

Original instruction manual



made by **ecobike**



Wrocław, 01.03.2021

Declaration of conformity

The manufacturer: **ecobike** sp. z o.o , ul. Osiniecka 108,
54-530 Wrocław, Poland

Hereby declares that the following products:

Product description: **ecobike**

Model designation:

- Electric bike ecobike RHINO ; EAN - 5903317862512

Year of manufacture: **2021**

Comply with all of the relevant requirements of the Machinery Directive (2006/42/EC).

Comply with all of the relevant requirements of RD 339/2014,
de 9 de Mayo.

Furthermore, the machine complies with all of the requirements of the Electromagnetic Compatibility Directive (2014/30/EU).

The following harmonized standards have been applied:
DIN EN 15194 Cycles - Electrically power assisted cycles EPAC bicycles;
DIN EN 14764 City and trekking bicycles - Safety requirements and test methods.

Technical documentation filed at:

ecobike sp. z o.o.
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Zarząd **ecobike**



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1. INTRODUCE

First of all, we would like to thank you for purchasing our electric bike, which has been carefully designed and manufactured in accordance with the requirements of the highest international standards. We wish your new bike to be a new way of your life.

Please read the following instructions carefully before proceeding with the bicycle. The manual contains important information related to the safety, operation and assembly of the bicycle. The bike has electrical parts which, according to the Act, are considered dangerous, which means the obligation to dispose of - it cannot be disposed of in standard garbage. Please remember that it's offence.

2. SAFETY

- We suggest using the appropriate helmet in accordance with the European standards.
- Follow the traffic regulations.
- We recommend that you take extra care when moving with crowded traffic.
- Perform a bicycle service only at bicycle service points.
- Regular service will provide you with a greater safety of bicycle use and prolong its lifetime.
- Carry out regular maintenance according to the instructions.
- Do not make any repairs to electrical parts yourself, only at designated service points.
- Never ride a bicycle if you have drunk or taken other intoxicants.
- The user should have front and rear lights and reflectors on the wheels.
- When cleaning the bicycle, always use soft wiper.
- Hold the steering wheel with both hands while ridding.
- Do not catch or other vehicles.
- Avoid sudden braking.
- Do not wear loose clothing for cycling.
- Only use original spare parts for components.
- When installing bicycle accessories, it is recommended that you use these accessories for assembly instructions.
- Parents should pay special attention to the safety of children while they are being transported.
- Children should be transported in special chairs permanently attached to the bicycle.

2.1 FOR PARENTS / GUARDIANS

Parents / guardians are responsible for the conduct and safety of their child. Before ridding by a child, they should instruct them about the proper use of the bicycle. Before allowing a child to ride, parents are required to:

- ✓ Read the entire manual, and to familiarize the child with the warnings and functions and principles of the bicycle.
- ✓ Make sure that the child has an approved bicycle helmet when cycling, and that your child understands all safety rules.

3. USE ACCORDING TO THE INTENDING

Improper use of the bike or use contrary to its intended use may involve danger and expose you to loss of health or life. If you have any doubts whether the purpose of the bike matches your ridding style - ask the seller.

3.1 FOLDING BICYCLE

This type of bicycle work well on paved surfaces and paths. This type of bicycle, and in particular their braking system, have been designed for a maximum load of 125 kg (bicycle + cyclist + luggage), the weight of the cyclist with luggage may not exceed 100 kg.

This bike is designed for recreational purposes, not for competitive purposes. For riding on public roads, bicycles without standard accessories, should be equipped with front and rear lighting, bell, reflections on the pedals and spokes of the wheels, in such a way that the bike meets the requirements of the traffic regulations.

3.2 REAR HUB MOTOR

Optimal conditions for electric bikes equipped with a hub motor are evenly shaped and paved surfaces. In the case of inclines on the road, the user should take the load off the engine, using sufficient force to maintain continuous electrical assistance. The support system has been equipped with a safety device that prevents further operation of the engine when the overload causes a rapid increase of its temperature. The system will restart the engine when the temperature returns to normal. Improper use of the bike or use contrary to its intended use may involve danger and expose you to loss of health or life. If you have any doubts whether the destination of the bicycle corresponds to your ridding area (mountains, city, asphalt, etc ...) - ask the seller if the chosen model will be suitable.

4. STORAGE AND USING

- The bicycle is not intended for long-term outdoor storage (max 12 hours a day).
- The bicycle should be stored in a dry place at room temperature.
- The bicycle should be stored away from corrosive products and places.

5. BEFORE RIDDING

Always check the technical condition of the bicycle before every ride, especially:

- ✓ Air pressure in the wheels, remember to observe the pressure range specified by the manufacturer on the tire.
- ✓ Check the tire condition for deformation, cracks and whether the tire adheres to the rim and does not stick out beyond the rim.
- ✓ Checking wheel screws.
- ✓ Checking the handlebar and stem (whether it does not rotate or is not loose).
- ✓ Checking the screws of saddle (does not rotate or fall under the weight).
- ✓ Check if the bicycle lighting (front and rear) works well.
- ✓ Checking the beep (bell).
- ✓ If there is no visible safety groove on the side surfaces of the rim, the rim should be replaced.
- ✓ Checking the correct operation of the front and rear brake.

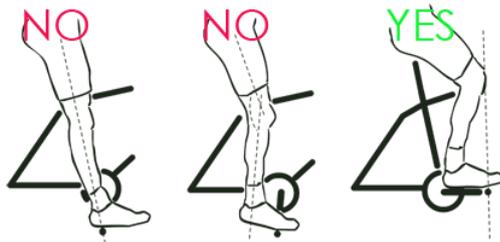
6. TECHNICAL INFORMATION

6.1 RIMS

Before using your bike, always check that the wheels are centered and that the rims are undamaged. During operation of the bicycle, and especially in any collisions, cracks and cracks may appear. When you see a damaged rim, immediately contact an authorized service center for replacement with a new one. A damaged rim may damage the tire, for example, which may involve danger and expose you to health or life.

6.2 SADDLE

The saddle should be tightened after setting the correct and most comfortable height for the user. When setting the saddle, pay attention to the maximum extension of the seatpost. The seatpost must be inserted in the frame in such a way that the safety indicator (see picture) on the seat post is invisible, if the indicator is visible, there is a possibility of the saddle post breaking through its low load.



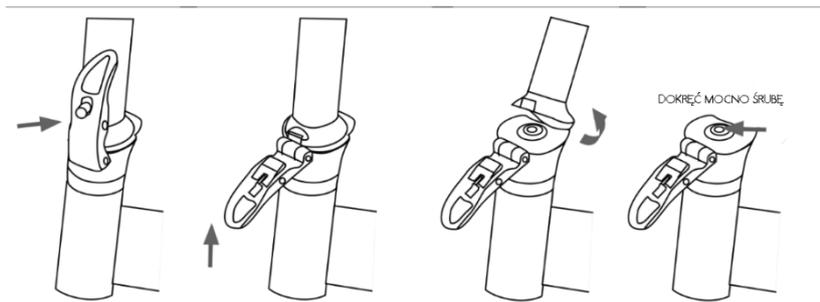
The final adjustment of the saddle position is carried out by moving the saddle in the saddle clamping bracket forward or backward. Please remember not to go out of the range placed on the saddle, otherwise the saddle may be damaged, due to excessive load.

Please remember to set the saddle correctly (according to the figure below), it is important for the user because the incorrectly positioned saddle causes the cyclist to tire more quickly, pain in the legs and back.



6.3 BEARINGS OF HANDLEBAR

The steering bearings should be tightened so that the fork rotates slightly, smoothly without appreciable clearances. When checking the clearances on the rudders, unfold the headset and tighten the main bolt (as in the picture below).



6.4 WHEELS

Properly adjusted wheels should rotate slightly and smoothly, without jerks, perceptible slack. In the case of loosening in the wheel hub, it must be eliminated by adjusting. In order to adjust the wheel, you must have specialist tools, therefore, if a fault is found, please go to an authorized service point.

6.5 TIRES

For tires, the pressure range specified by the manufacturer must be observed on the side of the tire (pressure unit indicated on the tires 1000 kPa = 14.22 P.S.I = 1 bar = 1 at). The tire should be placed in the direction indicated on its side (the arrow shows the direction of rotation). The tire should not have any deformations or cracks and should adhere to the rim in parallel. After finding out that the tire has any of the defects, immediately go to an authorized service point.

6.6 SPOKES

Spokes in wheels should be evenly stretched. The spokes loosened during the bicycle's operation may cause radial and axial runout of the wheels or rupture of the spokes, which affects the service life of the rim and hub bearings, as well as negatively affects the braking performance. These irregularities should be removed at service points.

6.7 V-BRAKES

Correctly adjusted brakes - after pressing both brake levers simultaneously on 2/3 of their travel, brake pads, they must be in their entire working surface in contact with the side walls of the rim. After releasing the lever, the pads should return to their original position.

1. Adjust the brake pads using the screw 1 (fig). The blocks must be adjusted so that the entire surface of the brake pads during the braking touches the side walls of the rim. Rubbing against the tire is unacceptable.

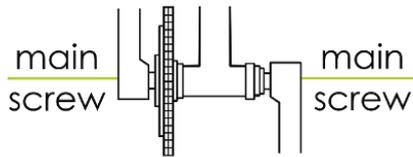
2. The tension adjustment of the brake cable is made via screw 2 (fig). It is necessary to slightly loosen the screw 2 so that the brake cable can be adjusted freely, after the brake cable has been correctly adjusted, it should be tightened again.

3. Adjust the brake arms by means of a screw 3 tightening or loosening the screw 3, position the arms so that they are symmetrically aligned with the wheel.



4. Brake pads should be regularly adjusted, and when rubbing out brake pads should be immediately replaced with new ones.

6.8 CRANKSET



The crank mechanism with cranks mounted on the axis with the screw requires systematic control. The contribution of the crank mechanism together with the screw-in bowls, showing excessive clearance, is regulated by tightening the main screw with an Allen wrench. Using a bicycle with a loose crankset causes indentation of the crank seat and its destruction.

6.9 PEDALS

The axles of the pedals should be sufficiently tightened to the crank arm. Incorrect tightening will loosen the threaded connection, which will consequently destroy the thread of the pedal and crank! The right pedal axis has a right-hand thread marked "R". The left pedal axis has a left-hand thread marked "L".



6.10 DERAILLEUR

These are components with a complex structure that requires proper operation, operation and maintenance. When using and storing the bicycle, make sure that the guide 1 (Figure below) is not subjected to side impacts which do not occur when properly used. The alignment of the guide will cause the derailleur to operate incorrectly. Further exploitation may lead to pulling the derailleur into the spokes of the wheel and irreversibly damaging it.

To adjust the derailleurs, both front and rear, first set the trailing edge of the rails out of the rack. For this adjustment, use the extreme deflection screws on the gears body. In a properly adjusted derailleur the guide is in line with the smallest and largest sprocket. Both the rear and front derailleur should properly control the ratios.



6.11 CHAIN

Depending on the conditions and frequency of travel, the chain is worn and lengthened, destroying the sprockets at the same time. To check the correct chain tension, set the gears so that the chain is on the largest chainring in the front. Then try to pull the chain away from the dial. If it sticks out more than 3 mm, it can be replaced and should be reported to an authorized service center. Too strong strain can increase the effort put in pedaling and reduce the chain's strength. Too little tension can cause the chain to fall. Regularly it should be cleaned of dirt (sand, mud etc.) and treated with a special grease.

6.12 TROLLEY

Do not exceed the maximum capacity marked on the trolley by its manufacturer.

6.13 RACK (OPTION)

Before riding, check that the rack is correctly attached to your bike. Regularly check that the fasteners are properly tightened. Do not exceed the maximum capacity marked on the luggage compartment (25 kg). The luggage compartment is not designed to tow a bicycle trailer. If you plan to mount a child seat on the rack, make sure that its load does

not exceed the maximum load capacity of the rack and bicycle specified by the manufacturer.

6.14 LIGHTING

Lighting is a basic element of the user's safety. If the bicycle is used on public roads and it is not equipped with lighting and reflections, it should be additionally equipped with the bicycle in accordance with the provisions of the traffic regulations.

7. ASSEMBLY

7.1 PREPARING

Pull the bike out of the carton with all the elements in it. Be careful not to scratch the bike and at the same time be careful not to damage any cable or other components. Make sure that there is no missing item in the bike and report any comments to the seller.

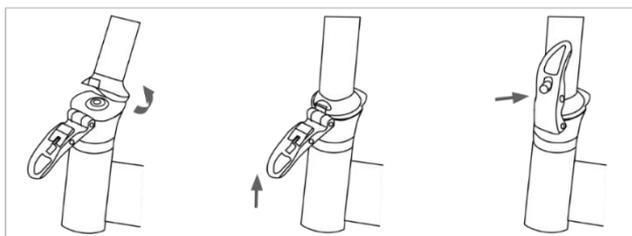
7.2 FOLD THE FRAME

Follow the instruction from picture:



7.3 HANDLEBAR ASSEMBLY

The steering bearings should be tightened so that the fork rotates slightly, smoothly without appreciable clearances. When checking the clearances on the rudders, unfold the headset and tighten the main bolt (as in the picture below).

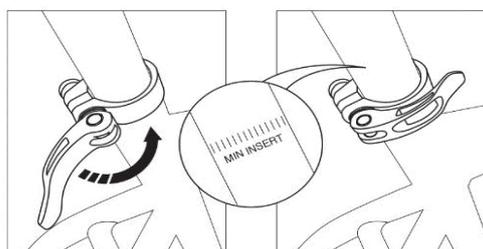
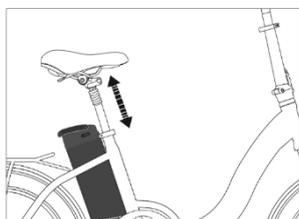


7.4 PEDALS ASSEMBLY

- Tighten the pedal with the letter "R" on the right side clockwise,
- Tighten the pedal with the letter "L" on the left hand side clockwise.

7.5 SADDLE ASSEMBLY

1. Loosen the quick-release nut on the bicycle frame and insert the saddle post.
2. Tighten the clamps of the seatpost clamp in such a way that the quick coupling clamps with the appropriate resistance.



8. GREASE

Lubricated elements must be clean. Before lubricating the bearing, after dismantling it should be thoroughly cleaned and wiped dry with a clean cloth. Then apply a quantity of grease to the balls of the balls to fill all the gaps.

Excess grease adversely affects the work of the ball bearing - its heating occurs. We lubricate ball bearings with a grease at the following time intervals:

- ✓ Every 6 months, the bearings of the front wheel hub of the rear hub bearing.
- ✓ Every 12 months the steering bearings.

We lubricate the following moving parts of the bicycle every six months:

- ✓ brake lever axles,
- ✓ brake lining axles,
- ✓ brakes,
- ✓ gears,
- ✓ moving parts of gears

Special oils and greases should be used to lubricate the shock absorbers. Do not use lithium-containing greases - they may damage some internal components. In the case of more complex activities, such as dismantling the fork, replacement of silencers, etc., we recommend that you consult a professional bicycle service.

9. USING BATTERY AND CHARGER

9.1 BATTERY

ECOBIKE uses high-quality lithium-ion batteries in its bicycles, which are light and do not cause environmental pollution. It's a typical source of so-called green energy.

In addition, they are characterized by:

- ✓ No memory effect when charging.
- ✓ Large energy capacity at low volume.
- ✓ Long lifetime.
- ✓ A wide operating temperature range: -10°C to $+40^{\circ}\text{C}$.

9.2 IMPORTANT INFORMATION ABOUT BATTERIES

- If you do not intend to use the bicycle for a long period of time, recharge the batteries to 80% and set aside at room temperature, repeat the operation after approx. 3 months.
- The lithium-ion battery should be used at -10°C to $+40^{\circ}\text{C}$, humidity $65 \pm 20\%$; stored at room temperature.
- Never place the battery near a fire or hot element.
- Never shake, hit or drop the battery.
- Keep the battery out of the bicycle and keep it away from children.
- Never use any metal tools to connect the rechargeable battery as it may cause an electric short circuit and damage the battery.

9.3 INSERTION AND REMOVAL THE BATTERY

To remove / insert the battery, follow the steps below:



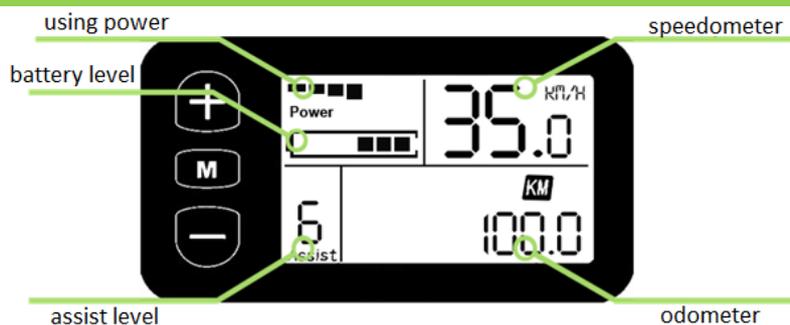
9.4 CHARGING THE BATTERY

The battery charge level indicates segments on the display located on the handlebar. Charge the battery at ambient temperature, on a non-flammable and dry surface, away from heat, moisture or flammable materials. In addition, it cannot be covered. When charging the battery, please observe the following steps:

- A.** Insert the charger plug into the socket in the battery, and then connect the charger cable to the power socket.
- B.** When the charger light is red, the battery is charging. When the red light turns green it means that the battery is fully charged (Fig.1).
- C.** After charging is complete, disconnect the cable from the wall outlet first and then from the battery.
- D.** Never leave the rechargeable battery unattended.

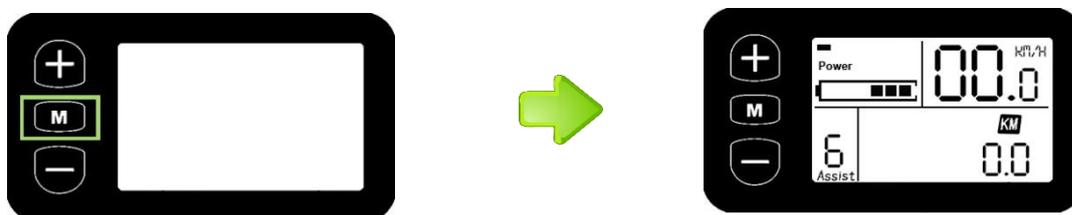
10. FUNCTION DISPLAY

10.1 FULL VIEW AREA



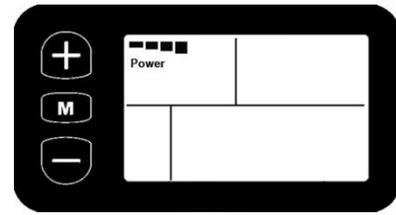
10.2 ON/OFF DISPLAY

To turn on the display press and hold "M" for 3 seconds. To turn off the display press and hold "M" for 3 seconds.



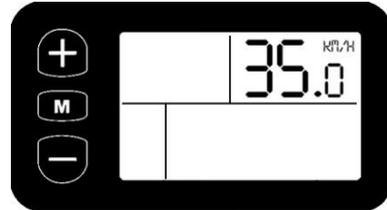
10.3 USING POWER INDICATOR

Indicator of current discharging of batteries, each segment is 2A, six segments are $\geq 12A$. All lighting segments mean the work of the engine itself, which results in faster battery discharge, the fewer segments displayed, the more we support the bike and the battery is enough to drive a longer distance.

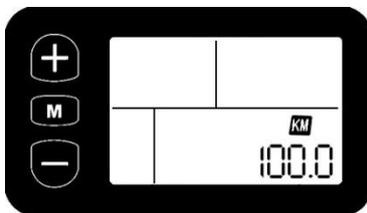


10.4 SPEED INDICATOR

The speed indicator displays the current cycling speed.



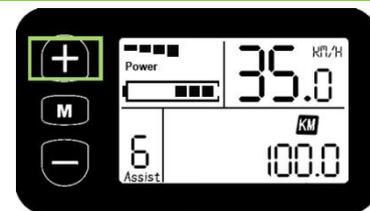
10.5 KM/H & MPH



KMH / MPH shows the speed and distance depending on the selection of the unit. At KM / H, speed and distance are displayed in kilometers, while MPH displays speed and distance in miles - the display shows the selected unit.

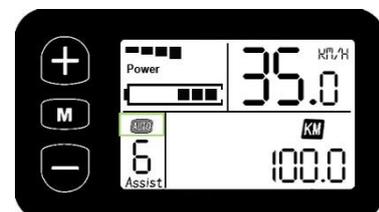
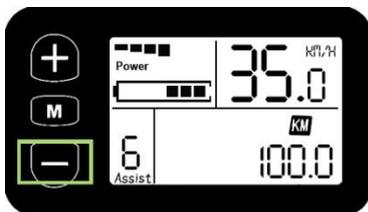
10.6 DISPLAY BACKLIGHT AND LIGHT (OPTIONAL)

When the LCD is turned on, press and hold the "+" button for 3 seconds to turn on the display backlight. If the bike is factory-equipped with a lamp, it will also light up. Repeat this step to turn off the backlight.

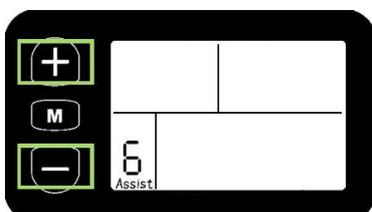


10.7 WALK ASSISTANCE

Hold down the minus button for 3 seconds to enter the "walk assist" mode, then e-bike will drive automatically at a speed of 6km / h, thus the icon will appear as in the picture below. The support will be automatically stopped after moving the hand.



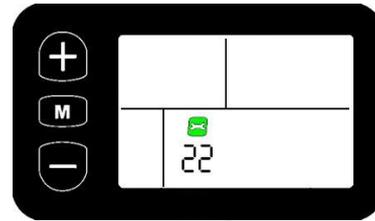
10.8 SELECT THE ASSISTANCE MODE



By clicking minus or plus, set the assistance mode from 1 to 6, where 1 means low power, while 6 means maximum. Each mode supports up to the appropriate speed, the higher the mode, the stronger the support.

10.9 ERROR

If an error appears on the display (icon with number and key, as in the picture below), check in the code table what an error means and contact your dealer to fix the fault - The code table is in item 10.10.



10.10 ERROR TABLE

Error code	Definition
22	Throttle fault
23	Motor fault
24	Hall sensor fault
25	Brake fault
9	Conection fault

10.11 SETTINGS

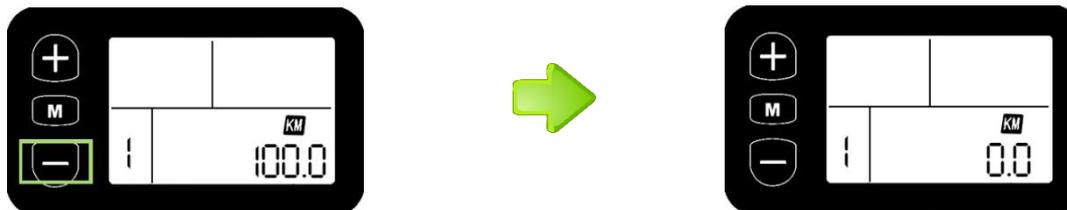
With the display turned on, hold down the minus and plus simultaneously for 3 seconds to enter the main settings menu.



By clicking the M button you go to the next setting. Lack of any action will exit the MENU.

10.12 RESET DATA

Follow steps 10.11 to go to the settings menu, then by clicking "M" go to the "1" setting - in this setting you can delete the distance traveled. If you want to delete the distance of the traveled route, press the "minus" button.



*Press "plus" and "minus" at the same time to save.

10.13 WHEEL SIZE SETTINGS

W Follow steps 10.11 to go to the settings menu, then click the M button to go to the "2" setting. Select the exact diameter of the circle using the minus and plus buttons to ensure accurate display of speed and mileage.



* Press "plus" and "minus" at the same time to save.

10.14 KM/H & MPH

Follow steps 10.11 to go to the settings menu, then by clicking the M button go to the "3" setting - by clicking plus or minus you switch the unit KM / H to MPH and reverse.

10.15 MOTOR MODE SETTINGS (ECO, NORMAL, POWER)

There are three motor modes in the bike - ECO, NORMAL AND POWER. Setting the "POWER" mode means faster reaching the set speed, eg on the ECO mode the bike from 0 to 25km / h will accelerate in 15 seconds and in POWER mode in 7 seconds (the acceleration time is given randomly). To switch to a given mode, perform steps from point 12.11 to go to the settings menu, then by clicking the M button go to the "4" setting, using the "plus" or "minus" buttons set the appropriate value:

ECO – choose „1"; **NORMAL** – choose „2"; **POWER** – choose „3"



10.16 BATTERY LEVEL INDICATOR

When the battery level is high, six bars is displayed. When the battery level is low, the battery case flashes, it means the battery level is very low and requires immediate charging.



11. WARRANTY CARD

MODEL OF BIKE:

FRAME'S BARCODE:

BATTERY'S BARCODE:

MOTOR NUMBER:

THE DATE OF PURCHASE:

SIGNATURE AND STAMP OF SELLER:

.....

REPAIRS:

DATE OF CLAIM	DATE OF REPAIR	OPERATIONS CARRIED OUT	STAMP OF SERVICE	SIGNATURE

Obligatory review after 70-120 KM (user pay for review)



Compare costs !



average cost
of driving 100 km

