

M520 electric-car

product instruction manual

This manual only provides basic maintenance tips. If a problem occurs with the vehicle during use, please do not disassemble the vehicle without authorization and seek professional help. Loss caused by unauthorized disassembly of the vehicle shall be borne by the user.

When replacing vehicle parts, you should use qualified supporting parts produced by our company's authorized suppliers. If you use parts from other companies other than our company's authorized suppliers, you will not enjoy our company's warranty service, and the consequences will be borne by the user.

Please properly keep this manual, vehicle certificate, vehicle purchase invoice and other accompanying documents to ensure that you enjoy the perfect after-sales service provided by our company.

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Vehicle introduction

Nameplate, vehicle identification number, motor number

This vehicle's nameplate is on the right side of the driver's seat panel.

Vehicle identification number (VIN code): Please check the vehicle nameplate

Motor number: motor outer surface shell.

On-board documents

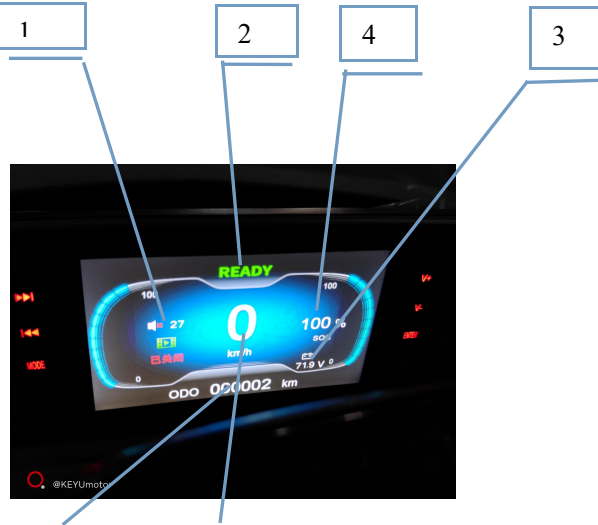
The documents provided with the vehicle include vehicle number information, vehicle maintenance and warranty manuals, etc.

Please be sure to keep them properly.

The documents provided with the vehicle include the user manual, warranty manual, and certificate of conformity. ◦

Instrument cluster

Overview of instrument cluster



1. Sound

2. Vehicle ready to start

3. battery voltage

4. battery remaining capacity

5. speed

6. Total travel odometer

Start switch



The start switch has two gears. After inserting the key, turn it clockwise to select different gears:

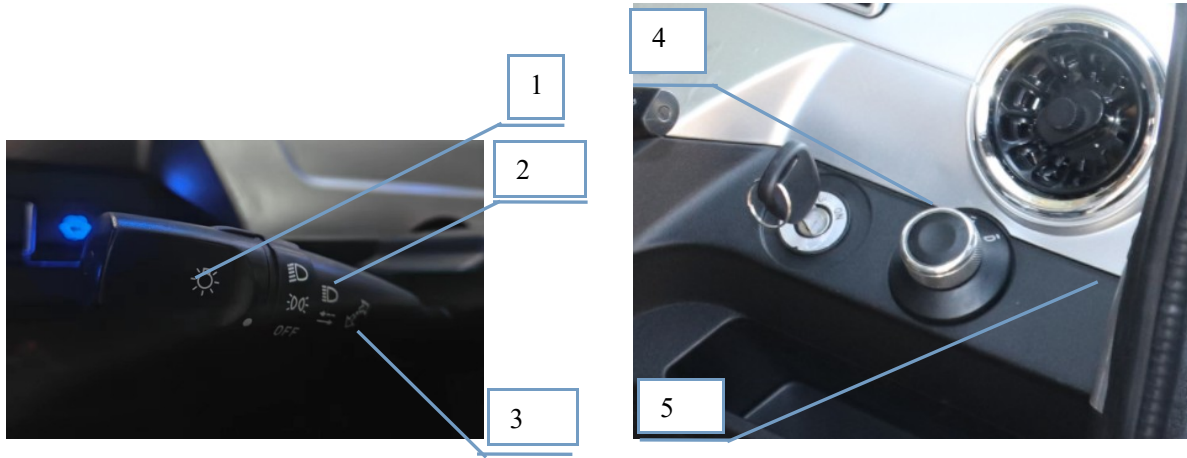
First gear: The power supply of the auxiliary facilities is connected, but the motor is not connected.

Second gear: Driving gear, all facilities in the vehicle are powered on.

⚠ Notice

- When starting the vehicle, the vehicle will vibrate slightly due to the motor being turned on, which is normal. If the motor is still not turned on 15 seconds after starting, you should check the vehicle wiring or contact our after-sales service.
- When the vehicle is stopped, be sure to turn off the start switch to prevent the battery from being discharged for a long time and affecting the vehicle's driving range.

Introduction to direction switch



1. High beam/low beam switch 2 .Fog light switch 3. indicator control 4 .key switch 5. Gear shift switch

Light control switch





lighting light switch

The light control switch is set on the left and right handlebars and can achieve the following operations:

● **Lighting switch operation:**

Control the turning on and off of the light by pushing the light switch on the right handlebar:

- ●gear: all lights off
-  Gear: At this time, the front and rear position lights, license plate lights, and instrument lights are turned on.
-  Gear: At this time, the front and rear position lights, license plate lights, headlights, and instrument lights are turned on.
- ●**Turn signal switch**
- By pressing the left or right side of the steering switch, the vehicle's left turn indicator light or right turn indicator light is turned on. When both sides of the switch are tilted, the turn indicator light is turned off.

●**High and low beam switch operation:**

When the headlight is on and in the low beam state, press the upper part of the high and low beam switch to switch to high beam (high beam). When the high beam (high beam) is on, the high beam indicator light on the instrument panel lights up.

If you need to activate the high beam (high beam) briefly as a passing signal, press the overtaking light switch in front of the left handlebar and release it after the signal is sent. This function is not controlled by the ignition switch.—If you need to activate the high beam (high beam) briefly as a passing signal, press the overtaking light switch in front of the left handlebar and release it after the signal is sent. This function is not controlled by the ignition switch.

Glass washer



Glass washer switch

Wiper motor control switch

The windshield wiper control handle controls the following operations:

- Glass washer switch: Press the water spray switch on the dashboard, and the water spray nozzle in front of the vehicle will spray water on the forward windshield.
- Wiper motor control switch: Press the wiper motor control switch on the dashboard to start or stop the front windshield wiper.

⚠ Notice

- Before using the wipers in cold weather when the windshield is frozen, you should first clear the snow and frost on the glass.
- Do not use the wiper on a dry windshield to remove dust, as it will scratch the glass and damage the wiper blade. Before using the wipers, spray washer fluid onto the glass.
- Do not use the washer without washing liquid.
- Before operation, check whether the wiper and washer systems are working properly.
- When the ambient temperature is below 0°C, antifreeze cleaning fluid should be used.

Trumpet



The horn button is Press the center button on the steering wheel

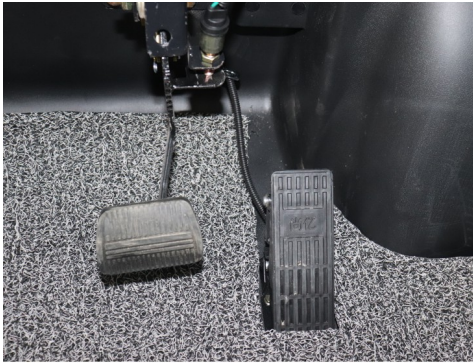
When the ignition switch is in any position and the horn button is pressed, the horn will sound.



warn

It is prohibited to press the horn switch for a long time. The time of pressing the horn switch for a single time shall not exceed 5 seconds.

Foot pedal



The pedal on the floor to the left of the driver is the brake pedal. Depress the pedal to brake the vehicle.

The pedal on the floor to the right of the driver is the accelerator pedal. Depress the accelerator pedal to start the vehicle.



warn

Do not depress the brake pedal and turn the accelerator on the steering wheel at the same time.

Shift switch



Shift switch

Neutral gear: N
Forward gear: D
Reverse gear: R

! Notice

When the vehicle is driving in one direction, do not immediately change the gear in the other direction. The vehicle must be stopped for 2 seconds before shifting to the gear in the other direction, otherwise the motor may be damaged.

Parking brake

- λ Pull up the parking handle to brake the rear wheels of the vehicle.
- λ When releasing the parking handle, first gently pull the parking handle upward, then press the unlock button on the top of the brake handle with your thumb, and then push the brake handle downward to release the rear wheel brake.



warn

- When leaving the vehicle after parking, be sure to use the parking brake.
- When the vehicle is in the parking brake state, do not operate the vehicle, otherwise it will cause irreparable damage to the braking system.
- If the parking brake cannot be reliably locked or completely unlocked, the vehicle should be inspected or contact our after-sales service center.

[E](#)
[xt](#)

erior rearview mirror

Adjust the angle of the exterior rearview mirror lens to the ideal position so that you can clearly see the situation on both sides of the road behind the vehicle.

The exterior rearview mirror is a convex mirror, which allows you to see the scene behind the car more broadly, while the

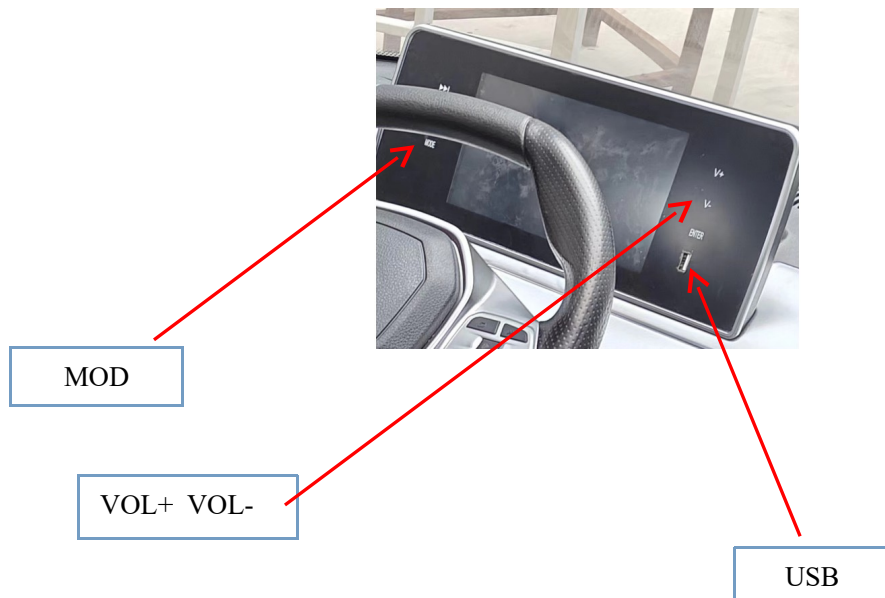
objects in the mirror appear to be closer than they actually are.



Notice

Improper adjustment of the rearview mirror will affect the line of sight and increase the possibility of accidents. Therefore, please adjust the angle of the rearview mirror before driving and check whether the mirror surface is damaged.

Radio



1. Radio frequency search

- –In the MP3 playing state, short press "▲" to select a track, and short press "▲" to select a track down.
- –In the MP3 playing state, long press "▲" to fast forward the track, and long press "▲" to rewind the track.

2.USB port: Open this cover to the right, there is a USB port inside, which can be used to connect a USB flash drive.

4. "MOD" button Mode switch button: used to change the working status of the radio and external amplifier

equipment. The switching sequence is radio/USB/SD/working mode. If there is no U disk or SD card, a prompt message will appear and the sound will return to the working state. When reading and playing normally, the current track information will be displayed.

5. "VOL+" button: The volume gradually increases each time it is pressed.

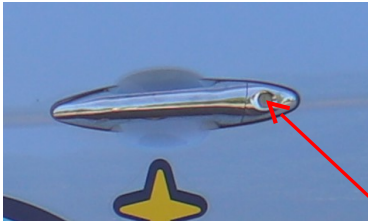
6. "VOL-" button: The volume will gradually decrease each time it is pressed.

[window regulator](#)



Press the button on the door panel to raise or lower the window glass.

Door lock



- The door lock cylinder of this car is on the left front door.
- When locking the door, turn the lock cylinder counterclockwise.
- When unlocking, turn clockwise.

Charging port cover



Open the charging port cover and insert the charging plug into the charging port to charge. After charging, unplug the charging gun and close the charging port cover to avoid rainwater splashing when driving on rainy days.

! Notice

- Before charging, you should first connect the charging gun to the charging port, and then connect the charging plug to the 220V power supply.
- After fully charged, you should first pull out the charging plug from the 220V power supply, and then pull out the charging gun from the charging port.

Seat

Adjusting the seat to the appropriate angle and wearing the seat belt correctly are the guarantee for comfortable and safe driving and riding.

Driver's seat

There is a recliner on the left side of the driver's seat to adjust the angle of the backrest. Lift the handle of the recliner, adjust the backrest to the desired angle, and then lower the handle to lock it. There is a front and rear sliding control handle on the lower front of the driver's seat. Lift the handle to adjust the front and rear position, and it will lock when you lower the handle.

Running Instructions

The running-in of a new car means that in the early stages of use, the new car must be driven under a smaller load and at a lower speed, so that the parts can be run-in at a stage. The running-in effect of a vehicle in the early

Notice

Before driving, the headrest should be adjusted to the appropriate position and then locked; the headrest and backrest should be adjusted to the best position, and the seat should be locked after adjustment.

warn

- The seat can be adjusted only when the vehicle is stopped. Do not adjust the seat cushion, headrest and backrest while driving.
- After the adjustment is completed, you should check whether the seat has been firmly fixed by moving it forward and backward. If it is not firmly fixed, it may cause the seat to move suddenly during driving, causing the driver to lose good control of the vehicle.
- The function of the headrest is to protect the safety of the person's head and neck and reduce the possibility of neck injury in an accident. To achieve the protective effect, please adjust the headrest directly behind the head to support the head to ensure that the headrest can provide effective protection in the event of impact.

stages of use will have a great impact on the vehicle's service life, operating reliability and economy. Therefore, please implement the running-in regulations when using a new vehicle to ensure the performance and life of the vehicle.

New car running-in regulations:

- Recommended running-in mileage: 1000~1500 kilometers.
- Do not drive the vehicle at the maximum speed and avoid high-speed motor operation. It is recommended that the vehicle speed does not exceed 45 km/h.
- Start slowly and avoid sudden acceleration and braking.
- Avoid overloading your vehicle.
- Do not drive in areas with poor road conditions.
- Check the wheel hub and brake drum temperatures frequently and make adjustments if necessary.
- Always check the condition of fasteners and connections to prevent loosening.
- The gear oil should be changed during the first maintenance of the rear axle.

Check before driving

Using the vehicle correctly and developing good driving habits are crucial to extending the service life of the vehicle and ensuring the safety of the driver. Before each driving trip, you should check and understand the condition of important parts of the vehicle:

- Carefully check whether the steering system, braking system, accelerator pedal, and parking handle operate flexibly, return well, and whether they are stuck or heavy. If any abnormality is found, repair and eliminate it in time.
- Check whether the connecting parts and fasteners are loose or falling off, whether they are firm and reliable, and whether there are cracks or desoldering in the welding parts.
- Check the air pressure and surface damage and wear of each tire, and inflate or replace them in time.
- Confirm whether the function indicators, lights, and horns are normal. If not, troubleshoot the problem before driving.
- Check the power condition. When the starter switch is turned on, if the power meter shows that the power is $\leq 20\%$, do not drive at this time to avoid running out of power midway and stop running. The vehicle must be charged immediately.

Driving: vehicle starts

Before preparing to drive, the vehicle should be inspected. After confirming that the vehicle is in good condition, adjust the seat and insert the switch key before driving. Process operations:

1. Turn the switch key to the "II" position and check the vehicle's remaining power and vehicle status.
2. Press the shift switch on the right handlebar to put it in the forward gear position.
3. Release the parking brake, slowly turn the right handlebar, and the vehicle starts to move forward.

4. The speed of the vehicle is controlled by turning the right handlebar. Rotate the right handlebar to accelerate, and release the right handlebar to cancel acceleration.
5. If you want to start on a mid-slope, please depress the brake pedal or pull up the parking brake. While releasing the brake pedal and parking brake, turn the accelerator to climb the hill.

Notice

- After turning the switch key to the "I" position, the vehicle self-inspection must be completed, and then turning the switch key to the "II" position to start the vehicle.
- Do not operate a vehicle while under the influence of alcohol or intoxicants to ensure your own safety and the safety of others.
- Avoid driving when tired, sick, emotional or stressed。

Shift

- Turn the shift switch to "forward" gear, turn the accelerator handle, and the vehicle starts to move forward.
- Turn the shift switch to the "Reverse" gear, the "R" indicator light on the combination instrument will light up, then turn the accelerator handle and the vehicle will start to reverse.

Notice

- When the vehicle is moving forward, do not suddenly shift into reverse gear. Only when the vehicle comes to a complete stop can it enter reverse gear.
- You must release the accelerator handle when changing gears, and then turn the accelerator handle to drive after changing gears.

Turn

When turning, slow down and the turning speed must not exceed 10Km/h. Turn on the turn signal in the direction you want to turn into, look in the rearview mirror, look left and right for vehicles entering the lane in both directions, honk appropriately, turn the steering wheel with both hands, and drive the vehicle slowly into the lane in the direction you want to turn into.

Driving in multiple working conditions

Energy-saving driving

- Avoid unnecessary stops as acceleration followed by deceleration consumes more energy.
- Unless there are special circumstances, try to accelerate as slowly as possible to avoid sudden acceleration that consumes more power.
- Maintain a steady cruising speed.
- Avoid driving at high speeds, as the maximum speed will consume electric energy rapidly.
- Keep the load as small as possible, reduce vehicle weight and save electric energy.
- Maintain normal tire pressure to reduce driving resistance.

- If not necessary, try to turn off the heating and cooling air conditioning system.

Driving at high speed

- The higher the vehicle speed, the longer the braking distance. Please control the brake pedal according to the vehicle speed and the required braking distance.
- When passing through mountain passes at high speed, passing large vehicles, or passing through tunnel entrances, you will be affected by lateral winds. You should reduce your speed to avoid accidents.
- Try to drive at a low speed in rainy and snowy days, because visibility is low and the road surface is slippery, which can easily cause slippage, leading to loss of steering and braking.

Driving in multiple working conditions

load

Vehicle driving with

Strictly control the load of the vehicle within the standard load to avoid accidents while driving the vehicle。

Driving on slippery roads

When a vehicle is driving in the rain, on wet roads, or on roads covered with ice and snow, the adhesion between the tires and the ground decreases. The vehicle speed should be reduced, avoid sudden starts, sudden acceleration, sudden turns, and sudden braking. Use the brakes as little as possible and decelerate in advance.



注 意

- When driving on snow in winter, you need to install snow tires or install snow chains on ordinary tires according to the situation.
- Snow tires are specially designed for driving on ice and snow roads. When replacing them, you need to use snow tires with the same size as the standard tires of the vehicle. Remember not to mistake the tire rotation direction. The same tires must be installed on the two rear axle wheels (trademark, specifications and tread pattern) to ensure maximum safety when driving and braking. In addition, do not use it in normal environments without ice and snow, as its performance will not be as good as standard ordinary tires.
- The use of snow chains must comply with relevant laws and regulations and must only be installed on the driving wheels of the vehicle. Use anti-skid chains with a smaller profile section, and the maximum height protruding from the tire profile is about 10 mm. When driving, please try to keep a low speed and do not drive on roads without snow for a long time to avoid damage to the vehicle and roadbed.

Braking, stopping and parking

When parking, first release the accelerator, then slowly step on the brake pedal, and the vehicle will gradually stop. After parking, the parking brake handle should be pulled up to brake the vehicle to prevent it from rolling away.

Emergency stop is a forced braking measure when encountering danger while driving. At this time, you should hold the steering wheel firmly, release the accelerator handle first, then depress the brake pedal, and pull up the parking brake handle. The electric car quickly stopped moving forward. Emergency stop is used in special unexpected situations and should not be used frequently to avoid premature damage to tires and related components.



Notice

- If whistling sounds often occur when braking, you should go to our company's after-sales service station for inspection.
- Do not brake continuously for a long time, or rest your foot on the brake pedal while driving. This will cause the brake to overheat and fail or be permanently damaged.
- When water, sediment, dust, etc. enter the brake, the brake efficiency will be reduced. The brake should be cleaned and kept dry.

Vehicle parking

If the vehicle is left unused for a long time, for more than a month, please follow the following precautions:

- Park the vehicle in a covered, flat area that is dry and preferably ventilated.
- Check to make sure the parking brake handle is tight.
- Cut off the power supply of the high-voltage system through the main power switch.
- Check its battery status once a month and charge it in time.
- For painted parts on the car body, use protective wax to clean and protect them.
- Sprinkle some talcum powder on the rubber blades of the front and rear glass wipers and keep them away from the

glass.

- Open the car windows slightly to ensure ventilation.
- Cover the vehicle with a fabric or perforated plastic cover. Do not use car covers made of sealed plastic sheets to avoid hindering the evaporation of moisture on the car surface.
- Inflate the wheels and tires to a pressure 50Kpa more than the normal inflation pressure, and check the tire pressure regularly.

Emergency handling

Once a dangerous emergency occurs while driving, please immediately press the hazard warning light switch, drive the vehicle into a safe zone, park the vehicle, and place a triangle warning sign at a distance that meets the legal requirements in the direction of the oncoming vehicle, with the reflective surface facing the direction of the oncoming vehicle.

Take measures

Once an accident occurs, be sure to remain calm and then choose appropriate handling methods according to the situation.

- If you are not directly involved, stop at least ten meters away from the scene of the accident.
- On highways, stop and do not block emergency exits.
- Remove the ignition key from the accident vehicle and turn on the hazard warning lights.
- At night, use headlights to illuminate the accident scene.
- If the door is blocked, do not try to break the front windshield to get out, as it is difficult to break, and the side and rear

windows are easier to break. ◦

- Place a red triangle warning sign in a place clearly visible from a distance specified by regulations to indicate an accident.
- Call emergency response organizations and report as accurate information as possible.
- When rear-ending a car on the road, especially when visibility is low, the risk of being hit by a following vehicle is very high.

You should leave the car immediately and exit to a safe area outside the guardrail.

- If you smell fuel or other chemical products, do not smoke or light a fire and stay away from the area.
- In the event of a fire, even if it is small, use a fire extinguisher, blanket or sand to put it out. Never use water. ◦
- Contact the local traffic management department promptly for help.

Emergency handling

Casualty treatment

If someone is injured, never abandon the injured person and offer help even if you were not directly involved in the accident.

- Don't sit around an injured person.
- Contact professional assistance and stay with the injured person to comfort them and keep them from panicking.
- Loosen or cut the safety belt restraining the injured person.
- Do not give the injured person anything to drink as this may worsen internal injuries.
- Do not move the injured person except under special circumstances.
- Injured persons may only be removed from the vehicle in the event of fire, sinking, falling off a cliff or similar imminent danger. When removing an injured person, do not pull the limbs or bend the head, but try to keep the body as

flat as possible.

First aid kit

The vehicle should be equipped with a first aid kit for emergency use.

Charge

Please strictly follow the following steps when charging:

1. Turn off the vehicle starting switch.
2. Open the charging port cover, align the charging gun with the socket, insert it into the charging socket, and make sure it is plugged in all the way.
3. The charging plug end is plugged into the "220V15A" AC power supply.
4. It takes about 8 to 10 hours for the battery to be fully charged from empty to full (the specific time depends on the charger you have equipped).
5. After charging is completed, first unplug the charging plug from the 220V power socket, then unplug the charging gun and close the charging port cover.



Hint

The actual service life of the vehicle power battery depends largely on how you use and maintain it. To ensure the longest service life of the battery, please follow the following tips for daily battery charging and use as much as possible.

- Every time you charge the vehicle, try to fully charge it before use. Otherwise, arcing will occur when unplugging the power cord, which will affect the service life of the charging cord.
- When the meter shows that the battery capacity is less than 30%, the vehicle battery should be charged as soon as possible to avoid irreversible damage to the battery, resulting in a reduction in battery capacity and life.
- For other battery usage and maintenance precautions, please refer to the battery maintenance chapter.
- Please ask the dealer whether the charger you have has an automatic power-off function to prevent battery damage caused by charging for too long.

Charge



- Before charging the vehicle, strictly follow the above regulations to connect the 220V power cord, leakage protector and 15A charging socket. It is strictly prohibited to use the plug strip for transfer charging.
- Please strictly follow the above charging steps to avoid danger.
- During the charging process, the vehicle should be placed in a well-ventilated area for charging.
- If there are abnormal sounds, smells, sparks, smoke, etc. during charging, please unplug the power immediately and check the problem.
- It is strictly prohibited to charge in a high-humidity or high-heat environment.
- The charging input voltage is limited to the mains 220V power frequency voltage, which is higher than the mains power. It is strictly prohibited to use voltages higher than the power frequency. 。
- It is prohibited to use non-car chargers for charging to avoid damaging the battery.
- It is prohibited to charge at fast charging stations.
- During the charging process, keep children away from the charging part of the vehicle to prevent the risk of electric shock.
- After the vehicle is driven in summer, the battery temperature is high, so it is not advisable to charge immediately. Wait for the battery to cool down before charging. Do not charge under sunlight exposure.
- When the temperature is low in winter, the charge and discharge performance of the battery at low temperature will be reduced, so it should be charged immediately after use.
- This car has two working platforms, 48V and 60V. Please choose the correct charger to match it to avoid battery damage or other safety accidents.

Vehicle maintenance and repair

Parts maintenance and repair

After a vehicle is driven for a long time, the friction surfaces of moving parts will wear out, and the working status of various

systems and components will also change. In order to ensure that the vehicle is in good condition and extend the service life of the vehicle, regular maintenance must be performed as required. Inspections, adjustments, lubrication and other maintenance items are stipulated in the periodic maintenance schedule. The maintenance period is calculated based on the mileage or months traveled by the vehicle. If the vehicle is often used under harsh conditions (such as heavy load, high-speed driving, etc.), the maintenance cycle must be shortened accordingly.◦

For the items listed in the regular maintenance table, it is recommended to go to a professional maintenance point for maintenance; for other relatively simple items, you can perform maintenance yourself by referring to the methods introduced in this manual.

Notice

- λPerforming vehicle repairs without knowing much about the vehicle may cause damage to your vehicle.
- λWhen inspecting and maintaining electrical components, it must be done under power outage to avoid accidents.
- λWhen using a vehicle jack to jack up the vehicle, it is not allowed to enter the lower part of the vehicle.
- λDo not touch the positive and negative terminals of the battery at will to avoid accidental short circuit accidents.
- Regardless of whether the motor is running or not, please do not disassemble the electrical components or batteries when the key switch is in the "ON" position.

Light bulbs, fuses and relays

Light bulb

Replacing vehicle light bulbs requires certain professional knowledge. It is strongly recommended that the company's franchised dealers or after-sales service stations replace the light bulbs.

The specific specifications of each bulb are printed on the bulb or bulb holder.

Fuses and relays

There is a fuse box on the lower left side of the instrument panel of this vehicle, and some fuses and relays are arranged inside. Please refer to the label on the upper cover of the fuse box for details of the layout and insurance purposes.

A blown fuse will cause related electrical appliances to fail and should be replaced immediately. If the fuse occurs again after replacement, you should immediately go to our company's after-sales service station to check the entire vehicle circuit.

warn

- The bulb is very hot when it is turned off and should be replaced after the lamp cools down. Halogen lamps can be very hot when illuminated or immediately turned off, causing severe burns to the skin or the burning of other flammable contacts. It should be wrapped in a clean soft cloth after cooling.
- Halogen lamps are filled with pressurized halogen gas. If they are damaged or dropped on the ground, they may explode, so be especially careful.
- Frequent light bulb burnout indicates that there is a problem with the circuit and should be checked by our company's after-sales service station.
- When replacing fuses, fuses of the same specifications (same color) should be used. It is not allowed to replace them with other metal materials, otherwise it will damage the electrical equipment and even cause a fire.
- Before replacement, make sure the power is turned off and all electrical equipment has been turned off or disconnected.

Battery

The battery must be a certified product. The working voltage of the high-voltage part of this vehicle has two states: 60V. Please select and install the battery correctly.

- How to use the product
 - Charging batteries

- ✧ "Standard charging: Use a car charger to charge, AC 220V, charging time is about 5-8 hours, the meter shows 100% charging.
- ✧ Low-temperature charging: Charging below 0°C will affect the battery life. Please try to avoid low-temperature charging.
- ✧ "High-temperature charging: For high-temperature charging in summer, please place the battery pack in a ventilated and cool place and try to avoid direct sunlight. Charging above 45°C will affect the service life of the battery pack, please note.

Notice

Charging precautions:

- Use a certified car charger to charge.
- When charging, remove the start switch key and pull up the parking brake handle.
- During the charging process, if you smell a strange smell or the temperature is too high, please stop charging immediately and send it to the dealer for maintenance.
- Try to use the battery pack after it is fully charged, otherwise it will result in insufficient driving range and reduced battery life.
- In winter, when the electric vehicle is finished driving, plug in the charging cable immediately for charging. After the battery is discharged, the system operating temperature is above 0°C, which can reduce the impact of low-temperature charging on battery life.

Battery

Battery discharge

It is prohibited to over-discharge the battery pack, as over-discharge will cause great harm to the battery life. During the discharge process of the battery pack, try to keep the battery pack in a low-current discharge state, which can extend the driving range and battery life.

Battery storage and recharging

The battery storage environment temperature is -20~45°C, and the optimal storage temperature is 0~25°C. The battery will lose power during storage and transportation. Before using the battery, please use standard charging methods to replenish the battery.

● Battery use, maintenance and precautions

Notice

Precautions for use:

- λThe battery charging environment is 0~45°C.
- λAvoid charging under direct sunlight.
- λThere must not be any short circuit at the battery interface.
- λIt is strictly prohibited to put the battery into liquids, such as water, gasoline, drinks, etc., nor to place it in a humid place or in water.
- λDo not apply external force to the battery or drop it from high altitude.
- λWhen the battery is not in use, it should be fully charged and stored in a dry and cool place, well insulated to prevent heavy pressure and contact with children, and be fully charged every 20 days.
- Do not throw away used batteries at will to avoid polluting the environment. The used batteries of this product are recycled by our company, dealers, or government-designated outlets.

Charger

The charger of this model is optional for the user. The working voltage of the high-voltage part of this car has two states: 48V and 60V. Please choose a matching charger.

Charger Safety Guide

- After you select a charger, be sure to ask whether the charger has self-protection functions (for example: high temperature power-off, automatic power-off after full charge, etc.).

- It is strictly prohibited to disassemble the machine for repair or debugging without authorization.
- Do not change the power cord or pull or twist the cable.
- The AC power supply should be 15A or above. It requires a three-core cable with grounding and proper grounding. The wire diameter area should not be less than 3 square millimeters.
- The charger is strictly prohibited from being used in environments with high humidity and heat. Avoid blocking the air inlet and outlet of the charger.
- If there are abnormal sounds, smells, sparks, smoke, etc. during charging, please cut off the power supply immediately and check the problem.
- The input voltage of the charger is limited to the mains 220V power frequency voltage, which is higher than the mains power. It is strictly prohibited to use voltages higher than the power frequency.

Controller

The electrical control device should be inspected every three months. After turning off the power, the filter capacitor in the controller unit should be allowed to discharge for several minutes. Do not rinse electrical components with water. Use a clean brush or high-pressure gas to remove dust. Check the following:

- Check whether the connections between the battery pack, motor, motor controller and contactor are good.
- Check and keep the battery pack, motor, motor controller and contactor clean.

Rear axle

There are no user-repairable accessories in the rear axle. Do not open and repair without authorization to prevent damage to the rear axle.

The gear oil used in the rear axle is 80W-90 and GL

Check and replace brake pads regularly and add brake hub bearing lubricant.

4. It should be replaced for the first time when the new car is two months or 1000 kilometers away. After that, it

Brake fluid

should be maintained regularly.

The brake fluid of this vehicle is DOT3 type brake fluid. The fluid

level should be maintained at the upper mark. Do not exceed as

Replenish as specified in the maintenance items. Do not use as

engraved lines. If the fluid level is lower than the lower mark, the

same type of brake fluid should be added. Mixing of different

1. Use a wrench to unscrew the oil filling screw at the

brands of brake fluid is prohibited.

rear of the rear axle, and at the same time remove the oil

Brake pedal

drain bolt at the bottom of the rear axle.

When the brake pedal is depressed to the bottom, check in

2. Put the gear oil into the container. After the gear oil is

time when the following situations occur:

drained, if the brake force cannot be maintained, or the

pedal stroke is too long, the parking brake should be checked.

3. Place the spare tire, fueling equipment, and the refueling

gear oil.

Parking brake handle

When the parking handle is stuck on a tooth between ratchet

teeth 4 to 7, the wheel should be able to lock effectively. Within

this range, if the parking brake cannot lock the vehicle, or the

vehicle cannot be completely unlocked when unlocked, the

maintenance personnel of our company's after-sales service station

should be contacted for inspection and repair.

! Notice

- Too much or too little rear axle gear oil will damage the rear axle. Too much gear oil will

! Notice

excessive wear of the gears. Therefore, when

checking the oil level, it must be accurate.

- Due to the use of front disc brakes, once the brake pads

- The correct type of gear oil must be used. wear out, the brake fluid level will gradually decrease.

Indiscriminate use is strictly prohibited. Incorrect

- The fluid level in the brake oil cup needs to be

use of oil may cause damage to the rear axle gear.

- Other lubricants of the same grade can be used, but

checked frequently. If the brake fluid level is low, the

- brake fluid needs to be replenished.

lubricants from different manufacturers or produced

- Check that the brake should be in the motor stopped

according to different standards cannot be mixed.

- state and release the parking brake at the same time.

When changing the oil, the old oil must be drained

- Do not use non-specified types of brake fluid, or mix

first, and then new oil must be injected.

- brake fluids of different types, and do not use brake

fluid that has been stored for a long time or in

- containers without lids.

To prevent potential safety hazards caused by poor movement of the brake pedal, users are advised not to install a dust-proof pad under the brake pedal.

Tire

- Too little tire pressure will cause the tires to overheat, accelerate wear and tear, make driving difficult, and consume a lot of power.
- When the tire pressure is too high, the vehicle will vibrate severely, the balance will be reduced, and the middle part of the tire will be seriously worn.
- Tires must be replaced when the tread wear reaches or exceeds 1.6 mm.
- When using the tires, be careful not to hit curbs, potholes or other obstacles. Driving long distances on bumpy roads can damage the tires.

- Regularly inspect the tire sidewalls for cuts, abnormal expansion, or irregular tire wear.
- Avoid overloading the vehicle when driving to prevent serious damage to the tires and affect vehicle performance.
- If a tire is punctured, stop the vehicle safely immediately and replace the tire to avoid damage to the tire, rims, suspension and steering system.
- Even if the tires are not used frequently, rubber tires may develop cracks, which are a sign of age. In any case, when the tires have been installed on the vehicle for more than 6 years, they should be tested by professionals to determine whether they can continue to be used.
- Tire pressure checks need to be done after the tires have cooled down, otherwise you will get false readings.
- When inflating the tire, you should inflate it slowly while checking the tire pressure until it reaches the specified value of 220KPa.
- Replacing tires with different sizes will cause incorrect speed and mileage readings.
- The impact of foreign objects on the road and the passing of raised objects on the road will affect the normal positioning angle of the wheel, and it needs to be corrected at our company's authorized maintenance center.
- Tires of the same model, specification, and load-bearing capacity must be used on the same vehicle to ensure the directionality and operational stability of the vehicle. Two or more different tires cannot be mixed.

Tire

Tire replacement

- Use a wheel wrench to loosen the replacement tire nuts, but do not remove them.
- Use a jack to lift the vehicle.
- Remove the wheel nuts and tires.
- Install the new tire and secure the rim by hand-tightening the wheel nuts.
- Lower the jack and use a wheel wrench to tighten the wheel nuts to the specified torque ($90\pm 10\text{N.m}$) in a criss-cross

sequence.

Vehicle corrosion protection

The paint layer on the car body surface is easily damaged by dirt, such as salt, chemicals, asphalt, tree sap, animal excrement, industrial pollution and dust, etc., which may corrode the paint layer, so they must be removed as soon as possible.

Neutral detergents can be used for cleaning. Acidic and alkaline cleaning agents are strictly prohibited. After washing, be sure to rinse the cleaning agent with clean water. If the surface of your car is damaged or the paint is peeling off, repair the damaged area immediately and do not leave the metal exposed to the air. Moisture, dust, and mud under the mats in the car may accelerate corrosion. Check frequently to ensure that the vehicle interior is clean and dry. Do not park your vehicle in a damp or poorly ventilated area and do not wash your vehicle in a garage.

Interior maintenance

Vehicle interiors adopt different maintenance methods according to different materials:

- Seats and interior trim panels can be cleaned with a soft cloth moistened with neutral detergent.
- For plastic accessories such as dashboards, use clean water with a small amount of soap or mild detergent. Dip a sponge or soft cloth into the solution and gently wipe the vinyl. After a few minutes, use a clean soft cloth dipped in clean water and wipe again until clean. clean.
- Use a vacuum cleaner to clean the floor leather, wipe the dirty area with a clean soft cloth soaked in neutral soap, and then rinse with clean water.



Notice

When cleaning the vehicle, do not use flammable products such as thinner, gasoline, and benzene, and do not use highly alkaline or acidic household cleaners.

Body

Cleaning method

- Use high-pressure water to wash away sediment and debris from the vehicle floor and wheels.
- When rinsing the outer surface, wipe it gently with a soft cloth. Do not use hard objects to avoid damaging the surface.
- Use a soft cloth dipped in a neutral cleaning agent and gently wipe the surface. Do not use acidic or alkaline cleaning agents.
- Once the dirt is removed, rinse immediately with clean water.
- After washing, use a soft cloth to wipe off the water droplets on the surface of the vehicle and let it dry naturally.
- Carefully check the paint layer on the vehicle surface. If there is any scratch, please follow the following steps to repair it: clean and dry the damaged surface; lightly dip the same color paint with a small brush to brush the wound; dry completely in the shade.

Paint film maintenance

- Please use a special wipe for cleaning.

- Avoid contact with strong acids and alkalis.
- Avoid long-term contact with gasoline, engine oil and other volatile substances. If there is a small amount of contact, please wipe it clean immediately with a special wiper.
- Avoid hard objects coming into contact with the paint film surface to avoid leaving scratches.

Apply wax

It is recommended that you apply wax and polish once or twice a year to protect the body paint and beautify your car. Please use better quality car waxes and polishes and follow the manufacturer's instructions.

Common troubleshooting methods

Project	Fault phenomenon	Failure analysis	Method of exclusion
Circuit aspect	Voltmeter has no indication	Light control switch damaged	Replace light control switch
		Bulb damaged	Replace light bulb
		Broken fuse or relay	Replace the fuse or relay with the same specification
The vehicle cannot drive normally	The vehicle cannot drive normally	Gear shifter damaged	Replace with new gearbox
		Controller damaged	Replace with new controller
		Accelerator damaged	Replace with new accelerator
	Can only move forward	Gear shifter damaged	Replace with new gearbox
		Controller damaged	Replace with new controller
	Can only go backwards	Gear shifter damaged	Replace with new gearbox
		Controller damaged	Replace with new controller
Charging system	Meter charging finger	The charger and battery cables are not connected properly	Connect the connection
	The indicator light does not light up	The charging cable is not connected properly	Plug the charging cable back in
		The charger is damaged	Replace

Common troubleshooting methods

Project	Fault phenomenon	Failure analysis	Method of exclusion
Charging system	The battery is not fully charged	The output cable is too long or the wire diameter is too thin, resulting in excessive line voltage drop.	Return output cables to standard length
	When turned on, the light will turn on when fully charged	Check whether the connection between the charger and the battery is loose or detached	Normal connection
Rearvie Brake failure Handl Rear tire	Weak braking	Brake line leak	Repair or replace → Front glass
		There is gas in the brake line	Drain gas
		Brake master cylinder rubber piston failure	Replace → windscreen wiper
		Brake cylinder piston failure	Replace
	Poor parking brake	Brake cable is too loose	Adjustment → Headlight
		Brake cable stuck	Repair or replace
	There is abnormal noise in the rear axle	Damage to rear axle internal gear	Replace

