

STOMP
Haywire

USER MANUAL

Key Points To Note

This manual contains the following warning symbols throughout. For safe vehicle operation, always follow the safety instructions. Please read carefully—key safety alerts are prominently marked in critical locations.

Danger

Lack of precautions could cause fatal accidents to workers or others in the vicinity.

Warning

If safety measures are not followed, personnel may be injured or components damaged.

Caution

Implement protective measures to prevent potential damage to parts.

Note:

- 1) Read this manual in its entirety before operation. Never ride without complete understanding of this electric off-road bike's performance characteristics.
- 2) This manual is designed to help you fully master the operating procedures, key maintenance point and fundamental servicing knowledge of the electric off-road motorcycle.
- 3) You may also visit our official website www.stompmoto.com to access the digital version of this manual. Should there be any updates, we will publish them on the website immediately to ensure you obtain the latest version.
- 4) When reselling the vehicle, you must provide this manual to the new owner along with the motorcycle.
- 5) Should any operational or maintenance problems arise with your motorcycle, please contact an authorized after-sales service center.

Mode Of Transport

Transport Tip: Use padded ratchet straps to securely fasten bike, maintaining proper tension to prevent movement and surface damage. Secure the ratchet straps at the designated points shown in the illustration. Secure the front with two straps on the handlebars. Secure the rear with two straps on the left and right swingarm tubes. Route all straps clear of the drive chain and brake lines. Maintain approximately 45° angle between ratchet straps and the motorcycle centerline. Operate ratchet straps strictly according to the manufacturer's instructions.

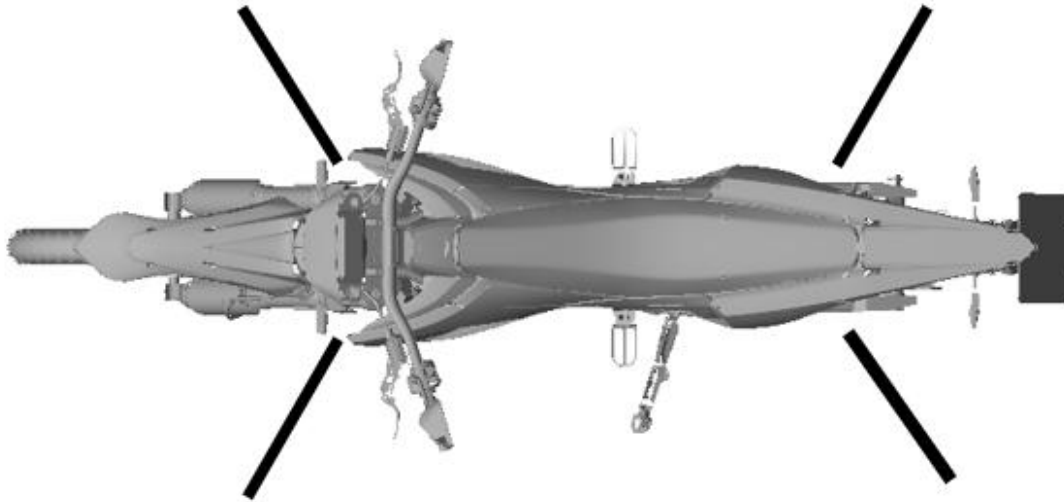


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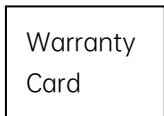
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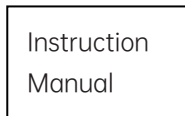
1. Product List

User Profile

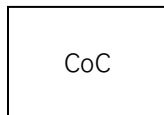
Warranty Card x1 x1



Instruction Manual x1



Certificate Of Compliance x1



Accessories

Charger x1



Tool Kit x1



Key Box x1



2. Functional Diagram

2.1 Complete Vehicle Diagram



2.2 USB & Type-C



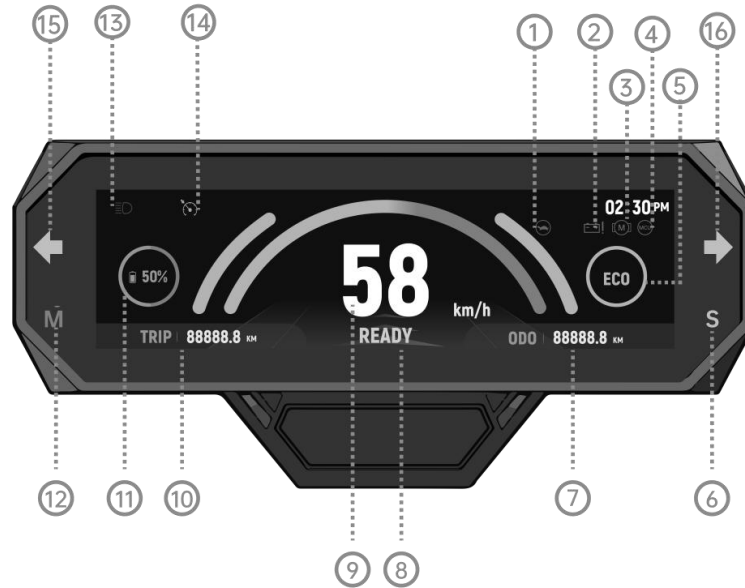
This model is equipped with USB charging port. The specific parameters and usage instructions are as follows:

Interface Type	Supported Protocols	Output Power
Dual interfaces: Type-A + Type-C	USB2.0、QC2.0、QC3.0、 BC1.2、FCP、AFC	Single-port output: Max. 18W; Dual-port simultaneous output: Total max. 20W.










Caution





Before connecting, verify the correct port type to ensure compatibility. After charging is complete, disconnect the cable and securely close the protective dust cover to maintain port safety and integrity.

2.3 Dashboard



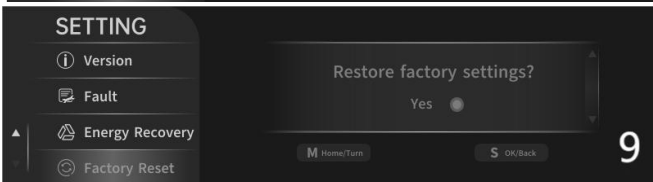
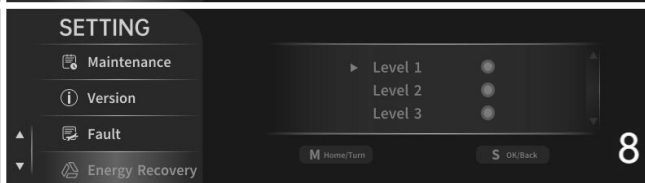
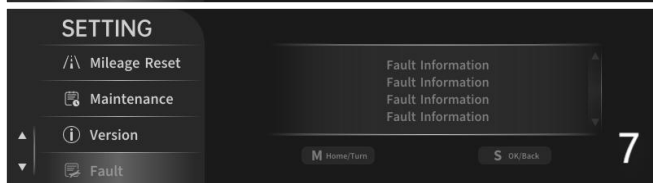
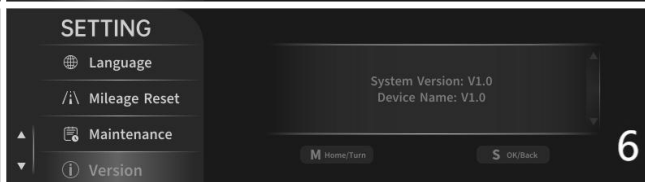
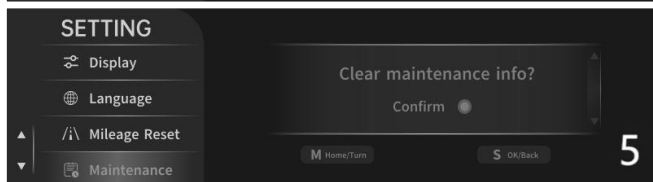
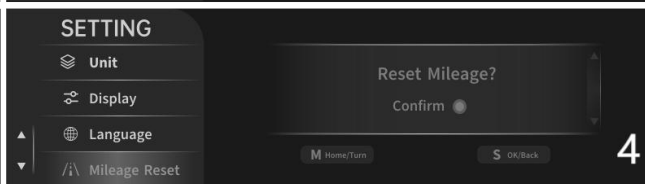
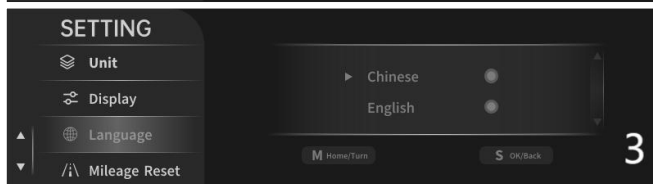
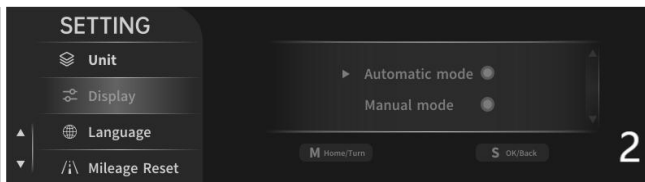
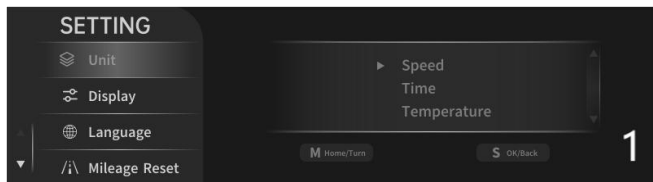
Number	Icon	Name	Working Status
1		Limp home mode	<p>Passive Limp Mode: During operation of the vehicle, when the battery power is below 20%, the indicator lights up. Meanwhile, the system will enter limp mode and limit the motor output. In ECO mode, the speed is limited to 30km/h and your remaining range is less than 25km.</p> <p>Active Limp Mode: It also appears when the kill switch on the handlebar is pressed.</p>

2		Battery low indication	When the battery power is below 5%, the indicator lights up. The vehicle will enter ECO mode and the speed is limited to 5 km/h. The remaining range is less than 3 km. This state represents the limit of the battery's remaining capacity. DO NOT continue to use charge the battery immediately.
3		Motor failure lamp	When the motor fault light is on, the vehicle motor is faulty. It is necessary to reduce speed until you stop then contact an authorized after-sales service center.
4		Controller fault light	When the controller fault light is on, the vehicle controller is faulty. It is necessary to reduce speed until you stop then contact an authorized after-sales service center.
5		Speed mode display	ECO Green 58km/h, TRAIL Blue 82km/h, SPORT Orange 96km/h, TURBO Red 96km/h.
		R gear	When R is displayed, it is in reverse mode and the max speed is 5km/h.
		P gear	When P is displayed, it is in park mode and the vehicle cannot start driving.
6	S	Confirm key/set key	"S" key Short press: Confirm/ go to the next menu level. Long press: Return to the previous menu level.
7		Total mileage display	Displays the total mileage traveled up to the current time after the vehicle system was activated for the first time.
8	READY	Run ready indication	When the vehicle is started correctly according to the starting process, the instrument lights up the operation ready indication and the vehicle is allowed to enter riding state.
9	60 km/h	The current speed is displayed	Displays the real-time speed of the vehicle.
10		Automatic Trip Distance	Trip distance since vehicle start.
11		Battery level display	Real-time display of battery remaining power, including real-time charge display for charging.

12	M	Home/page turn key	In main dashboard: Short press: No Function. Long Press: Cycle through available data screens. Hold "M" and "S" key to access/ exit settings menu. "M" Key Short press: Move to next menu item.
13		High Beam Indicator	The indicator lights up when the vehicle's high beam is turned on.
14		Cruise Control Icon	This icon illuminates when the vehicle enters cruise control mode.
15		Left Turn Indicator	When the left turn switch is activated, the turn indicator flashes green.
16		Right Turn Indicator	When the right turn switch is activated, the turn indicator flashes green.

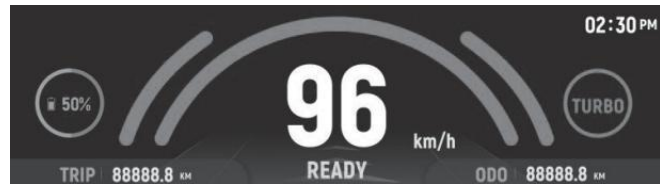
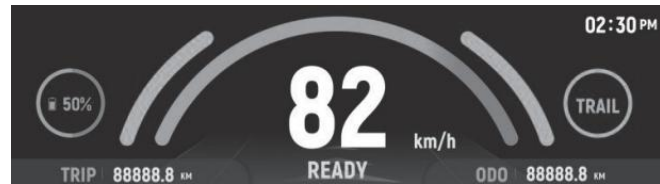
2.4 Instrument Cluster Settings Introduction

Number	Function	Operation Steps
1	Speed unit setting	Settings → Unit Settings → Speed → Metric/UK
	Time system setting	Settings → Unit Settings → Time → 12-Hour Time / 24-Hour Time
	Temperature unit setting	Settings → Unit Settings → Temperature → Fahrenheit(°F)/Celsius (°C)
2	Display mode settings	Settings → Display → Automatic mode
		Settings → Display → Manual mode → Bright mode/Night mode
3	Language settings	Settings → Language → Chinese/English
4	Mileage reset setting	Settings → Reset Mileage → Confirm
5	Clear maintenance information Settings	Settings → Clear maintenance Info → Confirm
6	Version information confirmation Settings	Settings → Version → Device Name /System Version
7	Fault information confirmation	Settings → Fault → Fault Information
8	Energy recovery settings	Settings → Energy Recovery → Level 1/Level 2/Level 3
9	Restore factory setting	Settings → Restore factory settings → Yes

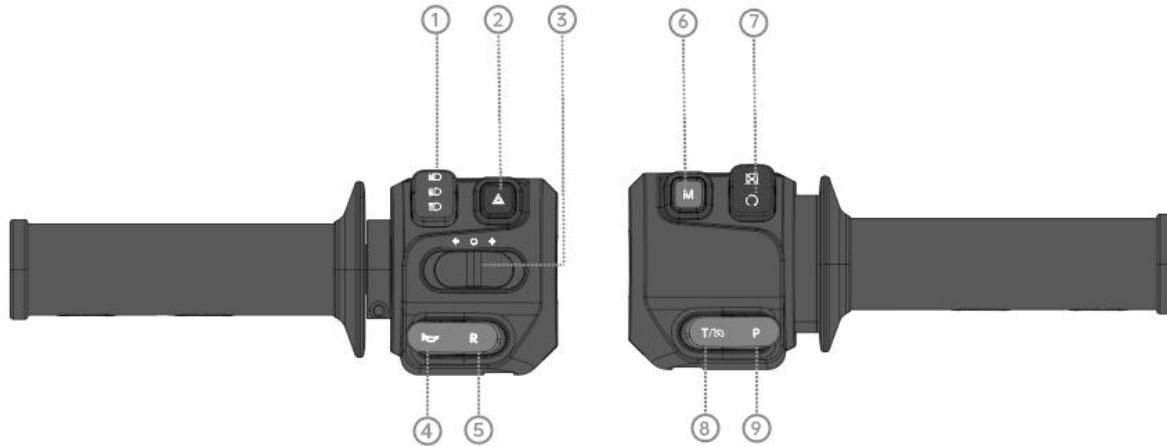


2.5 Speed Mode Introduction











Speed Mode	Meaning
ECO	The interface is green and the top speed is 58km/h.
TRAIL	The interface is blue and the top speed is 82km/h.
SPORT	The interface is orange and the top speed is 96km/h.
TURBO	The interface is red and the top speed is 96km/h.



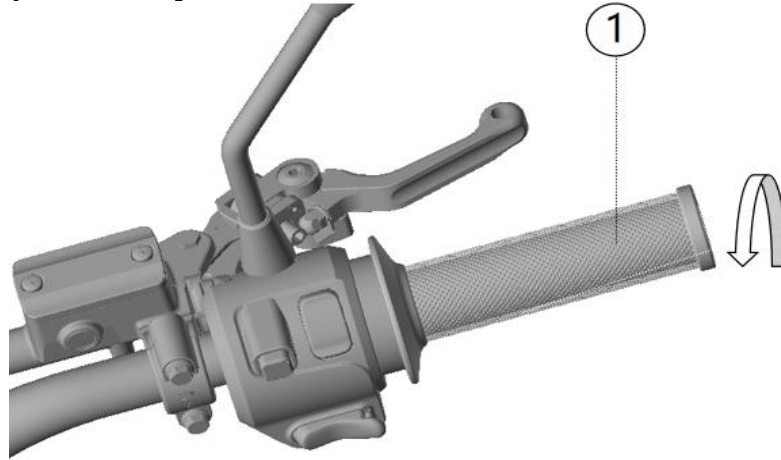
2.6 Handlebar Functions Introduction



Number	Icon	Name	Operation Method
1		High Beam Flash	To use the headlight flasher, press and release the passing switch repeatedly. The high and low beams will alternate and flash.
		Low Beam Button	The bikes low beam headlight is on automatically when the bike is turned on.
		High Beam Button	With high beam on, press this button to turn on the high beam.
2		Hazard Light Button	Press the button: left and right turn signals flash simultaneously. Press again: turn signals stop flashing.

3		Left Turn Signal Button	Toggle the button to the left position to activate the left turn signal.
		Turn Signal Reset Position	Return the turn signal switch to its neutral position to deactivate the left/right turn signal.
		Right Turn Signal Button	Toggle the button right to activate the right turn signal.
4		Horn Button	Press this button to sound the horn.
5		"R" Reversing Button	Press this button, then twist the throttle to enter reverse.
6		"M" Gear switch Button	The "M" gear cycling buttons, with the default setting being "TRAIL". Pressing the buttons will cycle through "TRAIL", "SPORT", "TURBO", "ECO".
7		Off Switch	Press this button to disable the throttle, the bike will enter park (P mode).
		Start Button	Press this button to enable the throttle, you can then shift out of Park (P Mode).
8		Cruise Control Button	Short press this key to activate cruise control when the vehicle speed is within the range of 3 to 96 km/h. Cruise control can be deactivated by short pressing this key again, short pressing the M key, or applying the left or right brake lever.
9		"P" Button	Apply the brake and press this button to exit Park (P Mode). Press this button for 2 seconds to enter Park (P mode).

2.7 Electronic Grip Assembly



Electronic Grip Assembly

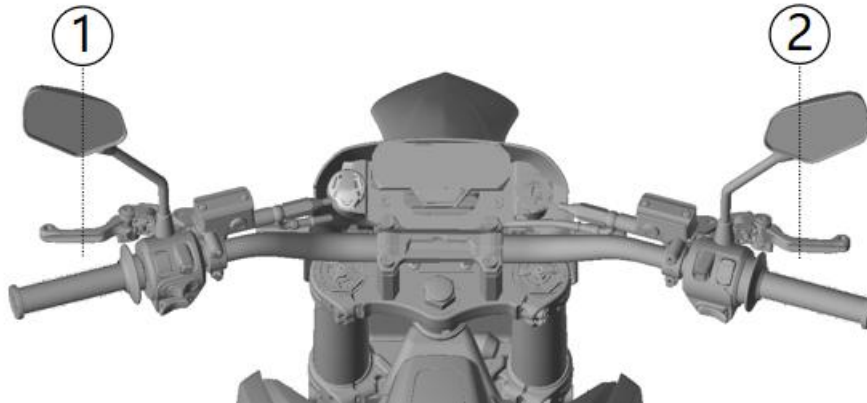
The vehicle integrates an Electronic Grip Assembly ①; When the rider twists the right-side electronic grip, the controller will integrate information such as the grip rotation angle, motor speed, gear position, motor temperature and vehicle mode to provide the optimal output torque.

Note: When the vehicle is started, if the electronic grip is not in the closed position the vehicle can enter ready mode from " P" gear but it will not move. To resume riding, the electronic grip must be returned to the closed position.

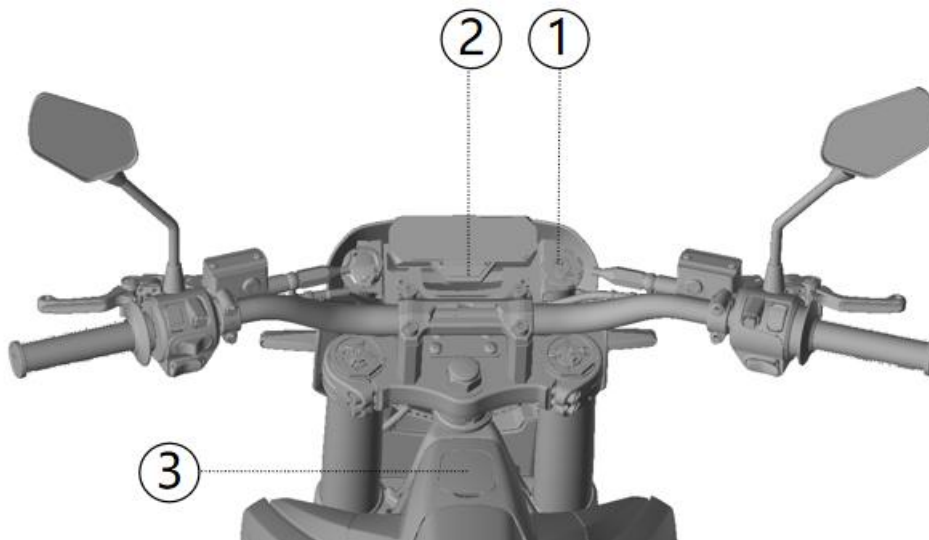
2.8 Front And Rear Hydraulic Brake Levers

1) The front brake lever ② is located on the right side of the handlebar. Operating the front brake lever activates the front brake caliper.

2) The rear brake lever ① is positioned on the left side of the handlebar. Pulling the rear brake lever engages the rear brake caliper.



2.9 Lock Position



①	Mechanical Lock
②	NFC Sensing Area
③	Seat Lock

2.10 Unlocking Methods

1) Mechanical Key Unlock

Mechanical key unlocking: Each bike is equipped with two keys. To start, insert the key into the barell and rotate to the marked position.

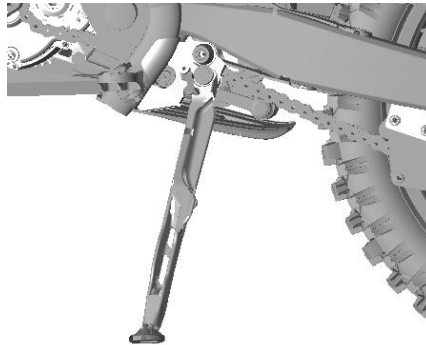
2) NFC Key Unlock

Power-on: Each bike is equipped with two NFC Cards which are unlocked by fully touching the logo area of the NFC on the instrument panel.

2.11 Side Stand

The side stand is located on the left side of the vehicle and is used for parking.

Warning: When starting or operating the vehicle, retract the side stand completely and secure it with the retention strap to prevent accidental deployment.



3. Battery And Charging

3.1 Charging Protocol

DO NOT charge in residential buildings/garages.

DO NOT leave unattended during charging.

Only use the approved charger.

Only charge with an AC circuit that has surge protection.

Maintenance charge once every month (when there are periods of inactivity, keep topped up to 80% - set a reminder in your phone).

Refer to the user manual when charging/storing in extreme temperatures.

If you are unsure when your battery was last charged, speak to an authorised dealer and have it inspected/ replaced.

It's your responsibility to ensure your battery stays in good health.

Failure to follow these instructions could potentially lead to serious battery failure or fire.

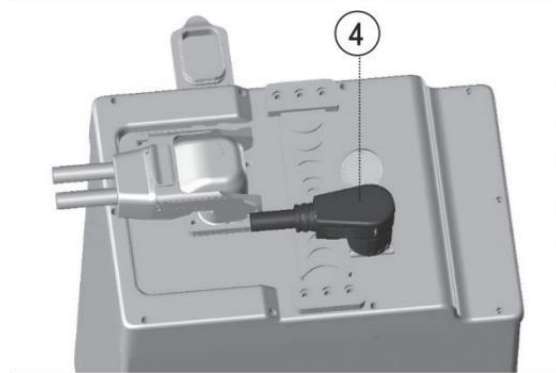
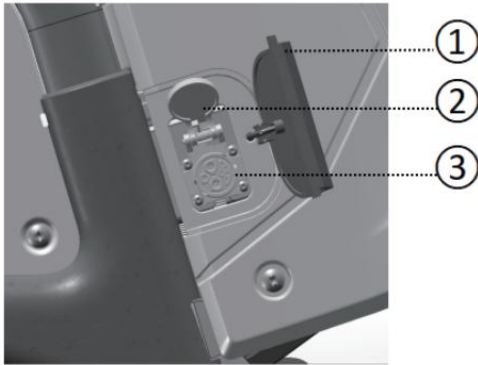
3.2 Charging Port And Charging

1) First, open the charging port cover by sliding it towards the front of the bike ①. Second, lift the dustproof cap ②. Third, insert the charger output port into the battery charging socket ③ on the left side of the vehicle body, ensuring that it locks into place. Then, plug the charger plug into a power outlet and switch on to begin charging.

2) Voltage compatibility: Ensure the charger's input voltage range (AC 95-125V/ 190-250V) matches the local grid supply. Before charging, ensure that the socket's power load capacity meets the charger's power demands.

3) You can directly plug the charger's output port into the battery charging socket ③ on the left side of the vehicle body for charging or plug it into the charging socket ④ of the removed battery pack for charging.

4) The charger will automatically shut off once the battery is fully charged. Please disconnect the power supply and unplug the charging cable promptly.



⚠ Warning

When charging , always connect the battery port first, then plug in the AC Power input. During charging, always place the device in a secure location out of reach of children. Avoid using the battery immediately after a full charge. For optimal performance and safety, allow it to rest for at least 10 minutes before use.

Do not cover the charger with any objects during use. Please use it in a dry and well-ventilated environment. After charging is complete, please cover the charging socket of the vehicle or battery pack with the rubber cap.

 **Warning**

Do not charge or park inside residential buildings. Keep away from flammable or explosive materials during charging and keep away from open flames or sparks. Avoid overcharging.

Do not charge in enclosed spaces or high-temperature environments and avoid charging in rainy or humid conditions.

Do not plug or unplug the charger with wet hands.

Charging should be supervised to prevent accidents.

3.3 Charger

1) When the battery is fully charged or charging is stopped. First, unplug the charger from the power outlet. Then disconnect it from the battery port. Disconnect the charger promptly after charging is complete. Prolonged float charging of fully charged battery packs is strictly prohibited.

2) Please use only the original charger and a stable 100-240V AC Power source for charging. Charging the vehicle with generators or other similar equipment is strictly prohibited.

3) If abnormal indicator lights, unusual odors, or excessive casing heat occur during charging, immediately stop charging, unplug the power source and have the charger inspected or replaced at an authorized service center.

4) Do not use chargers from other electrical devices, as this may cause abnormal conditions such as battery overcharging damage.

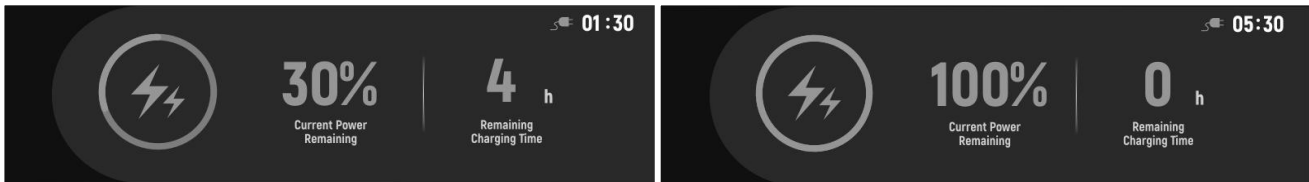
5) High voltage hazard! Do not attempt to disassemble, repair, or replace any components inside the charger by yourself.

6) Using chargers with abnormal charging characteristics may result in undercharged or overcharged batteries.

- 7) The charger must be used and stored in a dry, well-ventilated environment. Prevent liquids, granular objects, or metal items from entering the charger to avoid internal short circuits.
- 8) Do not modify the charger in any way, including with extension cords, power strips, splitters, grounding adapters, surge protectors, or any similar electrical devices.
- 9) Do not continue to use the charger if the cable is worn, the insulation is damaged, wires are exposed, or there are any signs of significant damage.
- 10) Do not use the charger if its housing or charging connector is cracked, damaged, or shows any significant signs of wear.
- 11) The charger must be properly grounded during use. Correct grounding reduces the risk of electric shock in case of charger malfunction. If you are unsure whether the outlet is properly grounded, consult a qualified electrician for inspection and verification.

3.4 Charging Status And Time

After correctly plugging in the charger, the instrument cluster automatically enters the charging interface showing current battery percentage and charge time remaining. Once fully charged, the instrument cluster displays the fully charged status. For normal ambient temperatures: Using an 880W charger takes 5.5 hours. Different countries require different charger plug standards.



3.5 Battery Storage/Usage Environment

- 1) Do not store/use in environments prone to water immersion.
- 2) Do not store/use in high-temperature environments ($\geq 45^{\circ}\text{C}/113^{\circ}\text{F}$).
- 3) Do not store/use in highly humid or rapidly fluctuating humidity conditions.
- 4) Do not store/use in dusty, or sandy environments.
- 5) Do not store/use near open flames or heat sources.
- 6) Do not store/use near flammable or explosive materials.
- 7) Do not store in airtight or sealed containers.
- 8) Do not store/use in areas accessible to children or pets.

Charging Ambient Temperature	Discharge Ambient Temperature
0°C~45°C	-20°C~60°C

The battery should be stored in a dry, cool and shaded environment.

If the battery casing is found to be cracked, smoking, or overheating during storage or use, promptly contact the after-sales service center for recycling or repair. When replacing the battery, only use the original manufacturer's battery. The use of non-original batteries may result in failure to start, circuit malfunctions, damage to electrical components, etc. Any faults caused by non-original batteries shall be the sole responsibility of the user.

3.6 Battery Maintenance

- 1) Before first use, charge the battery to 100% capacity.

2) When the battery level indicator shows 20% remaining, recharge as soon as possible. Avoid depleting the battery to its minimum level, as this may shorten its lifespan.

3) If the battery remains unused for an extended period, its self-discharge may lead to an over-discharged state. To prevent this, recharge the battery every 90 days to maintain its voltage at around 50% state of charge (SOC). Over-discharge can damage battery performance, characteristics and functionality. If charging is not possible, contact the dealer for after-sales service.

4) Disconnect the power supply promptly after the battery is fully charged. Avoid repeated charging due to self-discharge, as this increases charge cycles and reduces battery life. If charging issues persist, contact the dealer for after-sales service.

5) After a full discharge, the battery must be charged for at least 1 hour within 24 hours to prevent further self-discharge and potential damage.

6) Prohibited: Do not install any unauthorized electrical devices on the vehicle. Poor-quality electrical equipment may cause short circuits, fires, electric shocks, or other hazards. Additional electrical devices can also reduce the vehicle's range and battery lifespan.

7) Prolonged uphill riding or high-speed operation may cause the battery to overheat.

8) It is recommended to have the vehicle inspected and maintained by an authorized dealer every three months to check for loose connections, battery maintenance needs, etc.

9) Use only the original charger or designated charging station. Non-original chargers or unauthorized charging stations may result in charging failure or damage to the circuit/battery.

3.7 Riding Range Instructions

The range is measured under the following test conditions: a constant speed of 40kmh, with a 75kg adult test rider, starting from 100% battery charge until complete depletion (0%).

Different riding habits and usage environments may affect the actual range of the vehicle. Continuous high-speed riding, frequent braking and acceleration, riding with heavy loads, climbing steep slopes, installing additional power-consuming accessories or riding against the wind can all lead to a reduction in range. Pay close attention to the vehicle's remaining range, plan your trips wisely and recharge the battery in a timely manner.

The range is closely related to battery capacity. As the battery ages and the vehicle's mileage increases, the battery capacity will gradually degrade, leading to a corresponding decrease in the total range. The range is also closely affected by ambient temperature—it will noticeably decrease in low-temperature environments, which is a normal phenomenon.

Improper battery usage or maintenance may accelerate battery capacity degradation, causing the vehicle's range to diminish more rapidly.

3.8 Safety Precautions

- 1) Do not add water to the battery or immerse it in water.
- 2) Do not place the battery near a fire source or heater.
- 3) Do not store the battery in high-temperature environments ($\geq 45^{\circ}\text{C}$), such as under direct sunlight, for extended periods.
- 4) Do not strike or throw the battery.
- 5) Do not apply external force that may cause the battery to crack or deform.
- 6) Do not use non-original chargers.

3.9 Fault Repair

If there is any malfunction in the vehicle's power supply or charging system, please visit an authorized after-sales service center for repair or replacement.

3.10 Precautions For Extreme Environments

3.10.1 Precautions For Low-Temperature Environments

1) Generally, low-temperature environments do not have a permanent impact on the vehicle's power battery. However, cold temperatures can temporarily reduce the battery's energy release. The colder the environment, the more noticeable the effect on the riding experience, such as reduced power output. Consequently, the time required for the vehicle to reach its top speed will also increase.

2) It is not recommended to drive the vehicle in environments below 0°C. If riding is necessary, ensure the vehicle is charged in an environment above 0°C after use. Please note that the battery management system prohibits the battery from discharging in temperatures below -20°C and prohibits charging in temperatures below -10°C.

3) Storing the vehicle at temperatures below -20°C may cause permanent degradation of the battery's performance, so it is not advisable to store the vehicle in extremely low temperatures. As long as the temperature remains above this threshold and long-term storage requirements are followed, the battery will not suffer permanent damage during winter storage, even if the temperature is well below freezing.

3.10.2 High-Temperature Environment

1) High-temperature environments will not cause any significant performance changes to vehicle operation. However, if the temperature of the battery exceeds 70°C, the battery management system will prevent the battery from further discharging.

2) At ambient temperatures above 40°C, the battery charging speed will decrease. When the ambient temperature exceeds 55°C, the battery will stop charging.

3) Storing the vehicle in direct sunlight at temperatures above 45°C may cause permanent degradation of the power battery's performance.

3.10.3 Vehicle Submerged In Water

If a vehicle is submerged in water, water infiltration may cause a short circuit, leading to the shutdown of the vehicle's dedicated voltage system. If the water is shallow or enters components that do not cause a short circuit, the

dedicated voltage system may not be deactivated. In such cases, completely disconnect the vehicle's power supply and contact an after-sales service center.

4. Power System Management

The power system used in electric motorcycles consists of a controller, motor and transmission system.

Users are strictly prohibited from disassembling the motor on their own, as this may lead to displacement of the position sensor and damage to the corresponding sealing devices and measures, resulting in motor malfunction or failure.

The transmission system contains lubricating oil. During operation, ensure the oil level remains within the proper range. Users are strictly prohibited from disassembling the transmission system without authorization.

The controller is a high-voltage precision electronic component. Incorrect wiring may cause controller damage. Unauthorized disassembly of the controller or wiring is strictly prohibited, as it may lead to severe consequences such as electric shock or burns.

The power system of the electric motorcycle must only be serviced or replaced by manufacturer-authorized or professionally trained technicians. Users are strictly prohibited from unauthorized disassembly or modification of the power system.

The power cables carry high current during operation. Therefore, ensure all cable connections are secure. Unauthorized disassembly of power cables is strictly prohibited. During maintenance, ensure cables are properly fastened, bolt torque and sealing meet requirements and cable insulation remains intact.

The power system operates at class B Voltage (greater than 60V) and the power cables are orange. During vehicle operation, maintenance or repair, ensure the insulation integrity between the cables and the vehicle is not compromised.

5. Safe Riding

5.1 Riding Safety

Warning

Different warning labels are placed in visible locations on the vehicle. Do not remove any warning labels. If these labels are missing, you or others may fail to recognize hazards, which could result in injury.

Danger

This product is only intended for capable persons, experienced in riding off road machines and is for use OFF ROAD ONLY.

Note the following:

Before riding, the user should inspect all parts of the vehicle according to the daily safety check section. If any issues are found, they should be repaired before riding.

The user must comply with local laws and regulations.

It is prohibited to operate the vehicle while under the influence of alcohol or drugs.

Always wear appropriate protective gear during all rides, including a helmet, boots, gloves and protective pants or a jacket.

Danger

Users are advised not to make any modifications to the vehicle, as improper modifications may lead to serious consequences.

Any modifications to the device or electrical components of this product may affect riding safety, range and overall vehicle performance.

Incorrect loading behavior may result in severe consequences.

Unsuitably installed accessories may pose safety hazards.

Always use genuine parts and our approved accessories.

The use of non-genuine parts, improper installation of accessories or incorrect loading may affect the vehicle's performance and even violate regulatory requirements. Please note that you are responsible for your own safety and the safety of others.

 **Warning**

The components and accessories equipped in this vehicle have undergone special design verification. Therefore, we strongly recommend using genuine parts and installing accessories approved by us.

 **Warning**

The change in the total vehicle weight has a significant impact on the vehicle's dynamic performance. Therefore, you must comply with our specified cargo weight, passenger capacity and installed accessories.

Note :

1) Due to continuous improvements in the design and quality of product components, there may be minor discrepancies between the printed manual and the latest vehicle models. The descriptions and procedures in the printed manual are for reference only.

2) Some features described in this manual may not apply to the currently available models. All descriptions and directions provided in this manual are based on the operator's perspective when seated in the vehicle.

3) Certain configurations mentioned in this manual may not be applicable to the vehicle you purchased. Please refer to the manual selectively according to your vehicle's specifications.

5.2 Safe Riding Tips

Here are the daily riding precautions that must be carefully read before riding to ensure safe and proper operation.

1) For safety, we strongly recommend wearing goggles and a helmet. You must be specific with any regulations where you are riding the motorcycle. You must also ensure you wear safety helmet, gloves and boots.

2) When climbing a steep slope, use Sport Mode to increase the motor's output torque and prevent motor overload. When braking, apply both the front and rear brakes simultaneously. Using only one brake may cause sudden skidding (sliding) and loss of control.

3) When descending a long slope, release the throttle to control speed and use the front and rear brakes for assistance.

4) When riding on wet terrain, try to use the throttle to control speed and minimize the use of front and rear braking. The throttle must also be applied appropriately to avoid excessive acceleration or deceleration of the rear wheel, which could cause the vehicle to skid.

5) Riding on wet or loose surfaces reduces the motorcycle's handling performance. Under these conditions, all your riding movements must be coordinated and smooth, as sudden acceleration, braking or turning may lead to loss of control.

6) Practice riding cautiously in open areas.

7) Avoid allowing loose clothing or fabrics to become entangled with the rider or motorcycle components.

6. Tyre

6.1 Tyre Specifications

1) Improper tyre pressure or exceeding the tyre's load limit may affect handling and vehicle performance, potentially causing loss of control.

2) Regularly check tyre pressure using a tyre gauge and make adjustments as needed.

3) Insufficient tyre pressure can lead to abnormal tyre wear or overheating.

4) Correct tyre pressure ensures optimal comfort and maximum tyre lifespan.

5) The manufacturer-recommended standard tyre specifications, rim specifications and tyre pressure range for the motorcycle are listed in the table below:

Category	Front Wheel			Rear Wheel		
	Wheel Rim	Tyre	Standard Pressure Range	Wheel Rim	Tyre	Standard Pressure Range
road tyres	J17-3.0	110/70-17	1.9~2.2bar (28~32psi)	J17-3.5	140/70-17	2.1~2.5bar (30~36psi)
off-road tyres	J21-1.6	80/100-21	1.6~1.8bar (23~26psi)	J18-2.15	110/90-18	1.8~2.0bar (26~29psi)

Note:

- 1) Check the tyre pressure when the tyres are cold.
- 2) Tyre pressure is affected by changes in ambient temperature and altitude. If the environmental temperature and altitude vary significantly during your ride, the tyre pressure must be adjusted and checked accordingly.
- 3) Most countries have their own regulations on the minimum tread depth for tyres and these rules must be followed.

 **Warning**

To ensure safety and stability during operation, only use the tyres and pressure recommended by us. If a tyre has been punctured and repaired, do not exceed 60 km/h within the first 24 hours. Use tyres from the same manufacturer with identical tread patterns for both front and rear wheels. New tyres have a smooth surface, which may lead to loss of control and potential injury. Drive moderately at varying angles to allow the entire tread of the new tyres to make proper contact with the road surface. After the break-in period, the tyre surface will develop normal traction. During the break-in period, avoid sudden hard braking, extreme acceleration and sharp turns.

6.2 Tyre Wear

- 1) When the tyre tread wears beyond the usage limit, it becomes prone to punctures or failures. Generally, 90% of tyre failures occur during the last 10% of the tyre's service life. Therefore, continuing to use tyres with completely worn tread poses a safety hazard.
- 2) As specified in the periodic maintenance chart, measure the tread depth and replace the tyres before they wear down to the minimum allowable limit.

3) Visually inspect the tyres for cracks, cuts or other damage. Replace the tyre if severe damage is found. For example, localized bulging on the tyre indicates internal damage and requires immediate replacement.

4) Remove stones, nails and other foreign objects embedded in the tyre tread.

 **Warning**

When the outdoor temperature is below -10°C and the vehicle needs to be parked for an extended period, it is recommended to store in a suitably enclosed location.

During prolonged winter parking, avoid using the side stand. Instead, use the center stand or a parking stand to prevent the tyres from bearing the full weight of the vehicle.

In winter, avoid leaving the tyres in prolonged contact with ice/snow.

For extended outdoor parking in winter conditions, it is advisable to place insulating materials such as branches, scrap paper or sand beneath the tyres to help retain warmth.

7. Braking System

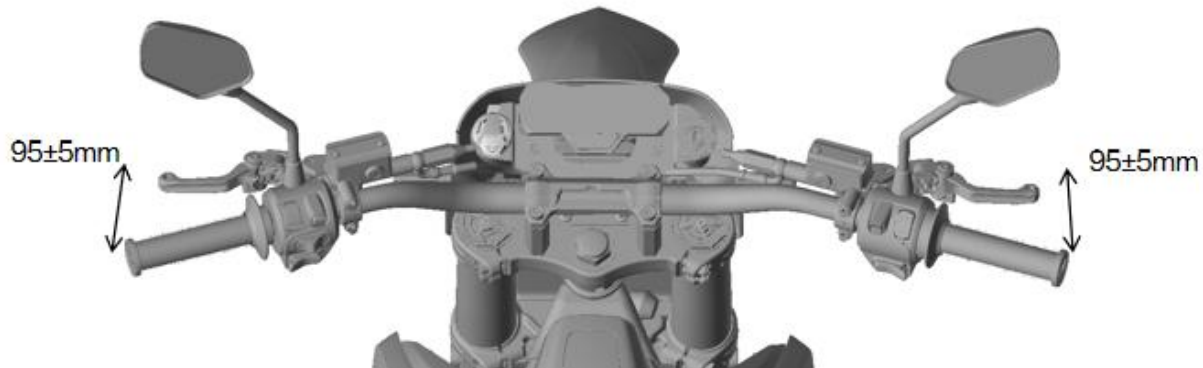
To ensure the vehicle's performance and personal safety, regularly inspect the braking system and keep all its components in good condition. If any malfunction occurs in the braking system, stop riding immediately and contact your dealer for inspection and repair.

7.1 Brake Lever Inspection

Use the side stand to support the vehicle, lightly squeeze the left and right brake levers to check the free play of the brake levers; inspect both brake levers for any damage, abnormal noises, etc.

Warning

If the brake lever feels spongy during operation, it may indicate air in the brake lines or insufficient brake fluid. When the vehicle exhibits such a hazardous condition, do not operate it. Immediately contact an authorized after-sales service center to inspect the braking system.



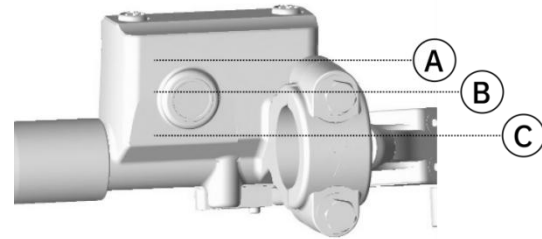
7.2 Brake Fluid Level Inspection

- 1) Place the electric off-road vehicle on a level surface in an upright position with the handlebars straightened to ensure the fluid reservoir is horizontal.
- 2) Check the brake fluid level at front and rear after the vehicle is parked and cooled down.
- 3) If the brake fluid level is in Zone A: Drain excess fluid until it reaches Zone B.
- 4) If the brake fluid level is in Zone B: The level is correct (no action needed).
- 5) If the brake fluid level is in Zone C or is not visible: Add the specified brake fluid until it reaches Zone B.

* The oil level in Zone B of the brake fluid can be observed through the oil window.

⚠ Warning

If the brake fluid level frequently remains in zone C, the braking system may be unsealed or damaged. Please contact an authorized after-sales service center immediately.



7.3 Brake Fluid Refill

⚠ Warning

Brake fluid can irritate the skin.
Ensure brake fluid is stored out of reach of children.
Avoid contact with skin, eyes or clothing. Wear protective clothing and goggles when handling.
If swallowed, seek medical attention immediately.
In case of skin contact, rinse the affected area thoroughly with plenty of water.
If brake fluid comes into contact with the eyes, rinse them immediately with water and seek medical attention promptly.
If brake fluid spills on clothing, change and wash the affected garments promptly.

 **Warning**

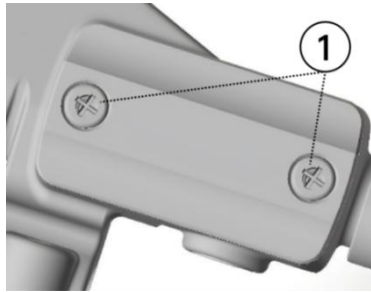
Brake fluid that has been used for too long will reduce braking performance. Please replace the brake fluid according to the maintenance schedule. Use only DOT5.1 brake fluid as specified on the oil reservoir. Mixing different brands of brake fluid may cause damage to the braking system—it is recommended to always use genuine factory brake fluid. If you are unsure of the original brake fluid brand, contact the after-sales service center for a complete replacement.

Note:

- 1) A drop in brake fluid level can create negative pressure inside the reservoir, which may cause the reservoir gasket to collapse. In this case, remove the reservoir cap to release the pressure, adjust the gasket and then reinstall both the gasket and the cap.
- 2) Avoid spilling brake fluid on painted surfaces, as it may damage the finish. Additionally, brake fluid spills on plastic components can cause corrosion.

7.4 Brake Fluid Refill Procedure

- 1) Remove the two bolts ① from the upper cover of the oil cup.
- 2) Take off the cover plate and oil cup gasket.
- 3) Refill the brake fluid to area B.
- 4) Inspect the cover plate seal to ensure there is no wear or damage and that it is properly positioned.
- 5) Install the upper cover bolts of the oil cup (torque: 4 N·m).



Note:

- 1) Before removing the oil cup gasket, clean all dust or debris from the cover plate to avoid contaminating the brake fluid.
- 2) If brake fluid spills, wipe it off immediately to prevent contamination of other components.
- 3) Before removing the cover plate, always place an absorbent towel under the master cylinder reservoir.

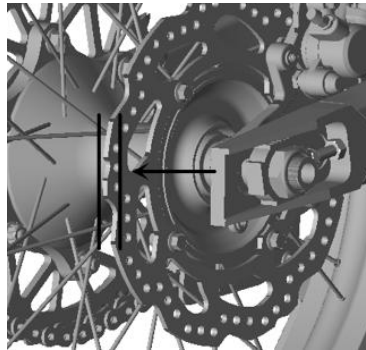
7.5 Brake Disc Inspection

- 1) Regularly check the thickness of the brake discs.
- 2) Front brake disc thickness: 2.5mm; Rear brake disc thickness: 3.5mm.
- 3) Brake pad inspection must be performed at the specified intervals in the maintenance schedule; refer to the maintenance cycle table in routine servicing and upkeep.
- 4) Visually inspect the remaining amount of brake lining material from the side of the brake caliper. If the brake pad thickness is less than 3mm, replace the brake pads.
- 5) If the metal part (A) of the brake pad is damaged, replace both brake pads immediately.

6) After installing new brake pads or discs, it is recommended to inspect and perform a break-in procedure (avoid hard braking for the first 200 kilometers) to ensure proper adaptation between the brake disc and pads. Correct break-in improves braking feel and reduces or eliminates brake noise. Replace the brake disc immediately if the maximum wear amount of the brake disc is ≥ 0.5 mm.

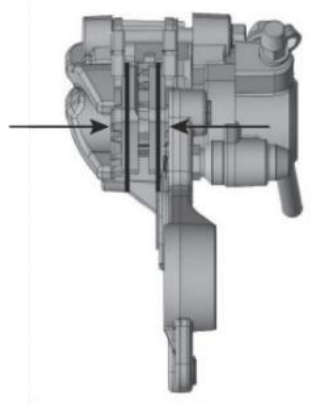
 **Warning**

When using a new braking system or new brake pads, the initial braking force may be relatively weak. Please try to break in the brake pads and discs at low speeds under safe conditions to ensure the braking system can provide normal braking force.



7.6 Brake Caliper Inspection

- 1) Before riding, check if the brake caliper is abnormal. Regularly inspect the minimum thickness of the brake pads. Excessively worn brake pads will cause the pad backing plate to grind against the brake disc, severely reducing braking performance and damaging the pads.
- 2) Check the minimum thickness of the brake pads on all brake calipers.
- 3) Minimum brake pad thickness: 3 mm.
- 4) If the brake pad thickness is less than the minimum requirement or if the pads are damaged, they must be replaced in pairs.



8. Shock Absorber

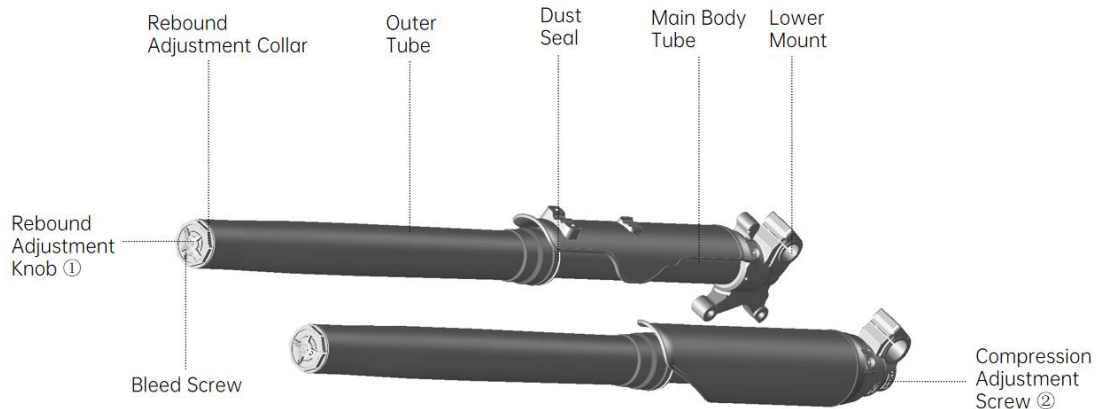
8.1 Shock Absorber Inspection

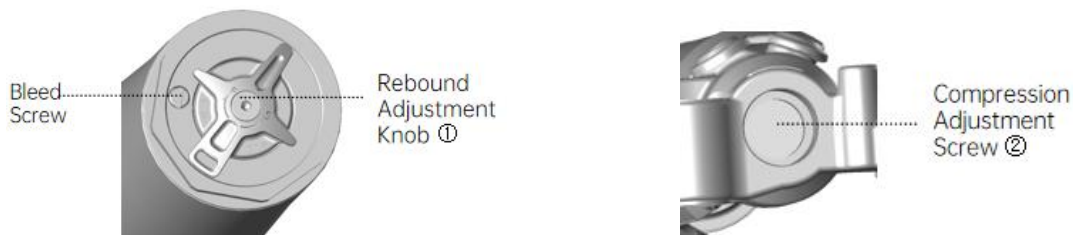
- 1) Hold the handlebars and compress the front fork several times to check if it operates smoothly.

- 2) Inspect for any oil leakage (especially around the oil seals). A slight oil film is normal, but dripping oil requires immediate replacement of the seals or shock absorber.
- 3) Check for scratches or abnormal friction noises on the working parts of the front fork tubes.
- 4) After riding, inspect the front shock absorber tubes for adhered mud or sand. If present, clean them promptly to prevent oil seal damage and shock oil leakage.
- 5) Press down on the seat several times to check if the rear shock absorber functions smoothly.
- 6) Observe whether the rear shock absorber is leaking shock oil.

8.2 Shock Absorber Adjustment

8.2.1 Front Shock Absorber: External Appearance and Accessory Names





Note: Knob configurations vary by model, please refer to the actual product.

The factory default settings for compression and rebound damping levels are set to the mid-position, corresponding to 50% of the total damping adjustment stroke.

8.2.2 Front Shock Rebound Damping Adjustment

1) Rotate Knob ① clockwise to increase rebound damping, which slows down the rebound speed of the shock absorber; conversely, rotate Knob ① counterclockwise to decrease rebound damping, which speeds up the rebound speed of the shock absorber.

2) When adjusting the rebound adjustment knob, set the left and right sides to the same position. Apply moderate force during adjustment: stop immediately when slight resistance is felt. Do not exceed the adjustment limit of the knob.

3) Rebound damping can be adjusted flexibly according to the rider's weight, riding habits and road conditions:

For mountain roads or bumpy roads, rotate the rebound adjustment knob counterclockwise to speed up the rebound speed of the shock absorber and help the suspension recover quickly between bumps and maintain tyre contact with the

road. For urban roads or smooth roads, rotate the rebound adjustment knob clockwise to slow down the rebound speed of the shock absorber and improve vehicle stability, chassis control and ride comfort .

Generally, excessively fast rebound speed may cause bouncing or kickback during riding; excessively slow rebound speed may lead to reduced vehicle height and a stiff feel when passing over consecutive bumps. The optimal rebound damping setting is to minimize the "rapid continuous rebound" phenomenon of the shock absorber.

8.2.3 Front Shock Compression Damping Adjustment

1) First, pry open the dust cover at the bottom of the shock absorber with a flathead screwdriver, then rotate the Compression Adjustment Screw ② with a dedicated adjustment tool. Rotating it clockwise will increase the downward resistance during shock absorber compression and make the shock absorber stiffer; conversely, rotating it counterclockwise will reduce the downward resistance during shock absorber compression and make the shock absorber softer.

2) When adjusting the compression damping adjustment screw, set the damping of the left and right shock absorbers to the same level. Apply moderate force during adjustment: stop immediately when slight resistance is felt. Do not exceed the adjustment limit of the screw.

3) For driving on smooth roads, rotate the compression adjustment screw clockwise to increase damping and improve driving stability.

4) When the load is increased or riding with a passenger, appropriately increase the compression damping to prevent the shock absorber from bottoming out.

5) If the vehicle body sinks too quickly, or wobbles unsteadily during cornering, appropriately increase the compression damping.

6) For driving on rough roads, rotate the compression adjustment screw counterclockwise to reduce damping and enhance riding comfort.

7) If the shock absorber sinks slowly, or becomes stiff and causes vehicle bouncing when passing through consecutive rough roads, appropriately reduce the compression damping.

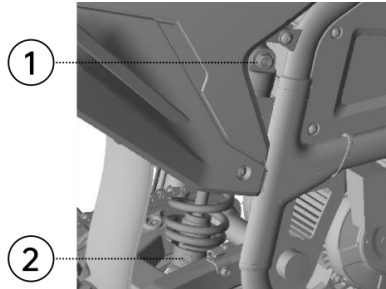
The above parameters are for reference only. The actual settings should be flexibly adjusted according to road conditions and load.

8.2.4 Rear Shock Compression Damping Adjustment

Rotate Knob ① clockwise to increase the downward resistance during shock absorber compression and make the shock absorber stiffer; conversely, rotate Knob ① counterclockwise to reduce the downward resistance during shock absorber compression and make the shock absorber softer.

8.2.5 Rear Shock Rebound Damping Adjustment

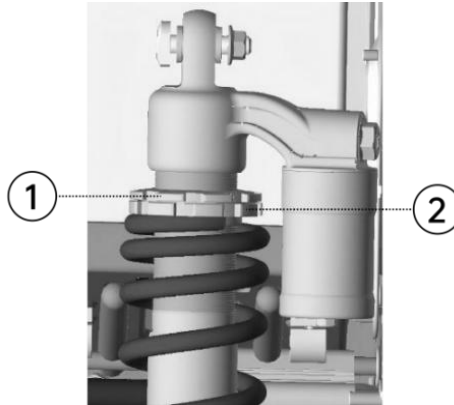
Rotate Knob ② clockwise to increase rebound damping and slow down the shock absorber's rebound speed; conversely, rotate Knob ② counterclockwise to decrease rebound damping and speed up the shock absorber's rebound speed.



8.2.6 Rear Shock Preload Adjustment

1) Use the adjustment wrench to loosen the spring lock ring ①.

- 2) Use the adjustment wrench to turn the adjustment ring ②.
- 3) Rotate the adjustment ring ① counterclockwise to reduce spring preload, or rotate the adjustment ring ② clockwise to increase spring preload.
- 4) After adjustment, use the adjustment wrench to tighten the spring lock ring ①.



8.2.7 Setting Rear Suspension SAG

Correctly setting rear suspension sag ensures optimal handling, stability, and suspension performance. Rear sag consists of static sag (motorcycle only) and rider sag (motorcycle with rider).

Tools required:

- Measuring tape
- Assistant (recommended)

Procedure

1. Identify the measurement points

Locate the sag marker on the rear fender. The reference point is the joint between the side panel and rear fender. All measurements are taken vertically between this point and the center of the rear axle.

2. Measure fully extended length (L1)

Place the motorcycle on a center stand or suitable lift so that both wheels are off the ground and the rear suspension is fully extended.

Measure the distance from the center of the rear axle to the sag marker and record the value (example: 800 mm).

3. Measure static sag (L2)

Remove the motorcycle from the stand and place it on level ground.

Allow the motorcycle to rest upright under its own weight, without a rider.

Gently compress and release the rear suspension once to overcome stiction, then allow it to settle naturally.

Measure the distance again between the same two points and record the value (example: 770 mm).

Static sag = $L1 - L2$

Example: $800 \text{ mm} - 770 \text{ mm} = 30 \text{ mm}$

4. Measure rider sag (L3)

With the rider wearing normal riding gear, sit or stand on the motorcycle in a normal riding position.

Have an assistant measure the distance between the same two points and record the value (example: 705 mm).

Rider sag = $L1 - L3$

Example: $800 \text{ mm} - 705 \text{ mm} = 95 \text{ mm}$

5. Adjust spring preload

Adjust the rear shock spring preload until:

- Static sag is approximately 25–35 mm

- Rider sag is approximately 95–100 mm

Minor variation is acceptable depending on rider preference and riding conditions.

6. Secure the adjustment

Once the correct sag values are achieved, fully tighten the preload locking collar on the rear shock absorber.

Notes:

1) Always recheck both static and rider sag after adjusting preload.

2) If correct rider sag cannot be achieved while static sag is outside the recommended range, the spring rate may be incorrect for the rider.

3) Sag should be set before adjusting compression or rebound damping.

8.2.8 Maintenance

The service life of the shock absorber depends on multiple factors, such as road conditions and operating environments. Impact, falling, abnormal use or rough operation will all shorten the product service life. Meanwhile, failure to perform maintenance on schedule or using incorrect maintenance methods will cause damage to components including oil seals, self-lubricating bearings, dust seals and main body tubes, leading to oil leakage faults. Please refer to the table below for detailed maintenance items.

Regular Maintenance and Inspection Checklist				
General Operation & Maintenance	Service Condition			
	Vigorous Use		Normal Use	
	Rough Terrain	Normal Road	Rough Terrain	Normal Road
Surface Cleaning	After each ride	After each ride	After each ride	After each ride
Air Bleeding	Before each ride	Before each ride	Before each ride	Before each ride

Clean Dust Seal	After each ride	After each ride	After each ride	After each ride
Oil Change	Every 6 hours	Every 20 hours	Every 30 hours	Every 30 hours
Oil Seal Replacement	Every 6 hours	Every 20 hours	Every 30 hours	Every 30 hours

8.2.9 Surface Cleaning

The surface of the shock absorber must be cleaned immediately after each ride, especially the sand and sediment attached to the main body tube.

When cleaning with a high-pressure water gun, it is strictly prohibited to flush upward against the dust seal, as this will flush sand and sediment into the lip of the oil seal and cause oil leakage.

Do not use flammable or corrosive solutions for cleaning, otherwise, it will damage the dust seal. Use neutral soapy water or dish soap with a soft cotton cloth for cleaning.

8.2.10 Air Bleeding

During riding, the lubricating oil inside the shock absorber will rub violently against the tube wall, thereby generating a small amount of bubbles. When the bubbles accumulate to a certain level, pressure will be generated, and the rider will feel stiff downward pressure and hand vibration. Therefore, please use the correct tool to perform the air bleeding operation before each ride, and tighten it clockwise after discharging the waste gas.

8.2.11 Clean Dust Seal

The dust seal must be cleaned after each intense ride. The specific steps are as follows:

- 1) Before cleaning your dust seal make sure to clean the rest of the bike first to remove any dirt or debris.

2) Use a small flathead screwdriver to carefully pry off the dust seal, being careful not to scratch the surface of the main body tube.

3) Slide the dust seal down along the main body tube, and use WD40 to remove dust from the inside of the dust seal, the surface of the main body tube and the lower part of the oil seal.

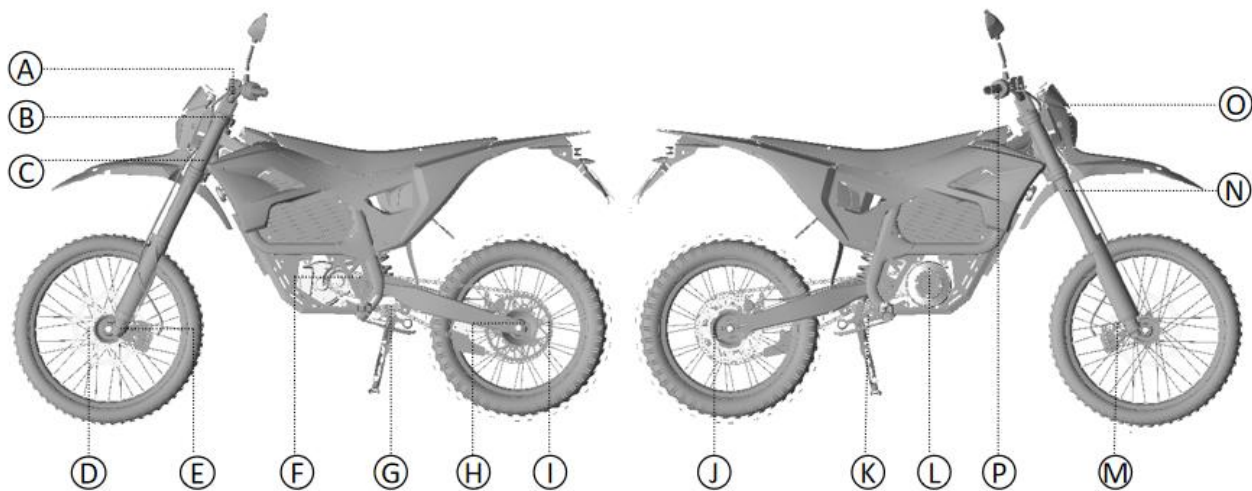
3) Squeeze the front shock absorber gently several times, then wipe off the circular oil stains on the main body tube.

5) Apply a little lubricating grease to the inside of the dust seal and the lower part of the oil seal.

6) Reinstall the dust seal, and press it back into the groove with your hand or tap it gently with a rubber hammer to its original position.



9. Key Fastener Torque Specifications



Number	Position	Name	Specifications	Remarks
A	Handlebar pressure block	Hex socket head cap screw	M8*110	23±4N·m
B	Front shock absorber upper mount	Hex socket head cap screw	M8*25	19±2N·m
C	Front shock absorber lower mount	Hex socket head cap screw	M8*25	15±2N·m

D	Front wheel brake disc	Hex head bolt	M6*20	9±2N·m
E	Front wheel	Front wheel hollow axle	M16*1.5	85±5N·m
F	Rear swing arm	Flange shaft	M16*1.5	95±5N·m
G	Side stand	Hex head shoulder bolt	M10*1.25	71±5N·m
H	Rear wheel	Rear wheel hollow axle	M22*1.5	85±5N·m
I	Rear sprocket	Torx socket countersunk head screw	M8*30	33±4N·m
J	Rear wheel brake disc	Hex head bolt	M6*20	9±2N·m
K	Rear shock absorber	T-slot bolt	M10*1.25	35±5N·m
L	Motor	Hex flange bolt	M10*1.25	71±5N·m
M	Front shock absorber lower mounting bracket	Hex socket head cap screw	M8*16	22±4N·m
N	Front fender	Torx pan head screw	M6*12	5±1N·m
O	Front windshield	Torx pan head screw	M8*16	22±4N·m
P	Brake master cylinder	Hex flange bolt	M6*12	9±2N·m

10. Chain

10.1 Chain Adjustment

- 1) Turn off the vehicle's power and use a paddock stand to lift the rear wheel off the ground.
- 2) Loosen the rear axle nut ①.
- 3) Loosen the lock nuts ③ on both left and right adjustment bolts ②.

- 4) Adjust the left and right adjustment bolts ② equally, move the chain up and down and check if the vertical deflection is within the recommended range: 35-40mm.
- 5) Tighten the rear axle nut ①.
- 6) Tighten the left and right lock nuts ③ to secure the position of the adjustment bolts ②.
- 7) Take a test ride on the motorcycle.
- 8) After the test ride, recheck whether the chain is properly adjusted and readjust if necessary.



Note:

- 1) The motorcycle chain is a critical safety component for transmission. Improper use or maintenance can easily lead to major safety accidents during operation.
- 2) Appearance & Abnormal Noises – If the chain and sprocket show signs of scratches, rust, wear, stiff links, O-ring detachment or produce unusual noises while riding, it indicates that the chain is damaged and has reached its service limit. In such cases, the chain must be replaced immediately and both the chain and sprocket should be replaced together.

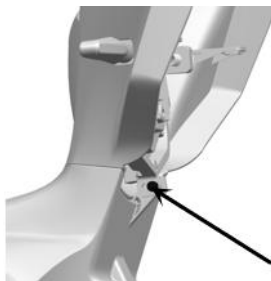
11. Lighting

11.1 Headlight Adjustment

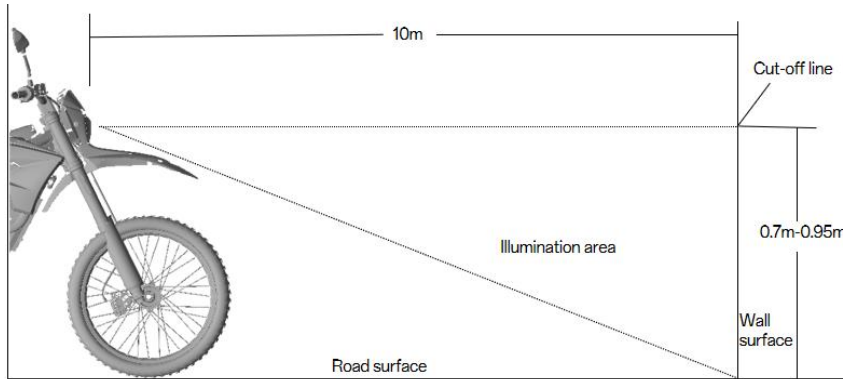
The headlight angle shall be inspected regularly to ensure it is correct. The headlight must be readjusted whenever the vehicle ride height or suspension setting changes, as this will affect the headlight beam angle. Before adjusting the headlight, the shock absorbers and tire pressure must be properly set. The headlight beam angle is vertically adjustable; an improper headlight beam angle will result in the light beam being directed too close or too far.

Headlight Angle Adjustment:

- 1) Before adjusting the low beam, ensure the motorcycle is in an upright position. The rider should be seated on the motorcycle to verify the beam angle accurately.
- 2) Loosen the mounting screws and nuts of the headlight fixing bracket, adjust the irradiation height of the headlight by moving the position of the headlight connecting bracket forward and backward.
- 3) After adjustment, ensure all screws and nuts are securely tightened.

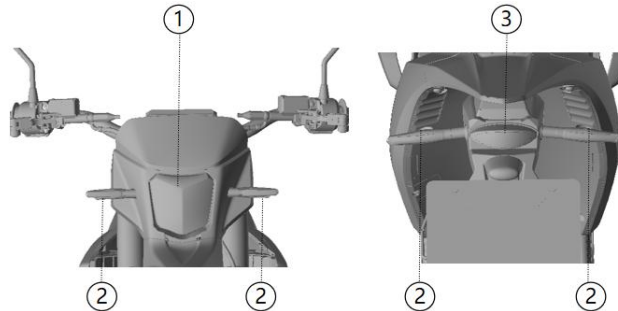


4) The correct illumination angle is defined as follows: at a distance of 10 meters, the cut-off line of the low beam shall be 0.7–0.95 meters above the road surface.



11.2 Lighting Fixture Replacement

If Headlight ①, Turn Signal ②, or Taillight ③ is damaged, contact an authorized dealer for complete replacement of the component.



12. How To Operate This Vehicle

12.1 Daily Safety Inspection

Check the following items before riding every day. Developing this habit will ensure your riding safety and the vehicle's reliability. If any abnormalities are found, refer to the adjustment section or contact your dealer for repairs. Continuing to drive with abnormalities may cause severe damage to the vehicle or lead to accidents.

Items	Content
Front wheel	Check the front wheel, spokes and bearings for excessive play and wear. Check the front tyre for cuts, embedded foreign objects or other damage. Verify that the front tyre pressure is correct.
Front brake	Check the thickness of the front brake friction pads. Check the thickness and contamination of the brake discs.
Rear wheel	Check the rear wheel, spokes and bearings for excessive play and wear. Check the rear tyre for cuts, embedded foreign objects or other damage. Verify that the rear tyre pressure is correct.
Rear brake	Check the thickness of the rear brake pads. Inspect the brake discs for thickness and contamination.
Motor	Inspect the motor housing for any damage.
Brake fluid level	Check the front brake fluid level for proper specification.
Instrument panel	Check the instrument panel for fault indications. Verify if the battery has sufficient charge.

Control components	Check the handlebars, front/rear brakes, throttle and switches for proper operation and smooth responsiveness.
Side stand	Check the side stand return spring for looseness or damage.
Engine kill switch	Check if the engine kill switch functions properly.

12.2 Vehicle Startup Sequence

Danger

Check the vehicle condition before each drive.

Be aware of local regulations and do not drive in prohibited areas.

- 1) Retract the side stand and sit on the vehicle; use the mechanical key/NFC card to power on the vehicle and enter P mode.
- 2) First, squeeze one of the brake levers while pressing the "P" button to enter Ready mode.

Warning

After unlocking with the mechanical key, the NFC card will no longer function. If unlocked via NFC, the vehicle can be turned off using the mechanical key.

12.3 Riding The Vehicle

Use the mode switch to select the appropriate mode and carefully rotate the electronic grip.

Note: When the electronic grip is not in the closed position, the vehicle can enter Ready state from P gear, but it cannot move. The electronic grip must be returned to the initial position before riding can resume.

12.4 Braking

- 1) During braking, release the electronic grip and apply both the front and rear wheel brakes simultaneously.
- 2) Complete the braking process before initiating a turn, reducing the vehicle speed to an appropriate level.
- 3) When riding downhill over long distances, use the rear brake force appropriately to maintain a steady speed.

Avoid prolonged braking to prevent overheating of the brake pads, which may lead to reduced braking efficiency.

Warning

Moisture and dirt can affect the braking system. When the brake discs are wet, carefully apply the brakes multiple times to dry the brake pads and discs and remove any contaminants.

If the brake lever or brake pedal feels soft, do not continue riding. The issue must be resolved before further use.

Prolonged braking can cause the brake pads to overheat and wear excessively, affecting their lifespan and safety.

When carrying passengers or luggage, braking distance may increase. Adjust your braking timing according to the vehicle's load.

12.5 Parking

- 1) Use the brakes to bring the vehicle to a stop.
- 2) Park the vehicle on firm, level ground.
- 3) Engage the side stand to support the vehicle, then press the "P" button to shift into Park (P mode).
- 4) Power off the vehicle using the mechanical key or by tapping an NFC card.

 **Warning**

Prevent unauthorized operation of the vehicle.

Certain vehicle components may become extremely hot after operation—avoid touching them.

Improper parking may cause the vehicle to slide or tip over, resulting in serious damage.

13. Common Error Codes And Troubleshooting Solutions

Fault List

Fault Code	Fault Name	Fault Description
140	BMS_error_ShortCircuit	BMS battery short-circuit fault
141	BMS_error_Group_OverVoltage	Battery pack overvoltage protection
142	BMS_error_Group_LowVoltage	Battery pack undervoltage protection
143	BMS_error_MOS_OverTemp	MOSFET over-temperature protection
144	BMS_error_DisCharge_OverTemp	Discharge high-temperature protection
145	BMS_error_DisCharge_OverCurrent	Discharge overcurrent protection
147	BMS_error_DisCharge_LowTemp	Discharge low-temperature protection
148	BMS_error_Charge_OverTemp	Charging over-temperature protection
149	BMS_error_Charge_OverCurrent	Overcurrent protection during charging
14A	BMS_error_Charge_MOS_Defect	Charging MOSFET failure
14B	BMS_error_Charge_LowTemp	Charging low-temperature protection
170	MCU_PhaseCurrentOver	Phase current overcurrent fault
172	MCU_BusbarVoltHigh	DC bus overvoltage fault

173	MCU_BusbarVoltLow	DC bus undervoltage fault
174	MCU_LogicVoltLow	MCU low-voltage power supply undervoltage fault
175	MCU_LogicVoltHigh	MCU low-voltage power supply overvoltage fault
180	Motor_OverTemp	Motor_OverTemp
181	Motor_PositionSensor_Fault	Motor_PositionSensor_Fault

The above lists common faults of electric motorcycles. If your electric motorcycle experiences any malfunction, please contact the after-sales service center promptly and have it inspected and repaired in a timely manner.

Common Troubleshooting

Common Fault Symptoms	Possible Causes Of Failure	Troubleshooting Solution
No power in the vehicle after startup	The battery connector is not fully inserted.	Check the battery plug.
	Low battery protection	Charge the battery.
	Battery in low/high temperature protection	Wait for the battery temperature to return to normal.
	Main cable fuse blown.	Check the wiring and replace the fuse.
	Poor contact in the electric lock plug.	Replug the connector or replace the electric lock.
	Battery defect	Have the battery serviced or replaced at an authorized service center.
	Brake power disconnect fault	Check the brake switch.
	Pre-start safety check: Throttle failure	Service at an authorized repair center.
	Low battery protection	Charge the battery.
	Motor over temperature protection	Wait for the motor to cool down before use.

	Controller over temperature protection	Wait for the controller to cool down before use.
After power-on, the power supply is normal, but the motor does not operate.	Accelerator throttle contact failure or damage	Replace the throttle grip.
	Poor contact in controller connector	Replug the controller signal plug
	Intermittent connection detected at encoder plug	Reconnect the motor encoder plug
	Controller failure or motor encoder failure	Repair or replace the controller at the designated after-sales service point.
Repair or replace the motor at the designated after-sales service point.		
After power-on, the power supply is normal, but the battery level indicator does not display.	Loose connection at power gauge connector	Please have the battery repaired or replaced at an authorized service center.
	Battery meter damaged	
The charger is not charging.	The battery temperature is too low or too high.	Please charge the battery only after its temperature returns to normal.
	The charger plug has poor contact.	Replug the charging connector.
	Charger malfunction.	Replace the charger.
	Battery malfunction.	Designated after-sales service point for battery repair or replacement

Power mode is inactive or power output has decreased.	The battery level is too low.	Charge the battery.
	The battery temperature is too low or too high.	Use the device after the battery temperature returns to normal.
	The motor or controller temperature is too high.	Wait for the motor or controller to cool down before use.
	The power mode switch is damaged.	Replace the combination switch.
The combination switch button is malfunctioning.	The combination switch connector is loose.	Reconnect the connector plug.
	The combination switch button is faulty.	Have it inspected at an authorized service center.
Abnormal instrument panel issues	No response after powering on when swiping the card or using the mechanical key.	Reconnect the instrument panel connector.
		Please have it repaired or replaced at an authorized after-sales service center.

Note: The above content may be updated and supplemented. Please obtain the latest version from the dealer or manufacturer's website.

 **Danger**

Do not attempt to repair electric motorcycle faults on your own, as this may lead to potential safety hazards or accidents. If users handle faults themselves and cause safety incidents, they shall bear full responsibility.

14. Vehicle Cleaning And Storage

14.1 General Precautions

Regularly keep your vehicle's exterior clean and ensure it is driven under optimal performance conditions to extend its service life. Use high-quality, breathable motorcycle covers to protect your vehicle.

- 1) Ensure the motor and motor controller are cool before cleaning.
- 2) Avoid using detergents on seals, brake pads and tyres.
- 3) Clean the vehicle manually.
- 4) Avoid using chemicals, solvents, detergents or household cleaners (e.g., ammonia) to wash your vehicle.
- 5) Gasoline, brake fluid and coolant can damage painted surfaces. If they come into contact with the paint, rinse immediately with water.
- 6) Avoid using metal brushes, steel wool or other overly abrasive materials to clean the vehicle.
- 7) Avoid using high-pressure water jets, as water may seep into seals and electrical components, damaging your vehicle.
- 8) Avoid spraying water into waterproof areas, such as the power battery, electrical components and charging port.

14.2 Vehicle Cleaning

- 1) Rinse off dirt from the vehicle using cold water.
- 2) Mix a suitable amount of cleaning agent (a cleaner specifically for motorcycles or cars) with a bucket of clean water. Use a soft cloth or sponge to wash your vehicle. If necessary, mix a bucket of mild degreaser to clean oil or grease stains.

3) After washing, rinse off any residue from the vehicle with clean water (leftover cleaning agent may damage your motorcycle parts).

4) Dry your motorcycle with a soft cloth and check for any scratches.

5) Ride your vehicle cautiously at low speed and apply the brakes several times. This helps dry the brakes and restore them to normal operating performance.

Note:

After riding in salt spray or near the sea, immediately rinse the vehicle thoroughly with cold water (never use warm water). Once dry, apply anti-rust oil to exposed metal surfaces.

14.3 Decorative Surfaces

After washing the vehicle, apply motorcycle- or car-specific wax to the coated surfaces of metal and plastic parts. Wax must be applied every three months or as needed to prevent the coated surfaces from becoming dull or losing their gloss. Ensure the wax used is a non-abrasive product and follow the manufacturer's instructions for application.

14.4 Plastic Parts

After cleaning, gently dry the surface of the plastic parts with a soft cloth.

Warning

If plastic parts come into contact with chemically reactive substances or household cleaning products, they may age and crack. Examples include gasoline, brake fluid, windshield washer fluid, thread-locking adhesive or other chemicals. If a plastic part is exposed to any reactive chemical, rinse it immediately with water and check for damage. Avoid using abrasive pads or brushes to clean plastic surfaces, as they may damage the gloss finish.

14.5 Metal Parts

Both aluminum alloy parts and steel parts can be oxidized by air, causing their surfaces to become dull and lose luster. They must be cleaned with a detergent and polished with a polishing agent. Both painted aluminum wheels and non-painted aluminum wheels require specialized detergents for cleaning.

Danger

When handling tyres, exercise extreme caution. It is essential to ensure that the rubber protectant applied to the tyres does not affect their functionality. Improper treatment may reduce the tyre's grip on the road, potentially causing the rider to lose control of the vehicle.

14.6 Vehicle Storage

If you plan to leave the motorcycle unused or in storage for an extended period:

- 1) For periods exceeding 30 days but within 3 months: The storage environment must be maintained between -20°C to 45°C, with humidity controlled at $\leq 65\%$ RH; and the battery connector must be disconnected.
- 2) For periods exceeding 3 months: The storage environment should be maintained at 25°C \pm 3°C with humidity controlled at $\leq 65\%$ RH. It is recommended to charge the vehicle's power supply to above 60% and disconnect the battery connectors.
- 3) During storage, the self-discharge rate of the battery will be very slow. However, it is still necessary to check the charge level monthly. If the charge level drops below 30%, recharge it to 60-80%.
- 4) To extend the service life of the vehicle's power supply, store the vehicle in a cool place. Storage in high-temperature areas will shorten the power supply's lifespan.

15. Routine Maintenance And Care

The following table lists the brake fluid and gearbox oil that require maintenance and replacement:

Component	Model	Oil Quantity
Brake fluid	DOT 5.1	Not lower than the oil sight glass level
Gearbox oil	L-CKD 150	110ml

Regular Maintenance

Motorcycles must be maintained according to the schedule to ensure safe and reliable performance. The following maintenance plan includes the required frequency and key points to note. If you lack sufficient experience, skills or tools, please visit the nearest authorized dealer for maintenance. Any damage to components or riding accidents caused by improper maintenance, disassembly or installation shall be the sole responsibility of the user.

The maintenance intervals in this schedule are based on normal riding conditions on paved roads. If you frequently ride in wet, dusty or off-road environments, some components may require more frequent servicing. Consult your dealer for recommendations tailored to your individual needs and usage. Regardless of mileage, it is recommended to service your motorcycle at least every 6 months.

Maintenance Schedule

The motorcycle must undergo regular maintenance as specified in this table to maintain optimal operating condition. Initial maintenance is crucial and must not be neglected. For items listing both time and mileage intervals, follow whichever requirement occurs first.

Recommended Check Items And Maintenance Cycle

Classification	Check Items	Each ride	Every 10 Operating Hours	Every 30 Operating Hours	Every 90 Operating Hours	Service required 10000km/12months
Electrical System	Battery voltage status	Check				
	Instrument display status	Check				
	Combination switch status	Check				
	Instrument fault code	Check				
	Whether the main cable and auxiliary cable are damaged and whether they are installed correctly	Check				
Braking system	Brake pads of the front wheel brake	Check		Replace		
	Brake fluid of the front wheel brake	Check			Replace	
	Brake disc of the front wheel brake	Check	Check	Check	Check	Check
	Brake pads of the rear wheel brake	Check		Replace		

Classification	Check Items	Each ride	Every 10 Operating Hours	Every 30 Operating Hours	Every 90 Operating Hours	Service required 10000km/12months
Braking system	Brake fluid of the rear wheel brake	Check			Replace	
	Brake disc of the rear wheel brake	Check	Check	Check	Check	Check
	Whether the brake lines are damaged and whether they are sealed	Check	Check	Check	Check	Check
	Free travel of the brake handle	Check				
Body system	Whether there is abnormal wear or damage on the frame and body	Check				
	Whether there is abnormal wear or damage on the plastic parts of the body	Check				
Lubrication system	Motor gearbox oil	Check			Replace	
	All moving parts (such as handles, chains, etc.) and check their flexibility	Check				
Suspension system	Front and rear shock absorbers	Check		Check/ Service		Check/ Service

Classification	Check Items	Each ride	Every 10 Operating Hours	Every 30 Operating Hours	Every 90 Operating Hours	Service required 10000km/12months
Suspension system	Whether there is clearance in the rocker arm system	Check				
	Whether there is clearance in the front and rear shock absorber system	Check				
Wheel system	Tightness of the wheel spokes	Check	Check	Check	Check	
	Status and pressure of the front and rear tires	Check	Check	Check	Check	
	Status of the wheel hub and rim runout	Check	Check	Check	Check	
Powertrain system	Chain	Check/Service	Check/Replace	Replace		
	Rear sprocket	Check/Service	Check/Replace	Replace		
	Motor sprocket	Check	Check/Service	Replace		
	Tightness of the chain	Check	Check/Service			

Classification	Check Items	Each ride	Every 10 Operating Hours	Every 30 Operating Hours	Every 90 Operating Hours	Service required 10000km/12months
Hoses and cables	Whether there are cracks in all hoses and sleeves, whether they are sealed and whether they are installed in the correct position	Check				
Fasteners and Bearings	Whether all bolts, nuts and hose clamps are tight	Check		Check		
	Clearance of the steering bearing	Check		Check		
	Whether there is clearance in the wheel bearings	Check		Check		
	All bearings of the vehicle	Check		Check		Replace

16. Basic Specifications

Model	Haywire
Dimension (mm)	2135 x 820 x 1345
Ground Clearance (mm)	340
Seat Height (mm)	920
Curb Weight (kg)	110
Front Tyre	80 / 100-21
Rear Tyre	110 / 100-18
Maximum Load (kg)	110
Wheelbase (mm)	1470
Fork Travel	245
Shock Travel	81
Motor Type	PMSM
PK Power (kW)	21
Maximum Torque (N·m)	720
Maximum Range (km)@40km/h	129
Battery	NCM Lithium 73V50Ah
Charging Time (hrs)(220Vac)/(110Vac)	5.5
Frame	16Mn Seamless Elliptical Steel
Modes Mode	ECO / TRAIL / SPORT / TURBO / REVERSE / PARK

17. Terminology Reference Table

Abbr.	Full Form	Definition
ECO	Economic Control Operation	The energy-saving operation mode of the motor and battery system design extends the range by optimizing the power output logic.
R Gear	Reverse Gear	Reverse gear.
P Gear	Parking Gear	Park (P) position - Its primary function is to mechanically lock the transmission, preventing unintended vehicle movement when parked to ensure safety.
NFC	Near Field Communication	NFC is a short-range wireless communication protocol based on 13.56MHz RFID technology, enabling bidirectional data exchange between electronic devices within 10cm (typically ≤ 4 cm), supporting both active and passive communication modes.
BMS	Battery Management System	The electronic control system for monitoring the electrical and thermal states of power battery packs (including individual cells, modules, or pack-level components) achieves safety protection, performance optimization and information exchange through real-time data acquisition, model estimation and actuator control.
MCU	Motor Control Unit	Electric Motorcycle Controller - A core control component primarily responsible for regulating the operating states of the electric motor.
MOS	Metal-Oxide-Semiconductor	The fundamental electronic device composed of a three-layer structure of Metal-Oxide-Semiconductor, whose core feature is controlling the formation and interruption of conductive channels through gate voltage.
PMSM	Permanent Magnet Synchronous Motor	A synchronous motor that uses permanent magnets (such as neodymium iron boron/samarium cobalt) to establish the rotor magnetic field.
NCM Lithium	NCM Lithium-ion Battery	The lithium-ion battery that uses a ternary cathode material of lithium nickel cobalt manganese oxide (NCM) or lithium nickel cobalt aluminum oxide (NCA).

Warranty

Complete warranty terms, service schedule requirements, and registration information are available on the motorcycle's Warranty Card or at www.stompmoto.com.

Disclaimer

The content of this manual is subject to change due to product upgrades. Please refer to the latest version on the official website. Faults caused by unauthorized modifications are not covered under warranty.

STOMP *Moto*

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