

EcoRider X62

User Manual

Self Balancing Scooter

Contents

| | |
|--|----|
| 1. <i>About this User Manual</i> | 6 |
| 2. <i>Risk of Ride</i> | 6 |
| 3. <i>Preparation Before Use</i> | 6 |
| 4. <i>Introduction to the X62</i> | 7 |
| 5. <i>App Guide</i> | 8 |
| 5.1 <i>Downloading the App</i> | 8 |
| 5.2 <i>App Control Panel</i> | 9 |
| 5.3 <i>How to connect the X62 to your Smartphone using the app</i> | 10 |
| 6. <i>Overview</i> | 11 |
| 7. <i>Assembling the X62</i> | 12 |
| 7.1 <i>Check the Accessories</i> | 12 |
| 7.2 <i>Checking the package</i> | 13 |
| 7.3 <i>Preparation before assembly</i> | 14 |
| 7.4 <i>Mount handlebar and leansteer frame</i> | 14 |
| 7.5 <i>Install the battery pack (battery pack replacement)</i> | 15 |
| 8. <i>Function Introduction</i> | 16 |
| 8.1 <i>OLED Display</i> | 16 |

| | |
|---|----|
| 8.2 Power Button, USB Port and Charge Port | 17 |
| 8.3 Charging Method | 18 |
| 8.4 How to use the parking stand | 19 |
| 9. Guide for safe riding the X62 | 20 |
| 9.1 Awareness | 20 |
| 9.2 Safety Compliance | 20 |
| 9.3 General Safety Instructions | 21 |
| 10. Automatic / Intelligent Safety | 24 |
| 10.1 Speed Limiter | 24 |
| 10.2 Critical Battery Power | 26 |
| 11. Learning to ride the X62 | 27 |
| 11.1 Going forward and backward | 27 |
| 11.2 Stopping the vehicle | 29 |
| 11.3 Turning Left and Right | 30 |
| 11.4 Getting off the X62 | 31 |
| 11.5 Assistance Mode | 32 |
| 11.6 Locking the X62 | 33 |
| 12. Maintenance | 34 |
| 12.1 Cleaning the X62 | 34 |
| 12.2 Battery Maintenance and Transportation | 35 |

| | |
|--|----|
| <i>13. Main technical specifications</i> | 36 |
| <i>14. Warranty Record</i> | 39 |
| <i>15. Service Record</i> | 40 |

1. About this User Manual

To learn to ride the X62 safely, you must read and follow all instructions and warnings in this manual, and watch the safety video (where applicable). It is important that you follow all the safety warnings and cautions that appear throughout this manual, and that you use good judgement when you ride your X62. If you have any questions which cannot be found in this manual, please contact your sales representative.

2. Risk of Ride

X62 is a self-balancing, personal transporter that uses balancing technology. Balancing technology cannot prevent injury if you do not ride in accordance to this manual. Whenever you ride the X62, you risk serious injury from loss of control, collisions, and falls. To reduce the risk of injury, you must read and follow all instructions and warnings given in this manual.

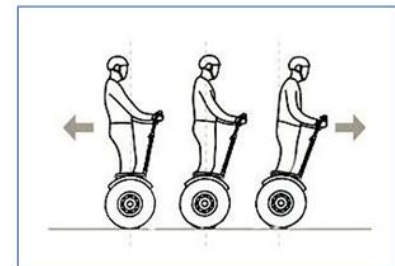
3. Preparation Before Use

Before you begin, it may be necessary to assemble your X62. The battery should be charged for at least 5 hours. To assemble X62 and charge the batteries for the first time, refer to the relevant section in this manual. Please pay attention to the local terrain and surroundings, and check that every part of the X62 has been tightened, is not damaged; and wear all the protection equipment recommended. (Helmet, elbow guards and knee pads.)

4. Introduction to the X62

The principle of self balancing scooter is based on the basic principle of "dynamic stability", which is the automatic balancing ability of the scooter itself. The posture of the rider and the scooter is determined by the built-in precision gyroscope, through the precision and accuracy of the central microprocessor. This calculates the appropriate command to drive the motor to achieve the balancing effect. As X62 is a new type of personal transporter, it is difficult to define the type of the traditional classification; some think X62 should be a wheeled version of the unicycle, others think it is a kind of dynamic scooter. However, it is different from the traditional uni-axial wheel or bi-axial wheel scooter, and in some formal occasions (such as the official rules of the road), X62 scooter could be called "electric personal mobility device", commonly known as an electric scooter.

The X62 has two wheels, the width of the ordinary adult shoulder width, and weighs approximately 40kg. It is powered by 2 lithium ion batteries. When riding, it does not need brakes or a throttle lever; when the rider leans forward, the scooter goes forward and when the rider's body stands straight - it stops.



The X62 uses the principle of dynamic balance, when the body moves, the center of gravity of the body action will change continuously to achieve the correct balance. With wheels instead of the foot, it replaces the high precision balance of the human being, is low-cost to run, non-pollutant, quiet and convenient. The X62 can run for approximately 4-5 hours having been fully charged.

5. App Guide

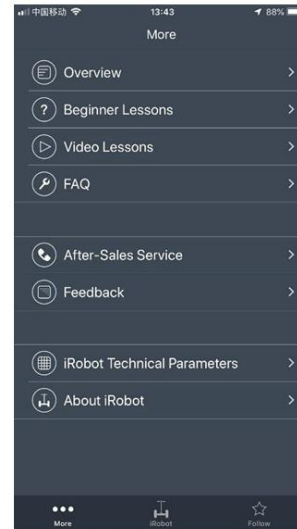
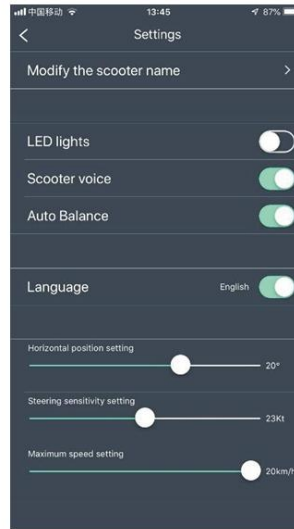
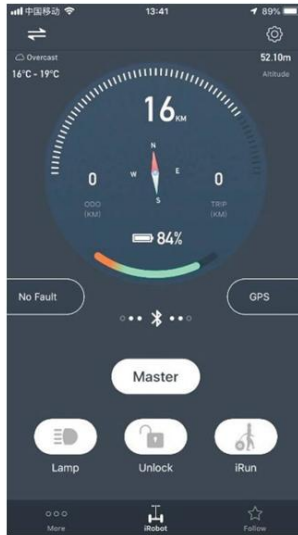
5.1 Downloading the App

IOS: From the 'App Store' search "iRobot", you can download APP for IOS (left picture)

Android: Please scan the QR code below (right picture)



5.2 App Control Panel



5.3 How to connect the X62 to your Smartphone using the app

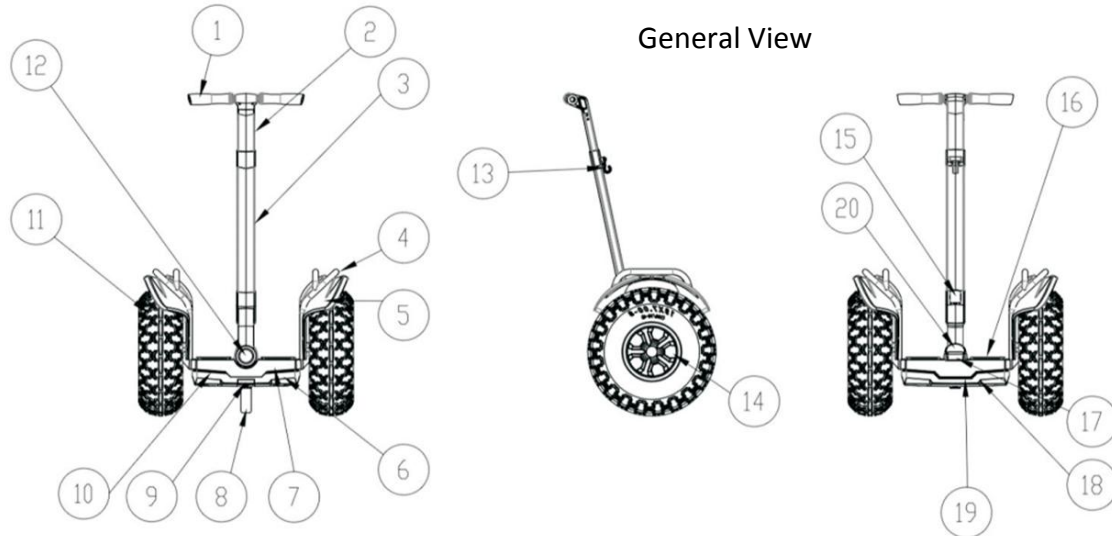
- a. Turn on the X62 machine
- b. Open 'Bluetooth' on your mobile phone.
- c. Open the iRobot app on your phone. In the top left hand corner there is an icon



- d. Press this icon, and it will pair your phone to the X62

WARNING: If there is more than 1 machine, turn on and pair only one machine at a time, otherwise all machines will be paired to the same phone

6. Overview

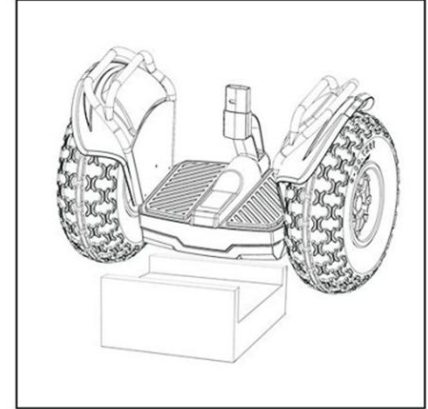
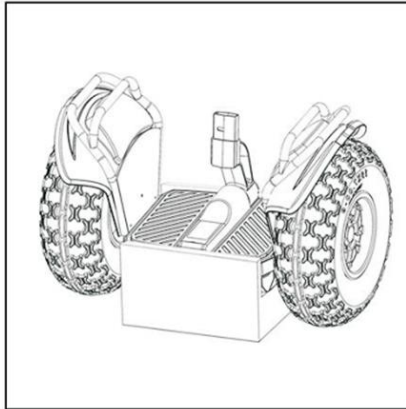
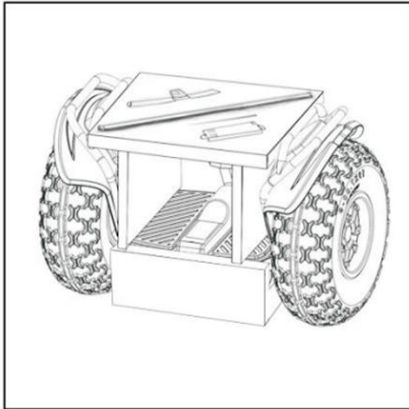


| | | | | | | | | | |
|---|------------------------------|---|---------------|----|------------------------------|----|------------------------|----|-------------------------|
| 1 | Handgrip | 5 | ABS mudguard | 9 | Parking stand release button | 13 | Height adjustment hook | 17 | Display cover |
| 2 | <u>Leansteer</u> (adjust) | 6 | Front chassis | 10 | Front indicator | 14 | Motor | 18 | Integrated battery pack |
| 3 | <u>Leansteer</u> | 7 | Chassis | 11 | Tyre | 15 | Quick coupling joint | 19 | Rear indicator |
| 4 | Fender | 8 | Parking stand | 12 | White LED lamp | 16 | Rubber foot pad | 20 | Centre console |

7. Assembling the X62

7.1 Check the Accessories

After carefully unpacking, take out the leansteer assembly, the packing parts for the handle bar, and X62 mainframe in order.



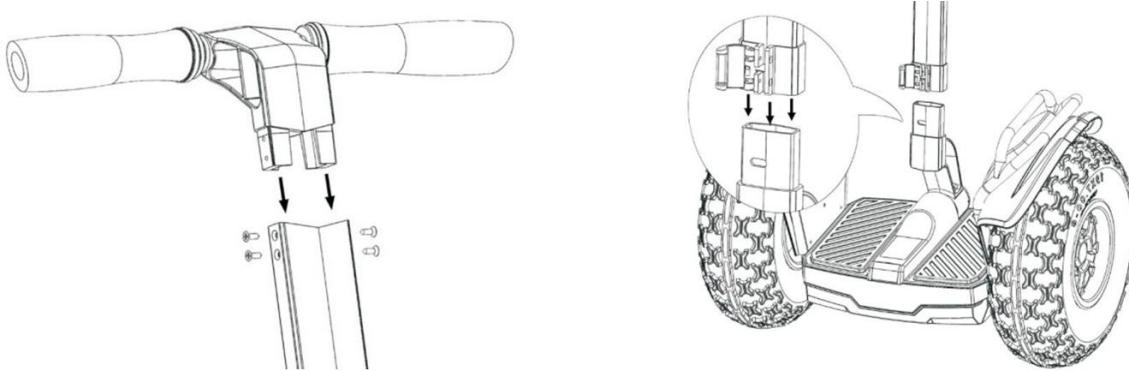
7.2 Checking the package

| | | | |
|---|------------------|--------------------|----------------------|
| X62 contains the following parts, please check after opening the package. If there is anything missing, please contact your dealer. | | | |
| X62 main body X 1 | LeanSteer X 1 | Handgrip X 1 | Charger X 1 |
| Tool X 1 | Screws X 4 | User manual X 1 | Warranty card X 1 |

7.3 Preparation before assembly

Before the assembling the X62 you should first locate the Phillips screwdriver supplied with the product in the package. This should be stored in a safe place for future maintenance. It is compliant with the metric standard, so you may interchange it with one either in your toolbox or from a tool store. It is suggested that you wear a pair of gloves during assembly so as not to injure your hands.

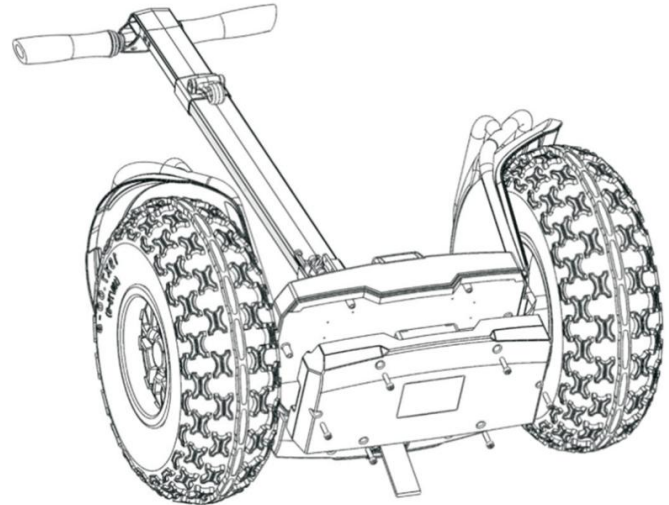
7.4 Mount handlebar and leansteer frame



Insert handlebar into leansteer frame, and fasten the height adjuster nut. Insert leansteer frame into main frame, and fasten the clockwise joint.

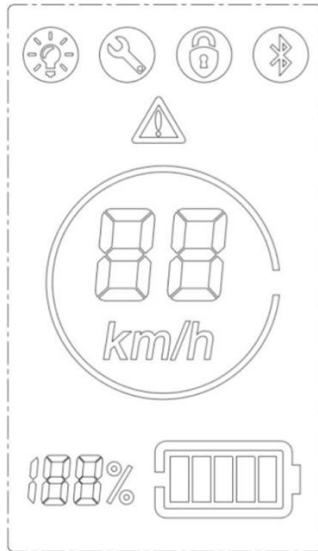
7.5 Install the battery pack (battery pack replacement)









Lay X62 mainframe on it's back, exposing the underside of the battery housing. Install the battery pack using the M6 x 20 hexagon socket cap head screws, using a 5mm hexagonal allen key. Repeat this step to remove or replace the battery.



8. Function Introduction

8.1 OLED Display



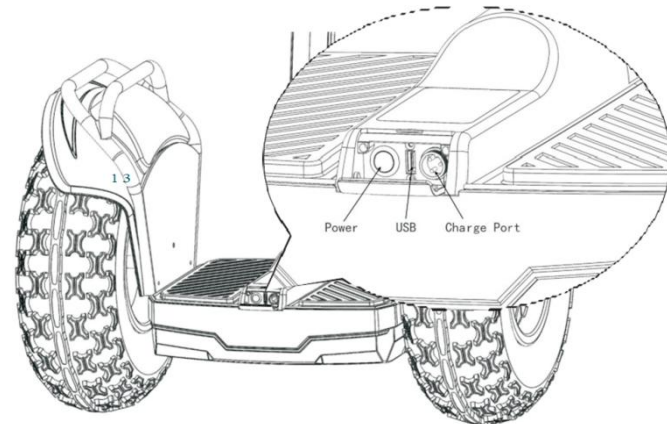
| | | | |
|---|---|---|---|
|  |  |  |  |
| Light icon | Fault icon | Lock icon | Bluetooth icon |
|  |  |  |  |
| Warning icon | Speed icon | Battery icon | Battery percentage |

8.2 Power Button, USB Port and Charge Port

At the back of the mainframe of the X62, there is a USB charging port which supports standard USB equipment and provide 5V/1A current. You can charge the mobile phone or other USB devices with input <150mA charging.

Power switch functions:

- a. To turn on the vehicle, press power switch for 2 seconds, and the LED display on the footplate will light up
- b. To turn off the vehicle, press power switch for 2 seconds



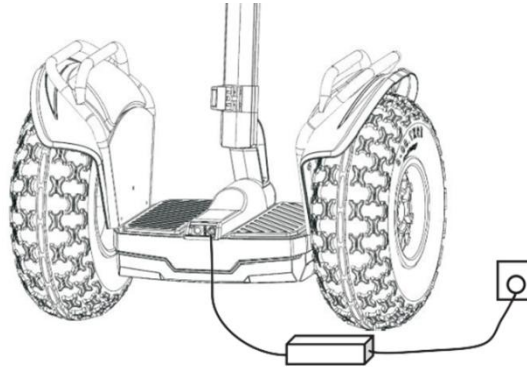
Power button, charge port and USB port position

8.3 Charging Method

1st step: Find the charging port at the back of X62 mainframe, open the cover to the charging port, and check that the charging port is dry

2nd step: Connect the charging port with the charger (100~240V, global common), then plug it into the power AC supply.

3rd step: When the LED indicator on the charger turns red, it means the scooter is charging normally; when the indicator turns green, the scooter is fully charged. When fully charged, unplug the charging cable to save the battery life.



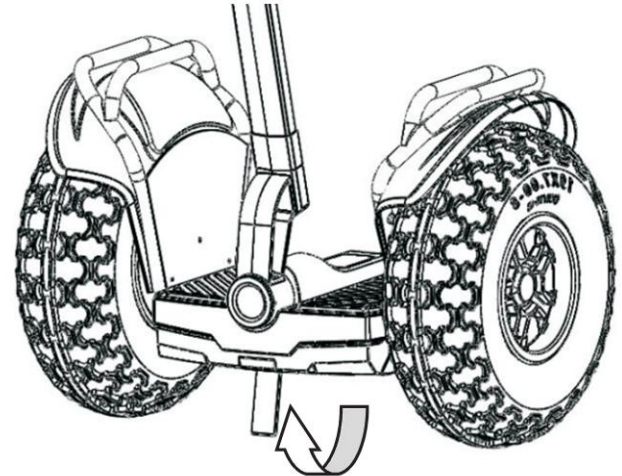
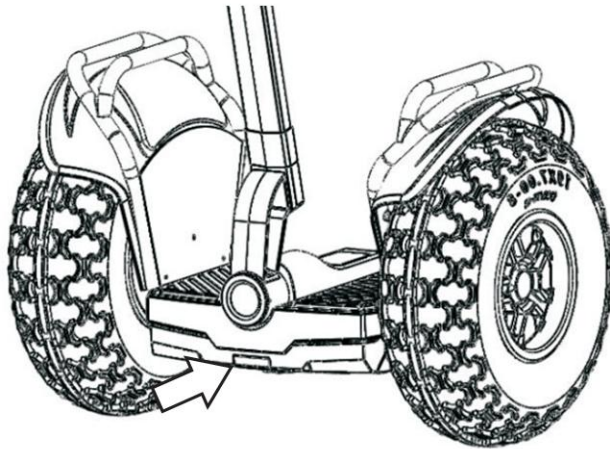
WARNING: For safety reasons, and to prolong the life of the battery, do not leave the battery plugged in when the unit is fully charged and showing a green light

8.4 How to use the parking stand

To release the parking stand: use the front of your shoe to strike the button on the front of the body of the vehicle.

The parking stand will automatically release

To retract the parking stand: use the front of your shoe, push the parking stand to the upmost parking position.



9. Guide for safe riding the X62

9.1 Awareness

Apart from an entertainment / leisure vehicle, the X62 is also a transportation vehicle which may have risks similar to those of all other commuting tools. However, if you follow the information in this chapter, it will maximize the safety procedures for yourself and others, and minimize any risks taken.

When riding the X62, you should be cautious and keep a reasonable and safe distance from other people and other types of transport. This is because even though your handling of your X62 on the road or in a public surrounding is in compliance with the Guide for Safe Riding, you may be subject to the risks resulting from improper driving or operation of transport by other people. It is not so dissimilar to being injured by other transportation means when you are walking or riding a bike.

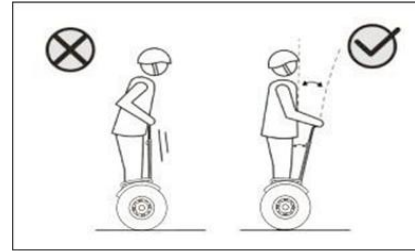
9.2 Safety Compliance

- a. Understand and comply with local traffic laws.
- b. Wear a helmet, wrist pads, elbow and knee pads, for riding for protection.
- c. Check the battery status with the power button before each ride. If there is less than 60% of power remaining, do not use it for a long journey. You may not get the range you require for a long journey.

- d. Check your X62 to make sure that there are no loose, missing or damaged parts, and there are no abnormal sounds or continuous warnings displayed on the machine.
- e. Do not ride when under the influence of alcohol, sedative agent or stimulant at least 6 hours before.
- f. Follow the safety guides in this manual.

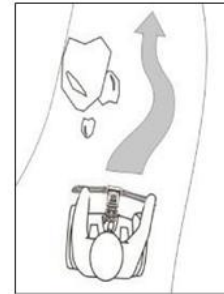
9.3 General Safety Instructions

- Get your instructions from an experienced person, who has undergone the correct training and is proficient in the workings of the X62
- You should understand all workings of the smartphone app and its settings
- Do not use in any place prohibited by law of the relevant country / region, or by any related management service
- Remember to keep your body at least 5cm distance from the operation bar. NEVER lean your body against the bar as this will cause the unit to lose balance and cause a crash
- Remember that you will be at least 20cm taller than usual when standing on the X62, so mind your head when approaching low barriers such as a door frame, or branch of a tree
- Do not use in area that are unsuitable for riding this type of machinery, such as through pits / fissures, slopes of 35° or more, or through puddles more than 10cm deep. This may harm not only the rider, but also the machine.
- Do not ride the X62 upstairs or downstairs
- Do not lift the X62 off the ground unevenly such as passing speed bumps, or by having one wheel on the pavement

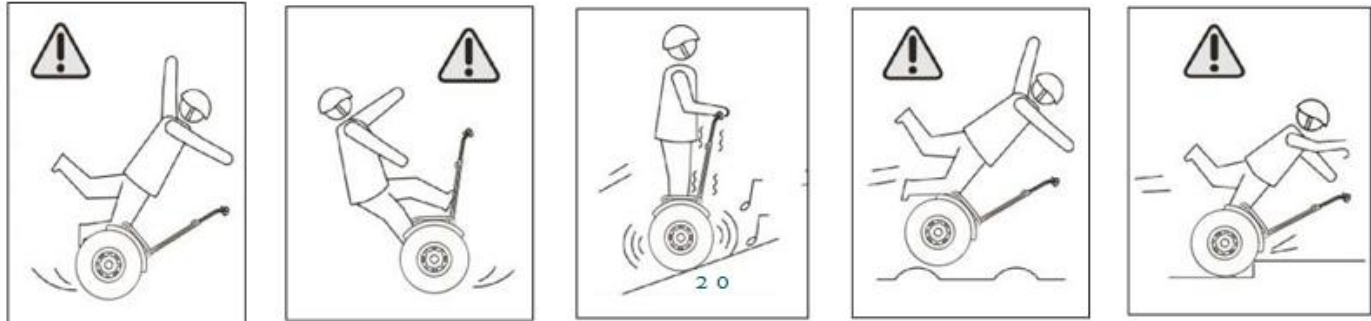


- Do not take the X62 on the motorway
- Do not ride the X62 with more than one passenger, especially not a small child or for the rider to carry a baby in a baby harness
- Do not take both hands off the steering bar at the same time
- Do not allow persons of less than 14 years, or more than 65 years ride unaccompanied
- Do not allow pets on the X62
- Do not allow pregnant ladies to ride
- Do not allow those impaired by drugs, alcohol, mentally or physically disabled, or those with known heart disease to ride the X62
- Do not ride the machine in a dangerous environment such as fire, flammables, steam, gas, liquid and dust etc
- Avoid riding backward at high speed, or making sharp turns when riding backwards

- Do not use mobile phones when handling the X62 – leave phone in a phone holder
- Do not ride in poor weather and road conditions, such as heavy rain, snow and ice
- Do not disregard any warnings in this manual



- Do not allow others to ride your X62 unless they have read and understood the safety instructions, or watched the safety video
- Place any carried goods in the front or side storage or in a backpack. Do not place carried goods on the footplate as it will influence the balance of the machine
- Make sure that the X62 is switched off completely before carrying it, as injury may be caused by the quick rotation of the wheels. It is suggested that the vehicle be carried by 2 people by holding the frame NOT by holding the mudguard, as this may break and cause personal injury



10. Automatic / Intelligent Safety

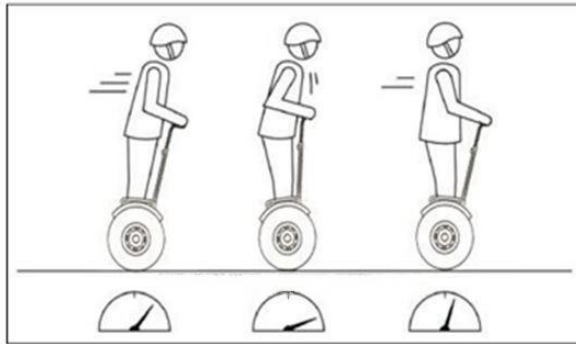
10.1 Speed Limiter

The X62 will automatically limit the maximum speed of the vehicle to keep you safe.

Depending upon the programme mode, (beginner mode 8km/hr, and skillful mode 20km/hr), if the speed is exceeded, the leansteer bar of the X62 will generate a pushback force to push the rider slightly backwards to stop the vehicle from accelerating. When this happens, the rider must adjust their body to the leansteer bar, keeping at least a fist's distance from the leansteer bar. If the rider continues to lean forward and presses on the leansteer bar, he may lose balance and fall down. The vehicle must always be in balance with the rider.

Additionally, if the rider remains on a steep slope for a long time, the footplate will recline to remind the rider to get off rather than overload and strain the motor. Other similar situations that would trigger this response would be on a steep slope, in a deep pit, and the weight of the rider (if he were very heavy).

If the rider is reminded to get off the vehicle, it can be pushed ahead by using ASSISTANCE MODE.



Automatic speed limiting



Avoid shaking the vehicle in a forward and backward direction

10.2 Critical Battery Power

If the X62 is showing critical battery power (usually less than 10%) the footplate will recline to prompt the rider to get off the unit. If the rider ignores this and continues to ride, the unit may stop suddenly.

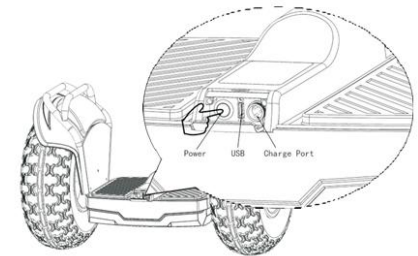


Going backward at a fast speed, going up steep slopes, or riding a steep incline will drain the battery quickly. An audible warning will be heard.

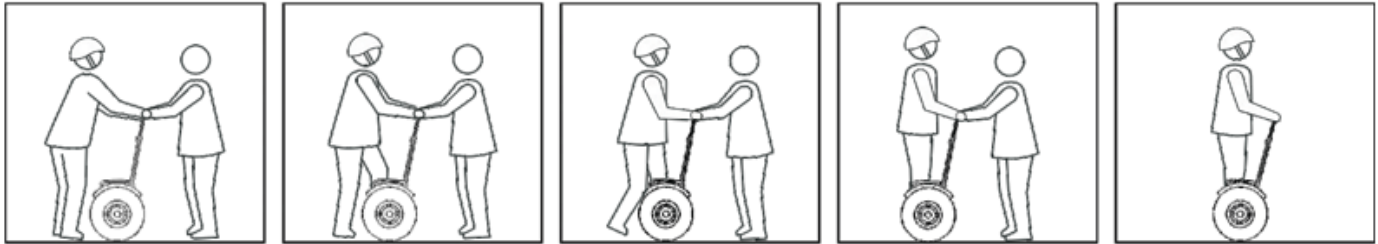
11. Learning to ride the X62

11.1 Going forward and backward

- a. Having fully charged the vehicle, unplug the X62 from the mains
- b. Turn on the power switch on the body of the X62, and you will hear an audible welcome to start using the smart scooter – the light on the Signal Indicator will come on, which means the vehicle has started normally
- c. BEFORE YOU STEP ONTO THE MACHINE, make sure that the pedals are on the horizontal level
- d. Standing directly behind the X62, hold the handlebar grip with one or two hands, and keeping the leansteer bar upright, adjust the handlebar grip until the pedals become horizontal – then step onto the machine with one foot
- e. Place your centre of gravity on the pedal gradually, and raise the other foot (similar to walking upstairs)
- f. Avoid moving the leansteer bar



WARNING: Beginners should not dismiss these early steps, and learn to master them to prevent any injury or accident



- g. Lean your body forward very slowly, and feel the X62 move forward
- h. Recover your posture slowly to the upright position, and feel the vehicle decelerate and stop
- i. Practice items (g) and (h) until you are comfortable with moving and stopping
- j. Checking first that there is nothing behind you, lean your body backward slightly, and you will start to go backward
- k. Slowly bring your body to the upright position, and you will slow and then stop

WARNING: It is not recommended to drive backwards for more than a few steps. Whenever possible, turn the vehicle using a left or right turn

11.2 Stopping the vehicle

- Slowly move your body against the direction in which you are travelling
- Bring your buttocks downward (as though you are going to sit down)
- After the X62 stops, distribute your weight evenly on the footplate to achieve balance

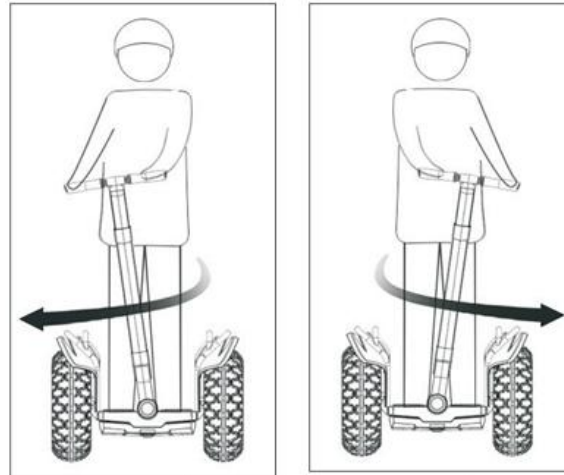
NOTE: IF YOU CONTINUE TO TILT BACKWARDS, THE VEHICLE WILL MOVE BACKWARDS



Standard stop image

11.3 Turning Left and Right

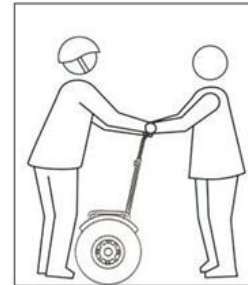
If you turn the steering bar in the left or right direction, the X62 will turn in the corresponding direction. Keep your knees slightly bent and tilted toward the direction in which you want to turn – the angle should be that of the leansteer bar (similar to skiing).



11.4 Getting off the X62

Getting off the X62 is similar to walking down the stairs. For the first few attempts, ask your instructor to hold the leansteer bar.

- Keeping the X62 balanced by holding the leansteer bar with both hands, take your feet off the footplate one foot at a time
- Stabilize your body, and do not move the leansteer bar when dismounting
- Do not take your hands off the steering bar before the X62 is switched off, even though your feet are no longer on the machine, as the machine will move forward – possibly causing injury or damage.

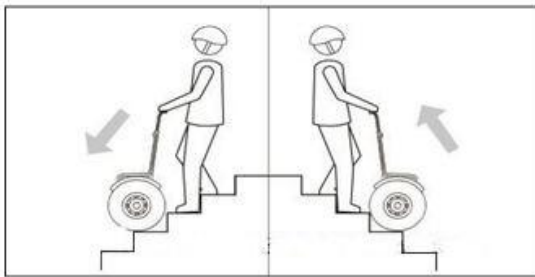


11.5 Assistance Mode

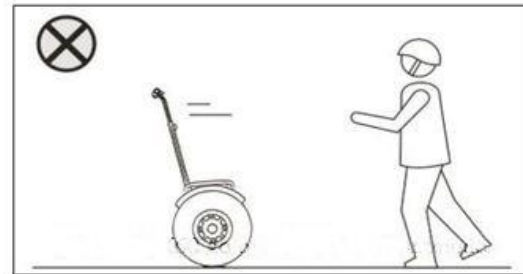
Once you are no longer on the X62, and using your smartphone app, you can turn the vehicle from the standby mode to assistance mode. In this programme, you can manoeuvre the vehicle manually using the leansteer bar.

NOTE: YOU MUST ALWAYS HOLD THE STEERING BAR WHEN IN ASSISTANCE MODE, as the vehicle will move forward if unattended.

NOTE: NEVER ATTEMPT TO RIDE THE X62 WHILE IN ASSISTANCE MODE, as the rider will have no control of the vehicle, and will cause injury to himself and the vehicle.



Using assistance mode to go up and down stairs



Do not leave X62 unattended in assistance

11.6 Locking the X62

When not using your X62, open the smartphone app, and lock the vehicle using the padlock icon. After locking the X62, you will hear a voice prompt 'Locked'.

Locking the vehicle itself cannot stop theft by it being carried away. Store your X62 in a safe place.



12. Maintenance

12.1 Cleaning the X62

To keep your X62 in good condition, clean it after each use. The X62 can be washed with a shower hose or garden hose with water pressure less than 1MPa (or 145PSI) to flush the mudguards. Pressure washing or soaking in water is not advised as this will cause serious damage to the X62.

Dry the vehicle after hosing, and place in good ventilation so that the metal parts do not rust.

For difficult stains on the plastic, a small amount of toothpaste applied to a soft cloth can be used.

Store the X62 in a cool, dry place. Exposure to sun, and extreme heat and cold will accelerate the aging process of the X62.

WARNING: When cleaning with water, ensure that the vehicle is powered off, and that the charging cable is unplugged, and the cover to the charging port is closed.

12.2 Battery Maintenance and Transportation

The X62 battery should still perform well after 30,000 – 40,000Km if well maintained. Failure to maintain the battery will reduce the capacity or even damage the battery after only a few months.

To extend the battery life, please observe the following:

1. Read the notes on the battery pack surface and follow the instructions
2. Keep the battery pack in a dry environment at a temperature from 0C to 40C. Extreme high or low temperatures can affect battery life.
3. Avoid storing or using the battery in an environment below -20C or above 50C
4. Prolonged exposure to a moist or wet environment may cause internal condensation. Remove the battery and store in a cool, dry place
5. Under normal conditions, avoid completely exhausting the battery and then recharging. Frequent charging does not affect the battery life, whereas longterm exhausted status will reduce the capacity and life of the battery
6. If the X62 is left unused, the battery will continue to consume power from the battery, therefore:
 - a. for storage of less than 30 days, keep the battery fully charged
 - b. for storage of more than 30 days, remove the battery and store in a cool, dry place
 - c. for storage of more than 6 months, ensure that the battery is fully charged every 3-4 weeks

13. Main technical specifications

| | | Technical Parameters | |
|----------------------------|--|---|-----------|
| | | X60 | X62 |
| Material | Main Material | Magnesium Alloy + Aluminum Alloy + ABS + Rubber | |
| Riding Requirements | Recommended Age | 12 - 60 | |
| | Recommended Height | 130 – 200cm | |
| Main Parameters | Max Speed | 20KM/H | |
| | Max Mileage ① | 35 – 40Km | 75 - 80Km |
| | Max Load | 150Kg | |
| | Min Turning Radius | 0° | |
| | Max Climbing | ≤ 35 | |
| | Height of Pedal | 220mm | |
| | Max Height of Ground | 125mm | |
| | Tire Size | 19 inch | |
| | Standard Pressure | 150 kpa 21psi | |
| | Long*Width*High ② | 488 * 836 * 1080 - 1480mm (Adjustable) | |
| | Net Weight | 36.6KG | 39.6Kg |
| | Gross Weight | 45.3KG | 48.3Kg |
| | Working Temperature | -10 - +40 °C | |
| | Storage Temperature | -20 - +50 °C | |
| | Waterproof | IP54 | |
| Beginner Mode | Yes, set via APP | | |
| Applicable Terrain | Cement Road / Asphalt road / Grass / Gravel Road / Beach | | |

| Motherboard Parameters | | Double System | |
|------------------------|--|---|------------|
| Battery Parameters | Battery | SAMSUNG18650 Lithium Ion Battery | |
| | Rated Voltage | 57.6V | |
| | Max Charging Voltage | 67.2V | |
| | Rated Capacity (Ah) | 7.8Ah | 15.6Ah |
| | Intelligent BMS | Over voltage Protection / Under voltage Protection / Short circuit Protection / Overheating protection, Automatic sleep /Wake | |
| | Max Sustained Discharge Power ^③ | 1000W | |
| Motor Parameters | Motor | Brushless DC Motor | |
| | Rated Power | 1200W x 2 = 2400W | |
| Charger Parameters | Input Voltage | 100 - 240V | |
| | Output Voltage | 67.2V | |
| | Output Current | 2.0A | 3.0A |
| | Rated Power | 120W | |
| | Charging Time | 3 - 4 Hour | 4 - 5 Hour |
| | Charging Temperature | 0 - 40 °C | |
| Operating Mode | | Standby mode / Pulling mode/Speed limit driving mode / Normal driving mode / Remote mode /Lock mode | |
| Display Panel | | 6.5" OLED Display / Battery / Speed / Mileage / Lamp / Lock / Bluetooth | |
| Light | | Front lamp / Ambient light / Left / Right turn light / Brake light /Backup light | |
| Wireless Connections | | Bluetooth | |
| APP | | Yes | |

| | | |
|-----------------|---|----------------|
| Voice | Yes | |
| USB Charging | | Yes (5V/1A) |
| Bluetooth Music | | Yes |
| Colour | White / Silver / Space gray /Champagne gold | |
| GPS | Option | |

14. Warranty Record

| WARRANTY RECORD | | | |
|-----------------|--|----------------|--|
| Customer Name | | Purchase Date | |
| Contact Address | | | |
| Product Model | | Invoice Number | |
| Serial Number | | | |
| Distributor | | | |

15. Service Record

| SERVICE RECORD | | |
|----------------|----------------|---------|
| Repair Date | Repair Details | Remarks |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Greentouch Technologies (UK) Limited

Unit 2, Greaves Industrial Estate

Leighton Buzzard LU7 4UB

Tel: 01525 376916

email: greentecgroup@outlook.com

web: www.off-roadelectric.com