



# User Manual

## King Song Electric Unicycle



# WARNING

Electric unicycle is designed for the outdoors and short distance personal transport.

**SAFETY IS THE NUMBER ONE PRIORITY!**  
**PLEASE RIDE UNDER LOCAL LAW!**

The user manual below is a quick and convenient guide of safety & item functions/features to end user. We can't ensure all types of situation emergency are covered. Therefore, we **STRONGLY** remind you to read this guide very carefully, and ride with attention to ensure your safety.

Riding like all outdoor activities comes with its risks. You risk serious danger and injury if you fall, collide or lose of control when riding, please ride with caution and at your own risk.

Thanks you for purchasing King Song smart electric unicycle!

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# 1. Product Details

## 1.1 Diagram: KS-14M / KS-14D



1. Trolley Bar
2. Power On/Off Button
3. Charging Port
4. Pad
5. Speaker
6. RGB Light
7. Pedal

8. Tire
9. Illuminating Light
10. Port USB/Fuse

## 1.2 Diagram: KS-14S



1. Trolley Bar
2. Power On/Off Button
3. Charging Port
4. Pad
5. Speaker
6. RGB Light
7. Pedal

8. Tire
9. illuminating Light
10. Port USB/Fuse

### 1.3 Diagram: KS-16S



1. Trolley Bar
2. Auxliary Button
3. Charging Port
4. Power on/off Button
5. Light Sensor

8. illuminating Light
9. Pedal
10. Tire

## 1.4 Diagram: KS-18L / 18XL



1. Trolley Bar
2. Power on/off Button
3. Charging Port
4. illuminating Light
5. Pad
6. Speaker
7. RGB Light

8. Padel
9. Tire
10. Shell
11. Mud Guard



## 1.5 Specifications

Model No	KS-14M	KS-14D	KS-14S	KS-16S	KS-18L	KS-18XL
Rated Speed	20km/h	20km/h	20km/h	20km/h	20km/h	20km/h
Top Speed	20km/h	30km/h	30km/h	35km/h	50km/h	50km/h
Mileage	174Wh ≈18km	340Wh ≈30km 420Wh ≈40km	680Wh ≈60km 840Wh ≈80km	680Wh ≈60km 840Wh ≈80km	1036Wh ≈105km	1554Wh ≈140km
Climbing Angle	≤ 28°	≤ 30°			≤ 35°	
Temperature	-10 C/+60 C					
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 ≈1.5h	340Wh ≈3h 420Wh ≈3.5h	680Wh ≈5.8h 840Wh ≈7h	680Wh ≈5.8h 840Wh ≈7h	1036Wh ≈9h	1554Wh ≈14h
Rated Power	500W	800W	800W	1200W	2200W	
Wheel Size	476*437*202mm			506*463*196mm	590*495*180mm	
Distance from ground	125mm			120mm	160mm	
Tire Size	14inch			16inch	18inch	

Net Weight	13kg	340Wh 13.6kg 420Wh 14.5kg	680Wh 15.2kg 840Wh 16.2kg	680Wh 16.3kg 840Wh 17.4kg	21.6kg	25.4kg
Standard Accessory	Charger*1; User manual*1					

## 1.6 Main functions

- Light sensor: Detecting light intensity, Lights on when it is dark, otherwise, it keeps off.
- BT/Speaker: BT makes us ers can access to riding information in app like mileage etc; Audio BT is activated automatically when power on, you can enjoy music during riding.
- 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.
- USB Port(only for KS-14D/14S): Portable electrics can be charged Via this USB.
- RGB Light: Shinning during riding, indicates the battery level while it is on and stop.
- Over side-lean protection: When the lean angle of wheel exceeds 45°, motor will stop running and will recovery

automatically once back it vertically.

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

## **2. Safety**

As an outdoor sport and auxiliary transport device, serious injury may occur any time during riding. PLEASE BE CAUTIOUS ALL THE TIME, LEARN AND PRACTISE STEP BY SETP BEFORE IT REGULARLY. READ THE INSTRUCTIONS THOROUGHLY AND CAREFULLY TO LIMIT THE RISK OF INJURY.

### **2.1 Important**

- Do not make rapid acceleration or deceleration or over inclineforward or lean backwards.
- Do not use the EUC if there are any risks of accidental fails.
- When there is alarm of over power, over voltage, low battery

, please decelerate at once.

## **2.2 Attention**

- Please wear helmet, gloves. Elbow/Knee pads or other protection garments.
- Please check the device before ever ride to make sure no parts are loose or damaged.
- When there are crowded pedestrians, please slow down to match their walking speed.
- When carry the device, please make sure the power is off.
- Do not ride on highways or any other prohibited places.
- Do not ride on rough or bumpy surfaces, such as muddy or pebbled roads.
- Do not ride on wet, slippery surfaces, especially snowy roads.
- Do not ride on wet, slippery surfaces, especially snowy roads.
- Any person under 12 is strictly prohibited to use the EUC.
- Do not ride in bleak winter conditions.
- Riding backwards is dangerous. Try to avoid riding backwards unless safety guaranteed.
- Don't jump with the EUC.

Other sudden unpredictable risks may occur during use, please ride with care. Kingsong Intel Co.,LTD will not be responsible for any injuries caused by improperly operations of the device.

### **3. Features**

#### **3.1 Integrated trolley bar**

#### **3.2 Front illuminating light & Rear Brake light**

#### **3.3 APP**

- For Android apk: Please access to our official website: [www.kingsong.com](http://www.kingsong.com), android apk can be downloaded.
- For IOS app: Please download from apple store, 'kingsong' is the exact one.



KingSong APP(Android)



KingSong APP(IOS)

### **3.4 Riding Mode**

Riding Mode refers to the torque during start-off and braking. Expert Mode / Riding Mode / Learner Mode decelerate, turning and so on.

Riding mode and Expert mode is for rider who want more performance.

Experient mode can satisfy the group who wants to perform skills like jumping, also it can avoid pedal tilt back when climbing up or down steep hills.

### **3.5 Self-inspection and horizontal calibration**

Firstly, switch on the EUC and keep it standing still on the ground until it finds it's balance. Then login to the APP and connect with the wheel to check the device information.

## **4. Precautions and Preparation**

### **4.1 Precautions**

- Please find a smooth surface to practice on.
- Warm up your body and ensure you're wearing safety gear such as helmets, knee pads, elbow pads and wrist guards.
- Ensure the wheel's battery level.
- Check the unicycle for imperfections such as any

looseness, abnormal sound. We also highly suggest pushing the unicycle by hand to see if there's any friction between tire and the case of the wheel.

- Have a friend assist you if required.
- Please do not accelerate or decelerate rapidly, please also try to avoid over leaning or leaning too fast to prevent rider injury.
- Padding up the wheel during the learning process is highly recommended to ensure minimal scrapes on the exterior of the wheel.

## **4.2 How to use**

### 4.2.1 Starting on the unicycle

Hold the wheel with one hand and ensure the wheel sits vertically on the ground. Unfold the pedals and switch on the wheel, it will self-balance forwards and backwards, if it does not, please ensure the wheel is upright. Quick pressing the power button once the wheel is on will toggle different light modes.

### 4.2.2 Standing on the unicycle

With the pedals unfolded on both sides please stand on it with your preferred foot in the center of the pedal. Balance the wheel under you by keeping the other foot on the other

side of the wheel. If you are left footed, keep your other foot at around 5 o'clock, and if you are right footed please keep the other foot at around 7 o'clock.

If you are having a difficult time balancing the wheel under you make sure you find a centre point of balance between these three points: a) bottom of the tire b) where the top of your leg touches the wheel c) your foot. Finding the balance point between these three points will allow you to more easily control the wheel under you.

#### 4.2.3 Learning to ride forwards and braking

Whilst having the wheel balanced under you, use your non-preferred foot to push off and lean forwards to begin going forwards, once the wheel gets going please put your non-preferred foot back onto the wheel. Focus on balancing and not falling left or right. Try to look ahead rather than down!

Have your hands out to help you balance!

To come to stop simply lean backwards and the wheel will slow down and come to a stop. You may dismount your non-preferred foot when standing.



Note: The harder you lean forwards or backwards will dictate the speed in which the wheel accelerates and decelerates.

#### 4.2.4 Turning

When turning, lean your body gently to the side in which you want to go and straighten up when you want to go straight again! As you become more experienced at riding you will find other ways to turn such as; letting the wheel fall just side to side, just turning the lower part of your body, leaning your entire body. Advanced riders will usually incorporate a combination of these.

## 5. Battery

### 5.1 Temperature effect on battery

Battery power will vary with the temperature, mileage 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%
MPU(Km)	8	12	16	16	19	21	21	22

MPC: Mileage per fully charge

## **5.2 Charging**

Forbidden to use chargers not original from factory to avoid accident.

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

## **6. Care and Maintenance**

### **6.1 Conservation**

Don't place the unicycle in a wet condition.

If left unused, recharge the battery at least once a month to avoid the battery exhausted and maintain longevity of the battery.

Meanwhile, the battery can't be dismantled, in case of changing, please contact us, we will provide you with professional services.

Clean the unicycle with wet cloths and detergent, gasoline, solvent or any other chemical reagent are forbidden.

Use the inflation tube to inflate the tire. Without the tube, you will not be able to pump air into the wheel.

## **7. Warranty**

### **7.1 Limited Warranty**

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

Motor, Controller 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 Limited Warranty**

Above limited warranty DOES not include damage or lose not caused 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**

If need after sale service, please kindly contact your local dealer, distributor for assistant.



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