

***i*NMOTION**

D2 SERIES

USER MANUAL



INMOTION TECHNOLOGIES CO., LTD.
www.imscv.com

Congratulations to you for having the new hoverboard D2! Invented to transcend transportation and focus on practical movement, this stylish and compact celebrates personal and intuitive mobility. The hoverboard D2 is fun to use and easy to ride. It's both portable and stylish. Experience cutting edge technology as you drive effortlessly along on your way to your destination.



The manufacturer reserves the right to make changes to the D2 series, release firmware updates, and update this manual at any time. For the latest user manual, please visit www.ims cv.com to download. You could also install the INMOTION App to activate and control your D2F, and share your happiness and moments on that.



⚠ WARNING: Always inspect the D2 prior to use. Properly inspecting and maintaining your product can reduce the risk of injury. Always check the battery charge before using the D2. Do not ride the D2 when its battery is low, as indicated by a red indicator light or shaking of the pedals during operation. The D2 may stop operating and cause you to fall.

⚠ WARNING: ALWAYS WEAR A HELMET WHEN RIDING. Use an approved bicycle or skateboard helmet that fits properly with the chin strap in place and protects the back of your head. Local LAWS may require riders of wheeled products to wear a helmet and other protective gear. Never ride the D2 barefoot or in open---toed shoes or high---heels.


⚠ WARNING: Check local laws and regulations to see where and how you may use your D2 legally. Follow all applicable laws for vehicles and pedestrians.


⚠ WARNING: Only use the D2 indoors or on completely smooth surfaces. Avoid obstacles and slippery surfaces, which could result in a loss of balance or traction and cause a fall. See the section on Terrain for more guidelines.


⚠ WARNING: Do not exceed the maximum weight of 176 pounds (80 kilograms)—including backpacks and other items that might be carried. Exceeding the weight limit could injure the rider and damage the D2.

⚠ WARNING: The D2 should not be ridden by young children. Use your judgment about whether a rider has the necessary coordination, strength and maturity to use the D2. Only children 13 years old or older should be permitted to use the D2.

⚠ WARNING: Do not lift the D2 off the ground when the unit is turned on. Do not turn on the D2 in mid---air. These will cause the wheels to spin freely which could result in injury to yourself or damage to things around you

 **WARNING:** Do not modify the D2 Modifications could interfere with operating the D2 and could result in serious injury and/or damage. Modifications void the D2's Limited Warranty.

 **WARNING:** Since the D2 balances by accelerating in response to your leaning forward, if you lean too far forward too quickly, the motor will not be able to catch up with you and you may fall. When you reach maximum speed the D2 will tilt backward. DO NOT attempt to accelerate further or you will fall.

 **WARNING:** Never operate any vehicle, including the D2, while under the influence of drugs or alcohol.

♦ Whenever you ride the D2, you risk serious injury or death from collisions, falls or loss of control. To ride safely, YOU MUST READ AND FOLLOW ALL INSTRUCTIONS AND WARNINGS IN THIS MANUAL!

♦ This manual includes basic operational instructions for the D2. It cannot cover all situations where injury or death may occur. OPERATORS MUST USE GOOD JUDGMENT AND COMMON SENSE TO DETECT AND AVOID HAZARDS AND DANGERS that they may encounter when riding the D2. By using the D2, you accept of the inherent risks of operating this product.

♦ This manual is designed to help you learn safe riding techniques.

♦ NO ONE SHOULD USE THE D2 UNLESS THEY HAVE READ THROUGH THE MANUAL.

♦ Review all the material frequently to help remind you of proper riding techniques and safety procedures.

1. What's in the Box

The following spare parts are included in the box, please carefully check it. If there is any missing, please contact your retailer.

item	quantity	remarks
hoverboard body	1	
charger	1	
user manual	1	
certificate	1	

2. About This Manual

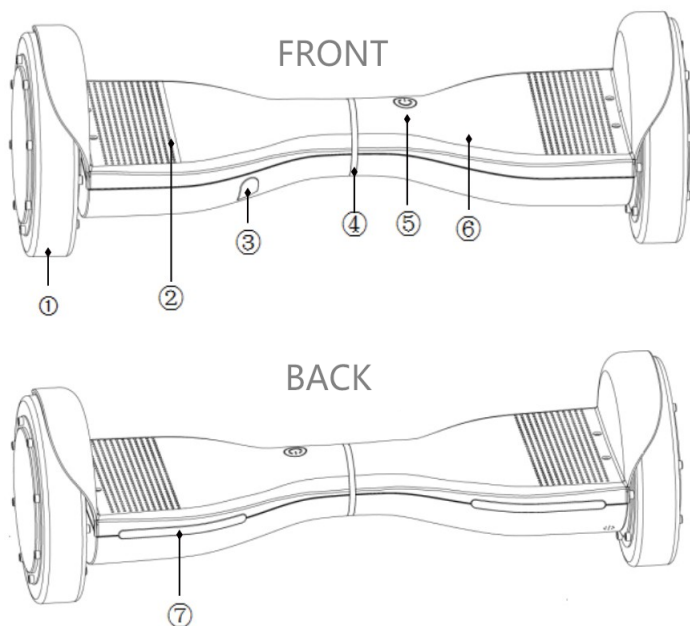
This Manual applies for self-balancing electric vehicles produced by INMOTION Technologies Co., Ltd. INMOTION Hoverboard D2 Serial is a new self-balancing electric scooter for entertainment and fitness that is innovative, funny and intelligent. Just like a part of your body, you can experience a 360° drive drifting freely at airports, stores, leisure places or any other even road.

For your riding safety, please carefully read and understand all the safety warnings and precautions in this manual, which is helpful for you to better control INMOTION Hoverboard D2.

3. Introduction

This manual will help you set up and use the D2. It is important that you adhere to all safety warnings and cautions that appear throughout and that you use good judgment when riding. Your hoverboard D2 comes packaged in a high quality corrugated cardboard box for its protection. Please keep this box in case you need to send the D2 back for service or repairs. If you use another box, INMOTION will not be responsible for any damage caused during shipping.

4. Structure



①Hub

②Pedal

③Charging Port

④Battery Indicator

⑤Power Switch

⑥Shell

⑦Taillight Strip

5. Safe Riding Precautions

5.1 Requirements

- ◆Please strictly observe the traffic regulations.
- ◆Please wear a helmet and related protective gears to keep you safe while riding.
- ◆Users need to inspect the battery status before riding. When the battery indicator is red, it is not suitable for a long ride.
- ◆Users need to inspect the hoverboard status before riding. Make sure there is no looseness, missed or damaged spare parts, abnormal noise and continuous warnings.
- ◆Make sure you are in a good physical state before riding. No excessive drinking, no sedatives or the use of other psychotropic drugs within 6 hours.

5.2 Prohibitions

- ◆Do not use INMOTION Hoverboard D2 in the areas prohibited by the national or regional laws and related administrative organizations.
- ◆Please be careful and avoid collision to your head when driving across doors, trees or various sign posts, signboards or lower barriers.
- ◆Do not drive D2 in the hazardous areas or prohibited areas, such as a deep pit, a slope of more than 9° or a waterhole of more than 3cm.
- ◆Do not drive D2 in the motor vehicle lanes. It is forbidden to ride this kind of vehicle in the bicycle lane in some countries according to the local traffic regulations.

5.3 Lawful and Safe Riding Precautions

- ◆Please get familiar with the local traffic laws before riding D2. Pay attention to people and objects around you and avoid collision.
- ◆Drive D2 in a safe speed and in a controllable condition. Keep a safe distance with pedestrians and vehicles; stop driving when in need.
- ◆Keep a good driving habit, and avoid a sudden acceleration, deceleration, starting and braking.

- ♦Respect pedestrians' rights on the road and avoid arising their panic, especially payattention to the safety of children. When you pass by the pedestrians, remind them and slow down the speed, and then surpass them on the left side (comply with the national law and local traffic regulations). When you meet the pedestrians face to face, keep driving on the right side of the road (comply with the national law and local traffic regulations) and slow down your speed as well.
- ♦When you meet a large number of pedestrians, keep driving as a low speed as them. Only when there is enough space, can you surpass them. Riding through the crowd in a high speed is also a very dangerous act.
- ♦Keep a safe distance when driving a self-balancing scooter with other riders. Pay attention to danger and obstacles.
- ♦Try not to drive side by side, unless you have enough space.
- ♦INMOTION Hoverboard D2 will automatically control its speed within the maximum speed in the following situations.
- ♦Moving forward in a high speed. When the speed is too fast, the rider cannot accelerate it any more. If you still leans forward to speed up, the speed limit device will be activated automatically.
- ♦Please adjust your leaning angle and keep your body and pedals in the same vertical line, otherwise you may lose your balance.
- ♦Overload or climbing for a long time. When the load exceeds the limit (It usuallyhappens in the steep slope, ravine and other bad road conditions or overload for a long period), the motor will be overheated.
- ♦Low battery. When the battery is less than 70%, the maximum speed will gradually reduce to the normal speed, even if the rider's speed does not reach the maximum. When the battery is less than 30%, the maximum speed will be limited to 8km/h.

6. How to Ride INMOTION Hoverboard D2

6.1 Preparation Before Riding

Choose a right place before your first ride. You can practice driving D2 in an open indoor or outdoor area that is flat and wide, and covers at least 4m * 4m; no motorcycles, bicycles and other obstacles, no pets, children or something that is distractive. You need a skilled assistant who is familiar with the operation of D2 as well as all the precautions and driving methods described in this manual by your side.

Please wear a helmet and other protective gears to avoid injuries.

6.2 Power on

Press the power switch and it will be successfully powered on after you hear the beep.

D2 will keep balanced by itself, and two LED taillights as well as the battery indicator will be on.

6.3 Precautions

Make sure D2 is in a self-balancing state and then you can start to ride it. Put one foot on the pedal first and then put your other foot on the other pedal. The hoverboard will keep balanced when it senses a uniform pressure. If the pedals are out of balance, please readjust the two pedals to make them in the same level.

6.4 Get on and Keep Balance

Ask your assistant to stand in front of the hoverboard and hold your hands to help you keep balance, so that you will not lose your balance because of nervousness or wrong posture.

The upper body shall be naturally upright, and the eyes shall look straight ahead. Try to get the other foot off the ground to look for the balance point.



6.5 Forward, Backward and Stop

- Tilt your body forward and the hoverboard will move forward. Stand vertically means deceleration and stop moving. Keep more practices, and it will help you understand how to use the center of gravity to control the movement of D2.
- Tilt your body backward and the hoverboard will go backward. Stand vertically means deceleration and stop moving. Avoid collision while practicing.
- Try to stand upright gradually while you're moving forward or backward. When the pedals are pressed evenly from your body weight, it will stop.



Forward



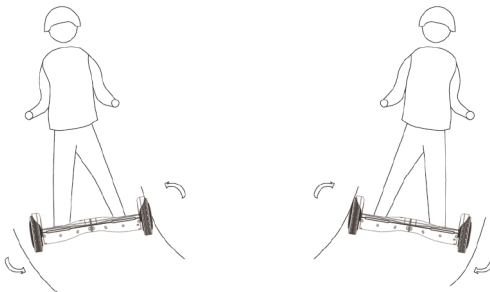
Stop



Backward

6.6 Turn

- Put more pressure on the left pedal, and the hoverboard will turn left; and put more pressure on the right pedal, it will move right.
- Tilt your body to learn how to make a turn while moving, and stop leaning when the hoverboard is in the right direction.



6.7 Climb

Make sure D2 is in a balancing state when you start to climb a slope. Do not lift your feet up from the pedals simultaneously. Keep the center of gravity steady. No forward, backward and turn.

6.8 Charge

Please use the specific charger to feed your battery. Put the DC plug into the charging port. When the indicator on the charger is red, it means the hoverboard is being charged; when the indicator becomes green, it has been fully charged. You can choose to power on or power off the hoverboard while it's charging. If you choose to power it on, the battery indicator on the hoverboard will be flashing. The hoverboard is disabled when the battery is on charge.

6.9 Battery Indicator

The battery indicator is on the body of D2, which easily indicates the current battery level. When it turns green, there are 100%-70% battery; and yellow and red means 70%-40%, 40%-10% battery left, respectively. When it is flashing in red, there is no more than 10% battery now, please charge your battery timely before use D2.

7. D2/D2F Specifications

Dimensions	Folded	D2	6.89*21.89*6.49 in(175*556*165mm)
		D2F	6.89*2138*6.61 in(175*543*168mm)
	Tires	D2	6.5 in
		D2F	7 in
Weight	Net Weight	D2	~14.99lbs (~6.8kg)
		D2F	~16.53lbs (~7.5kg)
	Payload		176.37lbs (80kg)
Parameters	Color		Black (Support DIY)
	Ranges ①	D2	~9.32mi (~15km)
		D2F	~21.7mi (~35km)
	Max Speed ②	D2	7.46 mph (12km/h)
		D2F	8.69mph (14km/h)
	Max Slope	D2	8°
		D2F	9°
	Operating Temperature		14 ~ 104 °F (-10 ~ 40 °C)
	Motor Power	D2	250 W*2
		D2F	350 W*2
Battery	Battery Type	D2	N/A
		D2F	Support
	Battery Type		Lithium-ion Battery
	Battery Cell	D2	SAMSUNG
		D2F	LG
	Capacity	D2	108.36Wh
		D2F	221.76Wh

Charger	Plug		US, EU, UK, etc.
	Input Current		2.5A
	Input Voltage		AC 100 - 240 V 50/60 Hz
	Output Current	D2	2A
		D2F	1.5A
	Output Voltage	D2	DC 29.4V
		D2F	DC 58.8V
	Charging temperature		32 - 104 °F (0 - 40 °C)
Charging Time	D2	2.5 hours	
	D2F	3.5 hours	
Remarks	<p>① The measuring range is measured at the temperature of 77° F (25 C), about 4.97mph (8km/h), the payload of 110.23lbs (50kg) and flat pavement. The factors like driving habit, environmental temperature, road surface condition, payload etc. will affect the continuous travel mileage.</p> <p>② You can set the maximum cruising speed with inmotion APP. The maximum cruising speed is measured at the 77 ° F (25 C), the payload of 110.23lbs (50kg), full charging and flat pavement. The factors like driving habit, environmental temperature, road surface condition, payload etc. will affect the speed.</p>		

8. Maintenance

8.1 Clean & Storage

- Before cleaning the hoverboard, please shut it down. Charging wire shall be pulled up, and the charging port shall be closed. Otherwise, it will cause electric shocks or major failure.

- Use a soft cloth dipped with clean water to scrub the outer cover of the D2. Dry it up in the well-ventilated area to avoid rusting.
- If the dirt on the surface of plastic part is hard to clean, try to put some toothpaste and clean it with toothbrush, then scrub it with a wet cloth. You can also use this method to wipe off some small scratches.
- Do not use water torch to wash D2 or soak it in the water. Too much water or if the water enters into the inside will cause irreparable failure.
- Do not use gasoline, kerosene, acetone or other corrosive and volatile chemical solvents to clean D2. They may cause damage to the appearance and interior structure.

8.2 Battery Maintenance

- Please store the batteries in a dry room at a temperature of 0°C-40°C. Too high (more than 50°C) or too low (less than 20°C) temperature will shorten the life of lithium batteries.
- Please store the batteries in a cool dry room. Too much humidity may be harmful to them.
- Try not to use up your batteries and charge it as soon as possible when the battery indicator is red. Frequent charging will not shorten the battery life, but low battery in a long time will influence the battery capacity and life.
- If you do not use D2 (equipped with batteries) for a long time, the battery will consume gradually, so:
 - a.If you do not use it for a short time (less than 30 days), please fully charge the hoverboard, and no need to tear it down.
 - b.If you do not use it for a short time (more than 30 days), please fully charge the hoverboard, tear down the batteries and store them in a cool dry room.
 - c. If you do not use it for 180 days, please charge it every 3-4 months, so as to prolong the battery life.

- The battery in the D2 is safe lithium battery cell and protective circuit board, so it will not cause fire or explosion in normal use or even gentle collision.
- Usually, the fully charged battery will consume most of its capacity after storing 50-70 days; the rest will die within 10-20 days. If you do not charge it timely, the battery may be damaged because of overdischarge, which is irreparable and not covered in the warranty.

NOTE

- Do not use sharp object to pierce the battery.
- Do not use weight to smash the battery.
- Do not put battery in the fire or water to cause environment pollution.

CONTACT US

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Limited Warranty

Thank you for purchasing INMOTION hoverboard D2 series products. Please provide the correct, complete and real personal information, fill the information in the warranty card, and ask for an effective invoice. The invoice should be kept safe.

In order to ensure that you get high-quality services, INMOTION Technologies Co., Ltd makes the following commitment to you.

Warranty Coverage

- For products that meet the warranty conditions, INMOTION provides free repair, replacement and return services. INMOTION will bear the cost of spare parts, the cost for repairing, limited shipping cost, INMOTION won't bear the cost arising from insurance, customs, local laws or some else extra cost.
- The quality warranty condition for core parts of hoverboard balancing devices is within one year or less than 1000 km riding mileage, whichever is earlier.
- Within the warranty period, if products are out of the national regulations or the scope of maintenance, the after-sale service center of INMOTION Technologies Co., Ltd. or the specified maintenance center of INMOTION Technologies Co., Ltd provides paid services.
- Customers should offer the warranty card in order to enjoy warranty services. The serial number on the warranty card must be consistent with the serial number on the hoverboard body, and the start date of warranty period is subject to the date recorded on the invoice. If customers cannot offer any proof of the start date, the factory date is considered as the start date of warranty period, and the warranty time is calculated based on the factory date. After the replacement, the product warranty period is recalculated. The delivery note is stamped on the back, and the date of replacement is specified. A new warranty card will be provided for customers.

Product Repair, Replacement and Return Requirements for Hoverboard D2

Item	Type of spare parts	Quality Problem	Warranty
Hoverboard body	Coating parts, electroplated parts	Parts with paint removing, blistering and cracking	6 months
	Plastic parts, rubber parts	Vulnerable	Out of the warranty
	Tire	Vulnerable	Out of the warranty
Electric components	Charger	Performance fault caused by manufacturing issues and irreversible	12 months
	Controller		12 months
	LED light		6 months
Motor	Motor	Phase lacking, burning and demagnetization	6 months
	Hall bearing	Hall sensor burning and bearing noise	6 months

Item	Type of spare parts	Quality Problem	Warranty
Battery	Lithium battery pack	<p>Charging temperature: 0 - 40 °C. Operation temperature: -10 - 40 °C. In low-temperature conditions, the battery capacity will be degraded to some extent. Degradation degree varies with temperature: Under -10°C, the available capacity is 68%. Under 0°C, the available capacity is 85%. Under 25°C, the available capacity is 100%. Voltage exception, charging failure, and capacity less than 60% that are caused by non-manmade factors are covered by the Repair, Replacement and Return clause</p>	6 months

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Disclaimer

If one of the following situations applies to the sold products, they are not covered by the warranty clauses, and users are required to pay for maintenance and related services.

- The cumulative mileage exceeds 1000 km.
- Any damage is caused due to failure to install or ride the device in accordance with the instructions herein.
- The serial number of the product is deleted or modified.
- The serial number on the warranty card is not consistent with the serial number on the scooter body.
- The product has been disassembled or maintained by a third party not authorized by INMOTION.
- Any damage is caused due to unexpected factors or improper riding, for example mechanical damage, fall, hit, or severe oxidization.
- Any damage is caused due to overloading, riding through obstacles (including but not limited to going down stairs, fall, etc.), or extreme sport.
- Any damage is caused due to disassembly, transportation, loading or unloading on the way the product is returned.
- Any damaged is caused by exceptional storage conditions such as fire, liquid immersion, freezing, and earthquake or force majeure.
- Vulnerable attachments such as packaging materials and different types of technical documents are damaged.
- Any fault or damage is caused by factors except for product design, technologies, manufacturing process, and quality.
- Users are unsatisfied with the color, shape, or appearance of the products other than product quality.
- Users cannot offer invoice and warranty card.

Warranty Card

Thank you for purchasing INMOTION products. In order to ensure that you get high-quality services, we advise you to read and fill this warranty card carefully and keep the card safe.

Customer Name		Series Number	
Date of Purchase			
Tel.			
Email			
Address			
Distributor Name		Distributor Tel.	
Distributor Add			

Maintenance History

Time	Fault Description	Solution	Maintenance Personnel	Remark

Note: This warranty card and the invoice must be sent with the hoverboard body, charger, and battery of the product for maintenance.



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