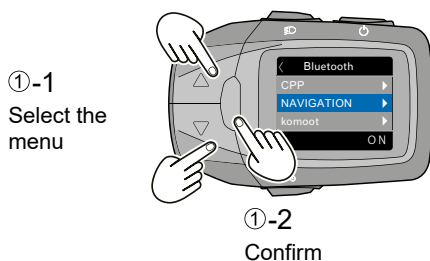
① Use the assist mode select buttons (△/▽) to select [NAVIGATION], and then press the [information] (i) button.

• When hidden: [ON] and [BACK] are displayed. When [ON] is selected, navigation information is displayed on the normal mode screen.

*Navigation is automatically set to ON when pairing with komoot is started.

• When shown: [OFF] and [BACK] are displayed. When [OFF] is selected, navigation information displayed on the normal mode screen is hidden.

*Navigation is not automatically switched OFF when pairing with komoot is cancelled.



When hidden	When shown
<p>Current status</p>	

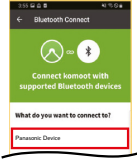
3) Configuring the [komoot] connection

Perform this pairing procedure to display the navigation information specified using the Side Display komoot app.

Smartphone

① Bluetooth Connect settings in smartphone komoot app

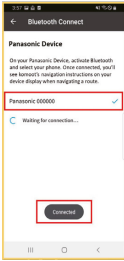
- From the device types, select [Panasonic Device].



⋮

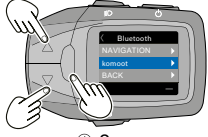
↓

② When the device is correctly recognized by your smartphone and the connected device appears on the app screen, pairing is complete.



Side Display

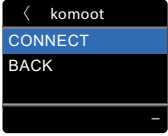
① Select [komoot] from the settings menu, and then press the [information] button.



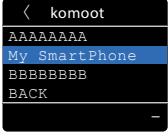
①-1 Select the menu

①-2 Confirm


② Select [CONNECT] from the komoot menu, and then press the [information] button.



③ When your smartphone's name is recognized, select it and press the [information] button.



④ When pairing with your smartphone is completed successfully, [PAIRING SUCCESSFUL] is displayed and then a few seconds later the screen returns to the [Bluetooth] settings screen.

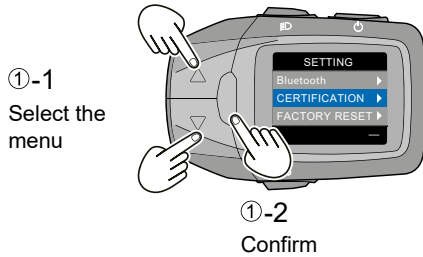


■ Precautions

- Even when following the instructions on a route by the navigation system, do not ignore road signs.
- The navigation system cannot take into account roadworks or temporary diversions.
- Even when using the navigation system, always follow the actual traffic rules.
- Depending on the communications environment, the distance shown by the navigation system may differ from the actual distance.
- Service contents provided by the app provider may be changed or stopped without notice due to the convenience of the app provider. We are not responsible for any damage or loss related to the change or termination of the service.

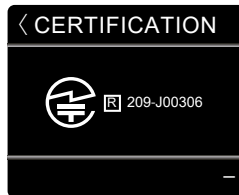
■ **Checking [CERTIFICATION]**

① Select [CERTIFICATION] from the settings menu, and then press the [information] (i) button.



② On the [CERTIFICATION] screen, you can check the following details.

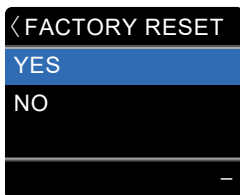
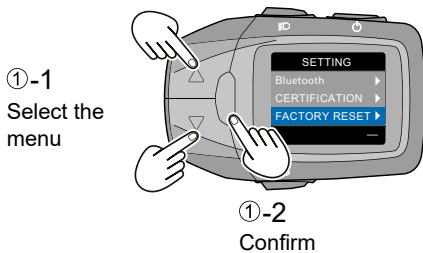
- Displays Technical Standards Conformity information for Japan. When you press the [information] (i) button, the screen returns to the [SETTING] screen.



■ **Performing a [FACTORY RESET]**

① Use the assist mode select buttons (Δ/∇) to select [FACTORY RESET], and then press the [information] (i) button.

- [YES]: After restoring the Side Display to factory settings, the system returns to the [SETTING] screen.
- [NO]: The system returns to the [SETTING] screen.

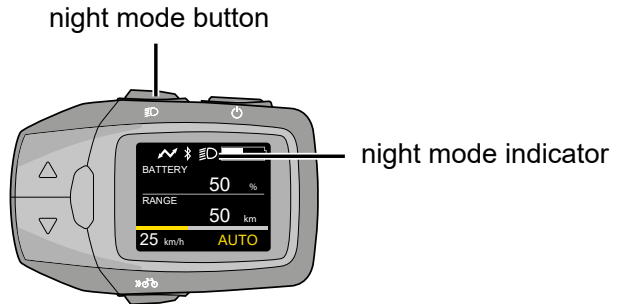


Item	Factory setting
BRIGHTNESS	Day mode: 8 Night mode: 4
LANGUAGE	ENGLISH
UNIT	km km/h
WHEEL	2200
ODO	0
TRIP	0
AVG	0
MAX	0
CPP	Not connected
NAVIGATION	Hidden
komoot	Not connected

Night mode button

Change the backlight brightness of the side display. Backlight setting has a normal mode and night mode. Five stages of brightness can be set for each mode.

In night mode, the brightness is lowered compared to normal mode so that glare can be reduced while travelling at night.



1) Press the power button.

- The electric bicycle system is turned on and the backlight of the side display lights in normal mode.

2) Press the night mode button.

- The night mode indicator is displayed on the side display and the backlight changes to night mode. To change to normal mode, press the night mode button again.

Note

- If you set the same brightness for both normal mode and night mode, the brightness does not change even when the mode is switched.
- Set the brightness of the normal mode while the night mode indicator is not displayed. Set the brightness of the night mode while the night mode indicator is displayed. (►page 22)
- Depending on the specifications of the completed bicycle, if the electric bicycle battery-powered head light or tail lamp is equipped, it will light in night mode.

Charging external devices using the USB cable (optional)

You can charge external devices (e.g. mobile phones) that can be connected to the console via the USB cable. Connect the exclusive USB cable to charge for three hours.

External devices can be charged only when the side display of the console, and a charged battery are mounted on the electric bicycle.

Also, the USB cable (commercially available) compatible with the external device is required.

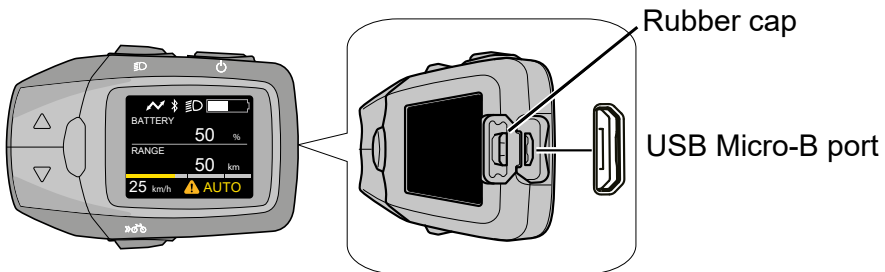


Fig. 1

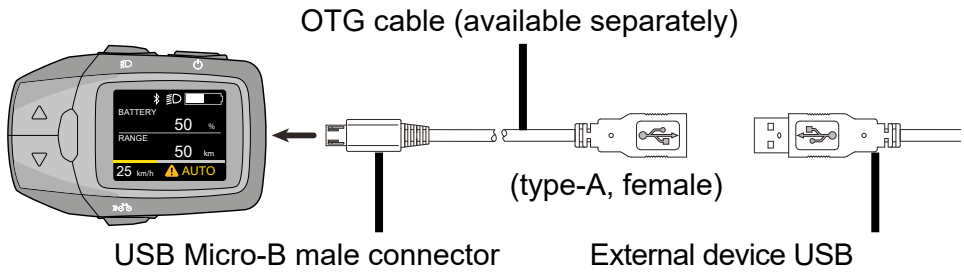


Fig. 2

- 1) Open the cover of the USB Micro-B port on the side display of the console. (Fig. 1)
 - 2) Connect a separately purchased USB OTG cable to the USB Micro-B port.*
- *Charging can only be performed using an OTG cable for USB Micro-B ports.
- 3) Connect the OTG cable and external device's USB cable.
 - 4) When the Side Display and external device are connected via a USB cable, charging starts automatically.

Attention

- Do not place the external device on a tilted or unstable place while charging. Doing so may cause the device to fall and result a malfunction.
- Some external devices cannot be charged.
- Back up the internal data on the external device since there is the risk that it may disappear.
- Operation has only been verified with some external devices using the exclusive USB cable. There is no guarantee that your external device will work correctly.
- Do not charge external devices in rainy weather or connect a wet USB cable. Doing so may cause a malfunction.
- After using the USB Micro-B port, firmly close the rubber cap. Otherwise, water may seep in and cause malfunction.
- In order to prevent damage to the USB plug and USB cable, be sure to hold the plug when separating them.
- Do not apply excessive force to the USB plug or pull the USB cable.
- Check that the USB plug is facing the correct direction and has not become detached from the USB Micro-B port and is not misaligned.
- Do not put any foreign objects in the USB Micro-B port. Doing so can cause defects in the Side Display and external device.
- When charging a smartphone or other such device, please give sufficient consideration to safety and do not ride one-handed or look at the screen while riding.
- Charging may not be possible when the battery level is low.
- Please note that in the unlikely event that the contents of the memory of an external device are erased during use of the USB Micro-B port, Panasonic shall accept no responsibility whatsoever.
- Panasonic shall also accept no responsibility whatsoever concerning damaged caused by malfunctions or other problems resulting from the combination of connected devices.

Error codes

The parts of the electric bicycle system are monitored at all times during use and charging. If an error is detected, an error code will be displayed on the console. To return the console to the standard display, press any button on the side display of the console.

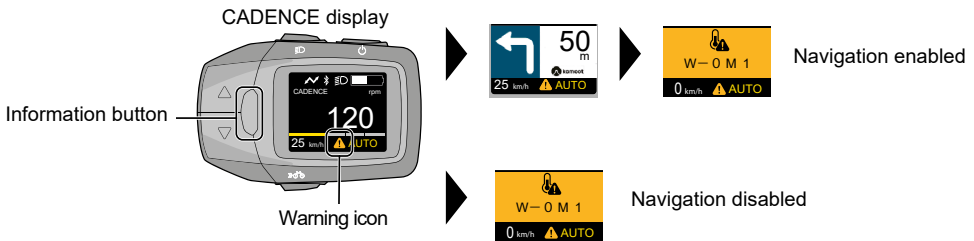
Depending on the error code, motor unit drive is automatically stopped as necessary. The assist function will no longer be activated, though travel can be continued.

If the Side Display screen shows any of the following, check the details and take the action described.

■ Errors for which the warning icon is displayed in the bottom center of the screen

● If the warning icon is displayed, the details of the warning are displayed after the CADENCE screen when the [information] button is pressed to switch the display.

If the navigation function is enabled, the screen changes in the order of CADENCE ⇒ Navigation screen ⇒ Warning screen.



Screen	Solution
<p>W-0 M 1 0 km/h ⚠ AUTO W-0 M 2</p>	<ul style="list-style-type: none"> ● The drive unit is under an excessive load, and the system has entered protected mode. <ul style="list-style-type: none"> ⇨ Reduce speed variation to lighten the load during travel. After a short period of time, the temperature will return to normal and assistance will be restored. ● When the system enters protected mode (when using in hot, sunny conditions, etc.), the assistance force is limited. However, you can continue to use your bicycle as normal. If the display does not come back on after a short period of time, please consult your dealer.
<p>W-0 M 3 - km/h ⚠</p>	<ul style="list-style-type: none"> ● This is an error in communication between the Side Display and the drive unit. <ul style="list-style-type: none"> ⇨ Contact your dealer for repair.
<p>W-0 B 1 0 km/h ⚠ AUTO W-0 B 2</p>	<ul style="list-style-type: none"> ● The battery is under an excessive load, and the system has entered protected mode. <ul style="list-style-type: none"> ⇨ Reduce speed variation to lighten the load during travel. After a short period of time, the temperature will return to normal and assistance will be restored. ● When the system enters protected mode (when using in hot, sunny conditions, etc.), the assistance force is limited. However, you can continue to use your bicycle as normal. If the display does not come back on after a short period of time, please consult your dealer.



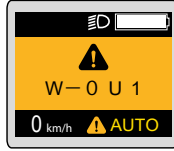
- Communication with the battery is not being performed correctly.
 - ⇨ Clean away any dirt from the battery terminals. If this does not solve the problem, consult your dealer.



- This is an error with the drive unit.
 - ⇨ Contact your dealer for repair.



- The speed sensor does not correctly detect the signal.
 - ⇨ Turn the device off and then back on. If this does not solve the problem, consult your dealer.



- Protection for the USB power supply function is in effect.
 - ⇨ Turn the device off and on again. If this does not solve the problem, this function cannot be used with your device.



- If multiple errors occur simultaneously, [W-0] is omitted and the error symbols are displayed in a list. Refer to the relevant error items for details.

■ Other errors

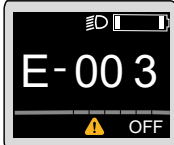
- In the event of an error where assistance or walk assistance cannot be continued, the screen may display the following errors regardless of the warning icon.

* The errors may be displayed along with the warning icon.

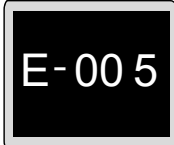
Screen	Solution
	<ul style="list-style-type: none"> • If the screen goes completely white when you turn the Side Display on, this means a software error has occurred. <ul style="list-style-type: none"> ⇨ Contact your dealer for repair.
	<ul style="list-style-type: none"> • If the screen flashes white after turning the power on, this means an EEPROM error has occurred. <ul style="list-style-type: none"> ⇨ Contact your dealer for repair.



- Were you standing on the pedal when you pressed the power button?
⇨ Turn the Side Display on by pressing the power button without standing on the pedal.



- Original battery (from time of purchase) not detected.
⇨ Load the original battery (from time of purchase).



- This is an error in communication between the Side Display and the drive unit.
⇨ Contact your dealer for repair.



- This is an error with the drive unit.
⇨ Contact your dealer for repair.



- There is a fault in an important component.
⇨ Remove your hand from the bicycle mark button and turn the power on. If this does not solve the problem, contact your dealer for repair.



- This is an error with the drive unit software.
⇨ Contact your dealer for repair.

Daily care

The parts of the electric bicycle system are precision parts and must be cared for daily.

- Prevent all parts of the electric bicycle system from getting dirty. If parts are dirty, wipe off the dirt with a soft, moist cloth.

(Battery terminals and corresponding connectors, and terminals on the cradle and on the side display of the console).

- Before and after use, wipe any dirt or water from the terminals on the console or cradle.

Specifications

■ Console

Operating temperature	-10°C to 40°C
Storage temperature	-20°C to 50°C
Weight	Cca 120 g
Waterproofing level	IPX5
USB output	5 V DC, Max. 1 A
USB port	USB Micro-B
Communication type	Bluetooth verze 5.0
Maximum power	8.0 dBm
Communication range	Up to 1 m approx.
Frequency band	2402-2480 MHz
Supported profiles	CPP (*1), komoot (*2)

Copyright

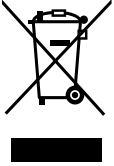
The Bluetooth® word mark and logo are registered trademarks of Bluetooth SIG, Inc. Panasonic Co., Ltd. uses this mark and logo under license. All other trademarks and registered trademarks are trademarks or registered trademarks of the relevant party.

In addition, the various names, company names, and product names in this manual are trademarks or registered trademarks of the relevant company. Please note that some ™ and ® marks are omitted in this manual.

After-sales service

Check with an authorized bicycle dealer if you have any questions about the electric bicycle system and its components.

Disposal of Old Equipment and Batteries Only for European Union and countries with recycling systems



These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries must not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation.

End-users in Germany are legally obliged to return used batteries to appropriate collection points. Batteries can be returned to retailers free of charge.

In Spain, users are required to deliver batteries to the appropriate collection points. In all cases, this will be free of charge for users. The cost of environmental management of waste batteries and accumulators is included in the sale price.

By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.

For more information about collection and recycling, please contact your local municipality.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.



Note for the battery symbol (bottom symbol):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

Declaration of Conformity (DoC)

Hereby, "Panasonic Cycle Technology Co., Ltd." declares that this product is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Customers can download a copy of the original DoC to our RE products from our DoC server:
<https://www.ptc.panasonic.eu/>

Contact to Authorised Representative:

Panasonic Marketing Europe GmbH, Panasonic Testing Centre,
Winsbergring 15, 22525 Hamburg, Germany

Manufactured by: Panasonic Cycle Technology Co., Ltd.

13-13 Katayama-cho, Kashiwara City, Osaka 582-8501, Japan

Authorized Representative in Europe: Panasonic Marketing Europe GmbH

Panasonic Testing Centre

Winsbergring 15, 22525 Hamburg, Germany

TROUBLESHOOTING



If the e-bike is not working, first check if you can fix the problem yourself. Never interfere with the motor, battery or electrical connections. In this case visit a service center.

1. The range of the e-bike is low even though the battery is fully charged.

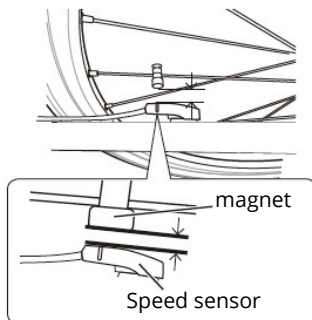
The range of an e-bike is affected by many factors such as the battery capacity, the motor used, the route profile, the level of assistance used, the weight of the rider and his/her load, the rider's fitness condition, the style and smoothness of the ride, tire inflation and weather conditions. If the range of the e-bike is short in the long term, have the battery capacity measured.

2. The motor does not respond even when the system is turned on.

Check that the sensing magnet is in the correct position, see picture. Check the display cable. If the error persists, visit a service center.



The magnet on the spoke must be positioned exactly against the line on the speed sensor. That is correct.



The position of the magnet can be easily adjusted, there is a groove for a screwdriver on the magnet. It is loosened counterclockwise. After loosening, the magnet can be moved along the spoke. After reaching the correct position, tighten it again clockwise with a screwdriver.

3. The e-bike cannot be switched on.

Switch on the battery using the button on the battery. If the error persists, visit a service center.

4. The charger does not charge the battery.

Verify that the charger is properly connected to the el. socket. Check for damage to the cables. If so, the charger must be replaced.

MAINTENANCE AND STORAGE



Never immerse the battery, charger or other electrical components in water (any liquids). Store the battery and e-bike in a well-ventilated and dry place, out of direct sunlight and other heat sources. Optimal temperature for storing e-bikes, especially batteries is 20 ° C.

Perform e-bike maintenance at regular intervals to ensure long product life. Always keep all components clean. If you wash the bike with water, always remove the battery from the e-bike before washing. We recommend drying the bike after each ride, especially all electrical components. If you use the e-bike in the winter, always clean the battery contacts from salt and moisture after riding. Before driving, always check that all bolts, nuts and pedal center are properly tightened. Also check brake function and tire pressure.



Do not dispose of the battery yourself. There is a risk of fire, explosion, electric shock and toxic substances may be released.

Do not store the battery in temperatures below 10 ° C and in extremely high temperatures above 40 ° C.

Do not transport the e-bike on a car carrier in heavy rain, higher speeds result in higher water pressure. We recommend using a bicycle transport case.

Bright colors incline more to fading. We recommend that you do not expose the e-bike to long-term sunlight, as the color may change.

SAFETY WARNING

Failure to observe safety warnings may result in damage to you or another person, your property or the property of others.

Always follow the safety warnings to avoid the risk of fire, electric shock and injury.

Before using the product, read the instruction manual of the electric bicycle thoroughly.

Always check for loose or damaged connections before riding. Check brake function and tire pressure.

In case of damage to electronic parts, seek professional service.

Neither the manufacturer nor the importer is liable for incidental or consequential damages or for damage caused directly or indirectly by the use of this product.

The following statement: the weighted emission sound pressure level-A to the driver's ears is less than 70 db (A).

The CRUSSIS e-bike user manual is legally obliged to be attached to each product.

The e-bike meets the requirements of EN 14619 (class A).

NOTICE!



Information on the disposal of electrical and electronic equipment
The symbol on the product or in the accompanying documentation means that used electrical or electronic products must not be disposed of with communal waste. In order to dispose of the products correctly, please take the products to the designated collection points where they will be accepted free of charge. By disposing of products properly, you will help conserve valuable natural resources and help prevent potential negative impacts on the environment and human health that could result from improper disposal of waste. Improper disposal of this type of waste may result in fines in accordance with national regulations.

E-BIKE WARRANTY

Warranty inspection

It is recommended to perform a warranty inspection after driving about 100 - 150 km, at the latest within 3 months from the purchase of the e-bike. During the warranty service, the whole e-bike is checked: adjustment

brakes, gears, wheel alignment, bolt tightening check and electrical system check. The warranty inspection will be carried out at the dealer where you purchased the e-bike. The dealer will confirm the warranty service on the warranty card. If the warranty inspection is not carried out, the permanent damage to the e-bike may occur. In this case, the warranty may not be accepted.

Complaint procedure

Always make a complaint of your e-bike or its components at the dealer where you bought the e-bike. When making a claim, please present the proof of purchase, the warranty card with the frame serial numbers filled in and battery, confirmed by a warranty inspection. Please also state the reason for the claim and a description of the fault.

Warranty conditions

24 months frame and components of the e-bike - covers manufacturing, hidden and accidental material defects beyond normal wear and tear of use.

6 months battery life - the rated capacity of the battery will not drop below 70% of its total capacity within 6 months of the sale of the e-bike.

The warranty period is extended by the time the product has been under warranty repair.

The warranty applies to the first owner only.

Warranty Terms and Conditions

The e-bike must be properly stored and maintained according to the attached manual. The product can be used only for the purpose for which it was manufactured. Please recharge the battery at regular intervals and store it in normal and customary conditions, as specified in the enclosed manual.

The warranty expires

Expiry of the warranty period. If the product is damaged through the user's own fault (accident, improper handling or intervention in the electric bicycle, poor storage or use) or through normal wear and tear during use (wear and tear of brake pads/ brake blocks, chain, cassette/ freewheel, tyres, fork, etc.).

EU PROHLÁŠENÍ O SHODĚ

EU DECLARATION OF CONFORMITY - č. 3

Souhrnné ujištění o vydání EU prohlášení o shodě dle požadavku směrnice 2006/42/ES

a) Identifikační údaje o osobě pověřené sestavením technické dokumentace:

Obchodní firma: CRUSSIS electrobikes s.r.o.

Sídlo: K Březince 227/18, 182 00 Praha 8 - Březiněves

IČO: 248 19 671

b) Popis elektrického zařízení:

Název: Elektrokola, velikost rámu: 17"/18"/19"/20"/22"

Modely: PAN-Guera, PAN-Atlant, PAN-Fionna, PAN-Largo, ONE-PAN Guera, ONE-PAN Largo (výrobní číslo se neuvádí) s motory PANASONIC GX Power Plus (modely konstrukčně odpovídají modelům e-Guera 11.6, e-Atlant 11.6, e-Fionna 11.6, e-Largo 11.6)

Určeno k následujícímu použití: Elektrokolo je určeno k rekreačním účelům pro spotřebitelské využití.

c) Odkaz na harmonizované normy: EN 15194:2019, EN ISO 12100, EN ISO 13849-1, EN 614-1 EN 55014-1, EN 55014-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN ISO 4210-2, EN 62321

d) Odkaz na specifikace a právní předpisy:

Zákon č. 90/2016 Sb. o posuzování shody stanovených výrobků při jejich dodávání na trh v platném znění.

Nařízení vlády č. 118/2016 Sb., o posuzování shody elektrických zařízení určených pro používání v určitých mezích napětí při jejich dodávání na trh (Směrnice 2014/35/EU).

Nařízení vlády č.117/2016 Sb., o posuzování shody výrobků z hlediska elektromagnetické kompatibility při jejich dodávání na trh (Směrnice 2014/30/EU).

Nařízení vlády č. 176/2008 Sb. o technických požadavcích na strojní zařízení v platném znění (Směrnice 2006/42/ES).

Zákon č. 22/1997 Sb. o technických požadavcích na výrobky v platném znění

Nařízení vlády č. 481/2012 Sb. o omezení používání některých nebezpečných látek v elektrických a elektronických zařízeních (Směrnice 2011/65/EU).

Výše uvedené strojní zařízení splňuje veškerá příslušná ustanovení směrnice 2006/42/ES včetně dalších výše specifikovaných evropských směrnic.

Dvojciferní roku, v němž byl stanovený výrobek opatřen označením CE: 22

Doplňující informace:

Shoda posouzena na základě certifikátu č. MD-J-01906-21 ze dne 12.11. 2021 vydaného Strojírenským zkušebním ústavem, s.p., Hudcova 424/56b, Medlánky, 621 00 Brno (Identifikační číslo notifikované osoby: 1015). Podkladem pro vydání certifikátu je závěrečný protokol č. 31-10663/JZ ze dne 11.11. 2021 vydaný totožným zkušebním místem. Dále pak shoda posouzena dle výrobní a technické dokumentace. Výše popsaný předmět EU prohlášení o shodě je ve shodě s výše uvedenými nařízeními vlády včetně nařízení vlády č. 481/2012 Sb. o omezení používání některých nebezpečných látek v elektrických a elektronických zařízeních. Toto EU prohlášení o shodě vydal na vlastní odpovědnost výrobce. Výše uvedený předmět EU prohlášení o shodě je ve shodě s příslušnými harmonizačními předpisy společenství.

V Praze dne: 1.10. 2022

Petr Výkruta
Jednatel společnosti



CRUSSIS

EU PROHLÁŠENÍ O SHODĚ

EU DECLARATION OF CONFORMITY - č. 5

Souhrnné ujištění o vydání EU prohlášení o shodě dle požadavku směrnice 2006/42/ES

a) Identifikační údaje o osobě pověřené sestavením technické dokumentace:

Obchodní firma: CRUSSIS electrobikes s.r.o.

Sídlo: K Březince 227/18, 182 00 Praha 8 - Březiněves

IČO: 248 19 671

b) Popis elektrického zařízení:

Název: Elektrokola, velikost rámu: 17"/18"/19"/20"/22"

Modely: PAN-Guera, PAN-Atland, PAN-Fionna, PAN-Largo, ONE-PAN Guera, ONE-PAN Largo, ONE-PAN Cross, ONE-PAN Cross low (výrobní číslo se neuvádí) s motory PANASONIC GX Ultimate (modely konstrukčně odpovídají modelům e-Guera 11.6, e-Atland 11.6, e-Fionna 11.6, e-Largo 11.6)

Určeno k následujícímu použití: Elektrokolo je určeno k rekreačním účelům pro spotřebitelské využití.

- c) Odkaz na harmonizované normy: EN 15194:2019, EN ISO 12100, EN ISO 13849-1, EN 614-1 EN 55014-1, EN 55014-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN ISO 4210-2, EN 62321

d) Odkaz na specifikace a právní předpisy:

Zákon č. 90/2016 Sb. o posuzování shody stanovených výrobků při jejich dodávání na trh v platném znění.

Nařízení vlády č. 118/2016 Sb., o posuzování shody elektrických zařízení určených pro používání v určitých mezích napětí při jejich dodávání na trh (Směrnice 2014/35/EU).

Nařízení vlády č. 117/2016 Sb., o posuzování shody výrobků z hlediska elektromagnetické kompatibility při jejich dodávání na trh (Směrnice 2014/30/EU).

Nařízení vlády č. 176/2008 Sb. o technických požadavcích na strojní zařízení v platném znění (Směrnice 2006/42/ES).

Zákon č. 22/1997 Sb. o technických požadavcích na výrobky v platném znění

Nařízení vlády č. 481/2012 Sb. o omezení používání některých nebezpečných látek v elektrických a elektronických zařízeních (Směrnice 2011/65/EU).

Výše uvedené strojní zařízení splňuje veškerá příslušná ustanovení směrnice 2006/42/ES včetně dalších výše specifikovaných evropských směrnic.

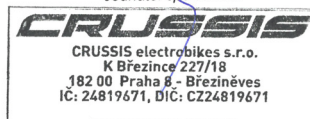
Dvojcíslí roku, v němž byl stanovený výrobek opatřen označením CE: 22

Doplňující informace:

Shoda posouzena na základě certifikátu č. MD-J-01906-21 ze dne 12.11. 2021 vydaného Strojírenským zkušebním ústavem, s.p., Hudcova 424/56b, Medlánky, 621 00 Brno (Identifikační číslo notifikované osoby: 1015). Podkladem pro vydání certifikátu je závěrečný protokol č. 31-10663/JZ ze dne 11.11. 2021 vydaný totožným zkušebním místem. Dále pak shoda posouzena dle výrobní a technické dokumentace. Výše popsaný předmět EU prohlášení o shodě je ve shodě s výše uvedenými nařízeními vlády včetně nařízení vlády č. 481/2012 Sb. o omezení používání některých nebezpečných látek v elektrických a elektronických zařízeních. Toto EU prohlášení o shodě vydal na vlastní odpovědnost výrobce. Výše uvedený předmět EU prohlášení o shodě je ve shodě s příslušnými harmonizačními předpisy společenství.

V Praze dne: 1.10. 2022


Petr Výkruta
Jednatel společnosti





Notes

Service records

DONE:

DAY:

STAMP AND SIGNATURE:

DONE:

DAY:

STAMP AND SIGNATURE:

DONE:

DAY:

STAMP AND SIGNATURE:

DONE:

DAY:

STAMP AND SIGNATURE:

Service records

DONE:

DAY:

STAMP AND SIGNATURE:

DONE:

DAY:

STAMP AND SIGNATURE:

DONE:

DAY:

STAMP AND SIGNATURE:

DONE:

DAY:

STAMP AND SIGNATURE:

Warranty card

CRUSSIS electrobikes s.r.o., K Březince 227, 182 00 Praha 8

E-BIKE MODEL:

FRAME SERIAL NUMBER:

Customer name:

Customer address:

Battery serial number:

DATE OF SALE:

SELLER'S STAMP AND SIGNATURE:

WARRANTY INSPECTION:

We recommend to visit the warranty service after the first 100 - 150 km,
no later than 3 months after the purchase of the e-bike.

DATE OF WARRANTY INSPECTION

SELLER

CRUSSIS

CRUSSIS

Visit our e-shop or your dealer and get in touch with your e-bike.

Find out a wide range of cycling accessories and sportswear from the CRUSSIS brand.



Your dealer:

www.crussis.com