

User Manual

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1.Document Outline

1.1 About this manual

For your safe driving,please read this manual carefully before using the electric balance scooter.You shall be ensured to drive the electric balance scooter in accordance with correct instructions.

♥You shall be made known all the safety alarming and precautions listed in this manual,which is helpful for you to better drive the electric balance scooter.

♥This manual suits to POS-616 series products.

♥If you have any doubt for can not get information you want from this manual,please contact us in time.

1.2 Risk of driving

The electric balance scooter is an intelligent mobility scooter and assisting tool of recreation of living with self-balanced system. Its technology and production process have experienced strict examinations, however, if you did not use it according to the safety precautions specified in this manual, it can possibly bring injuries to you.

※WARNING

Whenever or wherever it falls, is out of control, is collided or runs in other accident, including not driving the balance scooter according to the manual's requirements, it is all possible to injure you or even kill you. To avoid risks bring injury to you, please be sure to read this manual carefully.

1.3 Preparatory work before driving

Before using it, you shall check the POS-616 battery to make use it is properly charged, for details how to drive please see **section 5** of this manual. If you did not use it according to the precautions specified in the manual, it is possible to bring injury to you.

1.4 Relevant instructions for the document

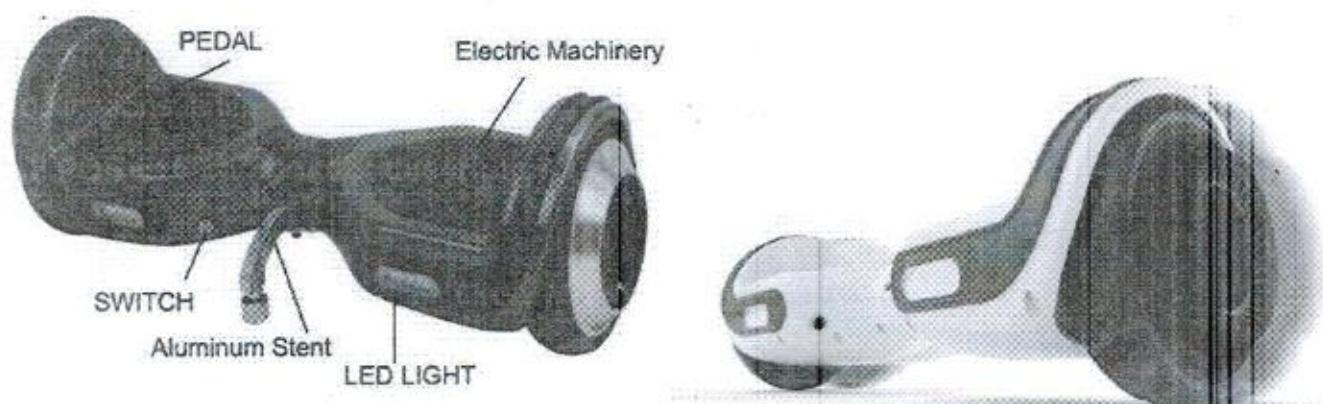
The following instruction prevails for the whole content of "User manual", please pay special attentions to relevant "**WARNING**" and "**NOTE**".

2. Product introduction

2.1 POS-616 series description

POS-616 is a high-tech mini electric scooter with double wheel and self balance which according as dynamic balance principle to control moving forward, backward, turning and stopping. POS-616 has obvious advantages like lightweight and fashionable appearances, flexible control and low carbon, environmental-friendly feature, so it is the best accompany tool during you enjoy recreation, scenery touring, short distance travel and various applications in life.

2.2 POS-616 component description



2.3 POS-616 working principle

POS-616 electric balance scooter relies on the body gravity center changes to measure the changes of scooter body posture, and drive the motor precisely according as servo control system to do the corresponding adjustment. When the driver body stands on the POS-616 balance scooter, and bends forward, the system can sense it automatically and drive wheels precisely to move forward for keeping balance. When the gravity center bends backward, the wheel will move backward, and in case of turning, it can slow down and control left, right foot to be bend to front or back to make the gravity center deflect to left for turning left, and to right for turning right according to the self turning requirement.

POS-616 built-in inertia dynamic stabilizing system can keep horizontal in forward and backward directions, but it can not ensure the stability in left and right direction.

So, drivers of POS-616 must slow down for turning, to avoid body injuries due to too large centrifugal forces.

3.POS-616 display devices

3.1 Pedal sensor

POS-616 has four sensors below the pedals. When users step on the POS-616 pedals, POS-616 can adjust automatically to the balance mode.

♥ When driving POS-616, you must ensure the pedals are in stamping on condition. No stamping on parts other than the pedals.

♥ Please do not put stuffs you bring on the pedal, or else you can not switch off the POS-616 which will increase chances of collision of POS-616, for avoiding the body injury or damage to the POS-616 itself.

4. Safe use of POS-616

4.1 About the safe use

We hope all drivers can drive POS-616 safely and enjoy pleasure brought by POS-616. The experiences in your learning to ride a bike, drive a car, skiing or other similar transport tools in the past, can be used in our products, letting you better drive the balance scooter.

♥ If you observe the relevant contents of "User manual", you will be able to drive POS-616 safely. So we strongly suggest you read the "User manual" carefully before the first time of your driving of POS-616. Each time before driving, please check if tires of POS-616 have damages, and its parts are loose or not. If any strange condition happens, please contact the agents for repair in time.

♥ Please read the "User manual" carefully, you will get lots of important safety information, including speed limit, indicator light warning, safe switching off and so on.

♥ Please do not use POS-616 to do anything endangering human bodies and property safety.

♥ Please do not modify any parts of POS-616 at will, or else it will affect performance of POS-616 or even damage it, and cause severe damage accordingly meanwhile.

4.2 Loading weight limit of driver

♥ To ensure the safety of drivers and reduce the overload of electric balance scooter damage.

♥ Drivers' max. weight limit: 120KGS

♥ Drivers' min. weight limit: 45KGS

※ **WARNING:** It may bring you risk of falling down to exceed the loading weight limit.

4.3 The largest distance

Electric balance scooter the biggest range is related to many factors,such as:

♥Terrain:in smooth,flat ground driving increase range.

♥Weight:the weigh of the drivers affect the distance.

♥Environment temperature,under the recommended temperature storage and electric balance scooter increase distance.

♥Maintenance reasonable charging and maintenance of the battery can increase the range.

♥Speed and driving style:keep medium speed increase range,on the contrary frequent start,stop,acceleration and deceleration will reduce the distance.

4.4 The speed limit

♥The maximum speed of electric balance scooter is 12km/Hour.Under the specified speed can keep the balance of the driver.

♥At the regulated speed,POS-616 can maintain a good balance for the driver.If the driving speed is over the specific speed,the POS-616 will tilt up to make it able to limit the speed within the safety speed.

5.Learning to drive POS-616

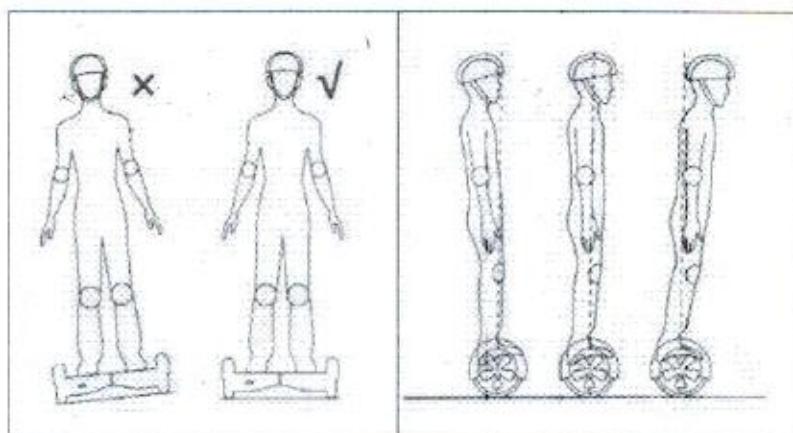
When using POS-616,you should pay attention to the relevant safety precaution.Therefor,you must get a full understanding of all the precautions mentioned in the "User manual"before driving it,which is extremely important for you.

5.1 Operational procedures of POS-616

♥Step 1:To start POS-616,you press down the power-on button

♥Step 2:To prepare for driving,you stamp on the pedal with one foot to turn on the pedal switch to let the operational indicator light lit,and the system enter the self-balance condition.After keeping the balance of the scooter body,you stamp on another foot to start operation.

♥Step 3:After successfully operating POS-616 and standing up,if you keep the gravity center balanced,POS-616 will also keep still.Then you can control POS-616 moving forward or backward by bending your body forward or backward in a small degree,but you must remember not to bend your body too much.



※NOTE:If POS-616 platform is not in horizontal condition when turning on the pedal switch, the buzzer will alarm and the alarming light will be lit, the system can not enter the self-balance condition, at this occasion, any operation is prohibited.

♥Step 4: To operate POS-616 in the left and right direction.

♥Step 5: To get down the scooter. Before getting down, you need to let POS-616 stop moving. By keeping in a balance condition, take one foot step down first, and another foot leave the pedal quickly.

※WARNING: Sudden turning is forbidden when driving at high speed to avoid danger.

Not transverse driving or turning can be done on slope, as this will cause shifting of POS-616 balancing angle to affect safe driving.

5.2 protection function of POS-616

During driving, if the system error or illegal operation happens, POS-616 will remind the driver in different ways.

For forbidding driving, the alarming light will be lit always, and the buzzer will keep alarming at intervals, the system can not enter the self-balance mode.

♥When getting on the scooter, the platform tilts forward or backward at angles over 10 degrees.

♥The battery voltage is too low.

♥It is in charging process.

♥During driving, the platform tilts up, no operation is allowed.

♥Shortage of battery level.

♥The scooter body rocks back and forth exceeding 30s.

♥The system enters the protection mode, with the alarming light lit constantly, the buzzer keep alarming at high frequency during driving.

♥The platform tilts forward or backward at angles over 35 degree, causing it entering the stop condition.

♥The battery voltage is lower than the protection level, it enters the stop condition after 15s.

♥Due to the constant large current discharge (for example, to climb a long and steep slope for a long time), it enters the stop condition after 15s.

※WARNING: When POS-616 enters the stop condition, the system will lock the machine automatically. To unlock it, you need to press the lock button. When the battery is depleted or the system produces safe stop information, please do not continue to drive POS-616, or else, the scooter can not reach the balance condition due to the low battery level, which can possibly cause damages to the drivers. If the battery level reaches the min. limit, continuous driving of POS-616 will affect the battery life.

5.3 Practice of POS-616 driving

Before you drive POS-616 outdoors,you shall ensure that you can drive POS-616 skillfully for consideration of your safety.

♥Please wear comfortable leisure and sports clothes as possibly, and wear flat shoes make your body with flexible.

♥Please practice driving of POS-616 in spacious site, until you can manage getting on it, driving it forward and backward, turning, stopping and getting off skillfully.

♥You should mind if the ground is flat or not.

♥You may learn to drive it in different landforms, and you must remember to slow down when encountering unfamiliar landform. Anytime you shall not let the POS-616 leave the ground surface.

♥The POS-616 is designed as a recreational tool for flat pavement. If users drive it on uneven pavement, driver shall slow it down.

♥If you can not drive POS-616 skillfully, please avoid driving it at dangerous place with walking persons or obstacles. When passing through doorways, you shall mind your head and ensure can pass it safely.

6. Instructions for safe driving

This section focuses on some safety knowledge and warning declaration, letting you have some understanding of the safety precautions before you use POS-616. In order to ensure you can drive POS-616 safely, you must read the "User manual" fully and observe the relevant safety instructions. Please mind all the safety warning and precautions for use as mentioned in the "User manual". To make known these safety precautions can improve the safety and pleasure of your driving of POS-616.

※WARNING:

♥ Whatever condition it is, losing control to cause injuries is possible, collision and falling down when you use POS-616. To avoid the injuries, you have to read and refer the instruction of the "User manual" carefully for driving POS-616. Please ensure the products is in good condition for use, read and get familiar with all the product materials provided by company before your use the balance scooter.

♥ When you learn to drive POS-616, please ensure to implement safety measures, like wearing helmet, knee pad, elbow pad and others.

♥ The POS-616 is only suitable to personal recreation, not used for public transport.

♥ It is strictly forbidden to use this product in motor lanes.

♥ Not allowed for kids, aged persons and pregnant women use.

♥ No driving after drinking wine or taking drugs.

♥ No driving for transporting goods.

- ♥When driving POS-616,please observe local traffic laws and give way to pedestrians.
- ♥During driving,your both legs keep relaxed with knee bent slightly so that you can keep balance when riding on uneven ground.
- ♥During driving,your feet shall be kept on the pedal all the time.
- ♥Please wear clothes suitable for sports when you use POS-616,which benefits for your to better handle emergency conditions.
- ♥POS-616 can be used by only one person,it is not allowed to carry two person or more.
- ♥Not exceed the max. Load specified in this manual or it is easier to make the users fall down or injured during driving,even damage the function of POS-616.Besides,the drivers' weight shall not be less than the min.weight specified in this manual or it is possible that driver can not operate POS-616 properly,especially for down slopes,driver can not slow down or stop it safely.
- ♥You shall be sure to make the scooter speed within the limit ,not threatening safely of others and yourself,prepare to stop at anytime.
- ♥When you run into a traffic accident with POS-616,please stay where you are to wait for relevant person to come to handle it properly and legally.
- ♥When you drive POS-616 and another person also drive POS-616 with you,please keep a certain space from each other to avoid collision.
- ♥When you drive POS-616,please remember all the time that your body height is increased by about 10cm,so mind your head safety when passing gates.
- ♥When turning,please mind your body gravity center's balance,to avoid falling down due to gravity center shift or high speed.
- ♥When driving POS-616,do not divert your attention,such as answering phone,listening to music or doing other things.
- ♥It is not allowed to drive POS-616 on wet and sliding road in rainy days,backward for long distance or at high speed,or to turn during fast backward driving,or at too high speeds.
- ♥This personal transport tool is not designed to be a medical care equipment,neither is it tested or proofed so.Therefore,the user must use POS-616 without help of others.
- ♥No using of POS-616 in dark or improperly lit places.
- ♥It shall be avoid driving on ground with obstacles or slippery,such as snow,icy or wet and slippery ground.
- ♥Please avoid driving on pavements with scattered things like twigs,trashes or little stone.
- ♥Avoid driving in places narrow or with obstacles.
- ♥Please use POS-616 in environments conforming to its using condition.If there are environments demanding permission of use from others,please get the permission first.
- ♥No starting to go or stop suddenly.
- ♥Avoid driving on steep slopes.
- ♥No driving POS-616 in unsafe environments which refers to places prone to fire disasters or explosion or other dangerous incidents due to inflammable gas,vapor,liquid,dust or fiber and so on.

7. Battery use instructions

It includes description of POS-616 charging method, how to maintain the battery, safety precaution and battery specifications. In order to protect your and others' safety and maximize the battery life and performance, please operate the battery according to the followings.

7.1 Low battery level

When you see the battery level indicator light is red and blinks, which means the battery level is low, we suggest you stop driving. When the battery level is low, POS-616 has not enough energy to keep you driving normally, system will tilt up the base platform automatically, prohibiting users continuing to use. If you insist on driving POS-616, it is very easy to fall down and injury, it will also affect the battery service life meanwhile.

♥ Please do not use the battery under following condition

1. Some strange smell is released or the temperature is too high.
2. Any substance is leaked out.

♥ Only professional person can remove to repair the battery.

♥ Do not touch any substance leaked from the battery.

♥ Kids and animals are not allowed to touch the battery. Before installing the battery or driving, the charger must be plugged out. It is dangerous to do anything related to POS-616 when it is being charged.

♥ The battery contains dangerous matters, no opening of the battery by yourself, and do not insert anything into the battery.

♥ Only the charging device provided by us can be used for charging POS-616.

♥ No charging to Li-Ion battery that has been over-discharged. As the over discharged battery has safety risk, it has to be disposed of as wastes.

♥ POS-616 battery can only be used with the permission of the local laws.

7.2 Charging procedures

When the Battery Indicator light turns red, your scooter is at less than 10% battery capacity.

Please stop operating your scooter and charge your battery 2-3 hours utilizing the charger that you received in your package.

Please manually turn off the scooter before charging!!! Make sure that the holes on the adapter head match the holes on the scooter, and gently connect the adapter to the scooter.

♥ Step 1: Ensure that the charging port is clean and dry. Make sure that there is no dust, debris or dirt inside the charging port.

♥ Step 2: Plug the charger into the wall, then connect the cable with the power supply (100V ~

240V; 50, 60 Hz), make sure the light on the charger is lit GREEN.

♥Step 3: Connect the charging cable into the charging port of scooter. The indicator light on the charger should change to RED, indicating that your scooter is now being charged. When the RED indicator light on your charger turns to GREEN, then your scooter is fully charged. A full charge typically occurs within 2-3 hours.

♥Step 4: Please unplug the charger from your scooter and from the power outlet.

※NOTE:

♥If the GREEN light on your charger does not turn RED when you plug it into your scooter, it could mean you have to check the cables to ensure you have a proper connection; or that your scooter is already fully charged. Push and hold your power button next to the charging port to check the status of your battery in the display.

♥Do not overcharge, as this will affect the life of the battery.

♥The best charging temperatures are between 32°F - 104°F (0°C~40°C). Extreme cold and extreme heat will prevent your battery from charging fully.

♥Make sure to unplug your charger before standing on or operating your scooter, as this can be very dangerous.

♥Only the indicator light on the charger will tell you the status of the battery during charging.

7.3 Detailed parameters of battery

Item	Parameter
Battery type	Li-Ion battery
Charging time	2-3 hours
Voltage	36V
Initial capacity	2-4Ah
Working temperature	-15°C-50°C
Charging temperature	0°C-40°C
Storage time (-20°C-25°C)	12 months
Relative temperature for storage	5%-95%

7.4 Precautions for battery transport

※WARNING:Li-Ion battery is considered as dangerous object,so its transport shall be permitted by the local laws.

※NOTE:If you need to use airplanes to transport POS-616 with Li-Ion battery or transport Li-Ion battery of POS-616 solely,please contact us.

8.Routine maintenance

Users need to make routine maintenance for POS-616. This chapter mainly describes relevant steps and important operational reminders for maintaining POS-616.

Before doing the following operations, ensure the power and charging line of POS-616 are disconnected. If the power is on or battery is in charging, no operation is allowed.

8.1 Precautions before cleaning

♥ To ensure the power and charging line of POS-616 are disconnected.

♥ To use soft cloth to wipe the external case for cleaning POS-616

※ **WARNING:** No high pressure water gun can be used for cleaning POS-616, it is not allowed to submerge it into liquid too, in order to avoid water or other liquid seeping inside to damage the internal electronic equipment permanently.

8.2 Storage

♥ Before storage, charge POS-616 fully, preventing the battery being over-discharge due to long term storage.

♥ If you store POS-616 for over a month, please take off the battery for storage and ensure to make a complete discharge once at least for every three months.

♥ If the storage environment temperature is below 0°C, please do not charge POS-616, you shall put it in a warm environment (Above 10°C) for charging.

♥ You may cover POS-616 to prevent dust depositing on POS-616 to affect its performance.

♥ Please store POS-616 in dry indoor places with proper temperature.

※ **WARNING:** To protect safety of the users, they shall not disassemble POS-616 by themselves, or it means the users give up their rights automatically for its repair.

9. Parameter

Item No:POS-616	Size:(MM)L585*W186*H180
Package:(CM)65*23*21.5	Tire type:Inflation free solid tire,6.5"
Battery :Domestic and imported Battery is optional	
Imported Battery Capacity:36V4.4AH Domestic Battery Capacity:36V4AH	
Motor Power:500W(250W*2)	Max Load:120KG
Chassis Clearance:30mm	Min Turn Radius:0°
Max Mileage:15-20km	Max Climbing:≤15°
Battery Show:LED display	Max Speed:12km/h
N.W.:10.30KGS G.W.:11.80KGS	Charge Time:1-2h
Material:ABS+Silicon+Aluminum	Remote Controller:Optional
Color:apple green,dark blue,light blue,orange,black or customized	

10. Packing list

NO.	Item	Quantity
1	Host machine	1
2	charger	1
3	Aluminum stent	1
4	Users' manual	1

When opening the package,if you find any damage or anything missing,please contact us,we will change or amend it as soon as possible.

11. Self checking

The self checking items of POS-616 as below:

Sensor,static current of system,dynamic current of system,motor running speed,waving and so on.When POS-616 defaults during the self checking,you can not solve it,please contact our service network station for repair.

Have a pleasant use

If there is problem happening when you use POS-616,please refer to the "User manual".If you can not solve it after referring to the manual,please contact us.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.