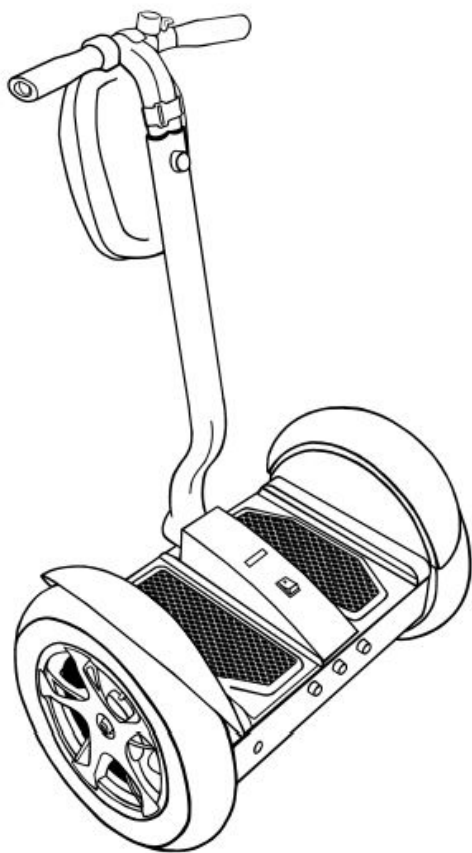


User Manual for 2-Wheel Balance Scooter



When our 2 wheel balance scooter (Smart Vehicle) is sold, it comes with this user manual for users' reference.

The User manual is applicable to all the 2 wheel balance electric scooter made by our factory. You may find that some functions are different from what you ordered. It is normal because of different series.

The content and technical specifications in this manual are valid when permitted to be printed. But our company has the right to alter and change technical specification or design without prior notification. And we will not assume any obligation.

To enjoy a nice and wonderful driving experience of 2 wheel balance electric scooter, please read the user manual carefully. You will learn how to drive and maintain the new balance scooter. After reading, please keep the user manual well so that you can read it any time when you need it.

Please maintain balance scooter according to the user manual so that you can keep the scooter in the best condition. Any problems about your balance scooter, please contact your distributor. We have professional staff who will supply best after service for you, and also answer any questions or problems from you.

Sincerely wish you a nice driving!

Safety Instructions

For adults use only!

Please abide by your local traffic regulations!

Please wear helmet, knee and elbow pads when driving!

Please read the relevant driving guidelines in this manual!

Do not speed up sharply! Please slow down when you hear alarm sound! If you continue speed up after hearing alarm sound, our company will not be responsible for any damage.

It is hard for us to list all associated dangers when driving and maintaining balance scooter, therefore, please be careful and pay attention to the safety of yourself and others when riding.

The user manual contains important safety information --- Please read carefully.

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Chapter I Introduction of 2 Wheel Balance Scooter

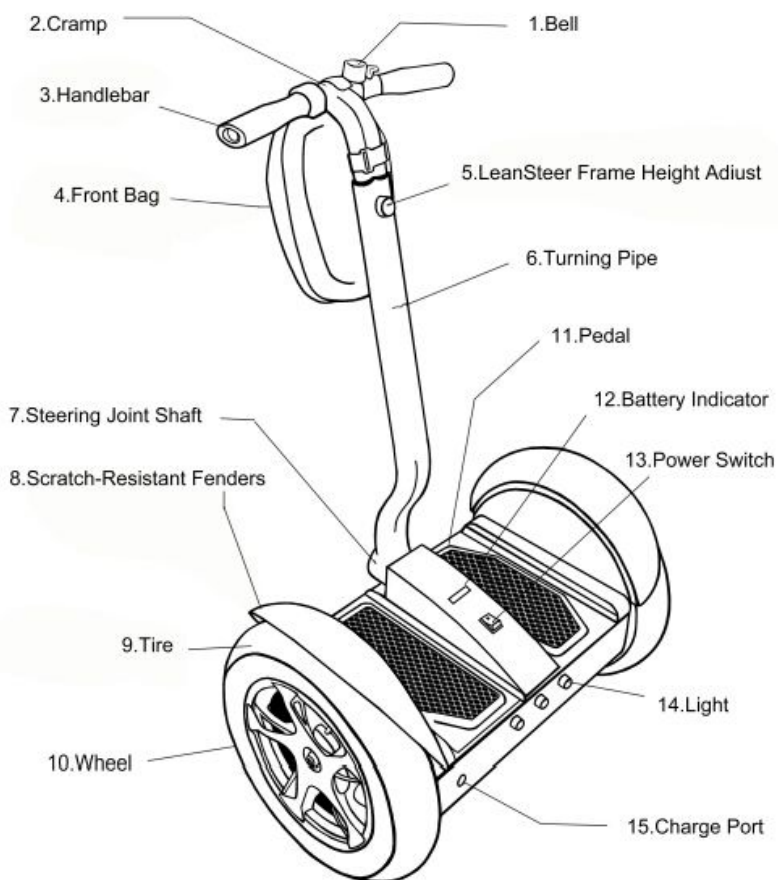
The working principle of the 2 Wheel Balance Scooter is based on the basic principle called "dynamic stability" which is the automatic balance ability of the scooter itself. After judging body posture position with a built-in precision solid gyroscope, the vehicles electronic brain works out proper instructions through a sophisticated and high-speed central microprocessor, the 36V-42Ah battery drives the motor to balance the scooter.

As a new transporter, it is hard to classify the 2 wheel balance scooter in the traditional way, some people think that the balance scooter should be a kind of double-wheeled unicycle, while other people think it should be classed as a power stand-up scooter, with its uniaxial double design which is different from the traditional biaxial double scooter, for official road regulations, this transporter is called electric personal assistive mobility device (EPAMD).

The 2 wheel balance scooter is equipped with dual wheels. Its width is as narrow as a normal adult shoulder's width. It is 48 kg and battery-propelled. It is not necessary to have a brake or throttle during driving. When the drivers lean their body forward, balance scooter will run forward, when the body is upright, it will stop. It uses the dynamic balance principle, just like the body changes the center of gravity to keep balance. When people stand still, it will lose balance if their body lean forward, but the brain's natural instinct will tell them to move their feet to keep balance. This balance scooter uses wheels to replace the function of the feet, reproducing the high precision balance action of a human with lower cost.

The energy comes from three rechargeable BTM batteries which is no need to be maintained. If the battery power is full, it can run continuously about 2-3 hours. The max driving mileage depends on your driving skills and ground conditions, driving on grass and slopes will consume more power.

Chapter II Parts of 2 Wheel Balance Scooter



Picture 1

1. Steering(Turning) Pipe

(1)Used to control and make the balance scooter turn left or right, turn around, rotate 360 degrees. It also has support function and can play a subsidiary role in keeping body balance.

(2) The height is adjustable. The driver can adjust it according to his or her own height to make the steering pipe comfortable.

(3) Lock the steering pipe after adjustment, and then turn the steering pipe to confirm whether it has been locked.

(4) All the above adjustment should be finished before driving.

(5) The steering pipe can be taken apart easily for carrying or storage.

2. Power Switch

(1) The power switch is used to turn on and off the power. When the power switch is on, the balance scooter will be initialized.

(2) The balance scooter will not balance if it is not powered on. So it is dangerous to stand on the scooter without power on.

3. Pedal Switch (SAFE Switch)

(1)Balance Scooter has four pedal switches,they are under the pedal.It is used to check whether driver stand on scooter.

(2) The pedal switch is safety insurance. If the driver leaves the balance scooter while driving, the pedal switch will return.Scooter will not stop immediately because scooter has 3 seconds balance delay.It will stop after 3 seconds with 4 “beep” sound.

4. Battery Indicator

You can hear one beep after power on balance scooter.Battery indicator will light,it states battery by percent.100% means full.It need be charged in time when it states 25% or below.

Always keep battery charged before the battery indicator states 25% or below. It is harmful to battery and will reduce battery’s life if battery run out completely.

5. Instructions of Sound Alarm

(1) “Beep” 1 Sound: The scooter beeps regularly repeatedly with one sound after power on. This means the leaning backward angle is too big (the pedal is not vertical). Make the pedal placed upright and horizontal, then power on the scooter.

(2)“Beep” 2 Sounds: The scooter beeps regularly repeatedly with two sounds after power

on. This means the leaning forward angle is too big (the pedal is not vertical). Make the pedal placed upright and horizontal, then power on the scooter.

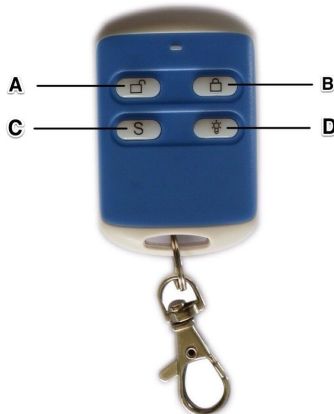
(3)“Beep” 4 Sounds: The scooter will make 3 seconds balancing delay after the driver gets off. Accompanied with beep 4 sounds, the scooter will lose balance and stop working.

(4)“Beep” 5 Sounds: The scooter beeps regularly repeated with five sounds after power on. This means the scooter is locked or the pedal switch is not detached.

(5)Continually “beep”(short and urgent): During driving,if the scooter make long sound alarm,it means that the momentary speed reaches its max speed. The pedal of scooter will raise up to prevent you continue to lean forward and speed up.You can feel the steering pipe pull you backward. At this time,You need adjust your body and slow down. DO NOT keep continue to lean forward or force to accelerate.

(6)Continually “beep”(long beep):If the scooter is locked by remote control,after your power on,scooter will make beep sound alarm when you pulling scooter forward or backward.It also make sound alarm when you stand on scooter,and scooter don’t start balance so that people can’t drive it.

Chapter III Instruction of Remote Control



1. Function of Remote Control

(1)Button“A”: Unlocking scooter, start and cancel Pulling Mode (Pulling Mode:Scooter can keep balance even without driver on it.You can pull scooter easily.Scooter consumes less battery in Pulling mode.When red indicator light,you can start Pulling Mode if it is not convenient for battery charging immediately.You can pull scooter back easily with less battery).

(2)Button “B”: Locking scooter

(3)Button “C”: Switching two kind speed mode

1. Beginner Mode

The max speed 8 km/h.

2. Normal Speed Mode

The max speed is 18 km/h

(4)Button D: Turning on/off light

(5)Button “C” and Button “D”: Setting pedal initial horizontal level(Scooter will automatic adjust the pedal to the initial default horizontal level when driver stand on it after power on,even the scooter is not horizontal before power on).

2.Button Operating

(1)Starting Scooter

Keep scooter horizontal and power it on,turn on the power,press Button “A” to unlock scooter(If it was locked last time before power off, you need to press Button “A” to unlock it. If it was unlocked, you can stand on scooter directly, the scooter will start balance after your standing on it). Its default speed mode is Medium Speed Mode.

(2)Pulling Mode

After being unlocked, press Button “A”, scooter will start Pulling Mode. (You will hear one “beep” sound). When you press Button “A” again, the scooter will cancel Pulling Mode.

Repeat press Button “A”,Pulling mode will be started and canceled by turn.

(3)Switching Different Speed Mode

After your pressing Button “C”, you can hear one beep sound, scooter starts Beginner Mode; when you press Button “C” the second time, you can hear two beep sounds, scooter starts Normal Speed Mode.

Repeat press Button “C”,Beginner Mode,Normal Speed Mode will be switched by turn.

(4)Setting Pedal Initial Horizontal Level

You can set the default pedal horizontal level if you think the pedal position is not suitable for you.

Means: Power on scooter, setting a suitable position, pressing Button “C” and Button “D” at the same time, then you can hear three beep sounds, It means setting horizontal level success. It will record the position as default position.

Attention: Pressing button is valid only without people stand on the scooter(Except starting and closing light of scooter:you can press Button “D” to start or close the light even driver stand on scooter).For example,if you want change Beginner Mode when you are in Normal Speed Mode,you need get off scooter,then press Button “C”.If you stand on scooter and press Button “C”,it is no valid.

Chapter IV Starting

1. Right Starting Operation

Keep scooter horizontal and power it on(Battery Indicator will light,it states battery by percent),press Button “B” to unlock scooter(If it was locked last time before power off, you need to press Button “B” to unlock it. If it was unlocked, you can stand on scooter directly, the scooter will start balance after your standing on it). Start operation is finished (refer to picture 2,3,4,5). Then hold the handle bar firmly with two hands and stand on scooter(refer to picture 6,7).



Picture 2



Picture 3



Picture 4



Picture 5



Picture 6



Picture 7

2. Not Suggested Starting Operation (refer to picture 8 and 9)

Although scooter can automatic adjust the pedal horizontal level, it will be better if you put scooter horizontal when you power on it. Please do not make scooter lean forward or backward too much.



Picture 8



Picture 9

3. Suggested Starting Operation As Follows (refer to picture 10)

(Keep the pedal of scooter horizontal before power on)



Picture 10

Chapter V Driving

Driving the 2 wheel balance scooter is totally different from any other transporter you drove before. Balance scooter does not have a brake, accelerator or gear system. Please read the user manual carefully or get professional instruction from other experienced person before your first ride.

Driving balance scooter is very enjoyable and fun,you will not help yourself driving it whenever you get the chance after you drove it. Below instructions will be helpful for your nice driving.

1. Standing on Balance Scooter

After powering on, hold the handlebar with hands. meanwhile step on pedal with left foot (refer to picture 9). After you stand on scooter, it will start balance,please don't move your body on scooter,stand upright without any action,just keep your body relaxed,and you will

feel very stable. DO NOT shake sharply forward or backward when standing on scooter, Shaking will make big electric current, which can burn the fuse easily. (refer to picture 11).



Picture 11



Picture 12

2. Driving Straight Forward

Lean your body forward slowly (the center of gravity), balance scooter will move forward (refer to picture 12). The driving speed is controlled by the leaning angle of your body. The more you lean the faster the scooter will go, the less the slower.

Please adjust your driving, when you hear long sound alarm beep (short and urgent), the pedal rises and steering pipe pull back, it means that scooter reach max speed. Please don't speed up or slow down, do not try to continue lean forward.

Balance scooter is controlled by the center of gravity of body, so please lean your body forward, not push the steering pipe of scooter forward with your hand. If you push the steering pipe of scooter forward too much, scooter will make sound alarm (even your driving speed is very slow).

For a stable driving, we suggest leaning forward slowly. It is dangerous for lean forward suddenly and urgently too much. (Scooter will make sound alarm, because the momentary speed is easy to reach the max speed). This is just like sudden acceleration when driving a car.

3. Braking, Driving Backward

Driving backward is not recommended for the driver's safety, because it is hard for you to see behind when driving. Turning radius of balance scooter in zero, which you can easily achieve in a continuous spin around 360 degrees on the spot.

When you drive forward in a straight line and you want to slow down or stop, you can lean backward or squat down (the center of gravity backward). Lean slowly or smoothly backward is helpful for slowing down and stopping safely (refer to picture 12).



Picture 11



Picture 12

4. Turning in Original Place, Turn Around and Rotate 360 Degrees

It is easy to turn the balance scooter when driving. Keep the steering pipe bar left-forward or right-forward to the end, at the same time adjust your body left-forward or right-forward. (Refer to picture 13 and 14). Thus you can easily achieve various turns. When the balance scooter turns to the right position, you only need return the pipe to the original position and stand straight, balance scooter will stop.



Picture 13



Picture 14

5. Turning in Driving

Balance scooter's turning range is calculated automatically according to the driving speed. The speed is faster, the turn range will be less. It will be better for adjusting your body according to turning steering pipe when you want turn around in driving. To turn left, the steering pipe should be swung smoothly to the left at the same time as your body leans left. The angle of balance scooter's turning is decided by the swinging angle of the steering pipe and the leaning of your body.

Tip: Please turn steering pipe slowly and smoothly in driving when you want turn around. It will be better if you adjust your body correspondingly. Please DO NOT turn steering pipe too much and urgently in driving, it is very dangerous, because you will be flied down by inertia of scooter.

6. Not Suitable Driving Situation

(1) Balance scooter is not completely waterproof, please do not drive balance scooter in big rainy day, or cross deep water. It is easy to damage the motherboard (refer to picture 15) and the motor (refer to picture 16) if water gets into the scooter.

(2) The tire of balance scooter is vacuum smooth. It can't prevent slipping. So please do not drive balance scooter in snow day or on snow ground.

(3) Though balance scooter has night lights, please do not drive balance scooter fast without road light in the dark.

(4) It is hard to define the balance scooter kind, so please don't drive on public roads used for motor vehicles. Please drive on the sidewalk, single driveway or any other suitable public places. Please abide by your local traffic regulations and the local laws.



Picture 15



Picture 16

Chapter VI Charging

When you find the orange and red indicator is continuously on, it shows the battery needs to be charged. First, turn off the power switch and use the specialized 36 V battery charger. Insert the plug into balance scooter's charge jack(the red indicator beside charge socket will light,the green indicator of battery charger will light), then connect the power,the indicator of battery charger will turn red light.It means that scooter is in charging (refer to picture 17).When the the indicator of battery charger will turn green light,it means charge is full.

The input voltage of charger is 110-240v, output voltage is 35-37v, AC electric current is 1.2 -1.5 A, The charger takes 6-7 hours to fully charge. The green light of battery charger will be continuously on after full charged. The charging electric current will then decrease output. The charger will become warm when charging, so please keep the scooter in suitable place.Please leave enough room for radiating heat.

Warning:

- 1.Please don't charge in thunder day.
- 2.Please keep far from flammability things when scooter is charging.
- 3.Please sure children can't reach when scooter charging.



Picture 17

Please keep power switch of balance scooter off when on charge, otherwise, balance scooter will cause power consumption, which is bad for charging.

Chapter VII Maintenance

1. The Maintenance of Battery

Balance scooter use BTM free maintenance battery. When you find the orange lamp and red lamp light continuously on, please charge. Please do not charger over 15 hours. If you do not use balance scooter for long periods, it also need be charged, because battery still runs even the power is off. you don't power on it. it just runs very slow. So it can run out completely if you don't use the scooter for a long period. Excessive discharge and re-charge is bad for the battery's life and can even lead to the battery scrap. (Suggestion: please keep it charged every month even you don't use the scooter).

2. Recovering Fuse

The fuse of balance scooter is 50A car fuse, the fuse maybe burned after overload or crashed sharply. When you find that there is no action after power on, please check the fuse whether it is burnt out. If the fuse burn, please turn off the power and wait a seconds until the switch fuse cool, then press the switch fuse so that the fuse recover. Then turn on the power.

3. Fastening Nut of Tire

Pay attention to the big nut on the wheel. Check regularly to see if it is loose. If so, tighten the nuts with a 21mm spanner to 108 torque.

4. Maintenance of Tire

The normal air pressure is the basic conditions to guarantee your safe driving. The standard tire pressure is $250 \text{ kpa} = 2.5 \text{ bar} = 2.55 \text{ kg/cm}^2 = 36.25 \text{ psi}$, that is what we recommend. It is necessary to check the tire pressure regularly. Under inflation and excessive inflation will cause unequal tire wear, which influences comfort and mileage and shorten the life of tire, under-inflated tires also influence power saving.

Also check for cuts and splits which could cause the tire to deflate at a rapid rate, causing injury to the rider.

5. Appearance Cleaning

It is necessary to keep the pedal and body of balance scooter clean. Please clean the gravel, soil and mud off after you're driving. Don't use any corrosive chemical such as petrol to clean balance scooter, you can clean balance scooter by using soft cloth and brush, don't wash balance scooter with water.

Chapter IX Technical Data

Net Weight	48KG
Dimension	68cm*43cm*43cm
Battery	3 pcs Dynamic silicone PB battery,36V.42Ah
Voltage	100V-240V
Power	Two imported DC Motor 1600W
Tire	17 in vacuum smooth(Aluminum Rim)
Height of Handle	80-110CM adjustable
Max Load	125KG
Max Speed	18KM/H
Max. Mileage	30-35KM
Height of Footplate	10 in
Max. Height Above Ground	5 in
Min Turning Radius	0
Max Climb Capability	≤30 degree
Standard Pressure of Tire	250kpa
Battery Show	LCD screen percent state
Charging Time	6-7H
Package Size	74cm* 48cm* 64cm
Gross Weight	58 KG