

# **User Manual for X4 OUTSTORM Scooter**



# Welcome Use

The user manual comes with off road electric chariot scooter for the users' reference when off road electric chariot scooter (Smart Vehicle) are sold.

The user's manual is applied to all the Smart vehicles off road electric chariot scooter made by our factory. You may find that some function is different from what you ordered. It is normal because of different series.

The content and technical specification in this manual are valid when permitted to be printed. But our company has the right to alter and change technical specification or design without prior notification. And we will not assume any obligation.

To ensure our off-road electric chariot scooter brings you the best driving experience, the best way is to read the user manual carefully, you will learn how to drive this future transporter. After reading, please keep the user manual well so that you can refer to it any time when you need.

The warranty card will come with off road electric chariot scooter. You can find your warranty rights in the user manual. Please read the user manual carefully so that you can know your rights and responsibilities well.

Please maintain off road electric chariot scooter according to the user manual so that you can keep the scooter in the best condition. We have professional people who will supply you good after service and answer any questions and problem you care.

Sincerely wish you a nice driving!

## **Safety Instructions**

**For adults use only!**

**Please abide by your local traffic regulations!**

**Please wear helmet, knee and elbow guards for safety purposes.**

**Please read the relevant driving guidelines in this manual!**

**Our company is not responsible for the accident if you do not use it as the above request.**

It is hard for us to list all associated dangers when driving and maintaining off road electric chariot scooter, therefore, please be careful and pay attention to the safety of yourself and others when riding.

**The user manual contains important safety information --- Please read carefully.**

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# **Chapter I Introduction of Off Road Scooter**

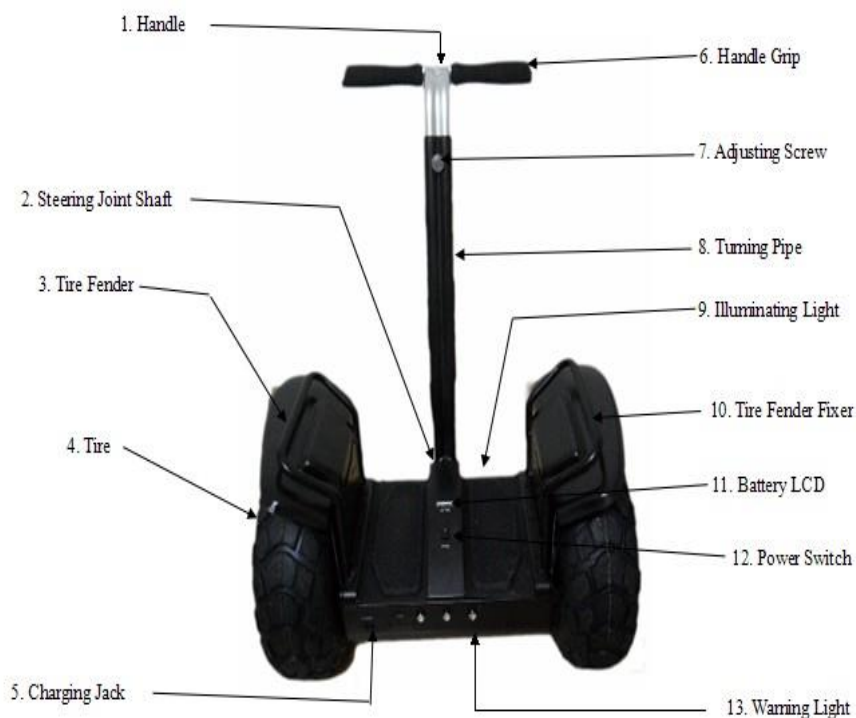
The working principle of the two wheeled Scooter is based on the basic principle called "dynamic stability" which is the automatic balance ability of the vehicle itself. After judging body posture position with a built-in precision solid gyroscope, the vehicles electronic brain works out proper instructions through a sophisticated and high-speed central microprocessor, the 36V-42Ah battery drives the motor to balance the vehicle.

As a new transporter, off road scooter is difficult to classify in the traditional way, some people think that off road scooter should be a kind of double-wheeled Unicycle, while other people think it should be classed as a power stand-up Scooter, with its uniaxial double design which is different from the traditional biaxial double scooter, for official road regulations, this transporter is called Electric Personal Assistive Mobility Device (EPAMD)

The vehicle is equipped with dual wheels, its width is as narrow as a normal adult shoulder's width. It is 62 kg and battery-operated. It is not necessary to have a brake or throttle during driving. When the driver leans their body forward, off road scooter will run forward, when the body is upright, it will stop. It uses the dynamic balance principle, as the body moves to change the center of gravity so as to keep balance. Just as the human body stands and leans forwards it can lose balance, but the body's natural instinct will maintain balance, the dynamic stability replicates this. off road scooter uses the wheels to replace the function of the feet, reproducing the high precision balance action of a human, it is also cheap and convenient to use. The energy comes from two repeat charging BTM batteries which are free from maintenance. If sufficient power is supplied to your battery, the full charge capacity will last continuous for 5

hours driving, the driving range depends on the way you drive and ground conditions, driving on grass and slopes will consume more driving power.

## Chapter II Parts Explanation



## **Picture 1**

### **1.Handle Bar/Turning Pipe**

(1)Used to control and make the off road scooter turn left or right, turn around, rotate 360 degrees. It also has support function and can play a subsidiary role in keeping body balance.

(2) The height is adjustable. The driver can adjust it according to his or her own height to make the handle bar comfortable.

(3)Lock the steering rod after adjustment, then turn the handle bar to confirm that it has had been locked.

(4)Above adjustment of the handle bar/ turning pipe should be locked in position before driving.

(5)The turning pipe can be taken apart easily for carrying or storage.

### **2. Power Switch**

(1) The power switch is used to turn on and off the power, when the power switch is on the off road scooter will finish the initialization-settings.

(2) It is dangerous to stand on off road scooter without turning on the power.

### **3. Pedal Switch (SAFE switch)**

(1)The pedal can be active up or down, it has a built in safety switch. off road scooter can check whether someone on scooter by pedal switch.

(2) The pedal switch is safety insurance, when driving, if the driver leaves the off road scooter, the pedal switch will reset and then will stop after 3 seconds siren alarm.

### **4. Battery LCD**

Indicate the status of the battery. It is a LCD digital screen.

### **5. Illuminating light**

This one is used to drive in dark environment.

## 6. Warning Light

It is used to remind other people.

# Chapter III Instruction of remote control of scooter



Picture 2

## 1. Function of Remote Control

- (1) Button A: Locking scooter.
- (2) Button C: Switching three kind speed mode

### 1.Default or Normal Mode

The max speed is 18km/h and the turning is flexible and



sensitive.

## **2. Beginner Mode**

The max speed 8km/h and the turning is slow.

(3)Button D: Turning on/off light

(4)Button B:Unlocking scooter

(5)Function of recording pedal horizontal level. Powering on off road scooter,, setting a suitable position, pressing Button C and Button D at the same time, after two beep sounds, off road scooter will remember it as default position.

## **2.Button Operating**

### **0) Starting the scooter**

a) power the unit on using the power button on the scooter.

b) grab the remote control and press the button A then the button C right after.

c) now the unit will work fine and will stop beeping.

### **(1)Pulling Mode**

After your pressing Button A,you can hear one beep sound(it means that the scooter is unlocking),then you press Button A again,the scooter enters Pulling Mode. In this mode, the scooter can be pulled by hand easily.When you press Button A the third time,the scooter will cancel Pulling Mode.

### **(2)Switching Different Speed Mode**

After your pressing Button C(scooter without driver on it),you can hear one beep sound,scooter enters Beginner Mode;When you press Button B the second time,you can hear two beep sounds, scooter enters Default Mode.Switching different speed mode is valid only after driver leave scooter.

### **(3)Turning ON/OFF Light**

When you press Button D,the front and back light will light;If you press Button D again,the light will stop.It is valid pressing the button when driver on scooter .

## **Chapter IV off road electric chariot scooter**

### **Driving**

Driving the off road scooter 2 wheel self-balance vehicle is totally different from anything you may have driven before, off road scooter does not have a brake, accelerator or gear system. Please read the user manual or get instruction from an experienced person before your first ride.

off road scooter is very addictive once you enjoy the fun of driving, you will not help yourself driving it whenever you get the chance, following these instructions will be beneficial for your enjoyment.

Below description will be helpful to your driving.

Tip:We suggest you use Beginner Mode if you did not driver our off road scooter before.

### **1.Starting Operation**

Hold the turning pipe/handle bar with one hand, keeping the pedal upright ,turn on the power ,after green light, orange light and red light flash at the same time, the green light stay on continuous, It means starting success (refer to picture 3,4), hold the handlebar firmly with two hands, then press Button D of remote control(refer to picture 5,6).

Make sure the pedal is on horizontal level when power on off road scooter.

Step on pedal with another foot(refer to picture 7). The sequence is the left hand-right foot-left foot -right hand or right hand -left

foot-right foot-left hand. By this time you will have stood on the balanced scooter. Stand upright without any body move, just relax and keep your body balance, then scooter will still stay still (refer to picture 8).



**Picture3**



**Picture 4**



**Picture 5**



**Picture 6**



**Picture 7**



**Picture 8**

## **2. Driving straight forward**

Lean your body forward slowly using the centre of gravity, off road scooter will move forward (refer to picture 9). The driving speed is controlled by the leaning angle of your body. Lean forward more, off road scooter will go faster and vice versa. For a stable driving, we suggest lean forward slowly. It is dangerous for leaning forward suddenly. This is just like a sudden acceleration when driving a car.





**Picture 9**

### **3. Braking, Driving Backward**

Driving backward is not recommended for the driver's safety, because it is hard for you to see behind when driving. Turning radius of off road scooter is zero, which you can easily achieve in a continuous spin around 360 degrees on the spot. When you drive forward in a straight line and you want to slow down or stop, you can lean backward or squat down (the center of gravity backward). Lean slowly or smoothly backward is helpful for slowing down and stopping safely (refer to picture 10).



**Picture 10**

**Tip:** Driving forward in a straight line you just simply push the handle forward, then backward to slow down or stop.

#### **4. Turning in Original Place, Turn Around and Rotate 360 Degrees**

It is easy to turn the off road scooter when driving. Keep the turning pipe/handle bar left-forward or right-forward to the end, at the same time keep your body corresponding, left-forwarded or right-forwarded as the trend of off road scooter (refer to picture 11 and 12). Thus you can easily achieve various turns. When the off road scooter faces the right position, you only need return the pipe to the original position and stand straight off road scooter will stop.





**Picture 11**



**Picture 12**

## **5. Turning in Driving**

off road scooter's turning range is calculated automatically according to the driving speed, the speed is faster, the turn range will be less to ensure safety of the driver, and it is stopped by the turning pipe and body's corporation. To turn left, the turning pipe should be swung smoothly to the left at the same time as your body leans left. The angle of off road scooter's turn is decided by the swinging angle of the turning pipe and the leaning of your body.

**Tip:** the actual turning is finished by the above combination of actions, driving the off road scooter is like a combination of riding horses and skiing, or the movement is like Michael Jackson's dancing. off road scooter also is called a thinking car, which means the driver can drive off road scooter according to his thoughts.

## **6. Driving in Bad Weather**

off road scooter is not waterproof. Please do not drive off road scooter on rainy days. It is easy to damage the motherboard and the motor if water gets into the electrics.

off road scooter cannot be driven in the snow.

off road scooter does not have night lights, so please do not drive off road scooter in the dark

In China, off road scooter is hard to define, so please don't drive on public roads used for motor vehicles. When driving on the sidewalk, single driveway or public places, please comply with local traffic regulations and the local bye laws.

## **Chapter V Charging**

When you find the orange lamp and red indicator is continuously on, it shows the battery needs to be charged. Please charge the scooter when the electric capacity is less than 25%.

First, turn off the power switch and use the specialized 24 V battery charger. Insert the plug into off road scooter's charge jack, then connect the power. When charger is connected the Red light will glow continuously, showing off road scooter is in charge mode (refer to picture 13).

The charger has two indicators-the red light means on charge, Green light means fully charged, pull out charger. The input voltage of charger is 110-240v, output voltage is 84v, AC electric current is 2 A, The charger takes 4-5 hours to fully charge. When fully charged the green light will be on continuously the charging electric current will then decrease output. The charger will become warm when charging, so please keep in suitable place.



**Picture 13**

**Please keep power switch of off road scooter off when on charge, otherwise, off road scooter will cause power**

**consumption, which is bad for charging.**

## **Chapter VI Maintenance**

All other items that are not mentioned below should be done by a professional person or technician.

### **1. The Maintenance of Battery**

Off road scooter use BTM free maintenance battery. When you find the orange lamp and red lamp light continuously on, please charge. Keep the charge time to no more than 15 hours. If you are not using off road scooter for long periods, keep it charged, excessive discharge and re-charge is bad for the battery's life and can even lead to having to scrap the battery. (Suggestion: please keep it charged every month even you don't drive it)

### **2. When not drive off road scooter**

Please turn off the power switch then lock the switch, in case of accidental starting.

### **3. Replacing Fuse**

The fuse of off road scooter is 50A car fuse, the fuse maybe burned after overload or crashed sharply, when you find that there is no action, and the indicator is off after switching on, check the fuse if it is burnt out, you need to replace fuse, open the fuse cover at the back of body with screwdriver, take out the fuse using clamp and replace with a new fuse.

### **4. Fastening Nut of Tire**

Pay attention to the big nut on the wheel, regularly check, if it is loose tighten with a 21mm spanner to 108 torque.

## **5. Maintenance of Tire**

The normal air pressure is the basic conditions to guarantee your safe driving .The standard tire pressure is  $250 \text{ kpa} = 2.5 \text{ bar} = 2.55 \text{ kg/cm}^2 = 36.25 \text{ psi}$ , that is what we recommend. It is necessary to check the tire pressure regularly, under inflation and excessive inflation will cause unequal tire wear, which influences comfort and mileage and shorten the life of tire, under-inflated tires also influence power saving.

Also check for cuts and splits which could cause the tire to deflate at a rapid rate, causing injury to the rider.

## **6. Appearance Cleaning**

It is necessary to keep the pedal and body of off road scooter clean. Please clean the gravel, soil and mud off after you're driving. Don't use any corrosive chemical such as petrol to clean off road scooter, you can clean off road scooter by using soft cloth and brush, don't wash off road scooter with water.

# **Chapter VII Notice**

## **1.Balance Output of off road scooter**

Computer balance will start immediately after you press the pedal switch of off road scooter. If you keep pressing the pedal switch, the computer balance will always start, the computer will keep balance for 5s even if the pedal switch is restored when at a

low speed. Please pay attention, off road scooter will keep balance if the balance output function is ON. That means putting this scooter on the road without driver on, it will go all by itself.

## **2.off road scooter Parking**

For temporary parking, you can just turn on the balance output function and lean it against a wall or step that can stop it from moving forward; for long time parking, you can switch off the power and put the parking stand down. This parking stand can be purchased from us independently.

## **3.Accident Water**

Turn the power off immediately if off road scooter falls into water accidentally. Do not drive it again if you are not sure of the default. The off road scooter weighs 62kg. You can pull it easily without power home and then contact us; we will give you guide.

## **4.Lock Switch**

Lock off road scooter to prevent running by accident. Power off and then lock, when you power on again, red light will flash 5 times, it means off road scooter is locked.

When you power on and off road scooter starts to initialize, if you lock off road scooter at this time, the locking will lead to pedal switch short circuit. off road scooter will think that driver has stood on it and then start automatic balance. Please do not drive under this situation.

# **Chapter VIII Technical Data**

Net Weight	49 kg
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Dimension	90*52*63 cm
Max cruise speed	18km/h
Max load	125 kg
Max. Mileage (after full charging)	28-34 miles
Max climb capability	30 degree
Min turning radius	0
Charging time	3 h-5 h
Battery	Lead-acid batteries,84V, 8.8AH
Power	Two imported DC Motor, DC servo drives
Voltage	100 v-240 v
Max Power	4000w watts (2*2000 w/pc)
Lifetime of battery	1-3 years
Tire	19*7-8inch shock-absorb tire
Wheel	Superior integrated aluminum magnesium alloy
Height of handle	80-110 cm adjustable
Height of footplate	10in/26cm
Specification of footplate	11.5×25 in / 16×40 cm
Max. Height above ground	13 cm
Standard Pressure	250 kpa
Certificates	CE & ROHS & FCC