

USER MANUAL

Notice to Users

Please read this Product Manual carefully before use for proper operation.

Please carefully check whether the parts are complete against this Product Manual before your ride for the sake of safety. Contact your dealer in time in case of any problems.

Please follow the traffic laws. Slow down on rainy or snowy days, on slippery roads. Increase the braking distance for the sake of safety.

The scooter can operate on rainy or snowy days, but it can't operate in water. When the water reaches middle axle, it may cause rusting or failure of the motor, battery or other parts.

Do not dismantle the scooter on your own. Please contact the after-sales service for replacement or purchase of original parts. Do not lend your E-BOY to those who can't operate an E-scooter for the safety of others and for prevention of unnecessary damage to your scooter.

Please keep the Product Manual and the Warranty Card properly.

Precautions

△ Rider and Passenger

E-BOY is not designed for a ride of more than 2 persons.

△ Please carefully read this Maintenance Manual.

Warning: Failure to follow the instructions herein may lead to serious casualties.

Caution: Failure to follow the instructions herein may lead to personal injury or damage of parts.

Note: Provide useful information.

This Product Manual should be deemed as a permanent document of **E-BOY**. If this scooter is transferred to others, this Product Manual should be handed over to the new owner as well. Without the written consent of the Company, reproduction or reprint of any part of this Product Manual is prohibited.

Safety Notice

△Wear a safety helmet

Using a quality safety helmet is the priority for protection. Use proper protective goggles as well.

△Know your E-BOY

Your riding skills and mechanical knowledge is the foundation for safe riding. You are advised to practice your riding on open, quieter roads, and know the mechanical performance and operation methods first.

△Know your riding skills

Always ride the scooter within your skill range. Know your riding skills and the operation methods of the scooter so as to prevent accidents.

△Notice for Riding on Rainy Days

It should be noted that the braking distance on rainy days should be twice of that on sunny days. Always avoid the roads with paint markers, manhole covers and oil stains to prevent slipping. Pay extra attention when riding through railway crossings, iron fences and bridges. Slow down if road conditions are unclear.

Safety Notice

△ Do not use the high beam light indiscriminately.

Continuous use of the high beam light on urban roads and pedestrian-packed roads may disturb the vision of the drivers and pedestrians and affect normal, safe driving. Do not use the high beam light when the road is well-lighted.

△ Do not make or receive calls while riding.

Making or receiving calls while riding is one of the main reasons for inattention and will easily cause accidents. Please stop the scooter before you make or receive calls.

△ Do not change the lane at will.

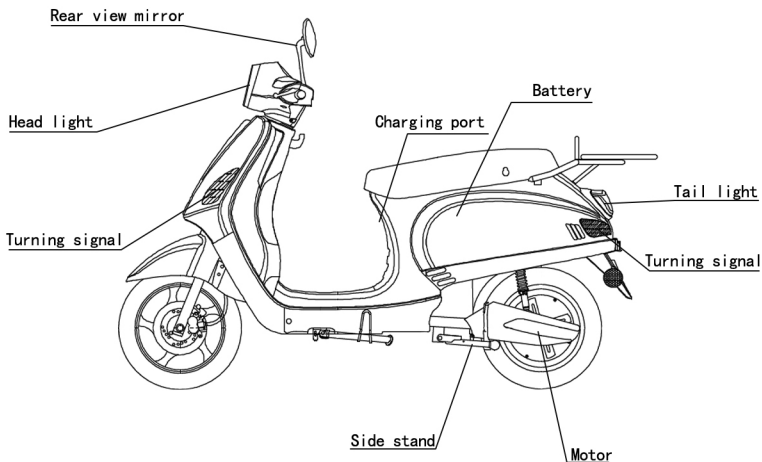
Changing the lane at will is one of the important reasons for accidents. When you need to change the lane, remember to switch on the Turn Indicator first. Check the scooters approaching from behind and change the lane when it's safe.

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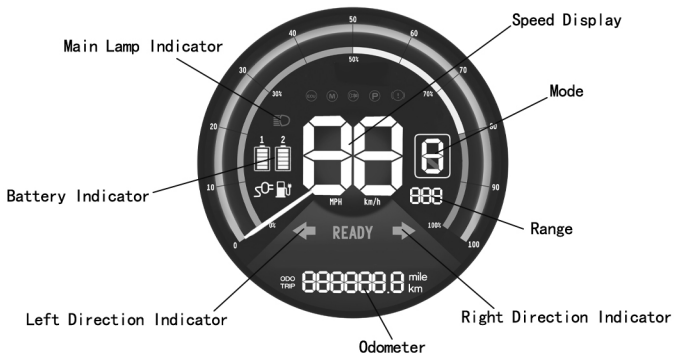
Parts Info

Diagram of components and parts



Parts Info

Diagram of components and parts



Operational Guide

- ◆ One button start
- ◆ Remote control
- ◆ Mute anti-theft function
- ◆ Vehicle search function
- ◆ Vibration alarm
- ◆ Movement alarm
- ◆ Learning remote control
- ◆ Dual remote configuration
- ◆ The vibration sensitivity is adjustable
- ◆ Unlock the cushion sit
- ◆ Tap switch and lock function

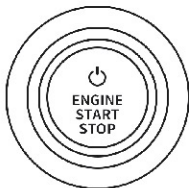
Product Parameter




working frequency: 433.92MHz (stabilized frequency)


Remote control distance: ≥50 meter (In open space, the remote control is 1.5 meters from the ground, and the host machine is 1 meter from the ground)

Operating voltage range: 48V/60V/72V

one button start



function key assignments	condition	operate	Anti-theftfunction description
LOCK 	alarming	Short press	<p>The anti-theft host sends out alarming, and the vehicle is locked. Then it will enter alert state after 3S.</p> <p>① Pre alarm: when the vehicle is pushed or vibrated, the anti-theft host will alarm continuously for 5 seconds, lock the motor at the same time, and warn others not to touch the vehicle;</p> <p>② When the vehicle is pushed or vibrated within 10 seconds after the warning, the anti-theft host will continue to alarm and automatically lock the motor at the same time;</p> <p>③ Press the arming key to pause the alarm sound, but it is still in the alert state;</p> <p>④ Lock the motor: if the key is forced to start the vehicle, the anti-theft host will immediately and continuously alarm, and automatically lock the motor at the same time;</p>
UNLOCK 	alarming	Short press	The anti-theft host sends out two prompt tones of warning tone and cancel the anti-theft state. Then the vehicle unlock.
	Any state	Long press 2S	Keeping press the  button. When you hearing the "beep" sound, The lock of the seat cushion is opened, the vehicle unlock.

Electric start key 	In ordinary	Press twice	The host sends out a prompt tone and the tap lock is unlocked; Turn on the power of the vehicle to ride keylessly. If the switch lock is in the energized state, it will not respond.
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Product functions

1.Vehicle start and shutdown

(1)Vehicle start:

- 1、 Press the unlock key on the remote control and the host will sound a prompt tone, and the tap lock will unlock; The "start / stop" button with LED light starts to flash for 10 seconds. Press the "start / stop" button once in 10 seconds and then release, the host sends out a start prompt sound, and the vehicle starts.
2. If it is not operated for more than 10 seconds, the LED light stops flashing and the vehicle enters the disarming state.
3. Press the unlock key on the remote control once to open the switch with the mechanical key.

(2)Vehicle stop

- 1、 1. When the vehicle is started, press the "Start / stop" button, and the main engine issues a shutdown prompt sound, and the vehicle will be power off.

2.LOCK AND UNLOCK

1. In the armed state, press the disarm key on the remote control once, the host will sound a prompt tone, and the tap lock will unlock.
2. In the disarming state, press the remote control arming key once, the host will sound a prompt tone, and the tap will be locked.

3.Open the cushion lock

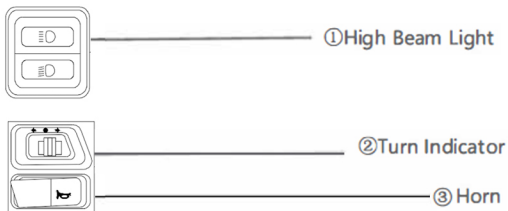
- 1.When the LED light flashes within 10 seconds, keep pressing the "Start / stop" button for 2 seconds, the host issues a "beep" sound, and the cushion lock is open.
2. In any state: keep presing the "release button" on the remote control for 2 seconds, the host sends "beep"sound, and the cushion lock is open.

4.Vehicle Anti-Theft System

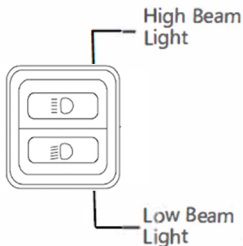
1. When the vehicle is in a fortified state, if someone pushes the vehicle or shakes, the anti-theft engine will sound out an alarm and automatically lock the motor.
2. If the vehicle is in the fortified state, if the key is forced to open the electric switch, the anti-theft host will immediately continue to alarm the sound, and automatically lock the motor.

Operational Guide

Left Combination



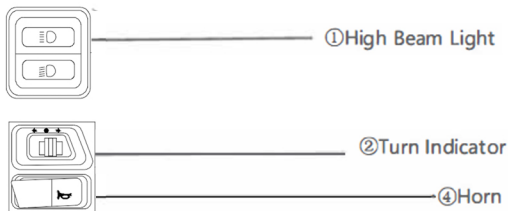
① High/Low Beam light: Press the upper part to turn on the high beam light; press the lower part to turn on the low beam light



Remarks: To signal overtaking, the rider may press and hold the Pass button to enable the High Beam Light and Low Beam Light Interchange Mode. Release the Pass button to return to the Low Beam Light.

Operational Guide

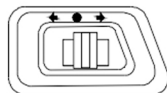
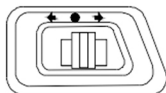
Left Combination



② Turn Indicator: Push the button left to turn on the Left Turn Indicator; push the button right to turn on the Right Turn Indicator. Press the button to reset and the Left/Right Turn.

Push the button left/right to turn on the Left/Right

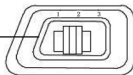
Push the button to center to reset.



Operational Guide

△ Right Combination

① Drive mode with 3 gears

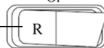


② Horn



Or

③ Reverse gear



Or

④ Start Button



Operational Guide

△ Battery Use Environment

The battery is to be used at the ambient temperature range from -10°C to 45°C.

Do not expose the battery to water, beverages or corrosive liquids to prevent possible leakage, overheating, smoking, fire or explosion.

Do not keep the battery close to heat source, open fire, inflammable and explosive gases and liquids, so as to prevent possible leakage, overheating, smoking, fire or explosion.

Metal objects in the battery compartment may lead to leakage, overheating, smoking, fire or explosion.

In case of undesirable odor, overheating or deformation of the battery, please disuse the battery immediately, keep away from the battery and contact the after-sales service.

Warning: The battery is not a repairable part by the user. In case of battery fault, please contact the after-sales service. Users dismantling the battery may lead to leakage, overheating, smoking, fire or explosion.

Battery Use and Maintenance Guide

△ Battery Charging Environment

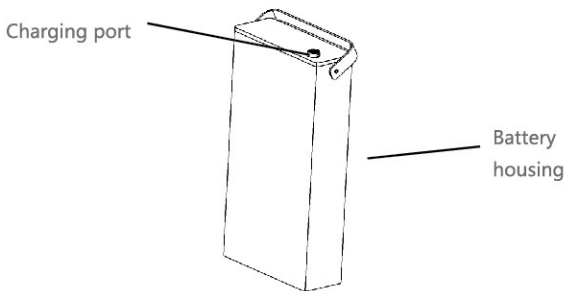
Please charge the battery at the ambient temperature range from 0°C to 35°C. The battery charging time should not exceed 24 hours. Overcharge will shorten the battery life.

Attention: Charging is not available at an ambient temperature below 0°C. Please charge the battery at an ambient temperature over 0°C.

Warning: Using non-original battery chargers may lead to leakage, overheat, smoking, fire or explosion.

Battery Use and Maintenance Guide

Battery Charging Methods



① Remove the battery from the scooter.

② Plug the charging plug into the charging socket. When the charging indicator turns from green to red, the scooter is charging. After the charging indicator turns from red to green, charging is saturated.

Attention:

If the battery is not full after charging for over 24 hours, please stop charging and contact the after-sales service.

To maximize the battery life, users are advised to keep the battery percentage within the range of 20% to 80% as practicably as possible. Please use the accelerator handlebar gently in a normal ride.

Do not keep the battery at an ambient temperature over 40°C so as to prevent irreversible capacity loss of the battery.

At low temperatures, the lithium battery capacity will lose at varying degrees. To be more specific, the usable capacity at -10°C is 70%, that at 0°C 85% and that at 25°C 100%.

The best battery capacity for storage is 50%. Storage of battery less than 10% full or more than 90% full over a long period of time will cause irreversible capacity loss of the battery.

For storage over a long period of time, please keep the battery at an ambient temperature from -20°C to 40°C, and have a charge and a discharge at least once a month so as to minimize battery capacity loss in storage.

Do not keep the battery in places with the risk of falling. That's because falling may cause uncontrollable internal damage to the battery and may lead to leakage, overheat, smoking, fire or explosion.

Dos and Don'ts in Riding

Δ Checks before Riding

Please make the following checks before you ride the scooter. Do not overlook the importance of these checks. Complete them one by one before riding.

Check Description	Key Points
Steering Handlebar	1) Steadiness 2) Flexible steering 3) No axial displacement or loosening
Braking	1) Braking handlebar has a 5 to 9mm idle travel. 2) The air pressure range of the front tyre is 20 to 25psi; the air pressure range of the rear tyre is 26 to 32psi.
Tyres	1) Normal air pressure 2) Proper tyre tread depth 3) No cracks or openings
Battery	Adequate for planned distance to travel
Lights	Check all the lights—High beam light, low beam light, brake light, turn indicator, etc. to ensure that they can work.
Horn	Check whether the horn can work.

Dos and Don'ts in Riding

Δ Braking Precautions

Always balance the scooter before braking.

If the tyres are locked resulting from excessive braking force, loosen the grip on the braking handlebar and the tyres will be working again and the scooter will be stabilized. If the front tyre is locked, the scooter will lose the ability to steer.

Try to maintain a 1:1 ratio of front and back braking force on slippery roads.

Attention:

The inexperienced drivers tend to use the rear brake only, which will accelerate the wear of the brake and result in a long stopping distance.

Warning:

Using the front brake or rear brake only is dangerous because of possible grip or control loss. Pay extra attention and use the brakes gently when riding on damp, slippery roads and around the corners.

Riders slamming on the brakes will be exposed to great danger.

Maintenance and Repair

To extend the service life of the scooter and for a safe, comfortable ride, users are advised to have the scooter checked and maintained on a regular basis. A scooter not used for a long period of time also needs to be checked on a regular basis.

ΔRegular Maintenance

The first maintenance should be conducted one month after purchase or after a travelling distance of 500km. An overall check and maintenance should be conducted in after-sales service every 6 months or 3000km thereafter. Regular check and maintenance are aimed for the safety of the scooter and the rider.

Attention:

If the scooter is frequently subject to such use conditions as overload, high-speed, bumpy roads, uphill and downhill riding, the maintenance cycle should be shortened.

Original parts made from quality materials and rigorously tested are recommended for guaranteed quality and service life, and for best scooter conditions and riding safety. Parts are under normal warranty.

Maintenance and Repair

△ Daily Maintenance

If abnormalities are found during checks and the scooter needs cleaning, maintenance or parts replacement, users may have checks and maintenance in reference to the Home Repair Instructions or send the scooter to the dealer's for checks and maintenance.

Warning:

If incapable of repair or adjustment on his/her own, the scooter owner is advised to send the scooter to the dealer's for maintenance and adjustment for the sake of safety.

Always choose a smooth surface road for repair and adjustment and unfold the central stand before repair and adjustment. If it's necessary to repair the scooter during a ride, please mind the traffic.

Maintenance and Repair

△ Brake Adjustment

If abnormalities are found during checks and the scooter needs cleaning, maintenance or parts replacement, users may have checks and maintenance in reference to the Home Repair Instructions or send the scooter to the dealer' s for checks and maintenance.

△ Scooter Washing

Please use a hose and wash the scooter with running water And neutral detergent. Wipe the scooter with a piece of soft cloth after washing. Do not use a piece of dry cloth to prevent scratching.

Maintenance and Repair

Warning:

Never use a pressure washer to wash the scooter.

Do not wash the two sides, the rear and the inner of the battery compartment with a pressure washer. Do not flush the upper side cover on the rear wheel where the charger, controller and other parts are installed, so as to prevent damage by water. If the scooter falls to the ground by accident, the AC high-voltage charger may be wetted. In that case, do not charge before the charger dries to prevent an electric shock. Repair in the service center is recommended. Do not use it before it's properly checked.

△ Storage Method

Short-term Storage:

- 1) Keep the scooter on flat, steady surfaces in well-ventilated and dry places;
- 2) Charge the battery to 50% full before storage to ensure the service life of the battery;
- 3) Avoid exposure to the sun and rain as practicably as possible to reduce damage or aging of the parts;
- 4) Charge the battery to 100% full for long-term storage;

Maintenance and Repair

5) If the scooters installed with batteries are stored indoor or in safe places like showrooms and storerooms or packed for short-distance transportation in transport vehicles, Connection of power cord and lithium battery should be disconnected to prevent potential electrical fault.

Δ Long-term Storage:

- 1) Remember to have a charge and a discharge at least every two months for long-term storage, and charge the battery to 50% full before storage to ensure the service life of the battery;
- 2) Please charge the battery to 100% full before use after long-term storage;
- 3) Check all the parts carefully and make sure that there is no abnormality before taking a ride on the road. In case of any abnormality, send the scooter to the dealer' s for maintenance or repair.

Regular Maintenance Checklist			
Regular Safety and Performance Check	Brakes	Structural Check	Wheel Bearing
	Lights		Vibration Damper
	Horn		Central Stand
	Electric Parts		Steering Bearing 5
	Fuse	Major Parts	Battery
	Tyres		Main Wiring Harness
Brakes	Lubrication		Control System

Regular Maintenance Checklist

Fault Description	Fault Cause	Troubleshooting Method
No output after the power is on	Dead battery	1. Charge the battery.
Motor failure when turning the steering handlebar power is on	1.Low battery voltage 2.The power off switch is enabled resulting from grasping the braking handlebar 3.The scooter not started	1. Charge the battery. 2.Do not grasp the braking handlebar when starting the scooter. 3. Refer to the “Start the Scooter” section of this Manual.
Battery charge failure	The plug of the battery not properly connected with the battery socket	check whether the plug is loosened.

Speedometer Fault code

LED flash	Meanings	Instruction	Solution
E001	Over voltage protection	Battery voltage is higher than setted data	Indicates that the battery voltage value is higher than the safety value of the vehicle. Solution: If it is higher than the safety value, replace the battery with conforming one to match the system.
E002	low-voltage protection	Battery voltage is lower than setted data	data Indicates that the battery voltage value is lower than the safety value of the vehicle. Solution: If it is lower than the safety value, replace the battery with conforming one to match the system.

E003	Motor overcurrent protection	short circuit between two phase of motor, or short circuit between phase and power supply	It indicates that the motor wire or the power cable are damaged and short-circuited. When the motor runs in condition of large current for a long time, it may happen short circuit caused by melt of phase line or the connector due to
E004	Motor Shaft Lock Protection	Motor Shaft Lock time is longer than setted data	It indicates that the motor is in a long-term locked state, that is, the shaft has not been released after being blocked. Solution:
E005	Hall protection	Hall input is abnormal	5.Indicates that the controller Hall signal input is abnormal or the internal circuit of the controller is faulty and the internal Hall of the motor is damaged or the connector

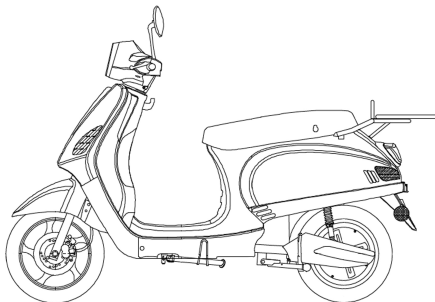
E006	Power tube protection	Power tube is abnormal by self-inspection	Let professional maintenance personnel to repair
E007	phase break protection	One of the phase wire broken or not well connected	<p>1. Check the pins of the three phases of the motor, whether there is a stamping problem?</p> <p>2. check the screws between the motor and the controller loose or not</p>
E009	Controller brake condition	Controller is in brake condition	<p>1, release right brake handle or side stand;</p> <p>2, replace the brake or side stand switch</p>

E010	Self-inspect protection	Inner system be discovered is abnormal during self-inspecting	Let professional maintenance personnel to repair
E011	Controller high temperature protection	When controller temperature is higher than setted data	1.whether the controller matches with the motor,2.whether the vehicle is overloaded, 3.whether the brake system have too much resistance

E014	throttle protection	Throttle problem in controller	Turn on the key, measure the signal cable, if $> 1.0V$ or $< 3.0V$, need to replace the throttle 2.measure the signal cable, if $< 0.8v$, check the throttle voltage or plug 3. if $> 4v$,check the plug loose or not
E015	Security condition	Controller is in security condition	Release alarm function

Technical Parameters

Key Features			
Product Weight	76kg	Gradeability	12%
Rated Voltage	60V	Maximum Designed Speed	45km/h
Maximum Load	245	Braking Distance	≤4.5m (30km/h)
Designed Capacity		2 Person	



Technical Parameters

Frame	
Front Damper	Sleeve and oil damping
Rear Damper	Spring and oil damping
Front Tyre Specifications	3.50-10
Rear Tyre Specifications	3.50-10
Front Brake Mode	Manual Disc Brake
Rear Brake Mode	Manual Disc Brake
Maximum Ground Clearance	170mm
Seat Height	1330mm
Battery System	
Voltage	60V
Capacity	20AH
Standard Charging Current	5A
Maximum Discharging Current	50A

Technical Parameters

Power System	
Motor	Permanent-magnet Brushless Motor
Motor Control Mode	FOC
Motor Maximum Power	2500W
Controller Maximum Current	55AH
Electrical System	
Headlight	12 V
Turn Indicator	12 V
Taillight	12 V
Brake light	12 V
Meter Panel	12 V
Central Control Unit	12 V

Maintenance Record

Date	Fault Description	Fault Cause and Troubleshooting Method	Service Station	Serviceman	Remarks

Maintenance Record

Date	Fault Description	Fault Cause and Troubleshooting Method	Service Station	Serviceman	Remarks

Maintenance Record

Date	Fault Description	Fault Cause and Troubleshooting Method	Service Station	Serviceman	Remarks