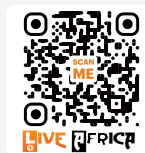


VTUVIA

PEDAL FOR LIFE



18+
ONLY

CHILDREN UNDER THE
AGE OF 18 ARE NOT
ALLOWED TO RIDE



ZEAL | INSTRUCTION ELECTRIC BICYCLE MANUAL

 Before riding, please read the product instructions carefully and carefully check the complete components to ensure your safety. If you find a problem, please contact the dealer or the company in time.

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IMPORTANT SAFETY INSTRUCTIONS

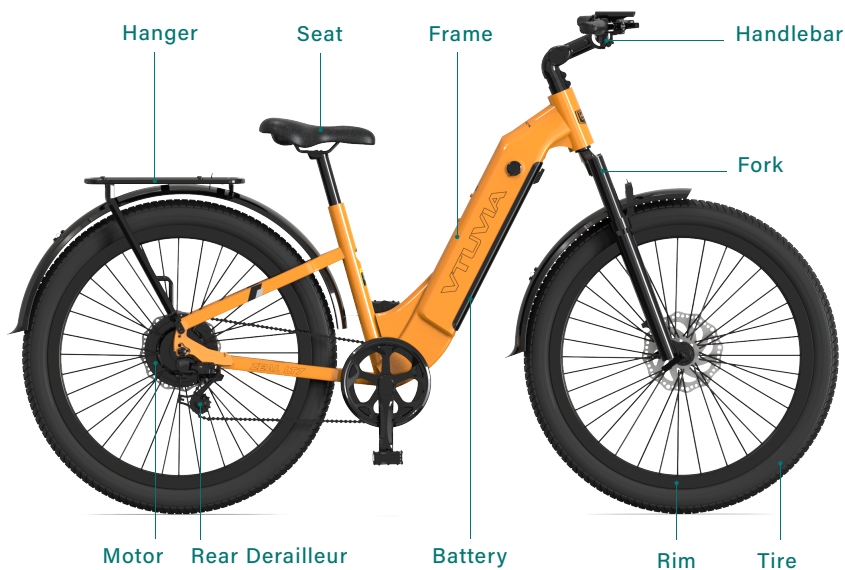
(SAVE THESE INSTRUCTIONS)

WARNING—When using this product, basic precautions should always be followed, including the following:

- a) Read all the instructions before using the product.
- b) To reduce the risk of injury, close supervision is necessary when the product is used near children.
- c) They are not intended for use at elevations greater than 2000 m above sea level.
- d) Do not put fingers or hands into the product.
- e) Do not use this product if the flexible power cord or output cable is frayed, has broken insulation, or any other signs of damage.
- f) For an off board charging system provided with a field wiring terminal or leads, the installation instructions shall state that the installation is intended to use copper wires only.
- g) For an off board charging system, when a pressure terminal connector, or the fastening hardware, are not provided on the unit as shipped. The instruction manual shall indicate which pressure terminal or component terminal assemblies are for use with the unit.
- h) With reference to (f), the terminal assembly packages and the instruction manual shall include information identifying the wire size and the manufacturer's name, trade name, or other descriptive marking by which the organization responsible for the product is identified.
- i) When a pressure terminal connector provided on an off board charging system, for a field installed conductor requires the use of other than an ordinary tool for securing the conductor, identification of the tool and any required instructions for using the tool shall be included in the installation instructions.
- j) The instruction manual for a unit where the abnormal test is terminated by operation of the intended branch circuit over current protective device, shall include the word "CAUTION" and the following or equivalent: "To reduce the risk of fire, connect only to a circuit provided with _____ amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70." The blank space is to be filled in with the applicable ampere rating of branch circuit overcurrent protection.

BASIC STRUCTURE

Basic Structure(eg:ZEAL-LT7)



MAIN TECHNICAL PARAMETERS AND SPECIFICATION

Electronic

Motor:	Rated 48V 500W （PEAK 750W） Rear Brushless Motor
Max torque:	63N.m
Battery:	48V 15AH（624Wh） LG Lithium-Ion battery
Charger:	Operates on 100V-240V AC power outlets
Charging Time:	About 7 Hours
Controller:	48V 20A Intelligent brushless Sine Wave
PAS:	Torque Sensor System
Display:	Colorful Display
Front Light:	48V10W 120Lux integrated LED
Rear Light:	48V Brake highlight, rear light steady
Max Speed:	32 km/h
Range(Pedal Assist) :	128 km
Range(Throttle Only):	80 km

Mechanical

Frame:	6061 aluminum alloy
Front Fork:	EXSHO Suspension Fork
Tires:	CHAOYANG 27.5*2.6 Anti-Proof Reflective lines
Derailleur:	Shimano TY200D 7 Speed
Shift Lever:	Shimano TX50 7 Speed
Front Brake:	LOGAN Hydraulic Disc Brake
Rear Brake:	LOGAN Hydraulic Disc Brake
Brake Rotors:	180mm Martensitic stainless steel(2CR13)
Pedals:	Aluminum Alloy Pedals
Stem:	Aluminum Alloy Adjustable Angle
Seat Post:	Aluminum Alloy
Fender:	F&R: Plastic Standard Fenders
Shelves:	Mounted Max Load 50 lbs
Net Weight:	28 kg
Max Load:	158 kg

LCD DISPLAY INSTRUCTION

1.Product Name and Model Number

Smart LCD display for electric bicycle;Model: UKS2-Plus.

2.Specification

24V/36V/48V/60V/72V/UBE power supply

Rated power of the instrument is 1W

Maximum power of the instrument is 5W

USB charging DC5V500A

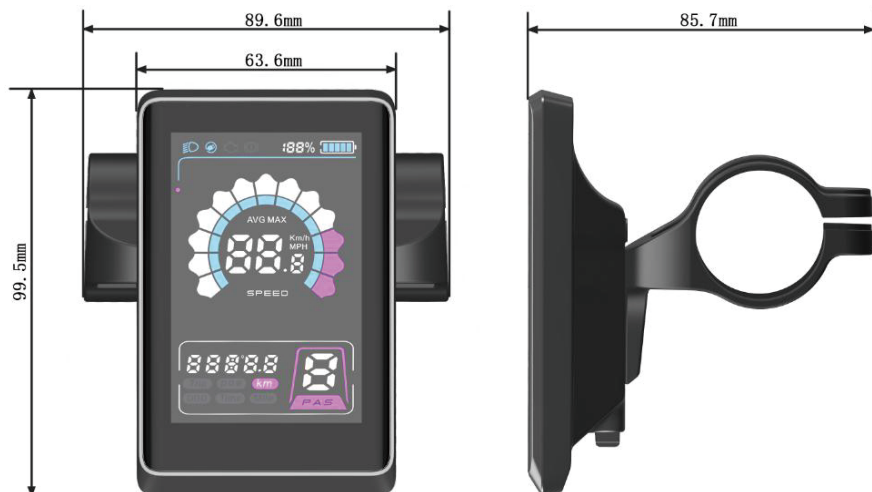
Shutdown leakage current<1uA

Supply controller terminal working current 50mA

Operating temperature -20~70 ℃

Storage temperature -30~80 ℃

3.Appearance and Size





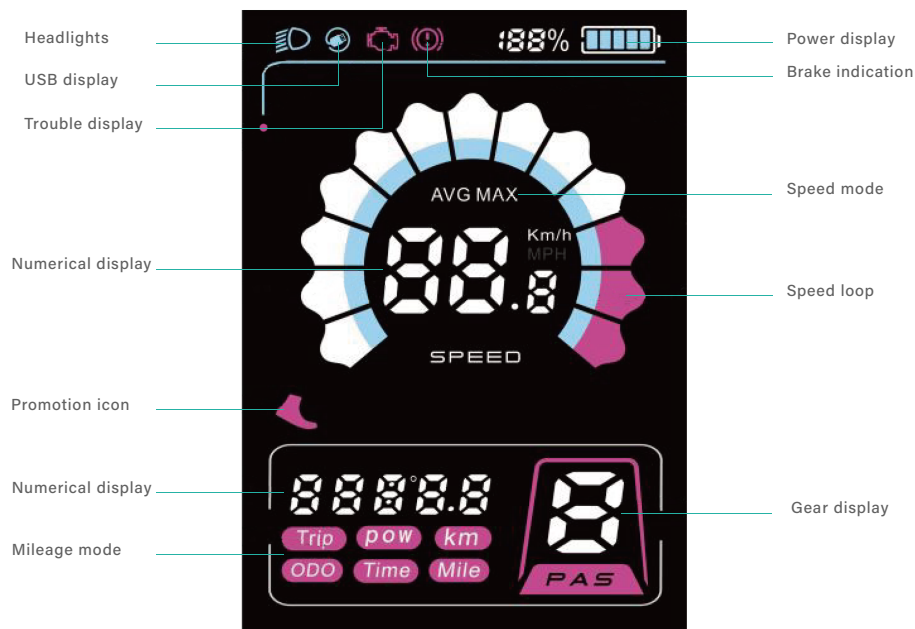
4. Main functions of the instrument

- Speed display: Including real-time speed RTSPEED, maximum speed MAXPEED, and average speed AVGSPEED
- Kilometer/Mile Selection: Kilometer/mile display can be set according to customer preferences.
- Intelligent battery indicator: Provides stable battery level prompts through optimization algorithms, and the battery level is not affected by motor start stop fluctuations. If the system supports battery communication, it can display an accurate percentage of battery level.
- Backlight brightness 5-level adjustment: Set the backlight brightness according to customer usage habits, with level 1 being the darkest and level 5 being the brightest.
- Maximum 9 gear control: The number of gears can be set according to user needs, with 3/5/9/6 gears.
- Mileage display: can display cumulative mileage ODO, single trip mileage, and cycling time Timme.
- Output power indication: Real time display of output power (battery output power).
- Fault prompt: Provide a description of the fault code.
- Assist in promotion: can support 6KM promotion.
- Speed measurement magnetic steel adjustment function: The quantity of speed measurement magnetic steel can be set according to the actual requirements of the customer.
- Assist magnetic steel adjustment function: The number of assist magnetic steel can be set according to the actual requirements of the customer.
- Range indicator (requires battery support for communication).
- Battery information display (requires battery support for communication).
- USB charging port, can provide rated charging for mobile devices, current: 500mA/5V.
- Parameter setting: Various parameters can be set through button operation, including gear position, wheel diameter, voltage division, speed limit, current limit, etc. Please refer to the parameter setting instruction text for details.

5.LCD Display Instructions

- Speed modes: AVG SPEED, MAX SPEED, and RT SPEED.
- Speed Explicit: Display speed values in km/h, MPH miles per hour.
- Power indicator: 5-stage power indicator+battery percentage digital display, can set voltage values for each stage according to customer needs. By optimizing algorithms to provide stable battery level prompts, the battery level is not affected by motor start stop fluctuations. If the system supports battery communication, it can display an accurate percentage of battery level.
- Headlight indication: When the headlights are turned on, symbol  is displayed.
- Brake prompt: Display symbol  when the brake is powered off.
- Gear indication: Display the current assist gear, ranging from 0 to 9, where 0 is neutral without assistance and 19 corresponds to the assist gear. Display P in 6km driving mode.
- Fault prompt: Display  when a fault is detected.
- Mileage mode: divided into single mileage TRIP, cumulative mileage ODO, and cycling time TIME.
- Mileage display: Display MILEAGE INFORMATION or TIME INFORMATION according to the set mode.
- USB display: When the USB charging function is turned on, the interface displays .

The full LCD display diagram is as follows:



6.Function Description



1.ON/OFF

Press and hold the power button (3 seconds) while the instrument is turned off, the instrument will display and start working, and the controller power will be turned on; Press and hold the power button (1 second) in the startup state to turn off the instrument power and turn on the controller power. If you ride for 5 minutes (time can be set by the user) and do not operate the instrument panel, the instrument panel will automatically turn off the power.

*If the instrument is turned on with a password, the instrument will display and start working after entering the password.

2.Assist Gear Selection

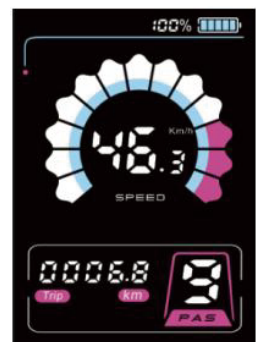
In manual gear shifting mode, short press the plus or minus button to switch the assist gear and change the assist ratio. The lowest gear is 1 and the highest gear is 9. When the instrument panel is turned on, it defaults to 1 gear and 0 is neutral without assistance.



0 Gear



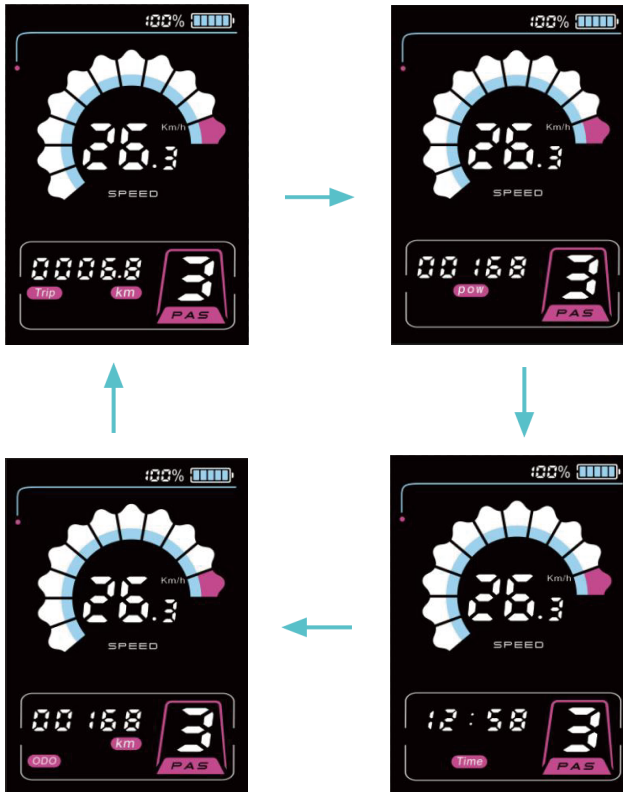
3 Gear



9 Gear

3. Mileage Mode Switching

Short press the on button in the power on state to switch the mileage display mode, and cycle through the following information: riding time (Time), accumulated mileage (ODO), power information (Pow), and single trip mileage (Trip).



4. Speed Mode Switching

Short press the mode key in power on mode to switch speed display mode, and the following information will be displayed in a loop: real-time speed (RTSPEED) average speed (AVGSPEED) → maximum speed (MAXSPEED)



Real Time Speed/Single Mileage



Maximum Speed (MAX)



Average Speed (AVG)

*If there is no button operation for 5 seconds, the instrument panel will automatically return to real-time speed display status.

5.Headlight/Backlight Switch

Long press the plus button (1 second), the brightness of the instrument backlight will decrease, and the lights will be turned on at the same time (supported by the controller). Press and hold the plus button again (1 second), the instrument backlight will return to its original brightness, and the lights will be turned off at the same time.



Headlights off

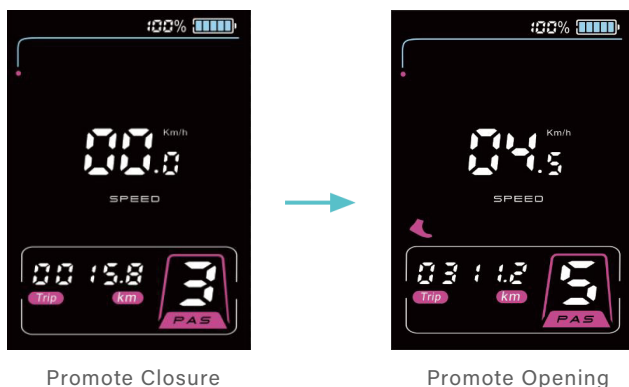


Headlights on

*The instrument backlight brightness can be adjusted in 5 levels, and users can set it according to their needs. Please refer to Backlight Brightness for details.

6.Walking Mode (6km Promotion)

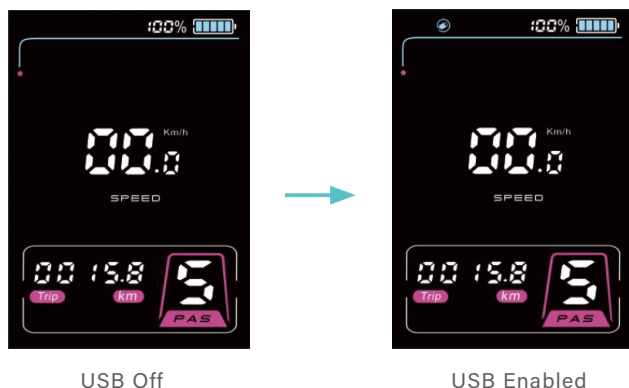
Long press the decrease button for more than 1 second, and the electric vehicle will enter the assist push mode. The speed will display real-time speed, and the assist icon will open. Release the decrease button, and the electric vehicle will exit the walking mode.



*Some controllers may not support this feature

7.USB Function

Long press the mode key for more than 1 second to activate the USB function. Users can use the USB function. Long press the mode key again for more than 1 second to turn off the USB function on the instrument panel. The charging parameter is DC 5V500A.



8.Data Zeroing

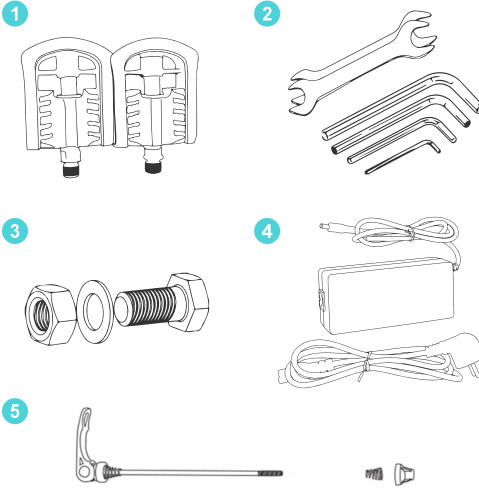
Press the plus and minus buttons simultaneously for 1 second to clear temporary data, including maximum speed (MAXSPEED), average speed (AVGSPEED), single mileage (TRIP), and cycling time (TIME).

*Turning off the instrument panel or the entire vehicle will not clear the above data.

INSTALLATION INSTRUCTIONS

85% standard packing for complete e-bikes

1. Open the 85% packing and prepare



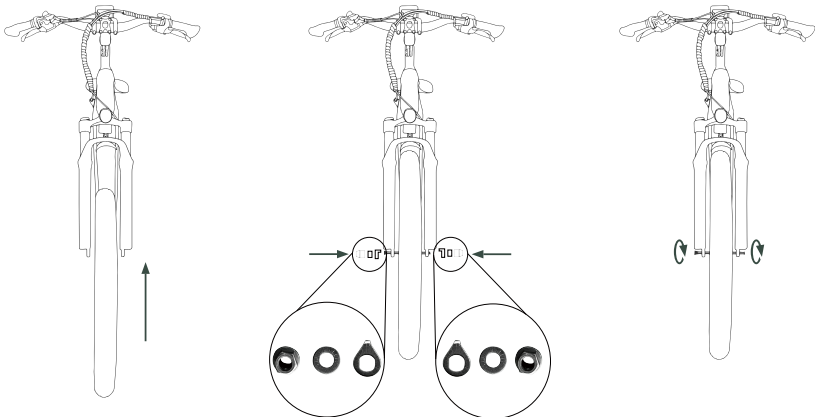
1. Open the box containing the e-bike and remove the contents.

2. Cut the tie that secures the front wheel during transport.

3. Check to make sure that your box contains a quick release (pic 5), fender, seat, pedals (pic 1), tool kit (pics 2 & 3), manual and charger (pic 4).

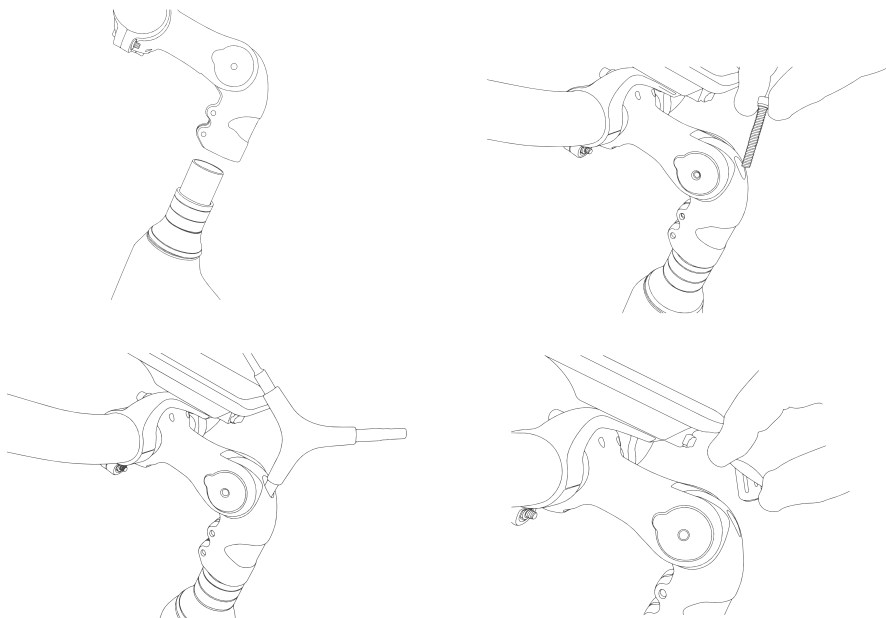
2. Install the front wheel

Open the quick release and remove the thumb nut and cone spring. Carefully lower the fork and ensure the brake rotor goes into the caliper. Install the quick skewer starting from the brake rotor side of the wheel and then push quick release skewer through the hub. Keep two cone springs pointed towards the wheel hub. Tighten the thumb nut until the quick release lever is held in line with the axle, and then use your palm of your hand to close the quick release skewer.

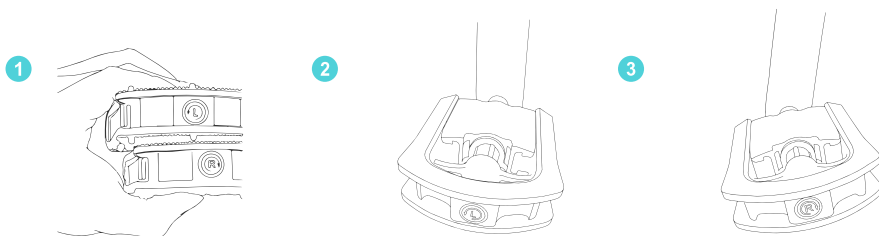


3. Install the handle bars

Remove the four screws from the stem, ensuring the linear markings on the handlebars are centered and handlebars are adjusted to the comfortable position. Finally, tighten the screws with the assembly tool.



4. Pedal and Saddle



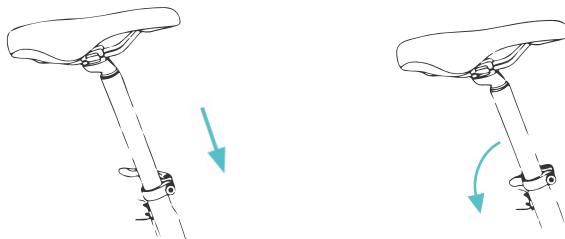
Turn the right pedal marked **R** into the right side of the crank arm, and the left pedal marked **L** into the left side of the crank arm.

The pedal marked **L** has left-hand threads. Tighten it in a counter-clockwise direction (anti-clockwise).

The pedal marked **R** has right-hand threads. Tighten it in a clockwise direction.

5. Adjust the saddle height

Loosen the seat clamp, insert the seat post into the slot, adjust the saddle height to a suitable height and tighten the adjustment nut. When you feel resistance, close the seat tube clamp fully. Make sure to stay within the marked adjustment range.



Do not raise the seat post higher than the minimum insertion marking etched onto the seat post.

OPERATING INSTRUCTIONS

1. Battery Charging and Maintenance

- Carefully check whether the rated input voltage of the charger is consistent with the supply voltage.
- The battery can be charged while still connected to your e-bike or it can be removed and charged in another location.
- Connect the output plug of the charger with the charging port of the battery and then connect the input plug of the charger to the power supply.
- If properly connected, the power indicator on the charger and battery will both be on.
- After your bike is charged, remove the power input from the charger first. Once that has been disconnected, remove the output plug from the charger. A full charge will take 6-8 hours. The indicator light will turn from red to green when charging is complete. Your battery should be fully charged and discharged every 3 months.
- Without pedaling, extra battery power will be consumed during starting and braking, pulling large loads, starting from a full stop using only the throttle, riding on rough surfaces, and riding uphill and against strong winds.



Use Only Charger KYLC109V55N or DPLC110V55Y

2. PAS System & Power-Savings Tips

The PAS System also known as Pedal Assist is designed to kick in when the rider starts to pedal and can be adjusted to the desired speed. The rider can expect to ride 15-20 miles on a full charge with minimal pedaling when traveling on flat, paved terrain. To prolong the life of your battery and make the most of your PAS, utilize the tips below.

- Frequent braking - try to look ahead and coast, rather than stopping and going frequently.
- Riding uphill or in stiff winds - pedal to supplement the battery power.
- When starting from a standstill- use the pedals to help bring you up to speed.
- When battery voltage is low, reduce or turn off power setting and switch to manual pedaling mode.
- If the bike is being stored for long periods, remove the battery from the frame and recharge it at least once a month.

3.Braking System

Your braking system is a key component in keeping you safe while riding. Make sure that you check your brakes prior to riding your bike each time. Check for loose connections and frayed wires. Inspect your brake shoes for heavy signs of wear and make replacements as needed. Never place oil or any lubricant on your brake shoes.

The left brake handle controls the rear brake and the right brake handle controls the front brake. Don't use the front brake while riding downhill or at a high rate of speed. Give yourself extra time and space to brake safely on wet or debris filled surfaces. Reduce your speed.

4.Speed Control System

The Speed Control System is designed to be versatile and help your ride through multiple terrains. The Speed Control System is comprised of the derailleur, front and rear fenders, chain plate, flywheel and shift cables. The number of speed changes available is the number of fluted discs multiplied by the number of flywheel pieces. Forexample, 3 discs and 7 flywheel pieces would be the 21 speed series.

USER MAINTENANCE INSTRUCTIONS

1. Inspection Before Riding

In order to ensure your driving safety, it is important to check over your bike before you ride.

- Chain shouldn't be sagging and should be lubricated with chain oil periodically.
- Check the tires to make sure that they are properly inflated and that the nuts are tight.
- Check the tread on the tires.
- Check your brakes to make sure that there is not a lot of slack and that they are in proper working order.
- Check that the gearshift is operating correctly.
- Check that the light, reflectors, bell and any other after-market accessories are attached in the correct position and are in proper working order.
- Check all lines and wires for signs of fraying or other damage.

2. Maintenance

(1) Maintenance cleaning instructions

Do not spray your bike down with water to avoid damaging the electrical components. Use a mild detergent on a cloth to remove dirt from the non-electric areas of your bike. Dry with a clean cloth.



WARNING -In winter, when the temperature drops below freezing, the mileage will decrease by 0.4 km (at 25 OC), and attention should be paid to the adjustment of the distance and the charging time.

(2) Motor Maintenance

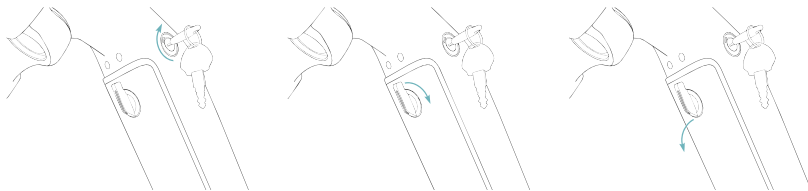
The motor should never be submerged in water. Carefully inspect the charger and electrical lines for signs of fraying. Damaged wires can deliver electrical shocks as well as short-circuit your motor.

3.Note when ridding

- In the vehicle just started, should be slowly accelerated, so as to avoid instant rapid acceleration, resulting in excessive starting current, waste of electricity, auxiliary pedal start better.
- For the good maintenance of the battery and motor, when the bike starts for climbing, please use pedal power.
- In order to ensure the safety of the premise, please try to use the economic speed. And to minimize frequent braking, frequent start, in order to save electricity.
- When riding, please avoid still tightening the speed control after braking, so as to avoid excessive overload of motor damage to other parts.
- The e-bike controller with overload protection function, overload will automatically cut off the power supply, when returned to normal, the power automatically connected.
- The e-bike maximum load (including rider weight) 150Kg. Don't overload.
- Try to use energy saving gear when driving on muddy or rough road.
- When the discovery of electricity and can not drive, should turn off the power ride, so as not to damage the electrical equipment.

4.Battery disassemble

- (1) Open the battery box lock on the battery box.
- (2) Pull the handle of battery box and remove the battery box.
- (3) After charging, put the battery box in the seat, put it on and lock it.



5.How to start the e-bike

- (1) Hold " **M** " for 3 seconds. At this point, the power indicator light or instrument screen light, indicating that the power is connected.
- (2) If the e-bike with PAS function, when the gear wheel runs, the bike will also start operation.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK



WARNING – Risk of Fire and Electric Shock – Replace Only With Same Type and Ratings of Fuse

1.GROUNDING INSTRUCTIONS

This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.



WARNING – Improper connection of the equipment-grounding conductor is able to result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

* Unless otherwise indicated, the text of all instructions shall be in the words specified or words that are equivalent, clear, and understandable. Substitution of the signal word "DANGER" for "WARNING" is allowed, when the risk associated with the device is such that a situation exists which, if not avoided, will result in death or serious injury. For other than the signal words "DANGER" and "WARNING," if a specific conflict exists in the application of such wording to a device, modified wording is allowed.

MOVING AND STORAGE INSTRUCTIONS

1. Leave it indoor when charging or not riding.
2. Prolonged Exposure to UV Rays, Rain and the Elements May Damage the Enclosure Materials, Store Indoors When Not in Use
3. This equipment is not intended to be used at ambient temperatures less than -10°C (14°F) or above ambient temperatures of 45°C (113°F);
The battery is intended to be charged when the ambient temperature is between 0°C (0°F) and 45°C (113°F). Never charge the battery when ambient temperatures are outside this range.

TROUBLESHOOTING

Fault	Method
When the electric indicator is all bright, use the throttle, but the e-bike does not start.	1. Check the battery and battery box seat is consistent, the battery box lock is locked. 2. Check whether the fuse well the fuse is burnt, the motor does not turn, replacing the dissolved core for the same specifications of spinning.
The display bright, using throttle, but e-bike not start.	Check the controller wire connecting.
After a pause, using throttle, the e-bike not start.	Check whether the brake is still in automatic power-off state.
When charging, the power supply is connected, the light does not shine.	Check the power supply for electricity.
When charging, the power supply is connected, the green light is on, and all red light on.	Please check the charger plug whether plug well with power supply.
If the above conditions are normal, it belongs to other faults. At this time, please send it to our customer service department or special dealer, and be repaired by professionals.	

Fault	Analyze	Troubleshooting
The display is not lighted, motor not working	Battery is under voltage	Charge the battery
	Battery is dead	Charge the battery
	Power lock broken	Change the power lock
After the power lock is opened, the motor can not operate at high speed (speed)	Adjust the connection of throttle and controller	Re-connect
	Components of controller damaged	Change a new controller
Motor sometimes turn, some times not turn	Battery connect not well	Adjust the battery connector
	The power lock damaged	Change the power lock
The running range shorter	Battery cycle life end	Change battery
	Battery voltage not match	Battery maintenance or change battery
Battery can not charge or charge fully	Battery cycle life end	Change battery
	Charger without output	Change charger
	Charger not contact well to the charging socket	Change the charging socket
The headlight not working	The headlight switch broken	Change the switch
The components of controller burned	The controller is flooded, short circuited, burned out	Change controller

In view of the above reasons, our company puts forward the following suggestions:

- According to the standard debugging brake system, so that the braking system in the most standard state of work (front brake rim from the distance of not less than 2mm, after contracting flexibility)
- According to the standard, the air pressure of front and rear tires should be 280--450 Kpa.
- E-bike may not be higher than the normal load (including rider weight) 150kg.
- Under the premise of ensuring safety, driving should minimize frequent braking, start, the instantaneous acceleration of waste electric energy; when the rider at the restart, climbing, please use pedal to save energy; when the vehicle has just started, with pedal power and slow speed, avoid starting can save energy in order to improve mileage.

Highly recommended to following up local traffic law to use your electric bike. VTUVIA is not responsible for any loss caused by violation or speeding.

Repair Contact Information - tech@vtuvia.com

VTUVIA

ELECTRIC BIKE



18+
ONLY

CHILDREN UNDER THE
AGE OF 18 ARE NOT
ALLOWED TO RIDE