

F7 THE CHAMP

OWNERS
MANUAL



TABLE OF CONTENTS

- 01 BIKE OVERVIEW**
- 02 QUICK INSTALLATION GUIDE**
- 03 SYSTEM OVERVIEW**
- 04 SAFETY INSTRUCTIONS**
- 05 RIDING PREP AND INSTRUCTIONS**
- 06 WEATHER GUIDELINES**
- 07 CHARGING YOUR BATTERY**
- 08 TROUBLESHOOTING**
- 09 MAINTENANCE AND TIMELINE**

CONGRATULATIONS ON YOUR NEW BIKE!

This manual is designed to break down the basics and help you make sure that your eBike remains in top shape. It's important to have a good understanding of the basic operation and maintenance in order to keep your bike performing at a high standard.

Riding a bicycle can be dangerous activity and it's your responsibility to make sure you are riding safely. We recommend familiarizing yourself with this entire manual as well as your local eBike laws prior to your first ride.

The latest version of the Owner's Manual is always available online at www.superhuman.com/manuals. Proper assembly and care are crucial to you having the safest ride of your life. If you are unable to complete the assembly or need help with general maintenance, please reach out to us. You did not just purchase a bike - you joined our team, and we are here to support you whenever you may need it!

Regards, The Superhuman Team

Reach us by phone:
231 - 432 - 7837

Reach us by email:
support@superhumanbikes.com

Visit our shop:
4170 Morena Blvd
San Diego, CA 92117



01. BIKE OVERVIEW

Battery Compartment Co



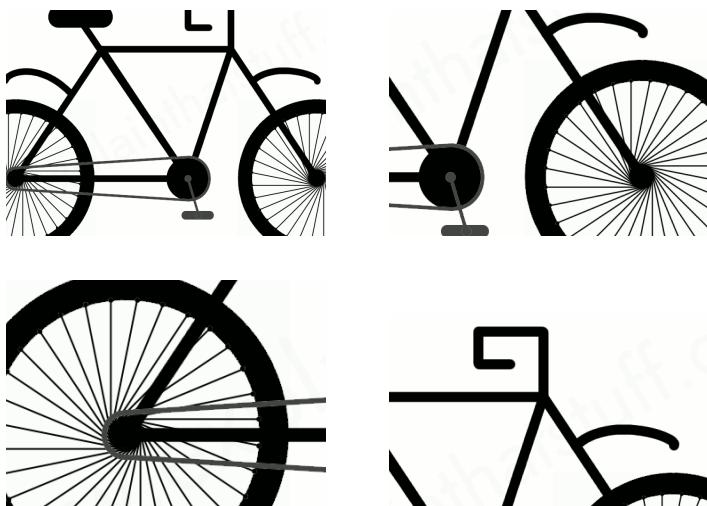


Do not ride with the
battery compartment
cover unlocked



02. QUICK INSTALLATION GUIDE

Installing Handlebars:



Installing the Handlebars:

1. Use a #5 hexagonal wrench to loosen and remove the 5 locking screws, then remove the stem cover.
2. Attach the front brake handle and speed control handle to the handlebar in order.
 - Note: Do not loosen the screw spring washer or tighten the screws at this stage.
3. Install the handlebar, align it to the seat using the scale marks, and secure the cover.
4. Tighten the 4 screws to finish.

Installing Headlights:

Installing the Headlights:

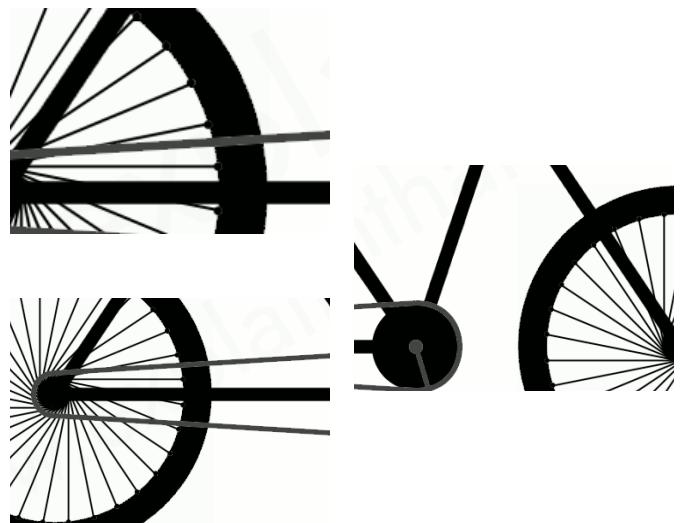
1. Secure the headlights to the mounting bracket on the fork.
2. Adjust the position of the headlights and tighten the screws on both sides.



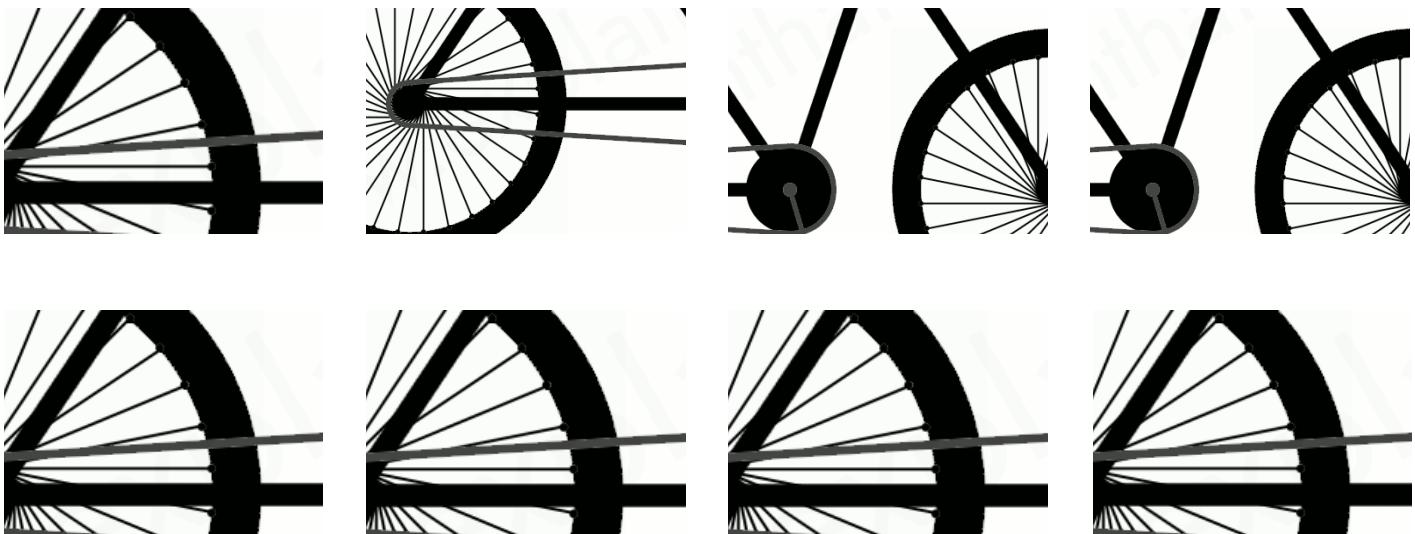
Installing the Front Brake Handle & Accelerator:

Installing Front Brake Handle & Accelerator

1. Adjust the front brake handle and accelerator to the appropriate angle, as shown in the image.
2. Use a #4 and #5 hexagonal wrench to lock the speed control handle and front brake handle, respectively.
3. Check that the throttle can return smoothly when released.
 - If there is **any sticking**, check the installation position of the accelerator and the direction of its internal cable.



Installing the Front Wheels:



Installing the Front Wheel:

1. Loosen the 4 bolts at the lower end of the front fork shaft using a #4 hexagonal wrench.
2. Remove the lock nuts on both sides of the front wheel with a #8 hexagonal wrench. Tap gently with the wrench to remove the 4 bolts from the lower end of the front axle.
3. Install the front axle bushing on both sides.
4. Remove the brake caliper clamping block and place the front wheel onto the fork mount, ensuring it aligns with the disc brake calipers.
5. Pass the front axle through the front fork and the front wheel.
6. Tighten the lock nuts on both sides with a #8 hexagonal wrench to secure the wheel.
7. Finally, tighten the 4 bolts at the lower end of the front fork using a #5 Allen wrench.

Installing the Front Reflector



Installing the Front Reflectors:

Rotate clockwise, and then simply install the two front reflectors on both sides of the front fork!

Installing the Front Fender

Installing the Front Fenders:

Remove the 3 bolts at the positions shown to the right, then insert the front fender. After so, lock the bolts with a #4 hexagon wrench



02. QUICK INSTALLATION GUIDE

Installing the Battery:

Installing the Battery:

Before You Begin: Ensure the electric door lock is in the “Off” position.

1. Open the battery package and take out the battery.

2. Insert the key into the battery compartment lock and turn it counterclockwise.

3. Open the battery compartment cover and check that the air switch is set to “Off” (positioned to the left).

4. Insert the battery.

5. Connect the output end of the charger to the battery’s charging port, then plug the charger into a power source.

6. Connect the discharge plug.

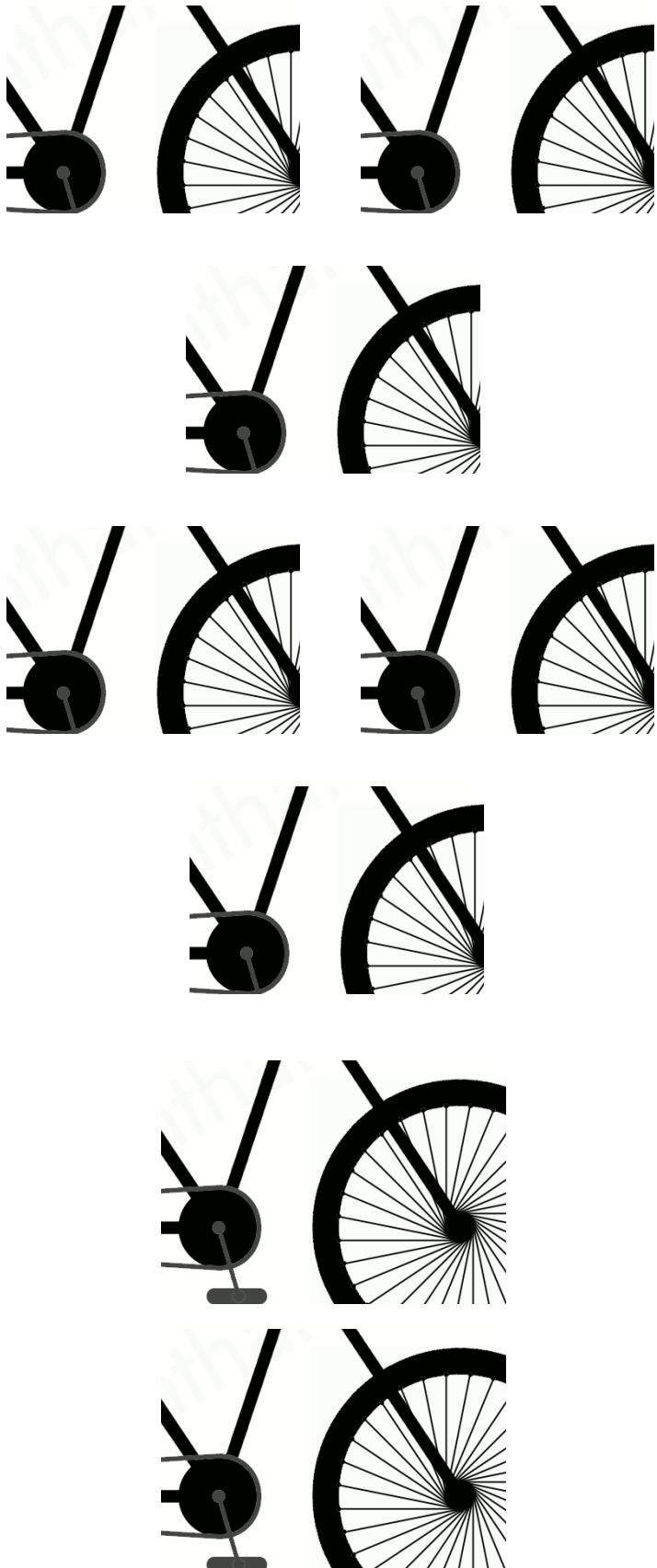
7. Turn on the air switch (switch to the right), close the battery compartment cover, and remove the key.

Note: The battery’s charging port should face the left side of the bike.

When the charger light flashes red, the battery is charging. A solid green light indicates the battery is fully charged. Disconnect the charger from the power source when charging is complete. (Always use the specialized charger provided with the vehicle. If replacing, only replace it with the original charger.). The charger will automatically stop when the battery is fully charged but avoid leaving the charger connected for more than 6 hours.

- Important: The air switch must be turned off before installing or removing the battery. “Hot plugging” may reduce the lifespan of the battery’s discharge plug.

- Caution: Inserting the battery plug with the air switch turned on may cause sparks, potentially damaging the plug or battery.



Charging Precautions:

Charging Precautions:

Always use the designated battery charger for this bike. If the charger needs replacement, please be sure to look for the designated battery charger

Ensure the air switch is turned off before installing or removing the battery.

Avoid "hot plugging," as it can reduce the lifespan of the battery's discharge plug.

Plugging in the battery with the air switch turned on can cause ignition, which may damage the plug or battery.

The charger will automatically shut off once the battery is fully charged but do not leave it connected for more than 6 hours.

Charge the battery in a safe location that is out of reach of children.

Never cover the charger or place objects on it while in use. The charger is intended for indoor use in well-ventilated environments.

If you notice any unusual smells, or excessive heat, or if the battery isn't charging properly, stop charging immediately and have the charger serviced.



03. SYSTEM OVERVIEW



The speed meter is divided into 3 gears, respectively displaying: E,D, and S

The first gear is ECO mode: E

The second gear is Driving mode: D

The third gear is Sport mode: S

The ECO and Driving modes are suitable for beginners and those who demand long mileage.

Sport mode is full power output, suitable for entertainment and off-road.

Speed meter adjustment button:

Long press for 2 seconds to switch to imperial units, and short press for 2 seconds to switch



04. SAFETY INSTRUCTIONS

Personal eBike Safety Instructions:

1. Legal Compliance:

- Ensure that the electric bike is registered and has the required license plate according to local laws and regulations.
- Familiarize yourself with the traffic rules in your area and follow them strictly.
- Riders under the age of 16 are prohibited from riding electric bikes on public roads.
- It is illegal to ride on motorways. If using non-motor vehicle lanes, follow local traffic regulations.

2. Rider Familiarization:

- Before riding, carefully read this manual. Practice riding in a safe, open area to become comfortable with the bike's controls and structure.
- Do not lend the bike to anyone unfamiliar with its operation. Make sure any rider has read this manual and watched any instructional videos provided. Assist new riders until they learn the basics.
- Riders must wear a certified helmet and protective gear properly at all times.

3. Parking and Charging Safety:

- Do not park the bike in building foyers, stairwells, hallways, or near safety exits.
- Avoid parking or charging the bike in residential buildings. Keep the bike away from flammable materials while charging, and do not leave it charging for extended periods.
- This bike is designed for one rider only; do not carry passengers or heavy loads.
- When charging, place the charger in a well-ventilated area, out of reach of children. Never cover the charger while in use.

4. Riding Safety:

- Wear brightly colored clothing while riding to ensure visibility. Do not wear tight clothing or clothes that restrict movement. Avoid riding in flip-flops or high heels.
- Avoid prolonged exposure of the bike's electrical components to rain.
- When washing the bike, remove the battery and avoid using a high-pressure washer on the electrical components.
- Never submerge the battery in water. Avoid riding through deep water, and never exceed the wheel's center height when wading. Water ingress can cause an internal short circuit, permanent damage, or even explosion.
- Do not modify the bike. If parts need replacement, contact after-sales service for assistance.
- If you notice abnormal noises or alarms, stop using the bike and seek professional assistance.

5. Riding Conditions:

- Avoid riding in bad weather or when fatigued. Be cautious in rain or snow, as braking distances increase in wet conditions.
- Avoid riding in heavy rain or waterlogged roads. Prolonged exposure to water can damage the motor and brakes. Do not ride through water deeper than 20 cm.
- The recommended operating temperature for the bike is -10°C to 45°C, with a storage range of -10°C to 50°C. Store the bike at 10°C to 30°C for optimal performance.

6. Who Should Avoid Riding:

- People under the age of 18.
- Pregnant women or individuals with health conditions preventing vigorous activity.
- Individuals under the influence of alcohol or drugs.
- Riders exceeding the weight limit stated in the "Model Data Sheet."

Pre-Ride Checks:

- Tires: Ensure they are free of cracks and foreign objects. Tire pressure should be 32.6 psi (225 kPa).
- **Axe and Wheel Stability**: Ensure axle screws are tight, and wheels are securely fastened without wobbling.
- Handlebars: Confirm they are stable.
- Reflectors: Check for damage or dirt.
- Brakes: Ensure front and rear brake systems are functional.
- Power Supply: Confirm sufficient battery charge.
- Spokes: Tighten loose spokes immediately (1.5N m–2.5N m).
- Accelerator: Ensure it moves smoothly and returns to position without jamming.
- Chain: Ensure it has a floating space of 1–2 cm, is clean, and lubricated if necessary.
- Suspension: Ensure the inner tubes of the front fork and rear shock absorber are clean.
- Brakes: Ensure both front and rear brakes are working properly, and brake lines are intact.

05. RIDING PREP AND INSTRUCTIONS

Riding Instructions:

- To avoid distractions, do not use mobile phones, cameras, earphones, or other devices while riding.
- Slow down at intersections, motor vehicle lanes, and other potentially dangerous areas.
- Avoid rapid acceleration and deceleration to conserve battery power and protect bike components.
- If any abnormalities occur during riding, stop immediately and seek assistance before resuming use.

Terms and Conditions:

- Always park the bike on a flat surface and turn off the power to prevent rolling or accidents.
- Avoid parking on slopes or soft ground, as the bike may tip over.
- Use only the special lithium battery charger provided with the bike. Input voltage should be 220V.
- If the charger or charging port is wet, do not attempt to charge the bike.
- Do not charge or park the bike in unauthorized areas, and keep the charger away from flammable materials.
- Never charge the bike in temperatures below 0°C. If the battery is too cold, allow it to warm up before charging.

Pre-riding Preparations

Please make sure that you have carefully read all the items in the “Safety Instructions” in this manual before riding.

Check tires

The tires are intact.

Check tire pressure. Insufficient tire pressure can cause abnormal wear, poor steering , low riding speed and short cruising range. Excessive tire pressure will lead to abnormal wear, poor comfort, and even tire blowout, causing safety hazards.

Check speed meter, horn, brakes

Check whether the display function of each part of the speed speed meter is normal. Check that the horn is working properly. Hold the left and right brake handles respectively , and check whether the front and rear brakes work normally

Check the handlebars:

The handlebar needs to be fixated and reliable and the steering should be flexible

Shock absorber adjustment:

Please adjust the front and rear shock absorbers according to the actual situation

If you have any questions, please call 231 - 432 - 7837.

Be sure to wear a helmet and protective gear. For your safety, please choose a full-face off-road helmet and off-road protective gear.

Lastly, do not lend out your electric bike, or let people who are unable to ride to use them. riding with one hand or throwing the handlebars, and riding after drinking are very dangerous.



06. WEATHER GUIDELINES

Battery Management:

- Low Battery Protection: When the battery drops below 12%, the controller reduces power output to protect the battery. At this point, sport mode cannot be activated.
- Battery Errors: When battery power is below 5%, heavy loads like steep climbs or rapid acceleration can trigger under-voltage protection, causing the bike to stop.
- Over-discharge Protection: If the battery is not charged promptly, it may enter over-discharge protection. This can be reactivated using a charger, as explained in the after-sales manual.

Environmental Usage Guidelines:

Cold Weather: In temperatures below 0°C, the battery's capacity is reduced to about 80%. It's advisable not to use sport mode during these conditions.

Hot Weather: In temperatures above 50°C, avoid riding at full power for extended periods.

Wading Guidelines

E-bikes can occasionally ride through shallow water (no more than 20cm deep), but prolonged exposure or submersion can lead to damage, especially if the motor is hot. Water can enter through seals or cables when the components cool, which may cause harm.

Waterproof Ratings:

Battery and Motor: IP65

Controller: IP67

Bike Connectors: IP55

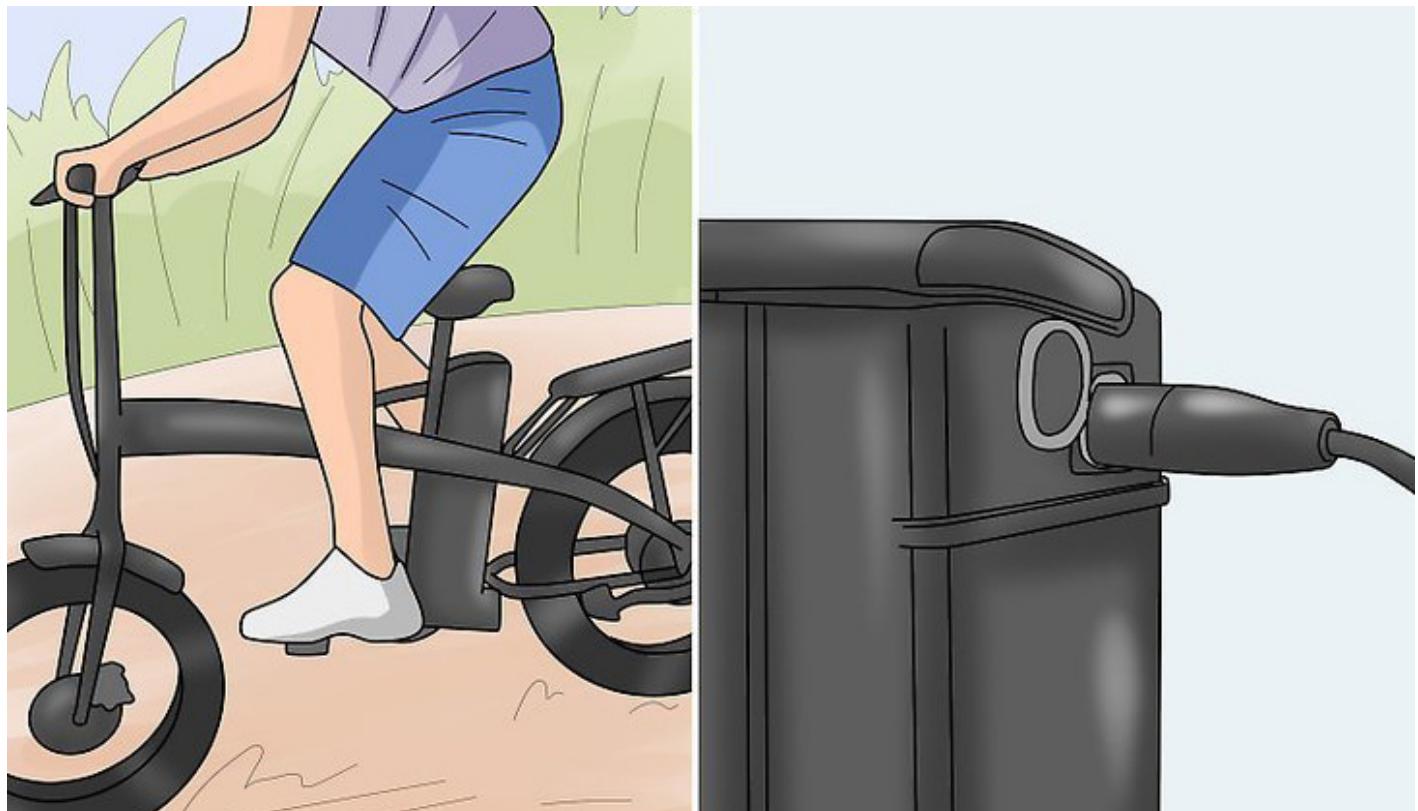


07. CHARGING YOUR BATTERY

Connecting the Charger:

Plug the output end of the charger into the charging port on the vehicle, then connect it to the power supply to begin charging.

Note: Do not charge the battery if the temperature is below 0°C, as it may cause damage. Wait until the battery reaches a higher temperature before starting the charge.



Battery Maintenance and Usage:

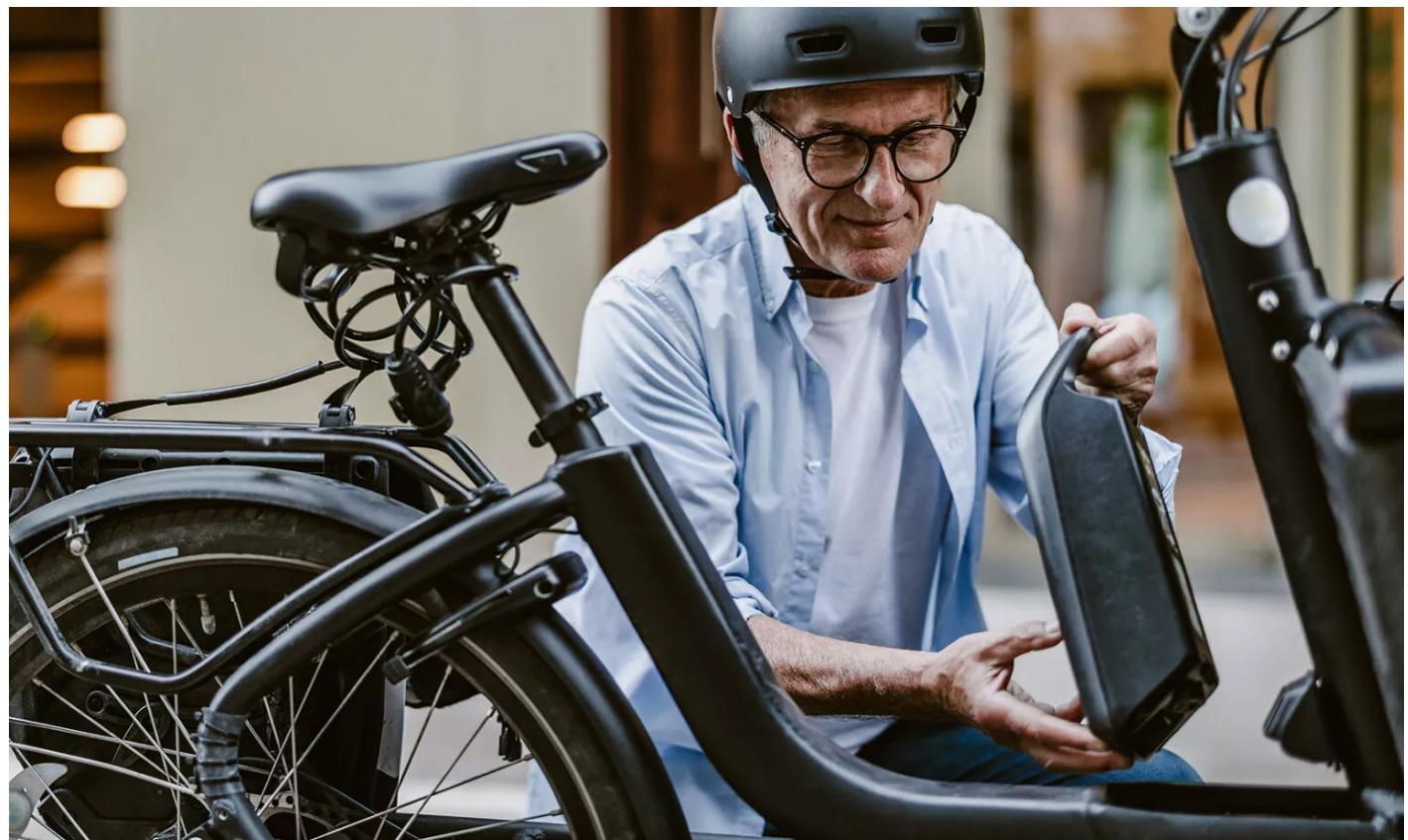
- Do not disassemble used batteries; they should be recycled by professional agencies.
- If the vehicle will not be used for more than a month, turn off the air switch or unplug the power and store the battery fully charged.
- When not charging, ensure the charging port is sealed by securing the rubber cap.

Portable Charging:

1. Prepare for Charging: Ensure the electric door lock is in the off position. Open the battery compartment and turn off the air switch.



2. Remove the Battery: Disconnect the discharge and communication plugs from the battery. Then, lift the battery out and close the battery compartment cover.



08. TROUBLESHOOTING

S/N	Items	Cause of Issue	Troubleshooting Method
1	You are trying to turn on the power, but the motor does not work	1. The battery cable can be loose 2. The central speed control connector can be disconnected 3. Might be a loose or disconnected motor wire 4. The brake handle or brake switch might be faulty	1. Check whether the connection line is completely connected 2. Try to reconnect firmly 3. Tighten and reconnect firmly 4. Check the brake handle and switch
2	Speed regulation failure or low maximum speed	1. Battery voltage is too low 2. Speed control handle failure	1. Fully charge the battery 2. Replace the speed central control at our shop
3	Insufficient range on a single charge	1. low tire pressure 2. Insufficient charge or faulty charger 3. Improper brake adjustment, excessive riding resistance 4. The battery is old or damaged 5. There are many uphills, headwinds, frequent acceleration and deceleration, and heavy loads	1. Inflate tires to proper pressure 2. Fully charged or check the charger plug contacts 3. Readjust the brakes 4. Replacement battery 5. It is normal to have reduced battery performance for using the bike in such an environment
4	Charger not charging	1 The plug of the charger is disconnected or the connection is loose 2. The plug of the battery pack cable is loose	1. Insert the plug or connector tightly and open the battery compartment cover , insert the plug tightly 2. Open the battery compartment cover, plug in the plug tightly
5	Abnormal bike body noise during riding	Your bike chain might have been too tight	Adjust chain tightness
6	Connect the power supply to connect the output terminal of the charger to the charging port of the battery. After charging, the charger does not work normally, and the power speed meter has no power display	Battery over-discharge protection due to long-term non-charging or improper battery storage	Connect the output terminal of the charger to the charging port of the battery, connect the input plug of the charger to the mains grid, and then press and hold the battery speed meter button, and the battery enters the forced activation charging mode. After the battery speed meter lights up, the battery enters the normal charging state
7	Others	1. When you encounter a fault that cannot be eliminated by yourself under the above guidance or a fault that cannot be recognized. 2. The motor, controller, charger, and battery are damaged.	In case of the above situation, please contact our shop, and do not open the above parts without authorization, otherwise you will lose the warranty for the parts

S/N	Fault Code	Controller Failure sound reminder	Failure Level	Fault type	Troubleshooting
1	c001	****	Level 1	Bus volatage too low or high	check if the voltage of the battery pack is consistant with the input voltage
2	c002	*****	Level 2	Controller temp too high	stop for cooling, control long term use
3	c003	***	Level 1	Controller overload protection	checj the phase wire of the motor, is it short-circuited or lose
4	c004	*** *	Level 1	Current sensor failure	hardware failure, contact our shop
5	c005	** ****	Level 1	Power circuit failure	hardware failure, contact our shop
6	d001	****	Level 2	Motor overheat protection	check the temperature of motor, stop and cool the motor down
7	d002	*** **	Level 1	Motor position sensor failure	Check the wiring of the motor positon sensor
8	d003	*** ***	Level 2	Motor phase loss	Check the wiring of the motor sensor
9	d004	*** ****	Level 1	Motor stall protection	The power range of the motor is exceeded, please ride under suitable conditions
10	E001	*****	Level 2	BMS communication failure	check whether the communciation cable is loose
11	c006	***** **	Level 1	hardware overcurrent	check the phase wire of the motor if it is short circuited or lose
12	A001	/	Level 1	Battery cell dropped	Hardware Failure, contact our shop
13	A002	/	Level 1	unbalanced cells	Hardware Failure, contact our shop
14	A003	/	Level 1	Discharge MOS damaged	Hardware Failure, contact our shop
15	A004	/	Level 1	Charging MOS damaged	Hardware Failure, contact our shop
16	A005	/	Level 2	Secondary overcurrent	Check whether the discharge current of the controller becomes bigger
17	A006	/	Level 2	MOS temperature sensor failure	Hardware Failure, contact our shop
18	A007	/	Level 2	Cell temperature sensor failure	Hardware Failure, contact our shop
19	A008	/	Level 1	Discharge overheating	Stop cooling, control long-term overload operation
20	A009	/	Level 1	Charging overheating	Check whether the charger matches the battery, or if the charger is damaged. Power off to cool down or use forced air cooling
21	A010	/	Level 2	Discharge MOS over temperature	Stop to cool, strengthen your air cooling and check the discharge current in the controller
22	A011	/	Level 2	Charging MOS temperature is too high	Check if the charger matches the battery, or if the charger is damaged
23	A012	/	Level 1	Discharge fuse Damage	Hardware Failure, contact our shop
24	A013	/	Level 1	Charging Fuse Damage	Hardware Failure, contact our shop
25	A014	/	Level 2	Three-level overcurrent	Check whether the discharge current of the controller becomes larger

09. MAINTENANCE AND TIMELINE

Initial Inspection

The first inspection should be carried out between 10-30 km of normal riding and includes the following checks:

- **Wheel Spokes:** Ensure the wire spokes of both the front and rear wheels are tight.
- **Headset:** Check for any gaps in the headset, particularly in the direction of the bike's front.
- **Chain:** Inspect the tightness of the chain.
- **Shock Absorber Adjustment:** Check for oil leakage and ensure the compression and rebound damping are correctly set. (Note: Do not over-adjust the knobs to the extreme left or right.)
- **Handlebar Screws:** Ensure all screws on the handlebar are tight.

Important Safety Notice:

During the entire maintenance process, the vehicle must be powered off. Do not perform any adjustments or inspections while the vehicle is turned on or running. Always ensure that safety is prioritized when checking the vehicle.

General Inspection Guidelines

If abnormalities are detected during any inspection, address them before riding. If the issue cannot be fixed by yourself, contact after-sales service or an authorized service outlet.

Brake System Maintenance

- The front and rear brakes use disc brakes. If the brake friction lining is severely worn, replace the friction lining promptly.
- Keep the disc brake system clean to avoid mud, sand, or oil contamination.

Inspection of Operating Parts

1. Shock Absorbers:

- Check for bending, deformation, or damage.
- Ensure the front shock absorbers are functioning properly without oil leakage or looseness.
- Move the handlebar up and down to detect any abnormal noise due to faulty shocks.

2. Brake System:

- Check if the free clearance of the brake handle is within the specified range of 15-30mm. Adjust if needed.
- Perform a braking effect inspection: ride at low speed on a dry, flat road and test the front and rear brakes separately for their effectiveness.

3. Tire Inspection:

- Regularly check for damage from road debris like stones, glass, and nails.
- Check the tires for cracks, foreign objects, abnormal wear, and damage.
- Measure tire pressure with a gauge when the tires are cold. Inspect the rim spokes for tightness and check the tire groove depth. Replace the tires when wear reaches 2/3 of the bump.
- If abnormal noises or swaying occurs during riding, contact after-sales service or an authorized outlet.

4. Chain Tension:

- Ensure chain tension allows for 10-20mm of vertical movement.

Tightening Torque Requirements

- **Center axle:** 30 N•m
- **Rear axle nut:** 40 N•m
- **Front axle:** Torque specifications vary depending on the front fork design.

Brake Check Notice:

Firmly hold the brake handle during braking. If the desired braking effect is not achieved, check whether the disc is clean. If cleaning does not resolve the issue, please contact after-sales service or visit a designated authorized service outlet for further inspection.

Battery Voltage Measurement:

The e-bike uses a sealed ternary battery. To check its performance, fully charge the battery, then use a multi-meter to measure the voltage at the positive and negative terminals of the discharge port. Ensure the voltage aligns with the specifications listed on the battery label.

2. Battery Condition:

Inspect the battery for any damage, particularly to the upper and lower sealing covers. Any damage could increase the risk of water ingress, which could cause malfunction. In case of damage, contact the after-sales service.

Important Battery Installation Notice:

Make sure the electric door lock is closed, switch to the air setting, and cover the charging port with its sealing rubber cap. Do not force the battery into the compartment if it does not fit. Inspect for any foreign objects blocking the compartment. In winter storage, the recommended room temperature is above 0°C. Regularly check the battery condition.

Correct Charger Use:

Only use the original model charger that matches your bike. Using an incompatible charger may damage the battery or create safety hazards. Ensure that the charger's input voltage matches the grid voltage. Avoid leaving the charger connected for more than 6 hours even after the battery is fully charged, as this may harm the system. Do not disassemble the battery yourself, as this can lead to damage and danger. If the battery has entered over-discharge protection, refer to Article 6 in the after-sales manual for activation methods.

Regularly check the following:

Motor Screws: Ensure they are properly tightened.

Wiring: Ensure that both the motor and controller wiring are not loose and that insulation is intact.

Fuses: Ensure the fuse is not loose.

Avoid riding in deep water to prevent water damage to the motor.

Power Reduction: If the motor or controller becomes overheated or the battery is too low, the vehicle will automatically reduce power. This is a normal feature to protect the vehicle.

09. MAINTENANCE AND TIMELINE

Fuse Replacement

If, after turning on the air switch and electric door lock, the dashboard, horn, or lights do not work, a blown fuse might be the cause.

To replace the fuse:

1. Turn off the air switch and open the battery compartment cover.
2. Locate the fuse box, remove the protective cover (the fuse box is wrapped with black insulating tape from the factory).
3. Remove the damaged fuse and replace it with the spare fuse from the box cover.
4. Close the fuse box, reinstall the protective cover, and close the battery compartment cover.

Notice:

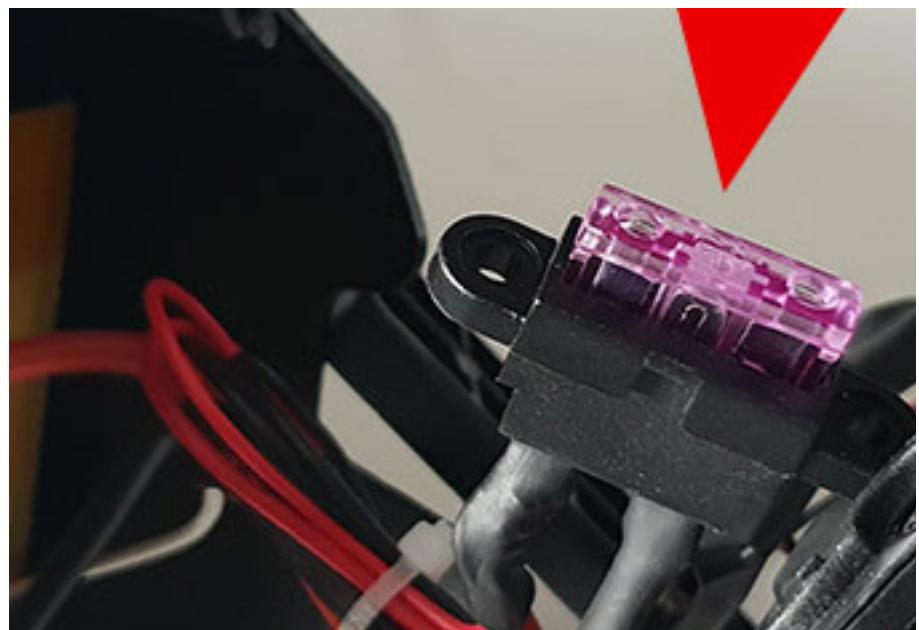
- Ensure that the fuse is installed firmly to avoid overheating or other failures.
- Replace with a fuse of the specified model and specifications. Using a fuse with improper specifications can prevent proper fuse protection.
- If the fuse blows again shortly after replacement, check for any other underlying issues beyond the fuse.
- Avoid strong water flow directed at the fuse area to prevent damage.

Maintenance Periods:

Periodic maintenance can greatly prolong the service life of the vehicle, especially after intense riding or riding on non-paved roads (off-road), it is necessary to thoroughly check the condition of the vehicle to ensure that all parts of the vehicle body can work normally.

Regular Maintenance Record Card

Maintenance Period	Maintenance Items	Maintenance Stamp
300km/1 month	Vehicle fastener inspection, chain tension inspection, (motor/wheel, train/brake/spoke, etc)	
1000km/3 months after the first maintenance	Fastening inspection of safety components, high current circuit inspection, chain tension inspection (motor/wheel/train/brake/spoke, etc)	
2000km/6 months	High current circuit inspection, brake oil circuit inspection, brake pad inspection, spoke inspection, chain and belt tension inspection	



ENDING NOTE

Congratulations and Welcome to the Superhuman Family!

Thank you for choosing the Champ electric bike! We're thrilled to welcome you into the Superhuman community, where adventure, innovation, and sustainability come together. You've made an exciting investment in your journey towards exploration, fitness, and eco-friendly commuting.

As you embark on this new chapter, we encourage you to embrace the freedom that comes with riding. Whether you're cruising through city streets, exploring scenic trails, or enjoying a leisurely ride with friends and family, the Champ is designed to enhance every experience.

Remember to take a moment to familiarize yourself with the features and capabilities of your bike—your safety and enjoyment are our top priorities. We also invite you to connect with fellow riders in our community, where you can share tips, stories, and inspiration.

Your journey starts now, and we can't wait to hear about the adventures that await you. So gear up, take a deep breath, and let the wind guide you.

Enjoy every moment on your new bike, and here's to countless miles of joy and exploration ahead!

Ride On!

