# **BoleRider S6 Instruction Manual**



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#### **BoleRider Introduction:**

BoleRider specialises in the research, development, and manufacturing of electric tricycles, bicycles, and scooters. Our mission is to continuously innovate across all aspects of electric mobility, focusing on structure, power, energy efficiency, intelligence, and safety. With exceptional quality, advanced configurations, and rigorous quality control, we aim to deliver innovative products that enrich and improve lives.

#### **BoleRider S6 e-Tricycle:**

Designed as a lightweight commuting solution, the BoleRider S6 features a sturdy trike structure with excellent anti-skid capabilities. It's incredibly convenient instant-folding function enhances both usability and storage, making it the perfect companion for your daily life.

#### **Structural Features:**

The BoleRider S6 retains the traditional bicycle structure while integrating advanced electric ride design elements. Its key components include the electric hub motor, controller, control panel, battery box, frame, and charger.

- 1. **Electric Hub Motor:** The BoleRider S6 features an electric hub motor with high start-up torque, excellent efficiency, compact design, superior strength, effective heat dissipation, low noise levels, and waterproof and dustproof capabilities. The motor has an impressive lifespan of up to 3,000 hours.
- 2. **Lithium-Ion Battery:** Powered by a fully sealed, maintenance-free lithium-ion battery, the BoleRider S6 offers high capacity, exceptional quality, and long-lasting performance. It operates reliably within a temperature range of 0–50°C, is resistant to short circuits, and supports up to 1,000 charge and discharge cycles.
- 3. **Electronic Controller:** Equipped with a cutting-edge electronic controller, the BoleRider S6 delivers Hall-effect electronic stepless speed regulation. It also includes protective features such as under-voltage, overcurrent, and brake power-off functions, ensuring enhanced operational safety.
- 4. **Dedicated Charger:** The BoleRider S6 comes with a specialized charger that includes current-limiting and overcharge protection functions. A colour-changing indicator on the charger conveniently displays the charging status.

### **Trouble shooting:**

The table below provides a list of common issues and possible solutions.

Symptom	Possible Cause	Solution
Bike won't turn on.	Not pressing the on switch for	Ensure the on switch is pressed
	long enough.	for at least 3 seconds.
	Battery switch in off position	Press the battery switch into
		the "I" or "II" position.
Bike turns on but the thumb	Park brake is on.	Release the park brake.
speed controller is not working.	System error.	Check the computer for an
		error. If an error is displayed
		get the bike serviced.
	Wiring fault or controller error.	Get the bike serviced.

#### **Safety Guidelines**

To ensure your safety and the safety of others, please carefully review and adhere to the following guidelines:

- 1. **User and Dealer Restrictions:** Unauthorised modifications to the BoleRider S6's structure and performance are strictly prohibited. This includes altering battery configurations, boosting power, rewiring, increasing bulb wattage, or adding audio systems. Repairs should only be conducted by professionals at designated maintenance stations.
- 2. **Safe Handling and Charging:** Avoid handling electrified parts of the BoleRider S6 with wet hands or metal conductors. Use only the charger provided by BoleRider for charging, and prevent electrical components from coming into contact with water during cleaning.
- 3. **Battery and Charger Safety:** Store lithium-ion batteries and chargers in a secure location, out of the reach of children and away from flammable or explosive materials. Always charge the battery in a dry, ventilated environment, and avoid charging outdoors during thunderstorms. Never cover the battery or charger while charging.
- 4. **Charging Practices:** Ensure the charger's output plug is securely connected to the charging socket before plugging the input plug into an AC power source. Charging time should not exceed 10 hours, and fast-chargers must not be used.
- 5. **Environmental Considerations:** Do not park or ride the BoleRider S6 in environments with temperatures exceeding 50°C.

#### **Controller Maintenance and Usage Guidelines**

The BoleRider S6 equipped with an intelligent digital chip controller with functions such as brake power-off, low battery voltage protection over-current protection. Step-less speed control, and zero-start power control.

The controller, installed inside the battery box, is waterproof, shockproof, and corrosion-resistant. Do not disassemble or repair it privately.

#### **Battery Usage, Maintenance and Precautions**

- 1. The normal lifespan of an BoleRider S6 battery is around 1000 charge and discharge cycles. If not used for an extended period, ensure the battery switch is set to the middle 'off' position and recharge monthly.
- 2. When the batteries are not being charged, seal the charging ports with the rubber plug to prevent water and dust ingress. This will stop corrosion and poor battery connection when charging.
- 3. Avoid parking BoleRider S6 in high-temperature locations for an extended period, as this can shorten the batteries lifespan.
- 4. Avoid storing the battery in a discharged state. If the BoleRider S6 is not used for an extended period, it is advisable to maintain a charge in the batteries. It is recommended to recharge the batteries monthly while the bike is in storage.
- 5. Only use the charger provided with the S6. Due to differences in raw materials and lithium battery production processes, our chargers must be used to meet technical and safety requirements.
- 6. While lithium batteries can theoretically be charged as needed, avoid completely discharging the batteries. For dual-power-source e-tricycles, ensure that at least one battery is fully charged before setting out. Once one battery is almost fully discharged, switch to the fully charged battery. By not fully discharging the batteries this will extend the overall battery life.
- 7. If possible charge the batteries when they are nearly depleted and then fully charge them in a single session.
- 8. Keep the battery away from open flames or heat sources, and never dispose of batteries by throwing it into a fire. Avoid exposing the battery to direct sunlight, especially in hot weather.
- 9. Ensure that all wires are protected from friction and contact with sharp objects. Wires must be securely fastened to the BoleRider S6 frame, with no exposed sections that could cause an electrical short-circuit

### **Charging Steps**

- 1. The rated input voltage of the charger is 110v-220V. Before using confirm that the voltage in the outlet you will be using is within this range.
- 2. Connect the charger's output plug to the battery box's battery charging socket before plugging the charger's AC input plug into the power source, Once all plugs are connected you can turn on the power source.
- 3. When first connected the charging indicator light on the charger will show green if there is power in the bike battery. Once the power source is turned on the indicator will show red. The indicator will turn green once the battery is full charged. For dual battery bikes, each battery must be charged separately.
- 4. The duration of a single charge depends on your riding mileage. If you ride long distances (e.g., over 30 kilometers in one trip), the battery is in a deep discharge state, and the charging time is approximately 4-8 hours.
- 5. For single-battery bike with a daily riding distance of less than 10 km, it is recommended to charge every other day, meaning charging after riding approximately 20 km.
- 6. After charging is complete, switch off the power source and unplug the AC power plug first. One the power source is disconnected you may unplug the plug connected to the battery.
- 7. After charging, re-seal the battery charging port with the rubber plug to prevent water/dust ingress.
- 8. Place the charger in a dry and well-ventilated environment during use.
- 9. The charger will get hot during use so do not place the charger on flammable objects (such as the bike seat).
- 10. Do not cover the charger with any items during charging to avoid affecting heat dissipation and damaging the charger.
- 11. The charger contains high-voltage components; do not attempt to disassemble or repair it.
- 12. If there charger emits any strange odour or the temperature is very high during charging, immediately stop charging and have the charger checked by a service technician.

#### **Maintenance and Repair**

Your newly purchased BoleRider S6 will have been built and quality checked prior to being dispatched. Regular maintenance and care are essential for daily use.

- 1. Regularly check tire pressures. It is recommended that a minimum of 35 psi is maintained. Larger riders may require a higher pressure but this must not exceed 45psi.
- 2. After riding your bike for approximately 10 hours the tension in the spokes should be checked if your bike has wire spoked wheels. If a re-tension is required, this is best done by a service technician.
- 3. Major components such as handlebars, seat posts, saddles, axles, wheels, frames, pedals, folding axles, folding seats, rear pedals, and nuts should be regularly inspected and tightened if required. All nuts are installed with thread-locking compound to prevent loosening. If nuts are removed, or do become loose, remove them completely, clean them and re-install with a suitable thread-locking compound.
- 4. Brake oil pipes and control cables are fixed in a specific position when the BoleRider S6 leaves the factory. These items must be kept in the original locations to prevent damage and ensure smooth folding/unfolding of BoleRider S6.
- 5. When adjusting brake-levers or handlebars ensure that the BoleRider S6 can still fold/unfold without obstruction.

### **Motor Usage, Maintenance, and Precautions**

- 1. The BoleRider S6 motor is a rare-earth permanent magnet brushless DC motor, an external rotor hub motor, with no reduction mechanism or carbon brushes, making it essentially maintenance-free.
- 2. Do not open the sealed motor base or endcap.
- 3. Keep the motor clean, no foreign objects, corrosive liquids or gases should enter the motor.
- 4. Avoid tapping or banging the motor shell to prevent damage.

#### **Pre-Ride Inspection**

- 1. Ensure the battery switch is in the 'off' position when the BoleRider S6 is in a folded state with the rear wheel off the ground.
- 2. Unfold the BoleRider S6 and ensure the locking mechanism under the seat is fully engaged.
- 3. Power on the bike and check if all indicator lights on the instrument panel are normal. Verify if the batteries have sufficient charge for your intended journey.
- 4. Check the horn for proper operation, operate the lighting switch and confirm the front headlight is functioning correctly.
- 5. Check for any loose nuts/bolts tighten as needed.
- 6. Check the handlebars and saddle(s) are securely fastened and adjusted for your use.
- 7. Check if the tire pressure is normal (35-45psi), and inspect for cracks, abnormal wear, and sharp objects such as nails, stones, or glass embedded in the tires. \*Note: Abnormal tire pressure, tire cracking damage, and abnormal wear are the main reasons for poor steering and tire blowouts.
- 8. Check if the steering moves smoothly but without looseness.
- 9. Inspect the front and rear brake levers. The levers can be adjusted to make them safe/comfortable to use.
- 10. The front two wheels have a pair of symmetrical hydraulic brakes controller by a single lever. If there is a noticeable imbalance between the left and right brakes the bike should be checked/adjusted/repaired by a service technician.

#### **Riding steps**

- 1. Unfold the BoleRider S6 and ensure the locking mechanism under the seat is fully engaged.
- 2. Turn on the battery switch. For dual battery bikes select battery "I" or "II".
- 3. Turn on the instrument panel by pressing the "on" switch for at least 3 seconds. The power indicator (or digital display) lights up, indicating that the power is on.
- 4. Select the desired riding speed (1,2 or 3)
  - a. 1 = approx. 13kmh max.
  - b. 2 = approx. 20kmh max.
  - c. 3 = Max speed, approx. 30kmh
- 5. Unlock the tilt mechanism.
- 6. Check the seat/brakes/handlebars are adjusted for you size.
- 7. Sit on the bike, ensure any passengers are seated and have their feet on the pedals.
- 8. Check your surroundings to ensure that it is safe to start riding.
- 9. Release the park brake.
- 10. Accelerate smoothly and control your speed using the thumb speed controller
- 11. Once underway confirm the operation of the front and rear brakes.
- 12. For dual battery bikes the instrument panel displays the voltage on the selected battery. When the voltage in the selected battery is low change to the alternate battery.
- 13. When you have completed your ride:
  - a. Engage the tilt mechanism to prevent the bike falling over.
  - b. Turn off the instrument panel.
  - c. Fold the bike if required.
  - d. Turn the battery switch to the "off" position.
  - e. Recharge the batteries if needed.

### **Safe Riding**

- 1. When riding on the road or in public areas, comply with local traffic regulations.
- 2. You should not ride while under the influence of alcohol or drugs.
- 3. Maintain a safe riding speed for the conditions.
- 4. Before riding, read this manual thoroughly. Practice in a spacious, flat area to master the essentials of riding and become familiar with the bike's handling.
- 5. Always use both hands to grip the handlebars while riding. When braking, apply the rear brake first (the left brake lever), followed by the front brake (the right brake lever). Brake gently and progressively.
- 6. Avoid sudden braking and sharp turns, as emergency braking and abrupt turns are major causes of skidding or tipping over, posing extreme danger.
- 7. Children should never ride alone. Always supervise young riders for their safety.
- 8. When accelerating, increase speed gradually.
- Avoid simultaneously pressing the brake and throttle, as this may overload the motor and damage other components. Be aware that releasing the brake while the speed controller is pressed can lead to sudden acceleration.
- 10. On muddy or uneven terrain, ride at a slow speed. Exercise extra caution in rainy conditions, as wet surfaces can be slippery. Avoid high speeds, take turns carefully, and brake early to maintain a safe speed while turning and avoid accidents.
- 11. NB: Although the bike is weather-resistant, it should never be submerged in water. Submersion up to the center of the rear motor hub can cause a short circuit and damage internal wiring. Always store the folded bike indoors to prevent water exposure—especially to the charging port.
- 12. It is recommended to wear a safety helmet at all times and fasten it securely.
- 13. Dress appropriately in bright-coloured, well-fitting clothing with long sleeves, and wear athletic shoes for better grip and protection. A safety jacket with reflective panels is recommended to ensure you are highly visible.
- 14. The bike has a maximum payload capacity of 150 kg (including the rider and the BoleRider S6). **Do not exceed this limit.**
- 15. The controller is equipped with under voltage protection—if the voltage drops below a specific threshold, the power will automatically disconnect to preserve battery life.
- 16. The bike features advanced folding functionality with multiple connecting parts. While all screws include anti-loosening measures, regularly inspect for any loose screws. Follow the official folding/unfolding instructions carefully, and be mindful of surrounding objects to avoid pinching injuries—especially when children are present.