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版本	变更内容	处数	变更者	日期

切割线 —— 反折线 —— 正折线 —— 尺寸标注  出血位 ——

物料名称	LX103用户指南 (英文)		图纸比例	1 : 1	单位	mm	尺寸	如图示	公差	±1mm	应用场景说明	设计师	李昌勃
料号	Q.LX103-00000402		*材质印刷	封面200g双铜彩色印刷过哑胶,内页单黑书纸80g,骑马钉,210*145MM					*色号		注意事项: 输出图纸前,需确认图纸内容与尺寸正确,需发给组长与需求方审核确认 如实际制作图纸与定稿图纸内容有区别,需联系设计师调整更改 最终制作出的成品与图纸有差别,需与设计师做沟通	电话	
状态	 深圳乐行天下科技有限公司	*技术要求	印刷颜色: 按图印刷					审核				签字 (盖章确认)	
版本		A6	检验标准《乐行天下标签、贴纸测试标准》					实际印刷输出时,如遇图片模糊,尺寸不对等问题,请及时联系设计师处理				日期	2024年 3 月 1 日

***INMOTION***

# **INMOTION SCV V8 SERIES**

User Manual

***¡N!MOTION***

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# 1. Document Overview

## 1.1. About This Manual

For your driving safety, please read this manual and the user guide leaflet carefully, and also watch the video on driving guidance before using INMOTION SCV V8 (hereinafter referred to as V8) to understand how to correctly drive the V8.

Please read carefully and understand all the safety warnings and precautions listed in this manual that will be helpful for you to better control the V8.

This manual applies to the INMOTION SCV V8 produced by INMOTION Technologies Co., Ltd.

If you have any questions or cannot find the information you need from this manual, please contact the dealer authorized by INMOTION or the after-sales service department of INMOTION in time.

## 1.2. Relevant Documents and Data

The PDF document for User Manual, video document of Safety Video, INMOTION APP, and other help files can be downloaded from the official website of INMOTION Technologies Co., Ltd: [www.ims cv.com](http://www.ims cv.com).

# 2. Safe Driving Precautions

INMOTION SCV V8 is a kind of intelligent travel and commuting device and entertainment utility. If you fail to operate the unicycle according to the provisions specified in this manual, there might be a driving risk. No matter when and where, it is likely to cause injuries even death and property loss to you due to decline, out of control, crash, etc., including driving the INMOTION SCV V8 without complying with the requirements described in this manual. You must carefully read and follow this manual completely, watch relevant safety videos, and strictly follow the precautions below to reduce risks and to avoid injuries and losses:

Users need to charge INMOTION SCV V8 at least once every month at room temperature. The battery damages caused by no regular maintenance are excluded from the warranty coverage of our company.

Please wear a helmet and a protective gear during driving, and ensure that the pull rod has been folded in place.

Do not drive INMOTION SCV V8 to go up and down the slopes of more than 25°. Do not conduct rapid acceleration, rapid deceleration, and sudden turns either.

Pay attention to the road obstructions.

Do not drive the unicycle on the grass, gravel roads, wet and slippery roads, and under other inappropriate road conditions.

Do not wade the unicycle into the water.

Do not drive the unicycle to climb up and down the stairs.

Do not drive the unicycle in the motor vehicle lanes.

Do not soak the unicycle in water.

The driving speed must not exceed the maximum speed limits of this model.

Do not perform rapid acceleration after tilting up the pedal (tilting the unicycle body back).

Do not sit on the pull rod or the unicycle.

Do not lift up the unicycle in startup state.

The beginners who are younger than 18 years old or older than 45 years old need someone to help them learn how to drive the unicycle.

Please ensure that the electric quantity is sufficient, and the tire pressure is normal before driving the unicycle.

Please drive at a low speed instead of performing rapid acceleration, rapid deceleration, high-speed driving, and challenging stunts before being familiar with driving.

The waterproof level of V8 is IP54. Please do not drive for more than 10min in the light rain.

## **3. Product Overview**

INMOTION SCV V8 is a fashion, interesting, and practical travel and commuting device and entertainment utility. In line with the dynamic balance principle, V8 can detect changes of its body pose with the built-in gyroscope and acceleration sensor, and accurately drive a motor by the servo control system to adjust accordingly for balance. Users can move forward, speed up, slow down, brake the scooter, and perform other driving operations by tilting their bodies forth or back, and also can keep the lateral balance by controlling their bodies.

### **3.1. Product Serial Number**

The serial number, a 16-character sequence normally accompanied by one-dimensional barcode or below two-dimensional barcode, is the unique identifier of the product. It is used for quality tracing, after-sales service, insurance claim, lost confirmation, and other occasions.

Please make sure to record and keep the serial number. You can obtain the product serial number from: outer package of the product, product warranty card, and unicycle body.

### **3.2. Packing Container Inspection**

Each INMOTION SCV shall include the following components and parts when leaving the factory, namely unicycle body, charger, user manual, warranty card, and certificate. Please check after unpacking. If there are any missing components and parts, please consult the dealer.

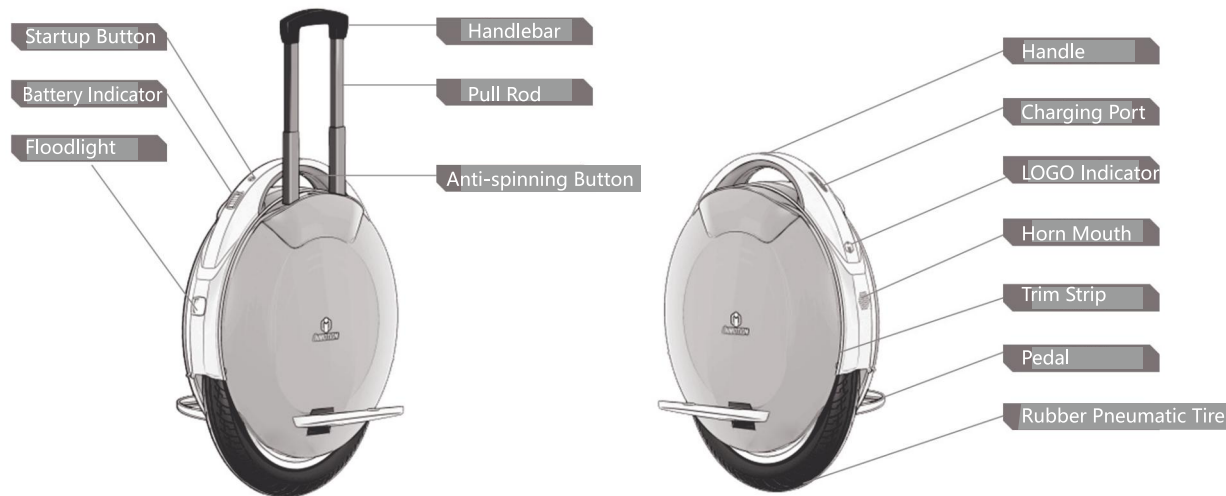


#### **Warning**

Do not disassemble or modify INMOTION SCV V8 without permission. Otherwise, it may result in irreparable damages and harm to human body.



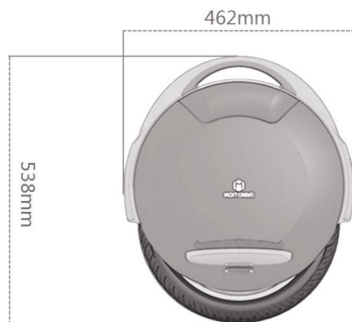
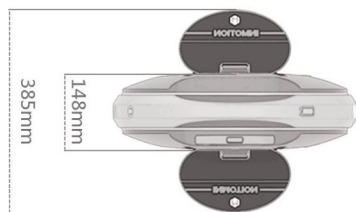
3.3. Product Composition



### 3.4. Product Parameters

Product Model	INMOTION SCV V8	INMOTION SCV V8F	INMOTION SCV V8S	<p>①The driving mileage is measured on a level road along with the temperature of 25°C, speed of 20km/h, and load of 70kg. Factors such as driving habits, ambient temperature, road surface conditions, and load influence the driving mileage. Different models and battery models also lead to different driving mileages.</p> <p>②This speed was measured on a level road in the case where the weight is 70kg.</p> <p>③This angle was measured in the case where the load is 70kg.</p>
Net Weight	13.5kg	~ 16.0kg	~ 16.0kg	
Driving Mileage ①	About 45-50km	About 60km	About 75km	
Factory Default Speed	25km/h	25km/h	25km/h	
Max. Speed ②	30km/h	35km/h	35km/h	
Climbing Angle ③	25°	30°	30°	
Payload Weight	120kg	120kg	120kg	
Charging Time	About 4h	About 5h	About 6h	
Tire Dimension	16 inch × 1.95	16 inch × 2.125	16 inch × 2.125	
Factory Tire Pressure	2.8 bar	2.8 bar	2.8 bar	
Waterproof Level	IP54	IP54	IP54	
Operating Temperature	-10 ~ 40°C	-10 ~ 40°C	-10 ~ 40°C	
Motor Power	800w	1000w	1000w	
Battery	480wh	584wh	720wh	
Charger Input Voltage	AC 100~240V 50/60Hz	AC 100~240V 50/60Hz	AC 100~240V 50/60Hz	
Charger Output Voltage	DC 84V * 1.5A	DC 84V * 1.5A	DC 84V * 1.5A	

### 3.5. Product Dimension Drawings



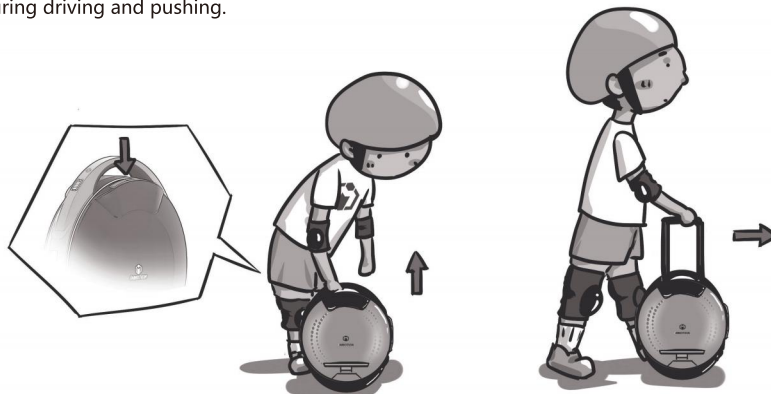
## 4. Product Function Introduction

### 4.1. Pull-up Handle and Assist Mode

The assist mode enables the system to provide proper driving force at a lower power to help users push the unicycles easily when users are unwilling to ride or when the condition is not suitable for riding (for instance, insufficient electric quantity, steep slope, wet and slippery ground, sand, bumpy road, crowded environment, etc.).

Press the button in the middle of the handle. Lift it up. The handle comes up to the highest position. Release the button in the middle. The handle automatically locks. Push the unicycle body. The unicycle enters to the assist mode at this time. Use the same method to realize handle contraction.

INMOTION SCV are designed with special handles along with the assist mode matching the unicycle bodies, and thus the users will feel very relax and convenient during driving and pushing.



### 4.2. Anti-spinning Button

Due to the unique algorithm of V8, if the body angle varies after the unicycle body lifts off the ground under normal startup state, it will

lead to motor spinning acceleration until the unicycle shuts down. If being placed on the ground during motor acceleration, the unicycle will be likely to fly off due to the friction between wheels and ground, and there will a risk of running into others in some cases, such as elevators, stairs, getting on or off the bus, or crowded places.

The anti-spinning button below the body handle is designed for the V8 according to its characteristics. When the user holds the handle to lift up the unicycle, the key will be automatically triggered, and the unicycle will enter the sleep state. In the meantime, the motor will no longer rotate to avoid spinning accordingly. Remove your hand from the handle key to let the unicycle fall to the ground again. The unicycle will return to normal condition for continual use.

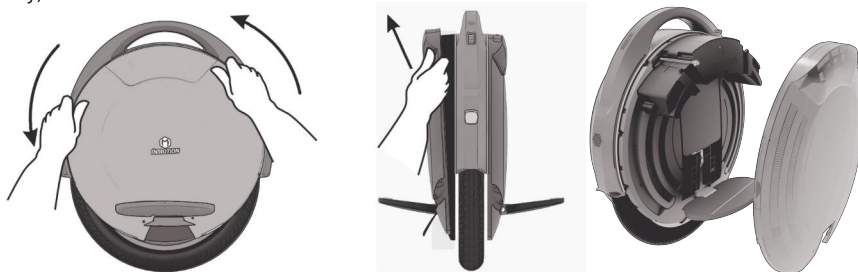
The anti-spinning function is opened by default when V8 leaves the factory. You need to shut down this function on the mobile APP if installing the learning rope for operation on the handle. Users need to know the above functions and agree to accept the relevant legal liability statements when using this function.

### 4.3. Rapid Battery Removal

INMOTION SCV V8 are designed with unique rapid removal. The batteries can be easily replaced when operating as shown in the figure below (Phillips screwdrivers are necessary).

#### Steps:

1. Loose the two screws under the pedal first;
2. Put the pedal away, and remove the shell as shown in the figure;
3. Loose the battery lock screw to pull out the battery cable, and remove the battery afterwards.



#### **4.4. Overspeed Protection**

INMOTION SCV V8 restricts the maximum driving speed to avoid the dangers caused by driving too fast. When the unicycle driving speed comes close to the maximum speed set by the system, the pedal will slightly tilt up for 3~5° accompanied by alarm sound. Users must slow down at this time. Do not accelerate forcibly (there is a risk of car crash if performing forced acceleration, the personal injuries and all losses caused by failure to operate according to the specification shall be borne by the users themselves). The pedal will return to normal angle once returning to normal speed.

When the electric quantity is less than 40%, the maximum speed limit will reduce gradually. When the electric quantity comes up to or is lower than the minimum driving voltage (10%), the unicycle body will automatically tilt up the pedal to give the user the hint to stop driving, otherwise it will cause damage to the unicycle.

#### **4.5. Over-temperature Protection**

INMOTION sets a protection mechanism to avoid excessive battery temperature when the unicycle operates under high load for a long time. When the battery reach temperature limit, the unicycle will indicate overload and the pedals will turn up as well. Once power off the unicycle, it is not able to turn on temporarily. Users are supposed to restart it for 15 minutes.

#### **4.6. Slant Protection**

When the left and right tilt angle of the unicycle body is more than 55° during driving, the system will induce the abnormality of the unicycle body, and will automatically exit the self-balancing mode, so as to prevent the personal injuries caused by high-speed rotating tires after the tilting of the unicycle body. In the meantime, the unicycle will play the prompt tone. It is only necessary to right the unicycle body at this time to automatically enter the self-balancing mode.

#### **4.7. Digital Bluetooth**

INMOTION SCV is equipped with built-in digital Bluetooth 4.0 BLE module, which is used for interacting with the vehicles connected with the INMOTION APP.

The name of the Bluetooth 4.0 BLE of INMOTION SCV is V8- XXXXXXXX, V8F-XXXXXXX, V8S-XXXXXXX. XXXXXXXX refers to the last 8