



User manual



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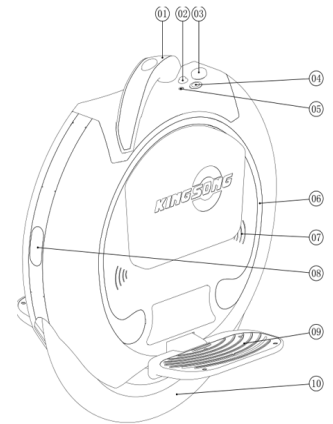
The EUC designed for out-door sports and short-distance transportation, PLEASE RIDE UNDER LOCAL LAW&RIST RICTION. SAFETY IS ALWAYS THE FIRST PLEASE RIDE SAFELY, YOU ARE AT YOUR OWN RISK OF ANY DANG ER OR INJURY WHICH MAY OCCUR DURING RIDDING OR PRACTICE WITH THIS DEVICE.

Thanks for purchasing KingSong smart Unicycle(EUC). The user manual below is a quick and convenient guide of safety & item functions/features to end user. We could not ensure all types of situation&emergency are covered. Th erefore, we STRONGLY remind you to read this guide very carefully, and ride with attention to ensure your safety .

## 1 Product details

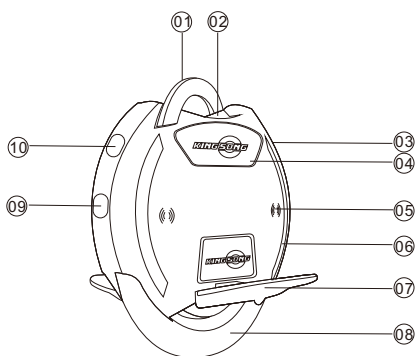
### 1.1 Diagram:KS-16S

1. Trolley bar
2. Auxiliary button
3. Charging port
4. Power on/off button
5. Light sensor
6. RGB light
7. Speaker
8. Illuminating light
9. Pedal
10. Tire



1.2 Diagram KS-14M/KS-14D

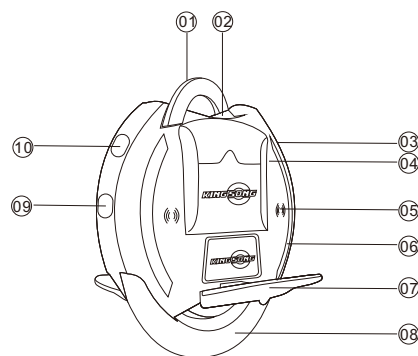
1. Trolley bar
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4. Pad
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6. RGB Light
7. Pedal
8. Tire
9. Illuminating light
10. Port USB/Fuse



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1.3 Diagram KS-14S

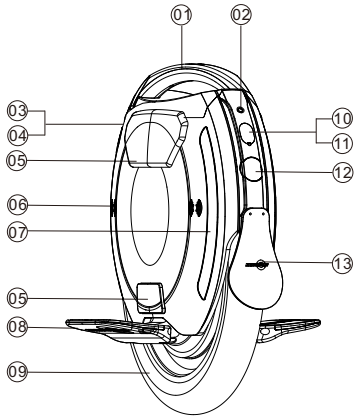
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1.4 Diagram KS-18L

1. Trolley bar
2. Power On/Off button
3. Music Plug and play / USB ports to charge gadgets
4. USB ports to charge gadgets
5. Pad
6. Speaker
7. RGB Light
8. Pedal
9. Tire
10. Charging port
11. Charging port
12. Illuminating light
13. Mud guard



1.3 Specifications

		Specifications			
Model No.	KS-14M	KS-14D	KS-14S	KS-16S	KS-18L
Rated speed	20km/h	20km/h	20km/h	20km/h	20km/h
Top speed	20km/h	30km/h	30km/h	35km/h	50km/h
Mileage/Full charge	174Wh 15-18km	340Wh 20-30km 420Wh 30-40km	680Wh 55-65km 840Wh 65-75km	680Wh 60-70km 840Wh 70-80km	1036Wh 95-105km
Climbing Angle	Around 28 degree	Around 30 degree			Around 35 degree
Temperature	-10℃/+60℃				
Maximum upload	100~150Kg				

Charger Voltage	Input AC 80~240V, Output DC 67.2V 2A				Input AC 80~240V Output DC 84V 1.5A
Charging time	174Wh around 1.5h	340Wh around 2.5h 420Wh around 3.5h	680Wh around 5.5h 840Wh around 6h	680Wh around 5.5h 840Wh around 6h	1036Wh around 7h
Rated power	500W	800W	800W	1200W	2000W
Wheel Size	476x437x202mm	475x437x200mm	475x437x202mm	506x463x196mm	590x495x180mm
Distance from ground	125mm	125mm	125mm	120mm	160mm
Tire Size	14", Φ360mm	14", Φ295mm	14", Φ295mm	16", Φ417mm	18", Φ480mm
Net weight	12.75kg	13.5~15.0kg	13.5~15.0kg	15.5-17.5kg	22kg
Standard Accessory	Charger x1; User manual x1				

#### 1.4 Main functions

1.LIGHT SENSOR: detecting light intensity, Lights on when it is dark, otherwise, it keeps off.

2.BT/Speaker: BT makes users can access to riding information in app like mileage etc.; Audio BT is activated automatically when power on, you can enjoy music during riding.

3.Integrated trolley bar: wheels can be pushed to move rather than lift up with this integrated trolley bar, make the wheel easier to be carried on.

4.USB port(only for KS-14D/14S/KS-14M/KS-18L): Portable electric can be charged via this USB.

5.RGB light: Shining during riding, indicates the battery level while it is on and stop.

6.Over side-lean protection: When the lean angle of wheel exceeds 45°, motor will stop running and will stop running and will recovery automatically once back it vertically.

7.Buzzer and voice prompt: To ensure safety, there will be voice prompt to alert rider: over-voltage, over-power, low battery etc. Voice prompt can be shut off through app, but buzzer beeps can't be.

8.Tilt-back protection: When over-speed, low-battery, high temperature, the pedal will tilt back to prevent further acceleration.

## 2 Safety

As an out-door sports and auxiliary transportation device, serious injury may occur any time during ridding, PLEASE BE CAUTIOUS ALL THE TIME, LEARN AND PRACTISE STEP BY STEP BEFORE YOU REGULARLY RIDE IT, READ THE INSTRUCTIONS THOROUGHLY AND CAREFULLY to control the risk.

### 2.1 Important

1. Do not make rapid acceleration or deceleration or over incline forward or lean backwards.
2. Do not use the EUC if there are any risks in accidental falls.
3. When there is alarm of over power, over voltage, low battery, please decelerate at once.

Please keep in mind deeply: Most accidents are caused by rapid acceleration or deceleration, so please operate EUC properly to protect both the device and rider.

### 2.2 Attention

1. Please wear helmet, gloves, elbow/knee pads or other protection garments.
2. Please check the device before every ride, to make sure no parts are loose or damaged.
3. When carry are crowded pedestrians, please slow down to match their walking speed.
4. When carry the device, please make sure the power is off.
5. Do not put your fingers around the tire, to avoid injuries caused by the tire running.

6. Do not ride on highways or any other prohibited places.

7. Do not ride on rough or bumpy surfaces, such as muddy or pebbled roads.

8. Do not ride on wet, slippery surfaces, especially snowy roads.

9. Any person under 12 is STRICTLY PROHIBITED to use the EUC.

10. Do not ride in bleak winter conditions.

11. Countermarch riding is dangerous. Try to avoid countermarch unless safety guaranteed.

12. Don't jump with the EUC.

Other sudden unpredictable risks may occur during use, please ride with care. KINGSONG electric unicycle will not be responsible for any injuries caused by improper operations of the device.

## 3 Main Features

- 3.1 Integrated trolley bar.

- 3.2 Colorful RGB light.

- 3.3 Front illuminating & Rear Braking Lights.

- 3.4 BT Speaker: Activate the BT named "KINGSONG", then you can play music freely after c

connected successfully.

### 3.5 APP:

- 1.For Android apk:Please access to our official website:www.kingsong.com, android apk can be download.
- 2.For IOS app:Please download from apple store,"kingsong-New" is the exact one.

### 3.6 Basic Information

Users can check all the detailed information on APP like temperature, mileage, speed, voltage and so on, which will help you get a better idea of the electric unicycle's running status.

### 3.7 Riding Mode

Riding mode refers to the riding mode during start-off and breaking. Under play mode, the pedal will keep still when starting off or breaking. While, under learning mode, the pedal will slant along with the gravity center, that is, leaning forward for starting off, leaning backward for braking. The main difference of the two modes lies on: learning mode is suitable for long distance travel, which provides a more comfortable riding experience, relieves the leg's fatigue. Play mode is more flexible, can satisfy the group who wants to perform skills like aerial jumping, also it can avoid pedal scraping when climbing or down steep hills. You can select the corresponding riding mode in the "Cycling mode setting" menu.

### 3.8 To calibrate your Electric Unicycle

1. Lean the Wheel completely upright against a wall at the angle you wish to ride at and press the 'YES' button, the device will turn off.
2. Keep the angle of the device, press the power button to turn on, there will be 5 beeps, and then turn to long beeping.
3. Turn off the device, and then turn on, the Wheel will now be set at the desired pedal pitch.

## 4 Precautions and preparation

### 4.1 Precautions

1. Use the auxiliary belt to ensure safety driving especially at the learning level. As beginners, can use the auxiliary belt to prevent the unicycle from scraping. Tie the belt to the handle of the EUC, step one foot on the pedal, adjust the belt to a proper length, once losing the balance & have to jump off from the unicycle, you can drag the EUC with the belt to protect it from sudden fall & broken.

### 2. How to control the balance

The self-balancing EUC achieves balancing by virtue of the gyroscope. Rider leaning forward, the unicycle will accelerate; oppositely leaning forward, the unicycle will decelerate to keep the balance between the rider and the device itself. Like riding a bicycle, you must keep left or right balancing by your body and the riding speed. Do not ride on slippery or bumpy surfaces, friction between the tire and the ground is essential to keep the balance.

### 4.2 Practice

Find a proper ground: please don't ride on the highway or anywhere there are a lot of cars and people, should not ride on the bumpy, gravel roads.  
Warm up your body and be equipped with helmets, elbow, knee supporters if needed.  
Check the battery level, shake the unicycle to avoid potential unsafe factors like looseness, abnormal sound, push the unicycle by hand to check whether it exists frictions between the tire and body shell.  
Find a friend to assist you if needed.  
Tie the auxiliary belt to the handle, adjust it to a proper length.  
Please don't speed up or slow down suddenly in order to keep good maintenance.  
Don't lean too much and too fast to avoid sudden speed up & down, even rider's injury.  
Please don't speed up or slow down suddenly in order to keep good maintenance.

Don't lean too much and too fast to avoid sudden speed up & down, even rider's injury.  
Speeding is STRLCTLY prohibited. in case of falling, give the priority to rider's body safety.  
Refer to the following driving steps to start learning.

#### 4.3 How to use

##### 1. Start the unicycle

Grasp the handle with one hand, place the unicycle vertically on the ground, and unfold the two treadles. If the unicycle tilts either forward or backwards after power is switched on, then wait until it reverts to uproght position before riding.

Press then power key to turn on the unicycle, the battery level will illuminate and buzzer will beep, then the vehicle is ready to use.

We suggest that you push the unicycle forward and backward to get an idea of the intensity of acceleration and deceleration.

##### 2. Try to stand on the unicycle

Stand on the center of the treadle with your preferred foot, so that you learn your gravity center to the foot.

Stand up, use the foot on the treadle to control the forward and backward balancing, and lean your shank on the rubber plate tightly.

Gradually lean your gravity center to the foot on the treadle, a triangle support is required with your shank, foot and the balancing unicycle, otherwise the it's very difficult to transfer the gravity center to the unicycle. If you failed to transfer the gravity center, further riding is not suggested.

##### 3. Go forward

For novice, like riding bicycle, transfer your gravity center to the unicycle, tread the pedal forward slightly, meanwhile, kick the other foot backward slightly, the unicycle will go forward, try to keep balance during riding, and gradually put the other foot on the treadle.

For intermediate learner, pay more attention to the following two points: keep at a certain speed, control the speed through leaning forward and backward, Try to extend the riding distance by repeated exercises.

#### 4. Turning

Beginner tends to rotate the upper torso to turn, to improve the efficiency, we suggest you to make it by adjusting the tilt of treadles.

#### 5 Battery and Recharging

##### 5.1 Temperature effect on battery

Battery power varies with the temperature, mileage on per charge will have slight difference under different temperature, following table is just for your reference.

Temperature (°C)	-20	-10	0	10	20	30	40	50
174Wh using ratio	40%	60%	80%	90%	95%	100%	105%	110%
Mileage/Charge (Km)	8	12	16	18	19	20	21	22

##### 5.2 Charging

The device has a built-in lithium battery, no extra battery installation is required, just charge the device when it indicates "low battery".

Plug in the power source after inserting the charger plug, this can prevent potential risk to ensure a safer charger. When the red lights turn into green, indicating the charging is completed.

If not in urgent need, please wait until charging complete before unplugging, because after charging, the protection circuit will perform flow equilibrium.



Battery level: RGB indicator is used to indicate battery level, will go off one by one with the level decreases. Please check power level before use to ensure there is enough power for the return trip.

Battery level of KS-16S is shown in 9 levels, corresponding battery levels are shown as following:

RGB level	9	8	7	6	5	4	3	2	1
Voltage	>64V	>62.5V	>60V	>59V	>58V	>56V	>54V	>52V	RGB flicker

Battery level of KS-14M KS-14D and KS-14S shown in 7 levels, corresponding battery levels are shown as following:

RGB level	7	6	5	4	3	2	1
Voltage	64V-68.9V	62V-64V	59V-62V	57V-59V	54V-57V	52V-54V	50V-52V

Battery level of KS-18L is shown in 9 levels, corresponding battery levels are shown as following:

RGB level	9	8	7	6	5	4	3	2	1
Voltage	>81V	>79.1V	>76.2V	>73.4V	>70.5V	>67.7V	>64.8V	>62V	>60V

## 6 Care and Main tenance

### 6.1 Conservation

Don't place the unicycle in a wet condition.

If left unused for long time, recharge the battery at least every two months to avoid the battery exhausted and maintain longevity of the battery. Meanwhile, the battery can't be dismantled arbitrarily, in case of changing, please contact us, we will provide you with professional services.

Please clean the unicycle with wet cloths and detergent, gasoline, solvent or any other chemical reagent are forbidding.

Use pump to inflate the tire. Without the pump, you will not be able to pump air into the wheel. The rated tire pressure is: 2.5Pa.

## 7 Warranty

### 7.1 Limited warranty

Manufacturer, Kingsong Intell Co., LTD warrants the EUC by following limits.

Motor, mother board for 365 days from the item departure from factory.

Battery package for 183 days from the item departure from factory.

Warranty is valid only within a total mileage of 2000km.

### 7.2 Exclusion from warranty

Above limited warranty DOES NOT include damage or loss caused by item's defectives (i.e. warranty only covers manufacturer defectives, Does not cover any damage, unauthorized modification, improper operation, disassembly etc.).

### 7.3 After sale service

All the after sale service, please contact your local dealer, distributor for assistance.

## **FCC WARNING**

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.

NOTE 1: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.