ES6 | ES6+

USER MANUAL

Two-wheel Self-balancing Scooter

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About this user manual

1.About this user manual

To learn to ride ES6 safely, you must read and follow all instructions and warnings in this manual and watch the Safety videos.
It is important that you follow all the safety warnings and cautions that appear throughout this manuals and that you use good judgment when you ride your ES6.
If you have questions which could not find in this manual, please contact(ShenZhen XinLiTechnology) sales or service department.

2.Risk of ride

ES6 is a self-balancing, personal transporter that uses balancing technology. Balancing technology cannot prevent injury if you do not ride it accordingly to this manual.
Whenever you ride ES6, you risk death or serious injury from loss of control, collisions, and falls.
To reduce risk of injury, you must read and follow all instructions and warnings in all the user materials includes Safey videos.

3. Preparatory work before use

Before you begin, it may be necessary to assemble yourES6.The battery should be charged for >5 hours. To assemble ES6 and charge the batteries for the first time, refer to this Manual.
Please pay attention to the tranquil surroundings, and check every part ofES6 are tighten, no damaged;
and wear all the protection materials (helmet, elbow guards and knee pads).

4.Related documents

PDF files of this manual, safety videos,App software for mobile and other technical documents, you could download from (ShenZhen XinLiTechnology Co., Ltd.) website www.xinlitech.com (or www.eswing.net).

5.Related agreement

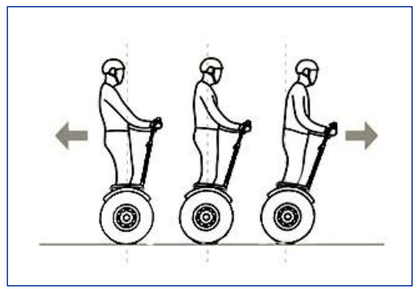
The following description are for the whole user manual.
Please pay high attention to the WARNING, NOTICE/NOTE andTIPs.

WARNING	Warnsyouaboutactionsthatmayresultinpersonalinjury.Cautionsyouaboutactionsthatmayresult
	inoperationalissuesorphysicaldamage.Identifiesimportantpoints,helpfulhints,specialcircumst
i	ances,oralternativemethods.

1.1 ES6 Introduction

The principle of self balancing scooter is based on the basic principle of a kind of "dynamic stability", which is the automatic balancing ability of the scooter itself.To determine the posture of the ride and the scooter by the built-in precision gyroscope, through theprecise and high-speed of the central microprocessor to calculate the appropriate command, to drive the motor to achieve the balance of the effect.

As is a new type of personlal transportor, it is difficult to define the type of the traditional classification. Some people thinkshould be a wheeled version of the unicycle, some others think it is a kind of dynamic scooter, but it is different from the traditional uniaxial wheel or biaxial Wheel Scooter.And in some formal occasions (such as the official rules of the road), scooter could be called "electric personal mobility device", commonly known as an electric scooter.

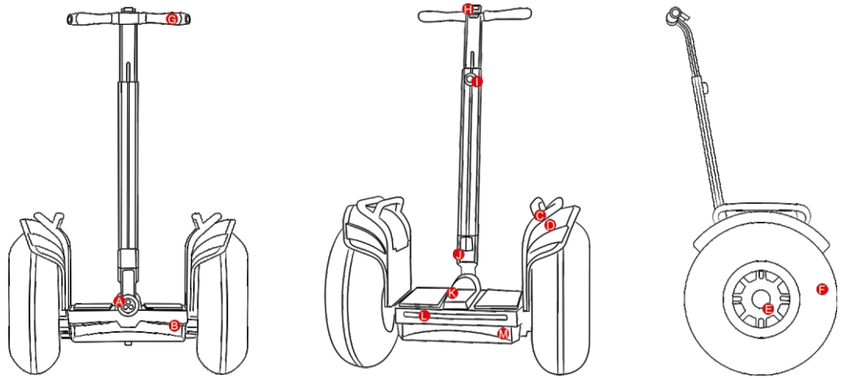


is equipped with two wheeled, the width of the ordinary adult shoulder width, weight 43kg, powered by battery. During riding, it does not need brake or throttle lever. When the rider leans forward, the scooter goes forward; when the rider's body stands straight, it stops. ES6 uses the principle of dynamic balance, when the body moves, the center of gravity of the body action will change continuelsly to get the balance. . With wheels instead of the foot, it replaced the high precision balance of human being, low-cost, no polusion,quietly, and convenient. ES6 could run around 3 hours after one fully charged.

1.2 ES6 series models

Model	Features	Advantages
ES6 (Comfort)	● High Cost-Effective, max speed upto 18km/h; ● APPremote control supported via mobile bluetooth; ● Standard accessories:1 parking foot,1 parking attachment,1 InfoKey controller; ● Headlamp lighting.	Advanced performance Competitive pricing Practical feature
ES6+ (Turbo)	Base on Es6 comfort, it has more features as, ● High value battery, increase cruise upto ≥30km/H; ● Built-in GPS module combines GPRS data for 1 year; ● Elegant designed bag *1 ; ● RFID card swipe to start	Highest power and cruise Built-in GPS module Monitor scooter positioning for rent

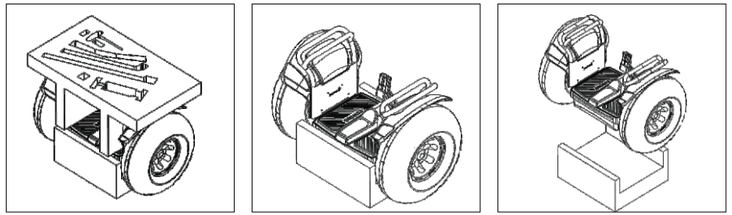
1.3 ES6 general view



A. White LED headlamp	F.Tyre	K.Signal indicator
B. Blue indicator	G. Handgrip	L.Red rear lamp
C. Rack	H. Smart InfoKey controller	M. Integrated battery pack
D.ABS mudguard	I. Height adjuster nut	
E.Aluminum alloy rim / wheel	J. Quick coupling joint	

2.1 Check the accessories

After carefully unpacking, take out the leansteer assembly, the packing parts for the handle bar, and ES6 mainframe in order.



Checing the package

ES contains the following parts, please check after open the package. If there is anything missed, please contact the seller.			
1. ES6 main body	2. LeanSteer Frame and the spare parts (includes steering pole and handle bar)	3. Charger	4. Mount tool and screws
5. User manual	6. InfoKey (includes a Micro USB cable)	7. Battery pack	8.RFID card

WARNING

Es6 main body is heavy, please hold the rack and lift it up carefully from the box; it is better by 2 persons to lift up and take out.

Please do not hold the mudguard when lifting, otherwise it would hurt your hand.

2.2 Product serial Number (how to get the serial Number which uses for after-sales service)

The warranty sheet bears the detailed warranty items, the contact information for gaining access to maintenance and accessory service, the effective date of warranty signed by your reseller, and the contact information and stamp of your reseller. In addition, a unique serial number label is pasted on the warranty sheet.The serial number is a combination of 15-digit with ES1352- begins.

You could find the Serial Number from the below positions:

1.At the exterior side of the package.

2. On warranty sheet of the user manual.

3.At the bottom of the mainframe.

S/N. ES1352A15090010

NOTE

The serial number, which is unique to every ES6, and the warranty sheet shall be the only identification for gaining free warranty and after-sale service. Please check whether the serial numbers at the above-mentioned places are the same, and if there is any absence or inconsistency, please contact your reseller to confirm whether the product is a qualified one.

2.3 Install new ES6

You can assemble your ES6 by the following steps after confirming that all the parts are complete and in good condition.

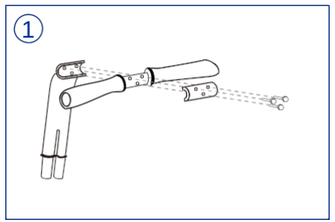
WARNING

Remember to switch off the power of ES6 and unplug the charging cable before handling and mounting of any accessory or cleaning of the mainframe.

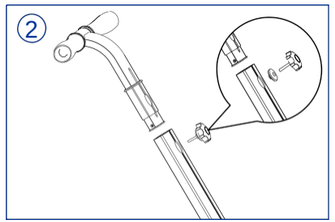
2.3.2 Preparation before assembly

Before the assembly of ES6 you should first find the hexagon wrench supplied with the product in the package. It should be well reserved for maintenance and transportation in the future.This wrench is made in compliance with the metric standard, so that you may get one either in your toolbox or from a tool store. It is suggested that you wear a pair of gloves during assembly so as not to pollute or injure your hands.

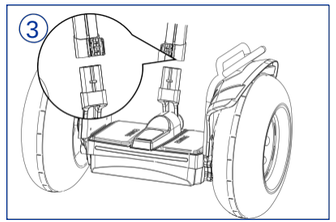
2.3.2 Mount handlebar and leansteer frame



Take out M4*20 screws, use 3mm hex wrench to tighten handlebar.



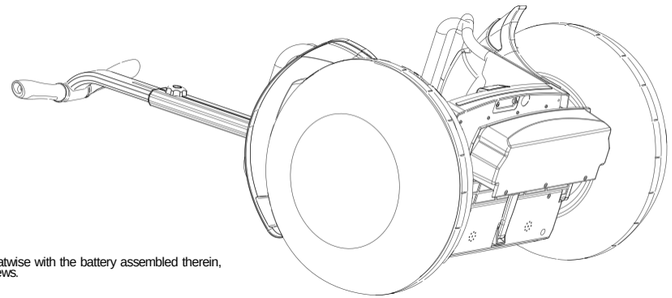
Insert handlebar into leansteer frame, and fasten the height adjuster nut.



Insert leansteer frame into main frame, and fasten the clockwise joint.

2.3.3 Install battery pack

Take out the "M4*10 hexagon socket cap head screw"and use 3mm hexagonal wrench to screw it in the middle hole of the battery.Take out the “M5*20 hexagon socket cap head screw” to screw it in the two side holes of the battery.Then fasten all the screws in order.



Lay ES6 mainframe flatwise with the battery assembled therein, and fasten up the screws.

Protect the leansteer and mainframe from scratches with soft cloth and polyfoam when laying the mainframe flatwise.After installing the battery pack, make sure that it is properly mounted with screws and all screws fastened.Then check whether ES6 can be switched on/off and whether the signal indicator can be lighted up.

3.1All modes introduction

ES6 has the below modes:

Power off completely mode: In this mode, whole system is powered off, battery is zero, you must press the power switch on ES6 mainframe rear to activate it.

Power off: In this mode, all the electronic control systems are in deep dormancy with the remote module alone in operation for starting ES6.

Stand-by mode: it refers to a mode where ES6 is on, but not achieving self-balance yet. In this mode, most systems are activated, but the motor control system is in normal dormancy which can be activated from time to time.

Balance mode: in this mode, ES6 enters the self-balance phase and all the systems work in full power. Such a state includes operation with a person on and operation in limited speed with a person on.

Power assistant mode: in this mode, ES6 enters the self-balance phase and all the systems work in half power.

Lock mode: in this mode, the motor of ES6 is locked, thus being unable to operate and very hard to drag.

3.2 Smart infoey controller and signal indicator

ES6 infokey controller is a device of rechargeable type, can be upgraded, with information display and control functions.You can use it to control the operation of ES6, its keys are shown in the following figure. In the handlebar, there is a dock which can hold the controller.

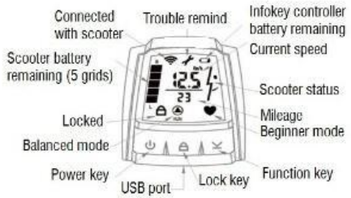
On the remote key, there are 3 buttons defined as Power key Lock key and Function key, each of which can be operated in 3 ways, namely long press, lasting more than 2 seconds; short press, lasting less than 1.5 seconds; combination press needs 2 keys togetherly more than 2 seconds.

Smart infokey controller and function display

3.2.1 Infokey controller and display interface

In the display interface of controller, it can display the working status and reminding information, such as speed, mileage, battery remaining. They display like the following,

Icon in infokey controller	Function description
⏻	Power on/off(hereinafter as power key)
🔒	Lock/unlock (hereinafter as Lock key)
⌄	Function switch key (hereinafter as Function key)



3.2.2 Icons description in infokey controller

Icon	Functiondescription	Icon	Functiondescription
	Battery remaining, total 5 grids.		Aseries of face icons display to indicate status. For example, you may see a happy face, sad face (low battery or cautions), or neutral face.
	Infokey controller connected with ES6		Indicates a system fault on ES6 that requires service.
	Locked	16.5	Current speed, accurate to 0.1Km/h
RUN	ES6D starts self-balancing mode, run mode or assistant mode	082	Traveledmileage,accurateto0.1Km/h
H	High speed mode (Normal mode)		Low battery icon, which reminds you to charge the infokey controller by USB cable for >1 hour with power supply like computer or other devices. During charging, low battery icon flashes always.
	Beginner mode		

3.2.3 Function and operation of smart infokey controller

Function	Key	Iconpicture	Operation mode	Press time	Display in signal indicator	Display on infokey
On/Off	Power Key	⏻	In standby	Short press	Signal indicator lights on, shows battery remaining, LED ring flashes	
Lock/unlock	Lock Key	🔒	In standby	Short press	Signal indicator lights off, shows only Lock icon	
Auto-balance on/off	Power Key	⌄	In standby	Short press	Enter Auto-balance mode, shows RUN icon	
InfoKey controller backlight on/off	Power Key	⏻	Anytime	Long press	Backlight of InfoKey lights on, for easily looking in darkness	
Headlamp on/off	Lock Key	🔒	Anytime	Long press	Turn on headlamp, for riding in darkness	
Mode switch	Function	⌄	In standby	Long press	Switch beginner mode and normal mode	
Pair codes between infokey controller and ES6	Power Key+Lock Key	⏻+🔒	In standby	Long press	All icons in infokey lights on, to match code after 2 seconds. When signal icon flashing, use administrator swipe ES6 signal indicator, then finish pairing code.	
Power off completely	Lock Key+Function Key	🔒+⌄	In standby	Long press	Turn off ES6 power completely. Press power button in ES6 body to restart.	OFF

Description:

Some functions such as power off, lock/unlock/exit balance mode or turn completely off which might cause injury to the rider could only be activated when unmanned standing on.

Infokey controller specific functions depending on the current mode, for example, the current mode is locked, then a more press is to unlock. Do so cyclically.

The backlight of infokey controller will automatically turn off once no action on it for 120 seconds.

Once pairing code does not succeed between infokey controller and ES6,
it will automatically exit pairing

3.3 Signal indicator and voice prompt

Signal indicator is a LED interface to indicate ES6 working mode, as the below figure.

3.3.1 Signal indicator icons description

Icon	Functiondescription	Icon	Functiondescription
	Bluetooth Connected when the icon lights up	RUN	Manned standing on
I RUN	Power assistant mode		Beginner mode Limit 6Km/h, low steering speed

	Vignette: In standby mode, the blue out circle flashes; in loading or assitant mode, the out circle turns clockwise.		Battery icon with 5 grids, and gauges when charging
	Warning mark, someone failure in Es6	GPS	Starts built-in GPS

Declaration: All the above icons do not specify all the functions of ES6, please refer to the actual functions.

3.3.2 Voice prompt

There is a built-in speaker, which makes voice prompts according different working modes.

You can turn it on/off or switching English/Chinese by setting theApp in smartphone.

3.4 Connect and control ES6 by smartphoneApp

The smartphones (iPhone4S or above, iPad3 or above, iPodTouch5 or above,Androd 4.3 or above version) which support and can connect with the bluetooth 4.0 version built in ES6. Operational procedure as below,

1. Download and installApp in your smart mobile devices, and turn on its bluetooth;
2.Turn on ES6 into standby mode (If ES6 is not activated, press the power button in ES6 mainframe to start);
3. Search in theApp and connect it, once connected successfully, the bluetooth icon in signal indicator will light up always, you can use and enjoy ES6 now.TheApp provides "Intelligent dashboard", "vehicle information", "track review", "setting"and other functions;
4.The default password is 666666.

3.5 Use built-in GPS and GPRS (only for ES6+Turbo version scooter)

ES6+ build in GPRS and GPS, which make the user can track ES6 positioning.

- The GPS locator uses satellite positioning, and the position tracking is realized by the mobile card GPRS transmission data.
- Terminal installation method is a hidden installation, mobile card is installed in the locator, which has been debugged before factory delivery.
- One GPRS mobile card number per ES6+, contains one year transmission data.
  Please read the user manual and the guarantee card of mobile card number and related IMEI code.

3.5.1 Use a smartphone message to check ES6 status and location

1. Check the current status
Format: status#
Description: It will feedback GPS locator status information, such as:
Charging;GPRS:Link Up;GSM Signal Level:strong;GPS:FIXED,ACC:OFF;Defense:OFF
2. Check the current position
Format: DW
Description: It will feedback ES6 position, and you can review it by google map.
3. Set Set center number
Format: center,a,your expected mobile number#
4. Set Set center number
Format: sos,a,your expected mobile number#

3.5.2 Login internet platform to view the location information

Open http://http://www.gpsoo.net/ in the IE of computer.After entered the website, input the account or IMEI number (in the manual and guarantee card) and password (xxxxxx, 6 digits from the IMEI number end) to login in, then you can get the exact position of your ES6.

3.5.3 UseApp in your smartphone to view the location information

Install gpsooApp in your smartphone, download the software from https://itunes.apple.com/us/app/id789568297 (for apple) orhttp://download.gpsoo.net/gpsoo/android/car_online.apk (for android).After installed, input the account or IMEI number (in the manual and guarantee card) and password (xxxxxx, 6 digits from the IMEI number end) to login in, then you can get the exact position of your ES6.

3.6 Use RFID card to control ES6

Es6 is built with a RFID (Radio Frequency Identification) card, which can control ES6 to turn on/off or pair the code with the infokey controller. ES6 supports all RFID card manufacturered under ISO14443 standard.

3.6.1 RFID card start ES6 operation

You can use the RFID card to control ES6 into on/off or standby mode by putting the card close to the signal indicator board.

3.6.2Add more RFID cards

Put the original RFID card in package close to the signal indicator board, you can hear “du~du” (2 sounds) voice reminds successfully; then you can put a new RFID card also close to signal indicator board, you can hear “du” (1 sound) voice reminds successfully.
You can use totally 3 RFID cards; if you use over than 3 cards, ES6 will only remember the latest 3 cards.

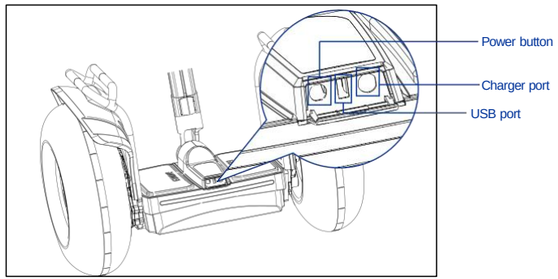
3.6.3 UseAdministrator card to communicate with infokey controller

Long press the Power key and Lock key till the pairing mode displays (refer to ES6 infokey controller operation), put the original RFID card in package close to the signal indicator board, you can hear “du~du” (2 sounds) voice reminds paired successfully.

3.7 Power button, charge port and USB port

At the mainframe back of ES6, there is a USB charging port which supports standard USB equipment and provide 5V/1Acurrent. You can charge the infokey controller or other USB devices with input <150mAcharging.

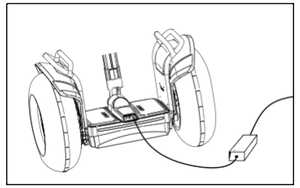
Picture 1: Power button, charge port and USB port position



This USB port is effective only when ES6 is on. It can only supply power, at the maximum current of 5V/150mA, no any capability to transmit data. Do not plug in any USB device with current higher than 150mA(for example, do not use it to charge such device having high current demand such as iPad). If high current demand device connected, it may cut off the power and influence the safety of riding.

3.8 Charging method

1st step: Find the charging port at the back of ES6 main frame, open the backcover, to check if the charging port is dry firstly.
2nd step: Connect the charging port with the charger (100~240V, global common), then plug it into the powerAC supply.
3rd step: When the LED indicator on the charger turns red, which means the scooter is charging normally; when the indicator turns green, the scooters is charged fully and please stop charging, unplug the charger port to save the battery life.



3.9 Parking stand

Some models of ES6 are equipped with a parking stand. When you get off the scooter, you can release the parking stand down, ES6 can stand upon the ground.
You can also purchase additional parking stand and mount it by yourself.

Releasing down the parking stand is only allowed in off mode, lock mode and standby status.To avoid improperly operating to the parking stand, we strongly recommend you turn off completely or lock ES6 if you need leave it alone. We also recommend you not to strand on or ride ES6 when release down the parking stand, which will be easily damaged and cause the rider fall down.

4. Guide for safe riding ES6

WARNING

This chapter is very important. please read carefully and understand all the instructions. We will not be responsible for any property loss, casualties, accidents, legal disputes caused by violation of the safety instructions on this chapter.

Apart from an entertainment robot, ES6 is also a transportation vehicle which may have the risks similar to those of all other commuting tools. However, if you follow the information in Chapter 4" Guide for Safe Riding" in this manual, it may maximize the safety of you yourself and others. By so doing, it will not cause heavy injury to you even if unrecoverable faults happen to ES6 or something unexpected happens to your body.

There is one thing you should remember. During riding, you should be cautious and keep a reasonable and safe distance with other people and transportation means.This is because although you ride your ES6 on the road or in a public occasion in compliance with the Guide for Safe Riding, you may be subject to the risks resulted from improper driving or operation by other people or of other transportation means. It is just as you may be injured by other transportation means when you are walking or riding a bike.

4.1 Instructions must comply

Understand and comply with local traffic rules.

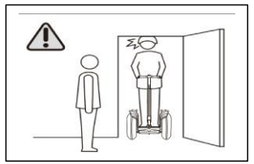
- Wear helmet, wrist pads, elbow and knee pads,before riding for critical protection.
- Check the battery status with the remote key before each riding. If there is less than 60% of power remained, do not use it for a long journey. Otherwise it may stop working in the half way.
- Check your ES6 to make sure that there are no loose, dropped or damaged parts, and there are no abnormal sounds or continuous warning during riding.
- Before riding, make sure that you are in good condition and sober without taking in any wine, sedative agent or stimulant at least 6 hours before.

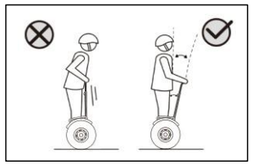
4.2 Prohibited Instructions

Do not use it in any place that is not allowed access by the laws of the relevant country/ region or by the related management units.

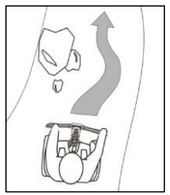
Remember to keep your body at least 5cm distances from the operation bar. NEVER lean your body against them, most of crash and injury are caused by lean body on the operation bar when riding.

Remember, when you are on ES6, you will be 20 cm or more taller than usual, so watch over your head as you approach a door frame, a door, any tree branch, various marks, boards or other low barriers above you.





Do not use it in the areas that are dangerous or go against the requirements for use of ES6, like in a place with pits/fissures, slopes of 25 degrees or above, or ponding more than 10cm deep.



Do not ride ES6 and get upstairs or downstairs, do not lift the ES6 off the ground in any case (such as passing a deceleration strip), and do not ride it on the road shoulder or stair with only one wheel on them.
Do not ride it on the motorway.
Do not ride ES6 with two or more persons on it, especially with a baby carried. Do not put both of your hands off the operation bar.
Dot not let the young (under the age of 14) and the aged (above the age of 65) ride ES6 alone, and they must be accompanied during riding. Do not allow the person with pregnancy, excessive drinking, mental disorder, heart disease and limited action ability (especially the disabled) to ride it.
Do not ride ES6in an unsafe environment, especially a place subject to fire disaster or explosion from flammables, steam gas, liquid, dust and fiber etc.
Avoid riding backward in high speed or making sharp turns during riding backwards. Do not make phone call during riding.
Do not riding it in poor weather and road condition when it rains or snows with frozen, ponding and slippery road surfaces.
Do not go against other provisions in this manual, especially what are clearly indicated in “Warning” or “Danger”.

4.3 Notice for riding safely

Understand and follow the local traffic rules during riding so as to achieve civilized riding without colliding with the persons or objects around.
Ride ES6 in a moderate speed. Keep a certain distance with the pedestrians and the vehicle. Ready to stop in any time.
Form good riding manner without making any prompt accelerating start or any prompt decelerating braking.
Respect the pedestrians'right of using road without scaring them. When you are behind someone, remind him and pass him by the left side with decelerating speed; and when you are in front of someone, keep at the right side with decelerating speed.
When you are in a crowd, slow down and ride in the same speed with the pedestrians until there is a safe pass for you to surpass. Riding with high speed in the crowd would be dangerous.
When you go out with other riders, keep a safe distance with them and keep away from dangers and barriers. Do not ride side by side unless there is enough space on the left side for the pedestrians to pass through.
Do not park at the place that would block the pedestrians and disabled peoples.
Do not ride in a dim environment. If it is really necessary, slow down, keep cautious, and use external headlights to provide a sound vision.
Keep relaxed during riding with the knees and elbow bent slightly and the head raised.
Avoid backward riding, which is dangerous, except for several feet distance for the purpose of keeping off the barriers.

WARNING

The rider should not lean his body against the operation bar in any circumstance. It is dangerous as a major cause for crash and getting injury for ES6 may lose balance, especially during acceleration and high-speed riding.

4.4Active safety protection measures

Please read this manual carefully and watch the safety driving instructions video, understanding and recognition this contents.

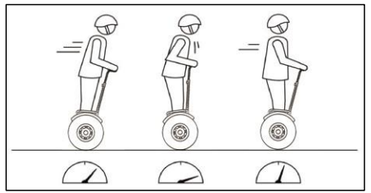
- Please do not let others drive your ES6, unless the person who has already read the manual and watch the safety driving instructions video.
- Please wear a helmet and fastened chinstrap while driving .
- Wear an examined helmet that is suitable for your head form, equipped with a belt and able to protect the back of your head with its belt fastened whenever you ride Ninebot.The rider can also wear gloves, eye equipment, waist support, knee pad and other protecting equipment based on the riding conditions and past experiences.
- Do not ride in poor condition, cannot follow the indications or warnings in this manual, or have just taken alcohol or drug.
- Get off ES6 and charge it for safety in the case of low power, successive warning and limit speed.
- Please place the goods your carry in the front or the side storage cases or in your backpack instead of placing it on the foot mat.The balance of ES6 will be influenced if the operation bar bears the weight of more than 5 kilograms.
- Please make sure the ES6 is switched off before carrying it, or otherwise injury may be incurred by the quick rotation of the wheels. It is appropriately suggested that two men move the ES6in joint effort. Do not lift the ES6 by the fender, because your finger may be clipped between the wheel and the fender.
- Please check whether there is any loose screw or damaged part before each ride. Do not power-on ES6 until all faults are eliminated.

  Carry out regular maintenance over your ES6 in accordance with Chapter 7 of this manual.

4.5 Intelligent safety warning/automatic protection

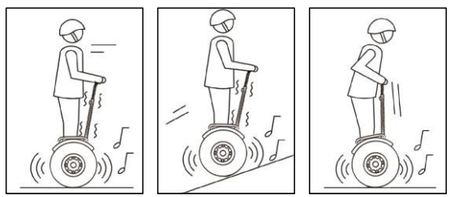
In the following cases, ES6 will limit its speed automatically, namely limit the maximum speed to a range that will keep you safe:

- Advancing in over speed when riding ES6 in excessive speed (4~12km/h in the limit speed, and 18~22km/h in balance mode), the leansteer of ES6 would generate pushback force to push the rider in the backward direction so as to stop ES6from accelerating.This means the limit speed mechanism of ES6 is triggered because you are riding too fast. Now please adjust your body to keep at least a fist distance from the operation bar. Or ES6 may lose balance and fall down if you keeps pressing the operation bar or leaning your body against it.
- Overloading or long staying on a slop, the intelligent safe warning will be triggered and the foot mat will recline to remind the rider to get off in the following cases: staying at the steep slope, the deep pit, overweight of rider or long staying on the slope results in enduring overloading ES6.At this moment, the rider should get off and push ES6 ahead by assistant mode.



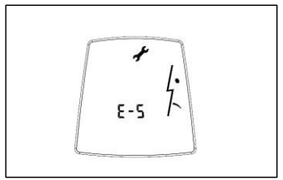
Automatic speed limiting

Critical battery power:You should get off immediately and charge the ES6 if the intelligent safety warning is triggered when ES6 you ride is in extremely low power (usually less than 10%). Or the foot mat will reline to press the rider to get off if the rider goes on riding.



Backward in fast speed, go upslope or long staying on slopes makes battery low quickly.

Internal fault description:The intelligent safety warning will be triggered when ES6 detects any internal fault (such as power failure of one battery, and breakdown of one balance sensor unit).If the rider is still riding ES6, he should get off and contact the authorized after-sale service provider for repair. If you hear alarm sound just after power-on, it may be caused by low battery, so please charge it. In case it fails, please refer to contact your reseller or ES6 service technician for help. If you installedApp on your smartphone, you can use the “Vehicle information” function of the app to determine what the problem is, and how to solve it.



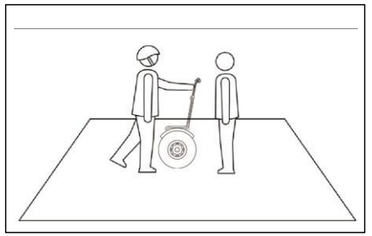
Pictures of infokey controller and Signal indicator errors

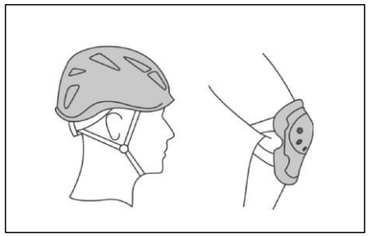
Es6 working error code list:

App displays		Infokey controller displays	
200000	Normal	E1	Power tube abnormal
200001	Mains power voltage abnormal	E2	Mains power voltage abnormal
200002	Left motor hoare abnormal	E3	Battery abnormal
200004	Right motor hoare abnormal	E4	Steering hoare abnormal
200008	Left power tube abnormal	E5	Motor hoare abnormal
200010	Rightpower tube abnormal		
200020	Steering hoare abnormal		
200040	Battery abnormal		

5. Learn to ride ES6

For beginners, you should choose proper places to ride, either indoor or outdoor with an area of at least 16 square meters (4m×4m). In addition, it should be flat without any wet or slippery surface, barrier, automobile, bike, pet, children or other objects that would distract your attention.

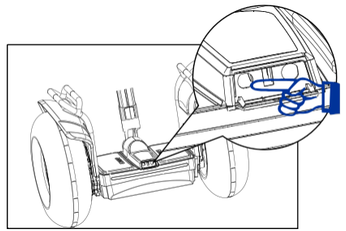




Get instruction from an experienced person who accepted correct training and totally understood its working principles.
For safety purpose, please wear safety helmet and other protective gears.
Move ES6 to the center of the places.
You should be proficient in using all the functions of the Smart Remote Control.

5.2 Before ride ES6

First turn on “Power Switch” on the body of ES6, then use Smart Remote Control and press “Power on/off ” button, when you hear reminding voice and see the light on Signal Indicator, it means ES6 is started normally.



Es6 Power Switch

5.3 Before step on

Make sure the pedals are on horizontal level when power on.

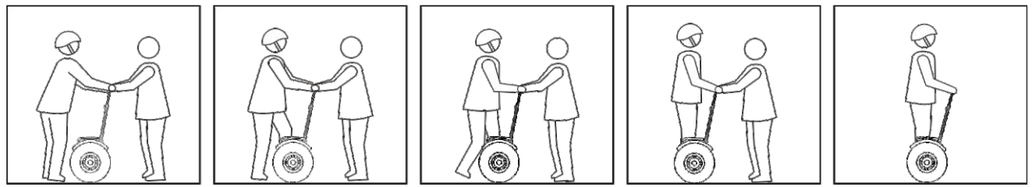
For beginners, Please do not hurry to ride it, learn following instructions carefully to protect yourself from any possible injuries.

Standing directly behind ES6, hold the handlebar grip with one hand or two hands, keep the turning pipe upright (almost in no stress), adjust the handlebar grip until the pedals become horizontal, then step on pedals of ES6.

5.4 Step on and keep balancing

1. Holding the handlebar grip with two hands, and make sure the pedals are on horizontal level;
2. Step on pedals with one foot;
3. , place your center of gravity on the pedal gradually, and raise another foot (thinking how you get upstairs);
4.Avoid moving the turning pipe, and then raising another foot slowly and putting it on the pedal. Just imagine that you are standing on the ground, keep calm and look ahead instead of looking down when you stand on ES6, trust ES6 self-balancing.

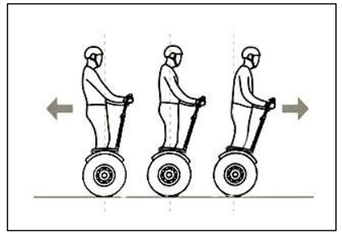
Please make reference to the postures in the following pictures.



The more you keep relaxed, the easier you can keep balance. It is much easier than learning to ride a bike. When some people step on it for the first time, it would waggle in the forward and backward direction, but if you imagine the ES6 as a flat place that can keep balance, stand upright, keep relaxed, and let your instructor hold the steering bar, you will stop waggling a while later.

5.5 Forward/Backward

Lean your body forward slowly, and feel the moving of ES6, then recover your posture upright gradually to feel the deceleration and stop. Just be moderate and make several repetitions to adapt to the movement controlled by the body gravity.



Backwards Balanced Forward

Avoiding waggling in the forward and backward direction

Turn your head around and look behind, lean your body backward slowly to make ES6 move backward gradually, then recover your posture upright gradually to feel the deceleration and stop. Make several repetitions and avoid falling down by bumping against the wall or other barriers.

For beginners, the action should be slow and soft, and the body should be relaxed so as to stop waggling. Heavy waggling forward and backward may cause the wheels to slide or lose control. It is very dangerous, so it should be avoided.

Please don't backward that can not replace forward, unless you just reverse only a few steps.
You'd better turn left or right then go forward instead of backward.

Turn around and look behind then slow tilt you body back, let ES6 go back slowly.Then reinstated, experience the decreasing speed and stopping ES6. Repeat the operating several times. Be careful and not crash the wall or barrier obstacle in order to avoiding falls.

5.6 Stop

Let the gravity of your body moves against the direction which is moving. It can makes ES6 stop.

Methods as the following:

1. When you are riding ahead, pull back your buttock gently (as you are sitting down) to stop ES6;
2.After ES6 stops, distribute your body weight equality on the foot pad to achieve balance.
And if you go on tilting backward, ES6 will move backward (not recommended);
3.Appoint a place, then practice to stop on this place and keep balance.

Standard stop figure

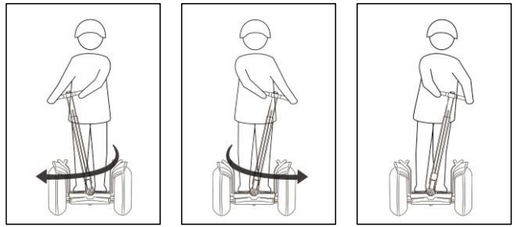
WARNING

Try to stop ES6 in a moderate and gradual way rather than in a sharp way. Slowly move back the body weight from the moving direction so as to make ES6 stop slowly. On a typical asphalt pavement, the distance for emergency brake of quick moving ES6 is -3 meters. Never make sharp acceleration or sharp brake on a wet or slippery road, because emergent brake on such pavement may cause the wheels to slide, thus you may crash and get injured.

5.7Turn left/right

As you turn the steering bar in the left or right direction, ES6 will turn in the corresponding direction.

1. Practice making turns in the original place. Slowly turn the leansteer bar as you wish, ES6 will turn at the original place.You can align the leansteer bar until ES6 reaches the position you expect.You can repeat practices to master the skill.



2. Practice turning during its movement.You can try to make turns during slow movement after you are familiar with going forward/backward and making turns at the original place. Keep the knees slightly bent and tilted toward the direction to turn.The angle is the same with that of the leansteer bar. Repeat more times and master the skill.

WARNING

Never make sharp turn whether you are at the original place or in movement, your body may loose balance and you may fall down. So, when you plan to make a turn, please slow down and turn your body in the direction you want to turn so as to enhance your stability.

5.8 Getting off

Getting off is like walking down a stair. When you get off Es6 at the first time, you can ask your instructor to help you hold the leansteer bar.

The specific method is as following:

1. Keep ES6 balanced by holding the leansteer bar with both hands, and put your feet off the foot mat one by one. tabilize your body and do not move the leansteer bar to make turn when you get off.
2. Do not put your hands off the steering bar before ES6 is switched off even if you have got off, otherwise ES6 will move forward, possibly causing casualties and losses.

Keep relax when you get off to avoid rotating the leansteer bar for the sake of being nervous, because it may scare you, causing dangers. We suggest you not to force your hands to the leansteer bar.

5.9 Speed limit

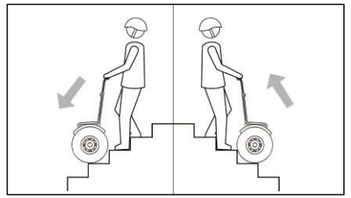
After ES6 starts, you can choose the "beginner mode"by long pressing the Function key in the infokey controller, with the Invoice reminder "beginner mode"sounds, and the heart icon in the infokey controller and the signal indicator will both display.You could adjust the limit speed byApp in your smartphone.

heart icon in the infokey controller will display

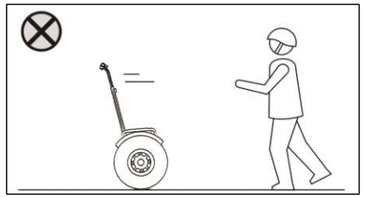
5.10 Power assistant

After getting off, short press the Function key in the infokey controller, ES6 will turn to assistant mode from the standby mode.
And it will go forward/backward or make a turn gently according to your hand movement to the leansteer bar.

We recommend you use assistant mode to pass through the bumps, stairs, unsafe or inappropriate landform along the road side.



Get upstairs/downstairs by assistant mode.



Do not let ES6 go by itself in assistant mode.

WARNING

When ES6 is in assistance mode, hold the leansteer to the ES6 movement. Please do not leave the leansteer and let ES6 move freely on its own.Once ES6 free move on itself, it will switch to standby mode after 3-4 seconds, which will cause the scooter to fall or hit the object and damaged.

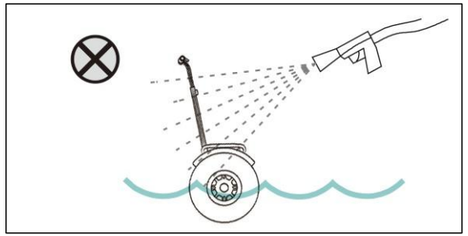
5.11 Lock

After getting off ES6, please press "Lock"key on infokey controller, ES6 will be locked (see 4.13 intelligent infokey controller and signal indicator panel description).Thus you can keep the scooter in secured when you leave ES6 away.
After locking ES6, it will give voice prompts "Locked"when it is going to be touched or operated.
Locked scooter itself cannot stop the thief directly carry away ES6.Therefore, the best way to ensure the safety of ES6 is to put ES6 in the safe place of the interior. ES6 can easily enter the elevator, pass through ramps and slopes into the interior. When you lock and leave ES6 away in public area temporarily, please make sure you can hear the alarm and ES6 is in your sight.

Locking function is usually used for temporary parking and to prevent others from being hurt and damaged due to the curiously abusing.

6.1 Clean and Storage

In order to keep ES6 in the best performance please clean your ES6 after use.You can use the soft cloth dipped in a small amount of water to clean ES6. Glasses wiper cloth is recommended. ES6 can be washed by household shower hose or garden hose (water pressure is less than 1MPa, or 145PSI) to flush tyres and fenders. Please dry it as soon as possible after hosing and place ES6 in a ventilated condition to avoid the iron parts rusted. If it is difficult to clean some stains on the plastic surface, toothpaste can be used, using the toothbrush repeatedly scrub, and then use the wet cloth to clean.This method can also be used to clear the surface scratch.



When not in use, place ES6 in dry and cool place indoor, and avoid to store ES6 outside for long time.
Sun exposure and extreme hot / cold outdoor environment will accelerate ES6 aging.

WARNING

When clean ES6, make sure it is turned off, the charging cable is unplug and the charging port is shut! Otherwise electric shock or serious damage may happen. High pressure hosing or soaking in water are strictly prohibited in scooter cleaning which may lead to water damage of internal parts and components.

WARNING

Do not use alcohol, gasoline, kerosene, acetone or other corrosive, volatile chemical solvents to clean ES6.
These substances will damage the appearance and internal structure of the ES6.

6.2 battery maintenance and transportation

Battery pack is the component needs to pay most attention on the maintenance. Battery may still performance well after 20,000~30,000km mileage under good maintenance; and failure maintenance will reduce the capacity or damage the battery after few months.

To try to extend the battery life, please follow the following tips for regular inspection and maintenance:

1. Please read the notes on the battery pack surface and follow the instruction.
2. Please keep the battery pack in the dry environment at temperature from 0 to 40C. Extreme high or low temperature can affect battery life. Please avoid storing or using the battery in the environment below -20 or above 50 .
3. Please keep the battery pack in dry and cool environment. In the extreme moist environment, the battery internal condensation probably causes the battery damaged quickly. If the wet environment cannot be avoided, please use the large bag will seal to storage battery.
4. In daily use, please avoid the battery completely exhausted and then charged. If the power is only 1~2 grids, please charge as soon as possible.After use, please fully charge the battery. Frequent charging does not affects the battery life, and long time exhausted status will reduce capacity and life of the battery.
5 if the battery is installed on the ES6, the battery will continue to consume.Thus:

a) For a short time storage (less than 30 days), or less than 30 days of transport time, the battery should be fully charged.
b) For long time storage (more than 30 days), or transport time for more than 30 days, the battery should be fully charged, and then removed from ES6, stored in a cool dry place.
c) For a long time (more than 180 days), please recharge the battery every 3 to 4 months to maintain the battery capacity and life.

WARNING

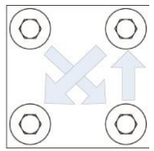
When battery pack is fully charged and installed in ES6, even if the scooter is not in use, there will be a small consumption of power. In a typical case, the consumption is about 30% of its capacity for around 90~100 days standby. In the different temperature and environment, the battery internal chemical material will gradually lose the activity, regular charge and discharge is necessary.

6.2 ES6 battery is made of lithium-ion battery cells, with multiple protection function on the PCB board, and passed the UN/IATAUN38.3 air transport test obituary identification, 1.2 meters drop testing, certification and ULcertification. Normal use and even collisions will not cause the battery pack to fire or explode. For safety reasons, piercing and smashing the battery pack are prohibited; do not drop the battery pack into the fire or water, otherwise that will cause danger or environmental pollution. Most of the airlines and well-known courier companies (such as UPS,TNT, DHL, etc.) can transport the battery; however a valid UN38.3 test report and some other test certification are required. Users can contact Eswing customer service department to get these test reports and certifications. Please pay attention to the air transport norms and updates from different countries, airlines and airports.

6.3 Screw mounting and removal techniques

ES6 adopts high strength anti-loose screws.Please follow the following rules for the installation to avoid damage to the screws. When using the six angle wrench, it must be pushed to the bottom of the screws.

1. Mounting screws in staggered order;
2. Do not fully tighten screws at beginning;
3. Mount all screws on and then tighten.



6.4 Check screws

All the screws of ES6 are treated with anti loosing function. For the safety reasons, please regularly to check the wheel hub, lean-steer, battery, fenders, tread plate shell and control panel shell and other components in ES6 store. By DIY, to shake the components with handle gently, observe the component is subsequently shaking or loosening of the abnormal sound; if users feel screws loose, please check related components mounting screws and use with the tool attached to the products of the fastening.

6.5 Check tyre pressure

Es6 normal tyre pressure should keep around 0.8~1.5 Kg/cm²(80~150Kpa), max to 2.5Kg/cm²(250Kpa). Higher tyre-pressure will decrease friction resistance and increase the whole cruise, but makes more damping during riding. While, lower tyre-pressure could makes less dampling during riding on the stuff road, but decrease the whole cruise. Whatever higher or lower tyre-pressure, it expedites the abrasion to the rubber tyres.

6.6 Replace the tyres

Abrased tyres influence riding safety to ES6,we suggest to replace the tyres in time when the textures on the tyres are evened off less -1mm than the texture.And, when anyone tyre was punctured, you need to replace a new tyre immediately.

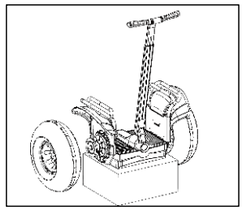
ES6 are made with a special tyres, which could not be disassembled by normal tools, otherwise it would probably be damaged.

We suggest you go to ES6 store to replace tyres.

If you don't like to go to the store, or there's no store nearby you, we suggest you to change the whole tyre system includes the wheels.

Steps of disassembly tyres and wheels:

1. Raise ES6 onto a box off-grounding the tyres, and dismount the rim cover in the middle of wheel;
2. Loose 4 screws on the wheels with 17mm sleeve;
3. Take off the tyres and wheels together.



Sleeve

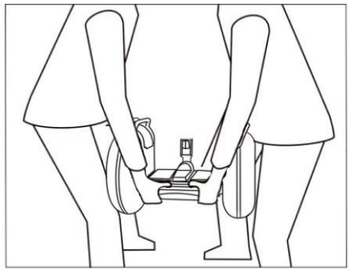
6.7 Change other leansteer frame

In generally, the standard leansteer frame is suitable for the riders with height 150~190cm.
If you like to use the legs to turn direction, you could choose the leg-control leansteer frame.
You can find the related description of changing leansteer frame, and ask ES6 store to help the exchange the frame.

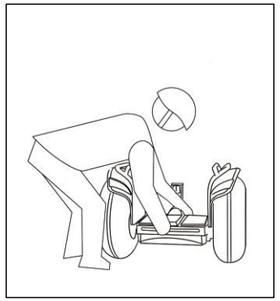
6.8 Lift and move ES6

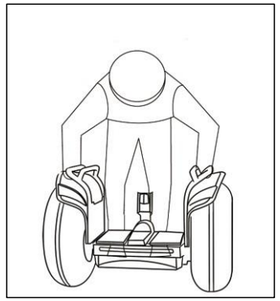
Please lift and move ES6 by reasonable methods, please follow as,

1.Turn off ES6 completely.
2. If you want to put it into the trunk of your car (better SUV car), please release the frame firstly.
3. If you feel ES6 is too heavy to you, please ask another person to help you lift.
4. For single person to lift ES6, the best posture is by one hand holding the front and the other hand hold the battery pack position.
5. For two persons to lift ES6, the best method is each person hold the each rack. See picture.



WARNING Please take care of slipping out of the hands when lift ES6, especially if you use the hands hold the wheels.





6.9 Regular maintenance

Except tighten the screws, change the tyre and wheels, change the mudguards or change battery, there is no any other spare parts for user self repairing. Please do not disassembly ES6 by yourselves. If there is any problem you could not solve, please contact the distributor or our authorized service technicians.
ES6 need regular maintenance and checking to get the safely riding, please pay high attention to this.

WARNING Es6 inner structure is very precision, self-disassembly will easily influence the riding safety. Nobody is allowed to disassembly ES6, otherwise you will loose the after-sale service. will not take any responsibility to damage or hurt due to self-disassembly. Anti-disassembly mark will take cognizance of it.

Appendix 1. Main technical specification of ES6 series models

Main technical specification			
Product dimension	820*490*560 mm	Foot pedal height	220mm
Handlebar height	860 ~1150mm	Off-ground height	140mm
Product model		ES6	ES6+
Power system	Peak power	2400W	2400W
	Climbing degree	≤35°	≤35°
	Max speed	20KM/H	20KM/H
	Max loading	150kg	150KG
Product parameters	Min turn ratio	0°	0°
	Net weight	43KG	44.5KG
	Tyre size	19 inch	19 inch
	Tyre pressure	80Kpa	80Kpa
Battery system	Battery value	605WH	726WH
	Max mileage	25KM	35KM
	Charging time	3-5 h	4-6 h

Appendix 2. FAQ and troubleshooting

1. What's the working princeple of ES6?
reply: ES6 uses technology called dynamic stabilization to maintain its balance and move forward or backward. It works like the human body. When walking, if you lean forward, you take a step forward to keep your balance. If you lean back, you step back. When you lean forward or back, the machine powers the wheels in the direction that you lean.
2. Where can I buy ES6 balancing scooter?
reply: Please contact sales department and dial (86) 400-0966-065 (exit 3) .
3. What should the beginner pay attention to when riding?
reply: If you are a new beginner, please read the user manual very carefully, and use the beginner mode to practise and learn. If condition permits, and you must find a helper who acknowledges all the instructions to assist you for the first driving ES6.
4. Is ES6 allowed to ride in motorized vehicle lane? Does it need vehicle identification number?
reply: ES6 is a non-motorized vehicle, it could only be allowed to ride in non-motorized vehicle lanes. When you purchasing ES6, vehicle identification number is no need, but please ride it according to local traffic regulation.
5. What is the max speed and single track mileage of ES6?
reply: ES6 max speed of is 20 km/H, and the single track mileage after fully charged is 25~35 KM. In generally, single track mileage always depends on the actual road conditions, rider weight, riding skill and habit. We request you to ride carefully to decrease the riding risk.
6. How long time does ES6 charge?
reply: ES6 generally needs 4~6 hours for fully charging. If you ride ES6 everyday, we request you to charge it every 1~2 days.To prolong the battery life, we suggest you to charge it at least one time every month if you do not use it very often. Please pay attention to the battery capacity from the infokey controller, you must charge it when it remains only 2 grids (total 5 grids).
7. Why does ES6 leansteer often heads up back during riding?
reply:According to the actual riding speed, battery remaining and road surface, ES6 will make some caution. In normal mode, if the problem happens, please stop and check the battery remaining capacity, and do not ride further.

8. How to do when ES6 could not be powered on?
reply:
1) Before power-on, please do not step on Es6;
2) Please make sure the battery remaining capacity is enough;
3) Please check if ES6 is in LOCKed mode;
4) Please check if ES6 has other cautions or warnings.
9.APPin smart mobile failed to connect with Es6.
reply:
1) Please make sure ES6 already power on and in standby mode;
2) Please check if the bluetooth in your smart mobile is ON, and paired with Es6;
3) Please check if ES6 is pairing with other devices, and not switch back to with your smartphone.
4) Please make sure if your mobile is with bluetooth 4.0 version or more.
10. How to do when the InfoKey controller display E-1, E-2, E-3, E-4 and E-5?
reply: scooter has intelligent detection to all functions.
E-1:Trouble in the mainboard or internal power chipsets, please contact the manufacturer;
E-2:Trouble in main power supply, voltage abnormally;
E-3:Trouble in battery, take out and put back the battery pack to properly power on;
E-4:Trouble in steering hall, please contact the manufacturer;
E-5:Trouble in motor hall, please contact the manufacturer.

11. No connection between InfoKey controller and ES6.
reply:
1) Please check if the controller powers on or not;
2) Please check if the controller has enough remaining power;

3) Please make sure if the controller has paired with ES6;
4) Please make sure the distance between ES6 and controller is less than 5 metres;
5) If none of the above, please power off ES6 completely, and re-pair code as following.
12. Pair method for ES6 and the controller.
reply:
1) Power off ES6 completely;
2)Together press left key and mid key, all icons flash 1 second, then only wifi icon displays;
3) Hold the controller close to ES6, press power button in ES6 back, then paired the code, all icons will display.
4)Try all the function of all keys to see if ES6 works properly;
5)You can also use the RFID card to swipe ES6 signal indicator to pair.
13. What functions could ES6APPdo?
reply: WithAPPcontrols, it could make ES6 forward, backward, turn and stop. Meanwhile, it can record all your tracked. In additional, you could get updated news.
14. How to do if ES6 unfortunately fall into water?
reply: Please turn off ES6 immediately, move it to a safe place, and contactservice technician.
15. What should I pay attention to do when clearing and maintaining?
reply:As all mechanical machines, there will be some problems like screws loosed or others toscooters, which makes noise when riding. We suggest you to check the tyre pressure, tyre screws and other mechanical parts. When clearing ES6, we request you to use a wet clothing and brush to clean the dirts, and NOTwash it by water directly.You must oil and tighten the screws regularly to avoid rusted. We suggest you to store scooter at a cool, dry and ventilated place.

If there are other problems, please contact our service hotline (86)400-0966-065 (exit.3) in BeiJing time 9:00~21:00.

If you have any problems about riding，maintenance，safety or others, please contact us via the below contact information, we will offer the
best service to you with pleasure.
There are our ES6 wechat number and company QR code, you could scan them with your smart mobile phone, then you could know more about our company and the products.
Thanks for your concerning and supporting.

GUARANTEE POLICY:
1. We provide 12 month (from order date) free repair guarantee policy to full units and the spare parts.
2. Return policy:
2.1: If any damage(s) made by the user(s), who should pay the relevant part(s) cost and the whole freight cost.
2.2: If any product itself problem(s), our engineers will check and analyze carefully and give the solution to the user(s), and we will offer the most economical solution by supplying free part(s) and free freight cost.
2.3: We would supply all the installation and un-installation lessons by videos, photos and all relevant services if in-need.

Repair date	Repair detail	Remarks	