

FOLDING ELECTRIC BIKE USER MANUEL



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Dear Sirs,

We are proud to be included in the bike industry in Turkey with many years of experience, knowledge and developed production techniques. Korel Elektronik San ve Tic A.Ş has begun his production story to produce aluminium parts for white appliance industry. With in the years, company has increased product range and capacity. Our company has begun to produce aluminium parts, frames, rims also other parts in order to produce bikes by using internal casting lines. With aluminium frame our primary brand is CORELLI and secondary brand is DACRON. In this context we produce bikes for all kind of customers with every level of income. With the experience and knowledge in aluminum production, our company will be the pioneer of innovations in the bicycle sector, which produces its own frames. Furthermore rims, carriers, forks and any relevant parts. In 25500 sqm, we have robotic welding lines, T4 and T6 ovens, painting lines, assembling line, decal painting and test laboratory. As Corelli, our aim is to produce with zero error and to convey the comfort and lightness of bicycles produced with aluminum frame to riders of all income groups. As we are moving to 2022, in parallel with the developments in the world bicycle industry, we have presented a completely new product range in terms of product range and technical features.

Introduction

E-Bikes

Riding an electric bicycle is a great way to hop around town conveniently and cheaply. EBikes represent a natural progression in the development of urban transportation. Using only small amounts of electricity, e-bikes have the potential to radically reduce the amount of pollution in our cities. As well, they are very quiet, so they do not add to the high levels of noise pollution which we often take for granted. They are easy, and usually free, to park. They are unobtrusive and highly practical additions to the urban landscape. E-bikes are also inexpensive. They (currently) require no registration, no insurance, no licence and do not incur parking charges. As well, compared to internal combustion engines, the engines in electric vehicles have fewer moving parts and require far less maintenance. The electric bike you use Korel company years of experience, the highly trained technical skills of our staff and careful, ongoing design work by our engineers. We hope you enjoy using this product and welcome any feedback that you may have.

New Laws

Most provinces in Canada, most states in the U.S.A, the United Kingdom and many European countries have new laws that permit cyclists to use electric motors to assist the regular operation of bicycles. Please check with your provincial or state government to learn about your local laws.

PREFACE

This product has been designed as environment friendly. In these instructions for use, there are safety, maintenance and basic storage instructions. This high technology vehicle that you purchased, consists of following parts:

- High efficiency and brushless dc motor
- Low voltage protected digital smart driver
- Circuit breaker brake sensor for safe riding
- Long range and high performance with high capacity battery
- Pleasant and comfortable riding with high quality suspension system
- Bicycle equipment ensuring European standards

These instructions for use will be an irreplaceable part of your vehicle. Make sure that you receive these instructions together with the vehicle you purchased.

When there is a problem about your vehicle, do not use parts except the original ones presented by authorized service shop.

These instructions for use have been prepared mutual for Korel electric bicycles. Used visuals and technical characteristics may not be the same with the vehicle you purchased. The main purpose of these instructions for use, is to ensure introduction of the product and using safely.

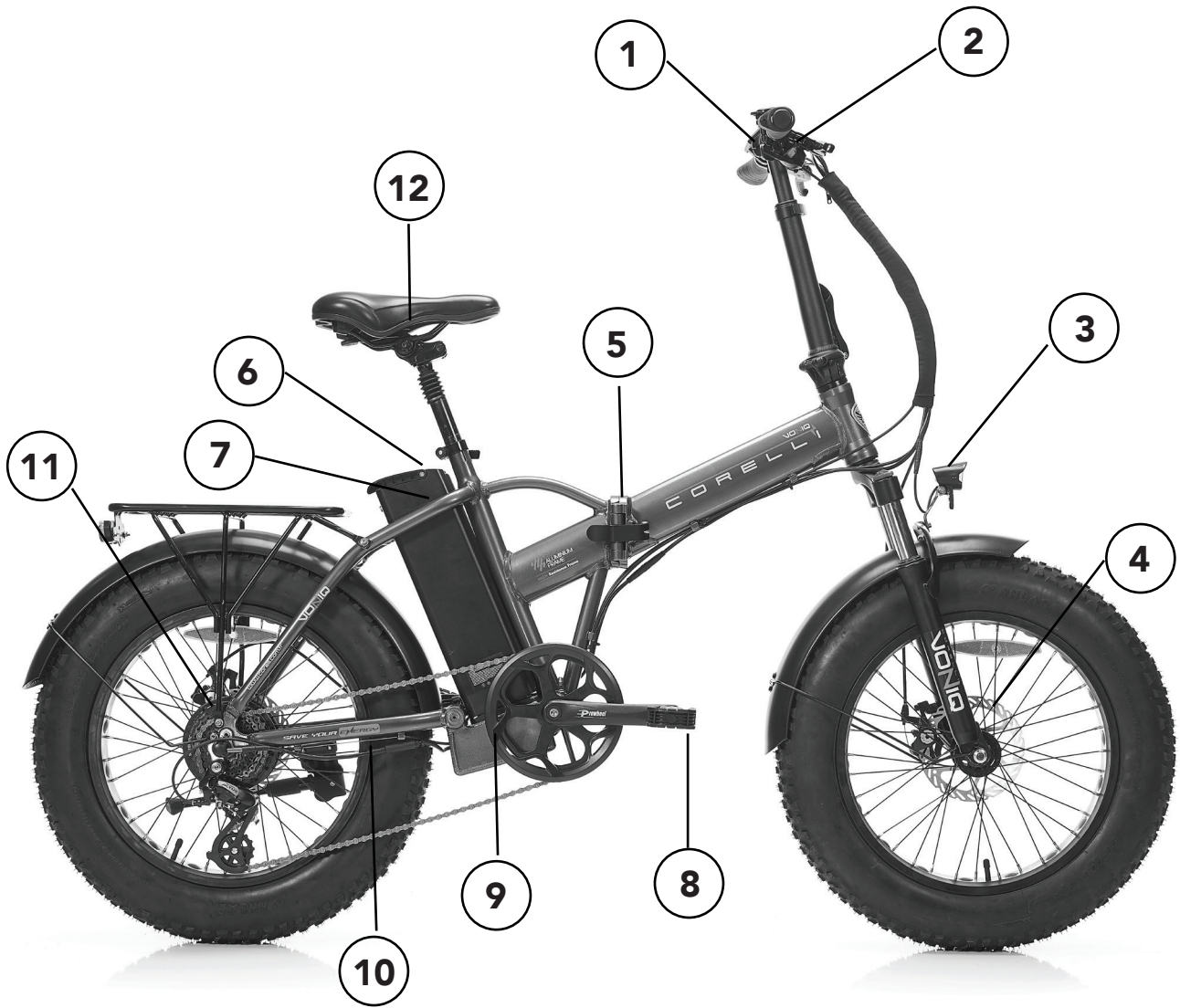
We thank you for preferring our product. We wish pleasant and safe rides with your electric bicycle.

WARNING These headings have been written in order to present personal accidents and not to cause possible fatal accidents.

ATTENTION - These headings have been written to protect you from important personal injuries and mechanic damages.

- As per the laws of some countries, there might be need for a minimum age for using this product and a driving license. In this type of situations, make sure that you ensure legal conditions of the country you live to use the vehicle.

- Do not demount, replace or modify any part on the vehicle without approval of authorized service shop. Processes those are made without approval of authorized service shop, will impair originality of the vehicle and the vehicle will be out of the scope of guarantee. Please make all replaces at authorized service shops.



1. THE VEHICLES AND ACCESSORIES

1. Indicator
2. Gear Lever
3. Headlamp
4. Disc Brake
5. Folding Apparatus
6. Charge Input
7. Accumulator Contact
8. Pedal
9. Rider
10. Abutment
11. Engine
12. Saddle



FUNCTIONS

INDICATOR

GD01

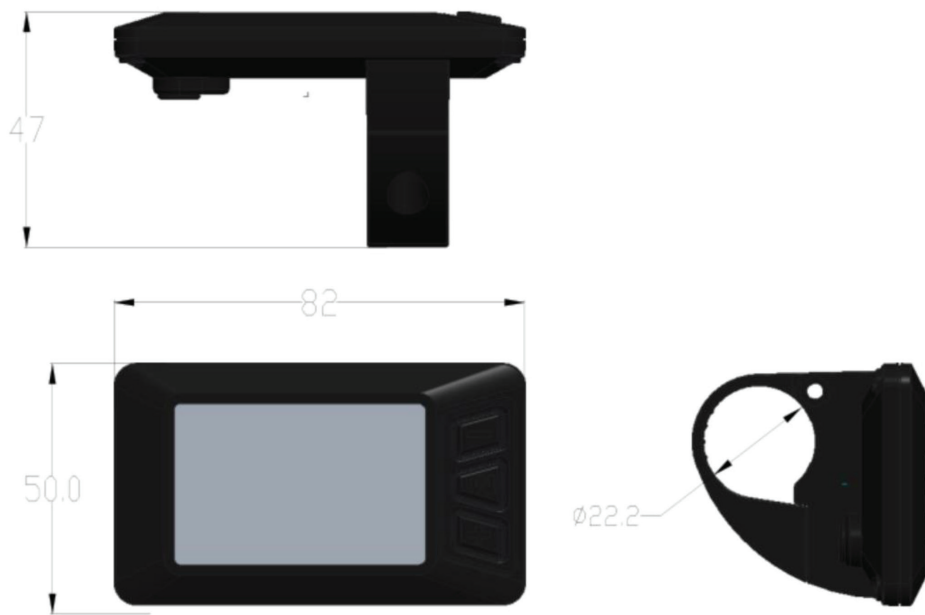


1. Material & Dimension

1) Material

GD01 Intelligent display is mainly used PC material for it's cover shell and press button. The LCD window is using PC material.

2) Dimension(unit:mm)




3) Installation

Install the display in the middle of handlebar, then adjust to suit with a good angle of view. Turn off the device, connect the display to controller.




2. Overview of GD01

- 1) UART P rotocol:
Twoway communication protocol is adopted
- 2) Speed Indicate
Real time SPEED;
- 3) kmh/mile Indicate
KMH / MPH according to customized.
- 4) Intelligent Battery Indicate
Indicates the battery level in real time
- 5) Head Light Control
Press + button for 3 seconds to turn on/off
- 6) Back Light Adjustment
3 level adjustment to customized.
- 7) Assist Level
From level 0 to 5, press button to change assist level.
- 8) Distance Indicate
ODO/Trip/Driving duration
- 9) Error Code Indicate
Please refer to appendix table 1 for definition
- 10) 6km Assist Ride Mode
In this mode, it will display  on the screen
- 11) Parameter Setting
Set parameters, such as: levels, wheel size, speed limit etc

3. Presentation of Screen

- 1) Battery level: 5 levels, voltage interval could be customized
- 2) Speed Real time SPEED ; MAX SPEED; AVG SPEED

- 3) Speed unit K MH /MPH
- 4) 6km mode 6km mode Display 
- 5) Assist level actual assist level 0 5
- 6) Head light icon indicates when head light and back light are on.
- 7) Distance Trip/ODO.
- 8) Distance Indicate Driving duration
- 9) Error code indicate "ERR" code when there is error.

4. Operation & Function instructions

1) Power ON/OFF

When the power is off, Long press **M** for 3 seconds , screen will display all contents and start to normal working mode,and controller will be turned on When the power is on, Long press **M** for 3seconds screen will be powered off, and controller will be turned off If no any operation both on bike and display during 5 minutes (time could be set), the display will turn off automatically , in this case, no power consumption for both display a nd controller.

2) Speed mode switching

Long press **+** and **M** at the same time to switch speed information, c ycle show Real time Speed, AVG S peed and MAX Speed.

3) ODO/TRIP/ Driving Time/Error Code switching

Short press **M** to switch ODO/TRIP/ Driving Time / Error Code Trip (Single trip distance) ODO (Accumulated distance) TM (Driving Time) ERR (Error Code).


4) Assist level

Short press **+** or **-** to change assist level , default value is level 1

5) Head light control

Long press **+** for 3 seconds to turn on/off the head light.

6) 6km assist ride mode

When the bike is stopped, long press **-** for 2 seconds , will enter 6km/h ride mode, the speed will be 3 .5~7.5km/h according to different road conditions "  " will show up on screen To quit 6km/h ride mode , it could be customized by clients.

5. Parameter setting

When the display is powered on long, press **+** and **-**, will enter parameter setting mode, in this mode, can change parameter values, long press again **+** and **-** will quit parameter setting mode or no operation during 10s will also quit this mode. In parameter setting mode, short press **+** / **-** will change parameter value, short press **M** will save current value and switch to next parameter.

1) P01 back light lightness:

short press **+** / **-** will switch from 1 to 3, Level 3 is lightest. Level 2 is default value.

2) P02 KMH /MPH

Short press **+** / **-** to switch KMH /MPH

3) P03 Working voltage:

Short press **+** / **-** to switch 24V, 36V, 48V

4) P04 Auto shutdown time

Short press **+** / **-** to switch from 0 to 60, it is the time(in minutes) to shut down the screen automatically if no operation 0 means never shut down.

5) P05 Number of Assist levels

Short press **+** / **-** to change level 0 -->1 -->

0: 3 assist levels

1 2: 5 assist levels

6) P06 Wheel size selection

Short press **+** / **-** to switch wheel size , the unit is in inch , accuracy is 1 inch.

7) P0 7 speed limit:

short press **+** / **-** to set the speed limit from 15 to 45 Km/h.

8) P0 8 Non zero speed start

Short press **+** / **-** to switch from 0 to 1.

0 : zero speed start,

1: non zero speed start.

9) P 09 Reset ODO distance

long press **+** during 5 seconds

10) P1 1 Reset all parameters

long press **+** 5 seconds when it displays "SSSS" all parameters reset to default values(except for the ODO distance)

11) P1 2 Driving mode selection

Short press **+** / **-** to switch from 0 -->1 --> 0: Assist mode (throttle does not work, only assist);
1 : Electrical driving mode(only throttle works, assist does not work) ;
2 : Both assist and Electrical driving mode (Not available if in zero speed start and electrical driving mode).

8. Error code definition

When an error appears,
GD01 will notice users by different codes,
please refer to table 1 for different codes:

| 状态代码 (十进制) | 状态意义 |
|---------------|-----------------------------------|
| 0 | Normal |
| 2 | Short Circuit Protection of Motor |
| 3 | Controller Error |
| 4 | Throttle Error |
| 5 | Motor Error |
| 8 | Low Battery Level |
| 9 | High Battery Level |
| 10 | Motor Hall sensor error |
| 30 | UART receive error |

3. ASSEMBLYING THE VEHICLE

1- First of all, fix your vehicle on abutment and open folding apparatus. Then, make your vehicle ready to fold towards left.



3- When your vehicle's folding apparatus and handlebar folding apparatus are open, prepare your vehicle and handlebar for folding.



2- Open folding apparatus place on lower section of handlebar and fold handlebar towards down to front wheel.

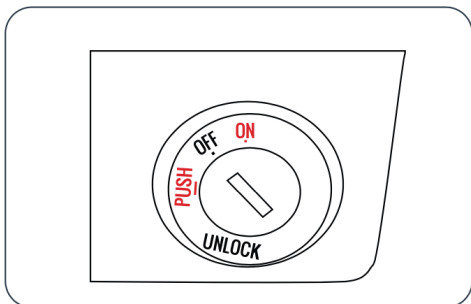


4- Fold handlebar towards down, fold your vehicle by pushing folding apparatus part toward rear wheel.



4. CHARGING THE VEHICLE

Battery Locking and Power Switch



Power Switch is placed in battery in order to activate your electric bicycle. Turn the switch on to open. When the bicycle is not in use, keep it always in off position.

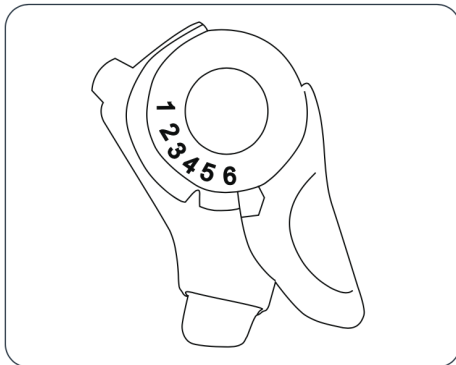
☑ - It means that power is on and the engine can be activated.

☒ - It means that power is off and the battery is locked. In such case, you can take the switch off.

PUSH - Push the switch in and then turn to counter clockwise. When it is on "**LOCK ON**" position,

UNLOCK - You can remove your battery in that position.

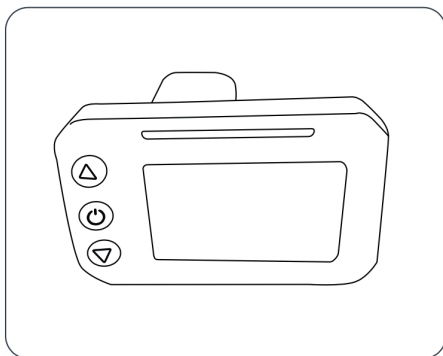
Gear Lever



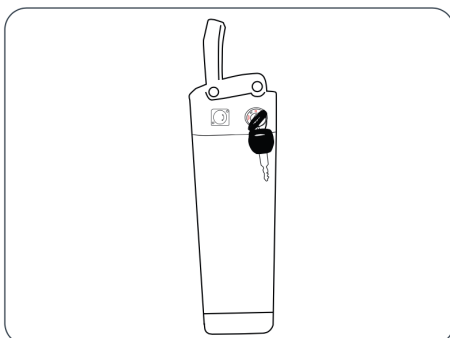
Operating gears is made by using selector figures on the gear. It is used to select rate of required gear.

Indicator

Its indicator is located handlebar.



Removing Battery for Charging



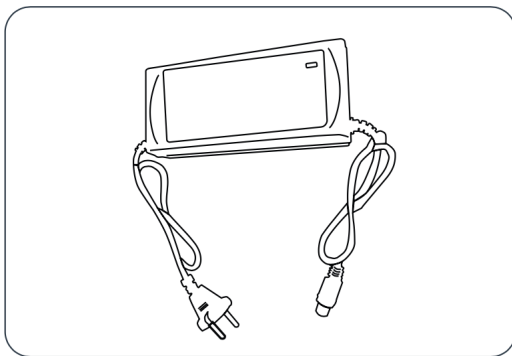
Remove the batteries by turning the switch to "Open Lock" position. This will ensure that you remove and charge the battery.

1. Charge socket is placed on upper parts of the battery.
2. Plug charger cable on charge socket on the battery.
3. Plug charger on correct electric socket (220v50hz). Turn network source on to begin charging process.

Battery charge indicator will flash in RED during charging. Charging may take 2-8 hours based on how much it is needed. The indicator becomes GREEN when it is fully charged. When GREEN light is lid, charging will continue to be applied.

Note:

When charger is on, do to plug charger cable to a socket. Plug charging cable always when charger is off.



5. RIDING INSTRUCTIONS

- Before every use, make sure that all parts are at good condition, nuts and bolts are tighten, brakes are operational and adjusted appropriately.
- Make sure that tyres are inflated correctly and tyre back is sufficient for the operation.
- Wear a helmet when you ride your electric bicycle.
- Do not ride under excessive raining. It is recommended not to ride at rainy weathers.
- Do not ride through deep waters while riding your electric bicycle. This may damage your electric bicycle and make it out of repair.
- Make sure that you do not touch your battery with your wet hands or a metal object. This might cause electric shock or a short circuit.
- Do not increase your speed while going downhill.
- Do not press on start-up support assistant while walking with your electric bicycle.
- Do not pass over obstacles when you ride your electric bicycle, pass by obstacles.
- Do not hang heavy objects on handlebar.
- Tightly grip handlebars with your hands, protect balance completely.
- Place your right hand on start-up support lever (turn slowly to prevent sudden speed-up).

Please check before each usage:

1. Check tyre air pressure.
2. Make sure that battery charge is enough for your ride.
3. Make sure that front and rear brake are operational.
4. Make sure that your handlebar is adjusted based on height of your seat.
5. Make sure that front and rear wheels are smooth and fixed.

6. SAFE USE INSTRUCTIONS

Safety Suggestions

- Make sure that your tyres are in good condition.
- Pay attention that brake cables and brake levers are lubricated, no oil contamination at rims or brake blocks.
- Do not charge your battery excessively. If your battery is empty, turn it off until charging again.
- Please replace worn tyres and brake pads.
- Brake cables may get longer by the time and in order to provide a good braking, it is required to adjust and tighten brake cable regularly.
- Regularly wipe your battery with a dry and soft fabric. Bad connection will cause reducing battery capacity.
- Pay attention not to leave it outside at bad weather conditions without enough covering.
- Battery capacity is reduced based on usage. Variable factors will determine the distance that can be taken with the help of the engine of your electric bicycle.
- The factors such as weight of rider or load, hills and slopes, type of road (asphalt, grass, mud), weather conditions (rain, wet, windy etc.), wrong tyre pressure, can seriously reduce battery efficiency.
- Battery life is based on period and conditions of use.
- Certainly, follow traffic rules in your country. Besides, perform safety instructions and suggestions taking place in this handbook.
- In order to prevent personal injuries, do not give your electric bicycle to the persons who do not know how to ride it. Make notification about how to ride when you give your electric bicycle to other persons. Make sure to wear correct safety equipment.
- Check your electric bicycle before each use. If you observe situations such as a loosen part, lower tyre air, consumed battery, different voices while turning or different situations, please stop riding. Before fixing these errors, do not ride your electric bicycle.

Preventing Hazardous Ride

- Before every use, make sure that all parts are in good conditions, nuts and bolts are tighten, brakes are operational and adjusted appropriately.
- Make sure that tyres are steady before use.
- Check tyre pressures.
- Make sure that all nuts and bolts are tighten sufficiently.

- Besides, check whether brake cable and other cables are tightened and operate appropriately.
- Charge battery when it is not in use. Waiting for long period on low battery level, will reduce battery life.
- Check all rotating parts and lubricate if it is insufficient.
- Check all lighting systems.
- Do not increase speed when you go downhill.
- Avoid sudden turns in crowded areas.
- Do not get on persons more than one on your electric bicycle.
- Do not touch disc brake after usage. Temperature of disc brake is high after usage.
- Do not free your hands during riding.

Standing Positions

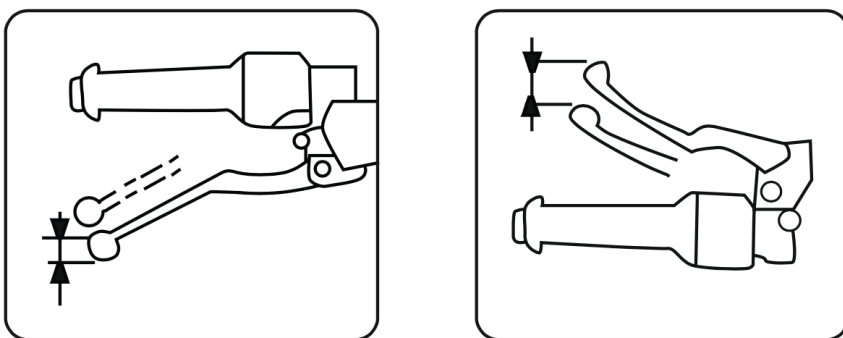
Abutment: It is used in short term parks.

Pedal

Do not place heavy and big volume parts on pedal. It impairs balance of your electric bicycle and can cause danger.

Front and Rear Brake

It moves idle for about 10-20 mm distance before seeing left and right brake levers' functions. This distance is named "free distance". By tightening nuts or make them free, free distances can be adjusted.



7. FOLDING AND TRANSPORTING

Folding

Make sure that your electric bicycle is at off position. Firstly, open folding apparatus place on lower part of handlebar and push handlebar down. Then open folding apparatus on middle section of your electric bicycle and fold your electric bicycle on middle.

Transporting

You can easily carry your electric bicycle when it is folded.



8. MAINTANENCE AND STORAGE

- Store your electric bicycle away from cold, in your garage if possible.
- Keep batteries away from children.
- Do not connect anode and cathode of your charger when it is charged or discharged. Never use a conductive between anode and cathode. It will cause short circuit.
- Avoid your battery contacting with water.
- Protect your batteries from temperature at 60 degree and above.
- Do not expose it to physical impacts such as strike, throw, fall.
- Do not tamper batteries with sharp and driller tools.
- If a leakage occurs and contacts with your skin or eyes, immediately wash with plenty of water and consult to the closest health care provider.
- If physical changes such as smell, heating, burning, color change, are seen at a battery, immediately separate and remove that battery from your vehicle.

Charger

- Use only original charger designed especially for your product. It operates with 220V. Never lower to 110V.
- Your electric bicycle should be off when it is charged.
- Do not shake your electric bicycle when it is charged.

Cleaning the Vehicle

- Never use very high pressurized water when you wash your electric bicycle. High pressurized water can cause that some of your parts take water. Parts taking water lose performance and they can be broken. It is recommended to clean your electric bicycle with a wet fabric.
- Never lubricate the brake installation and tyres.
- Use oil to clean metal parts of your electric bicycle.
- While cleaning painted plastic parts, always use standard cleaning agents. Rinse with a wet fabric after cleaning.

Do not use alcohol, petroleum, gas oil or other abrasive and volatile solutions to clean your electric bicycle. Otherwise, serious damages can occur on your electric bicycle. Do not wash your

electric bicycle with high pressurized water. Make sure that your electric bicycle is off when you wash it. Do not operate the product unless you are 100% sure that it is dried. Electric shock can happen if your charger contact with water when it is plugged. Please, after each charging, first remove your charger from your electric bicycle and then from socket. Keep your charger in a safe and dry area.

Battery Use

- 1) In order not to encounter with a dangerous situation, do not use different brands of batteries.
- 2) Do not open the battery or do not try to demount in order to prevent electric shock. Do not temper the battery with metal objects to prevent short circuit. This can impair the battery and cause a serious injury for you.
- 3) Use your battery with original charger delivered to you with your product in order not to encounter with a problem and to prevent your vehicle firing.
- 4) Your batteries are recyclable. Please return your batteries which their service lives are over, to authorized service points
- 5) Do not leave your battery above 50°C and below -20°C temperatures. Keep away from fire. High temperatures can cause your battery firing. When it is possible, the vehicle should be charged when battery level is reduced to 20%.

9. STORING GUIDE FOR THE VEHICLE

Storing the Vehicle

- If you will not use your electric bicycle for a long term in some periods such as winter months, you are required to take some measures to protect your electric bicycle from abrasion and impairments. Additionally, it will be better to make some repairs before storing.
- Clean, rinse and dry your electric bicycle. Covering painted surfaces with oil will extend life of your paint, ensure to keep its brightness at the first day.
- Bring your electric bicycle's tyre pressure to ideal tyre pressure level. Place a wood below front and back wheel to rise from the ground by lifting middle pedal.
- Cover with a quilt which is not plastic or rubber. Pay attention to store under conditions where temperature does not change much. High temperature can cause tiring, impairing and cracking many parts of your vehicle.

Taking Your Vehicle to Use Again

- Move the quilt on your electric bicycle and clean your vehicle.
- Operate your electric bicycle after you perform all pre-operation instructions.
- Make the first use in an area closed to traffic. Entering into traffic after you are sure that all parts of your electric bicycle operate correctly and with full performance.

Loading

- Maximum carriage capacity of rear carrying iron is 20kg.
- Do not carry loads those are not suitable for carrying on your bicycle. Otherwise, these parts will get damaged.
- Rear carrying iron was designed only to carry light loads.

10. TECHNICAL SPECS

| | FOLDING FAT | FOLDING FAT-S | FOLDING |
|--------------------------------|--|--|--|
| Sizes | 174 cm, 60 cm, 124 cm | 174 cm, 60 cm, 124 cm | 170 cm, 60 cm, 120 cm. |
| | 100 cm, 70 cm, 75 cm | 100 cm, 70 cm, 75 cm | 165 cm, 65 cm, 70 cm. |
| Weights | 30,2 cm, | 29,5 cm, | 20,5 cm |
| Main Characteristics | 25 km/h | 25 km/h | 25 km/h |
| | 30-110 km/h It can vary based on usage conditions and pedal support | 30-110 km/h It can vary based on usage conditions and pedal support | 30-110 km/h It can vary based on usage conditions and pedal support |
| Battery Characteristics | 36 V | 36 V | 36 V |
| | 13 Ah | 13 Ah | 8.8Ah |
| | High temperature, short circuit, low voltage and low current protection with Electronic Battery Management System (BYS-BMS). | High temperature, short circuit, low voltage and low current protection with Electronic Battery Management System (BYS-BMS). | High temperature, short circuit, low voltage and low current protection with Electronic Battery Management System (BYS-BMS). |
| | Input: 220 ACV Output: 42 V/2A | Input: 220 ACV Output: 42V/2A | Input: 220 ACV Output: 42V/2A |
| Engine Characteristics | 36 V 250W | 36 V 250W | 36 V 250W |
| Indicator | LCD Information display | LCD Information display | LCD Information display |
| Mechanic Gear | Präsent | Präsent | Präsent |
| Rim | 20" | 20" | 20" |
| Body | Aluminium | Aluminium | Aluminium |

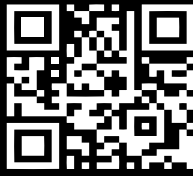
Schedule

The frequency of maintenance depends on how much you ride and under which conditions. Recreational riders need far less maintenance than off-road riders. The harder you ride, the more you have to take care of your bike if you want it to last. There are various time intervals for proper maintenance. Quick maintenance should be done before & after every ride.

| Time after purchase | Action Suggested |
|--|---|
| <p>Everytime before you ride The 60 second check</p> | <p>Check tire pressure, check brakes that they work, check lights, check bolts (make sure everything is tight), check battery gauge. Do not ride the ebike unless everything is functional and proper.</p> |
| <p>30 days (every month)</p> | <p>Completely clean the bike, including the dust on the motor and under the seat. Check for any abnormal wear and tear or alignment problems.</p> |
| <p>90 days (every 3 months)</p> | <p>Inspect frame and fork for paint cracks or bulges that may indicate frame or part damage; pay particular attention to all frame joints. Check wear and tear on tires. Check range of battery.</p> |
| <p>180 days (every 6 months)</p> | <p>Inspect all components of the ebike. Check that connections are nice and tight. Look inside where you controller is and clean in detail. Check that all plugs. Go over every bolt and nut in your ebike.</p> |
| <p>360 days (every 12 months)</p> | <p>Bring ebike for complete tune-up. Varying on the ebike the ebike should complete a battery discharge, tires should be changed depending on wear and tear. All connections should be checked for rust and looseness. All components should be checked including charger, ignition and gauges.</p> |



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