



Mobile Energy Storage Charger Instructions Manual

Manual Description

Dear customer, thank you very much for choosing our storage and charging products.

To ensure you can use this product safely and efficiently, we have specially compiled this manual to provide you with detailed product information, installation guidelines, operating instructions, and maintenance recommendations. Please read this manual carefully before use and keep it in a safe place for future reference.

This manual covers every aspect of the product, from product introduction to technical specifications, installation, operation, maintenance, and other aspects. We hope that through this manual, you will have a deeper understanding of this product, so that you can better utilize its performance and meet your usage needs.

At the same time, we also remind you that when using this product, please be sure to comply with relevant safety regulations and operating procedures to ensure the safety of you and others. If you have any questions or need assistance, please feel free to contact our customer service staff, we will be happy to serve you.

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1. Safety Instructions

1. Electrical safety



- There are lethal high voltages inside this product!
- It is strictly forbidden to touch the terminals or conductors connected to the power grid circuit.
- Please pay attention to all instructions related to the power grid connection and safety instructions, and strictly abide by the warning signs on the product.
- Please follow the safety precautions listed in this manual and other related documents.



- Damaged equipment or system failure may cause electric shock or fire!
- Perform a preliminary visual inspection of the equipment for damage or other hazards before operating.
- Check whether other external devices or circuit connections are secure.
- Make sure the equipment is in a safe state before operating it.

2. Fire safety



- Please ensure that there are no flammable or explosive items around the product and maintain good ventilation to prevent overheating and fire.
- When operating this product, it is strictly

3.

forbidden to use open flames to avoid fire accidents.

- If you find smoke, odor, or abnormal heat around the product, please cut off the power supply immediately and contact a professional for inspection and repair.
- To ensure fire safety, it is recommended to conduct safety inspections regularly to ensure that the safety devices are in good condition.

Operational safety

- Any improper operation may cause danger to operators or equipment.
- When operating this product, please ensure that you have read the instruction manual of this product and are familiar with its functions and operating procedures.
- During the operation, please stay focused and do not be distracted or engage in other activities that may interfere with the operation.
- If you encounter an emergency or equipment failure, please stop operation immediately, cut off the power supply, and then follow the emergency plan or contact a professional for repair.
- To ensure safe operation, please perform regular maintenance on the product and check that all safety devices are in good condition.



Caution

4. Equipment security

- When charging or discharging this device, you should set various parameters reasonably to ensure that the charging and discharging process is carried out within a safe range.
- It is strictly forbidden to overload the device to avoid safety accidents such as overheating, damage or fire.
- During the operation of the equipment, the operating status and various safety indicators of the equipment should be checked regularly. If any abnormality or failure of the equipment is found, it should be stopped immediately and a professional should be contacted for inspection and repair.
- To ensure the safety of the device, please do not disassemble, repair, or modify the device without permission to avoid damage to the device or causing a safety accident. At the same time, the device should be placed in a dry, ventilated environment without corrosive gases to prevent the device from getting damp, corroded, or damaged.



Caution

2. Product Introduction

1. Product Description

1. **Product Name:** 60 KWH- 60 kW Energy Storage Product
2. **Model:** Storage and charging series
3. **Applicable scenarios:** household/commercial new energy vehicle charging, emergency rescue , AC power supply , DC energy storage , etc.

新能源车充电/EV charge

为新能源汽车快速补电/ Quickly replenish energy for new energy

应急救援/ Emergency rescue

用于在道路上缺电能源车的应急救援/ Emergency rescue for energy vehicles with power shortages on the road

联网充电/ Charging online

可扫码通过移动端充电/ Charging can be done through mobile devices by scanning

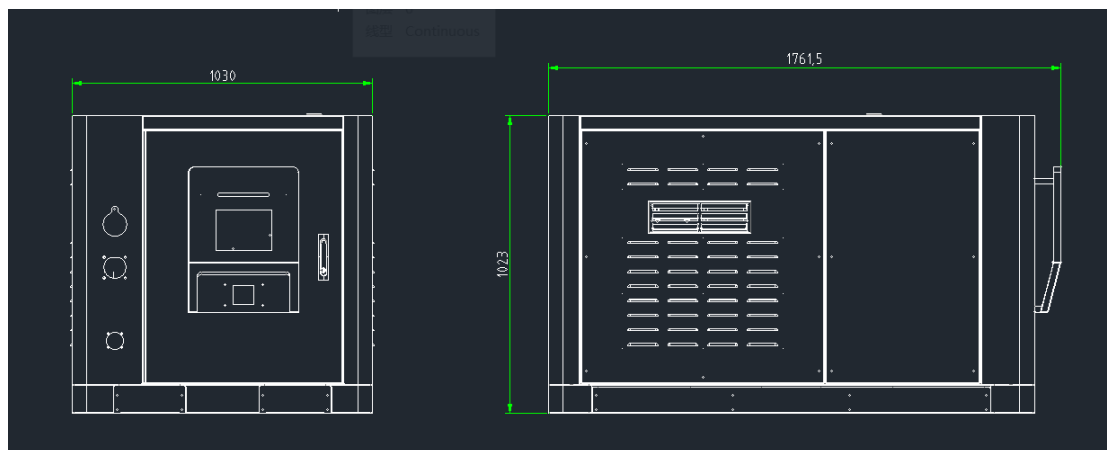
直流储能/ DC Energy storage

通过充电枪来对蓄电池进行储能/ Using a charging gun to store energy in the battery

Functional Description:

- (1) **Efficient charging:** The use of high-power charging technology can quickly replenish the power of new energy vehicles in a relatively short time, greatly shortening the charging time and improving the charging efficiency.
- (2) **OCPP :** Compatible with OCPP (Open Charge Point Protocol), ensuring that this energy storage product can smoothly connect with various charging station management systems to achieve efficient data exchange and remote control.
- (3) **Human-computer interaction :** The interface design is intuitive and friendly. Users can easily view charging status, battery information and device parameters through the large-screen display, improving operation convenience.

2. Product appearance and size



3. Product interface description



Serial number	name	Function
1	Emergency stop button	When the storage and charging equipment is charging externally, the

emergency stop button is pressed to stop the device, and it is turned right to resume the device.

2 DC charging port DC charging of batteries

3 Charging gun Equipment external DC discharge

4 card reader For card swiping

5 Display touch screen display

6 indicator light Used to observe the status of charging piles

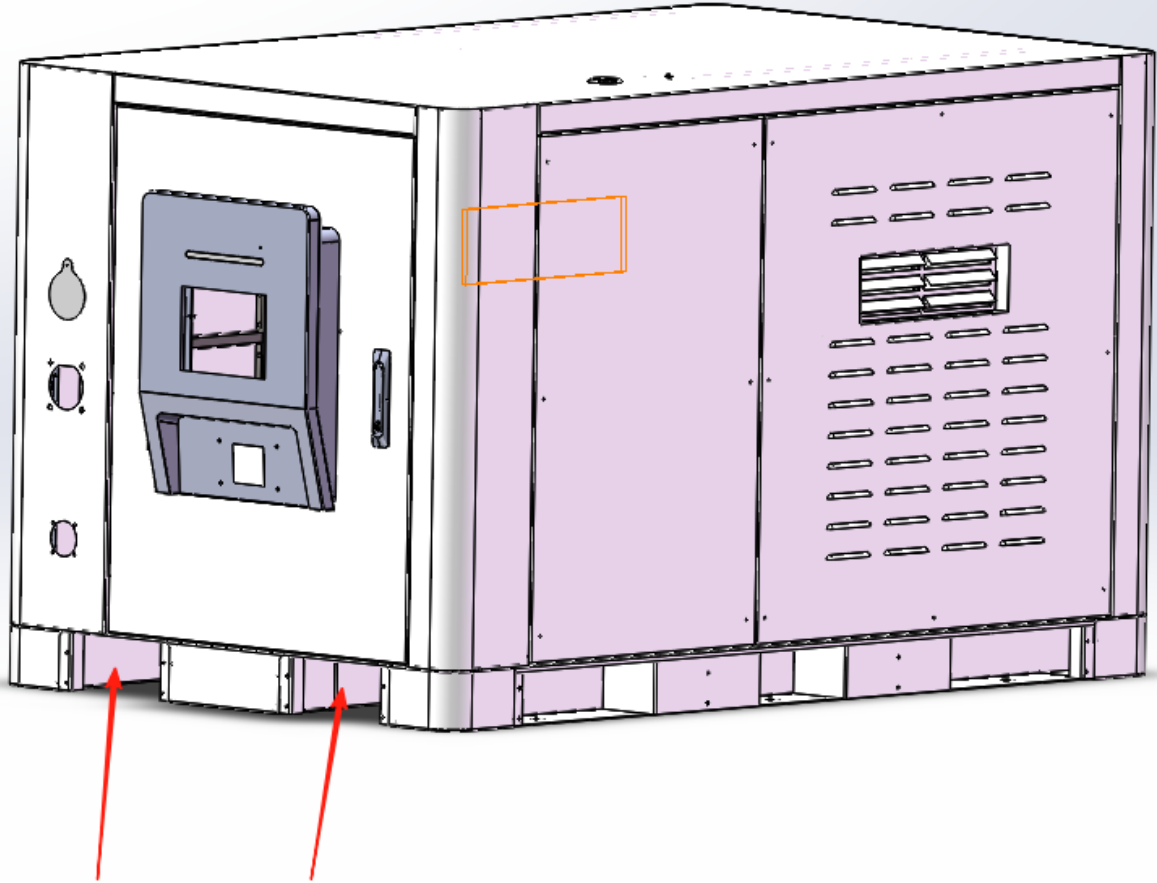
4. Technical parameter table

Serial number	project	parameter
1.	Charging gun cable length	5 meters
2.	size	1903*1200*1119 mm
3.	touchscreen	7 inches
4.	Charging power	30/60KW
5.	capacity	33.3-60KWH
Input characteristics		
1.	DC input voltage	200-800VDC
Output characteristics		
1.	Output DC voltage	200V-1000VDC
2.	Output DC current	0-200A

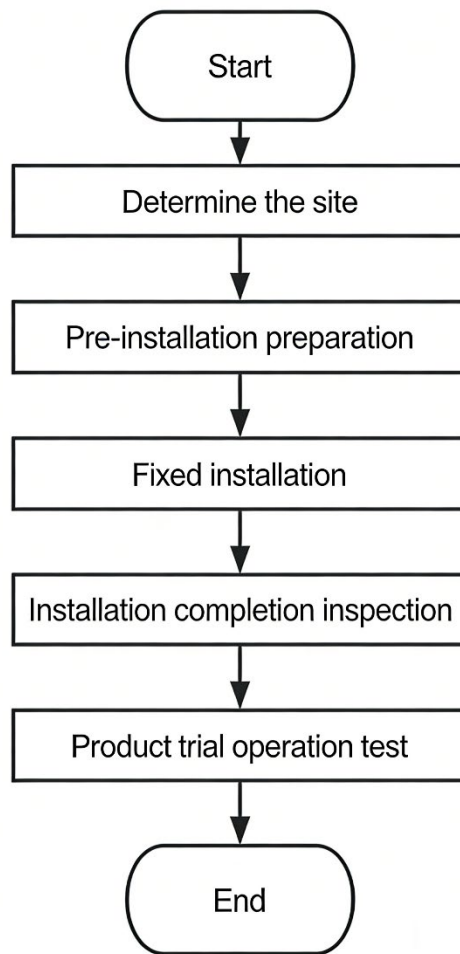
5.	efficiency	$\geq 95\%$
6.	Output power	60KW
Protection features		
1.	Input undervoltage protection	have
2.	Input overvoltage protection	have
4.	Output undervoltage protection	have
5.	Output overvoltage protection	have
6.	Short-circuit protection	have
7.	Overtemperature alarm	50-60°C
8.	Overtemperature protection	60°C
9.	Charging gun overtemperature alarm	90°C
10.	Charging gun overtemperature protection	105°C
11.	Emergency shutdown protection	have

3. Installation Guide

1. Moving diagram (the diagram shows the forklift hole position)



2. Installation Process



3. Preparation before installation

Before installation, please ensure the environment is suitable. Ensure the equipment's operating area is well-ventilated and dry, and away from flammable and explosive materials to avoid any potential safety risks. Also, ensure sufficient heat dissipation clearance (recommended: at least 50 cm) to ensure effective heat dissipation during operation and prevent overheating.

Carefully inspect the device packaging to ensure it is intact and free of any obvious signs of damage or moisture. After unpacking, verify that all accessories are present. Before beginning any installation steps, be sure to read and fully understand all contents of this manual, especially the safety instructions, to ensure personal safety during installation and use. For a smooth installation, you need to prepare some necessary tools. Depending on the product installation requirements, you may need to prepare screwdrivers, wrenches, insulating gloves, and other personal protective equipment of different specifications.

Reasonable planning: carefully plan the placement of the equipment according to the size of the product and the available installation space to ensure that the equipment can be placed stably on the ground

Before installing any electrical equipment, make sure the installation site has a good grounding system. This can effectively prevent electrical accidents such as electric shock or equipment damage.

4. Installation steps

- First, place the device in the pre-planned installation location and ensure it is stable and secure. Use fasteners or other fixing tools to securely mount the device on the ground or designated area. During installation, be careful not to damage any part of the device.
- If you need to connect a device, select the appropriate wire size according to the product's technical specifications and connect it to the device's input. Before connecting the wires, ensure that the device is turned off to avoid danger. After the connection is completed, check that the connection is secure and ensure that there are no loose or exposed wires.
- During installation, pay special attention to the device's heat dissipation. Ensure there is ample space around the device for heat dissipation and that there are no obstructions. Additionally, regularly check the device's cooling fan and radiator to ensure proper heat dissipation.
- After installation, commission and test the device. During commissioning, follow the instructions in the manual to ensure the device functions properly. Test the device's charging efficiency, energy storage capacity, and intelligent control to ensure it meets your requirements.
- After installation, please be sure to follow the product safety instructions and operating procedures to ensure the safety of the equipment and operators.

3.1 Battery terminal opening method and status information

1. If you need to discharge the battery, you need to turn on the high voltage

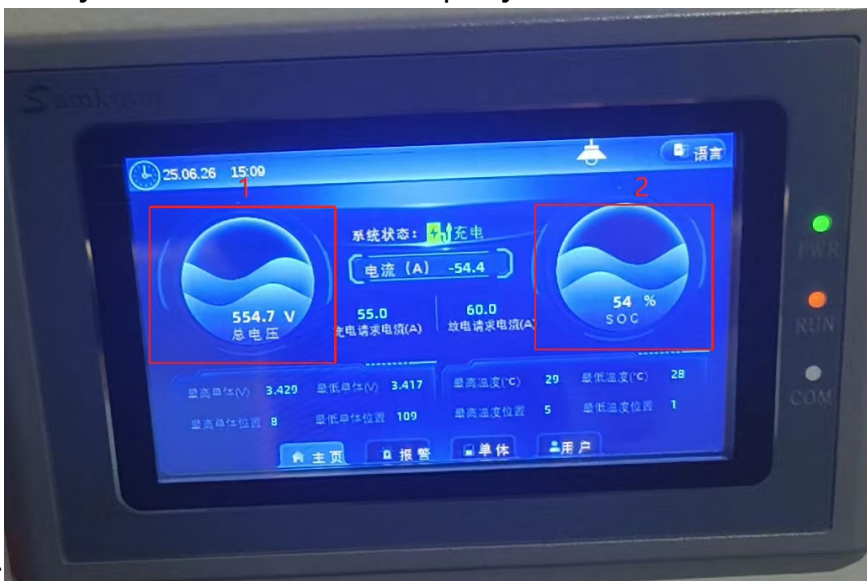


box switch button, as shown in the figure

2. If you need to charge the battery, you need to use a DC charging pile to recharge the battery. The interface is as shown in the figure



3. Battery information is displayed as shown below: 1-Battery voltage 2-Battery

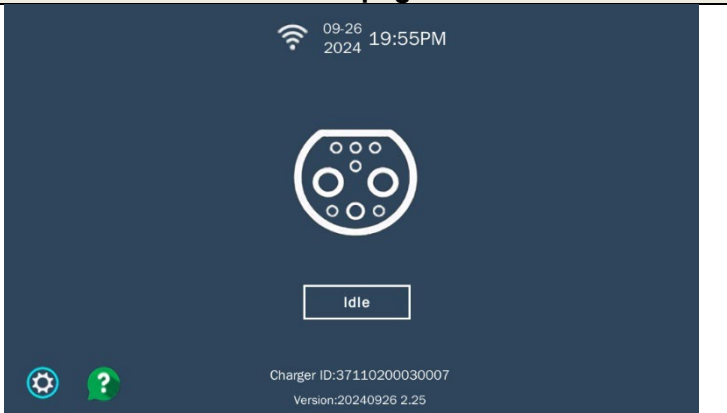
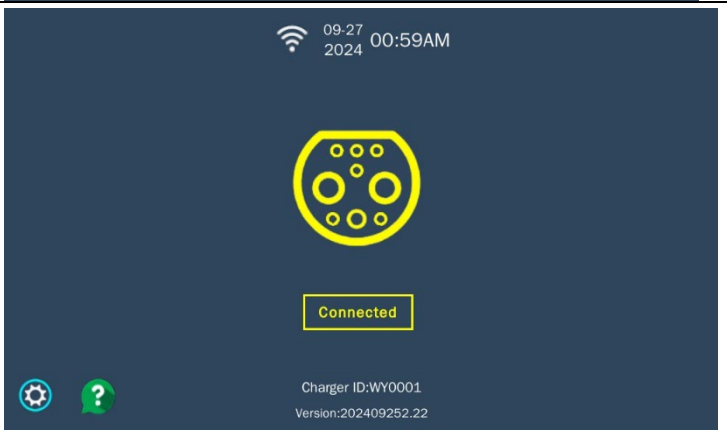
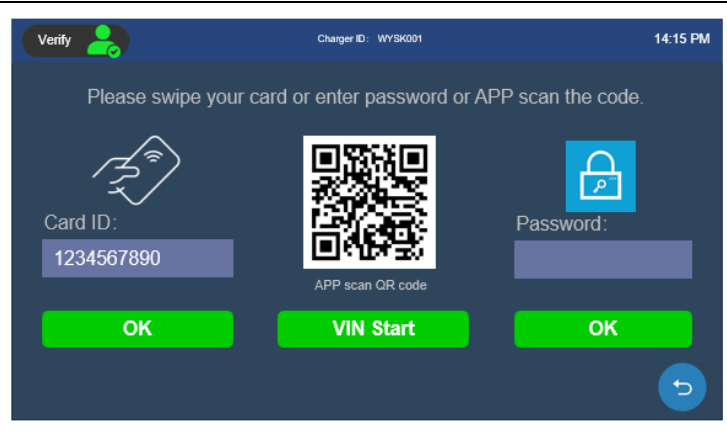
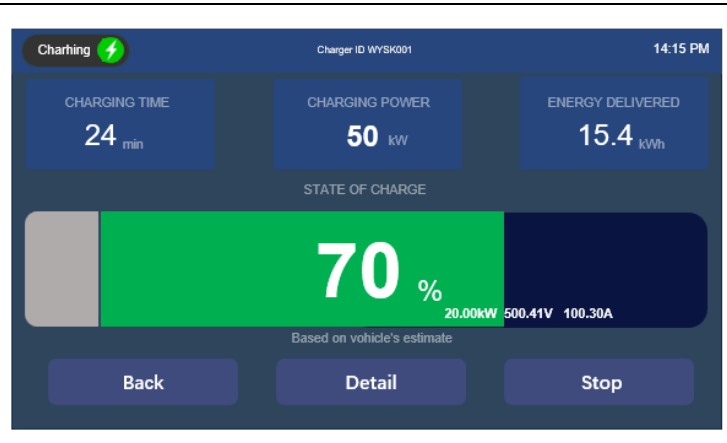


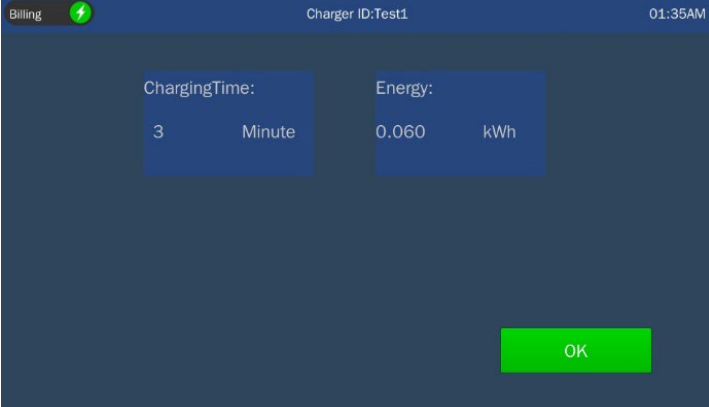
power

3.2 Basic operation and system settings of the charger

Basic process of starting charging: Describes the basic process of

starting charging and briefly introduces the pages involved and some situations that may occur during the process, so that users can understand and master the charging process and easily solve unexpected situations. The specific process is as follows:

step	page	describe
1	 <p>The screenshot shows a dark blue standby interface. At the top, it displays the date and time: '09-26 2024 19:55PM'. In the center, there is a white icon of a charging gun with the word 'Idle' in a white box below it. At the bottom, there are icons for settings and help, and text indicating 'Charger ID:37110200030007' and 'Version:20240926 2.25'.</p>	Standby interface
2	 <p>The screenshot shows a dark blue interface with a yellow charging gun icon in the center. Below the icon is a yellow box with the word 'Connected'. At the top, it displays the date and time: '09-27 2024 00:59AM'. At the bottom, there are icons for settings and help, and text indicating 'Charger ID:WY0001' and 'Version:202409262.22'.</p>	Charging gun connected
3	 <p>The screenshot shows a 'Verify' screen with a dark blue background. It prompts the user to 'Please swipe your card or enter password or APP scan the code.' There are three options: 'Card ID' (with a card icon and input field containing '1234567890'), 'APP scan QR code' (with a QR code), and 'Password' (with a lock icon and input field). Each option has a green 'OK' button. At the bottom right, there is a blue back arrow button. The top right shows 'Charger ID: WYSK001' and '14:15 PM'.</p>	Select charging method
4	 <p>The screenshot shows a 'Charging' screen with a dark blue background. It displays three metrics: 'CHARGING TIME' (24 min), 'CHARGING POWER' (50 kW), and 'ENERGY DELIVERED' (15.4 kWh). Below these is a 'STATE OF CHARGE' section with a green progress bar showing '70%' and technical details '20.00kW 500.41V 100.30A'. At the bottom, there are three buttons: 'Back', 'Detail', and 'Stop'. The top right shows 'Charger ID WYSK001' and '14:15 PM'.</p>	Charging

5	 <p>Charging information screen showing: ChargingTime: 1 Minute, Energy: 0.000 kWh, Voltage: 453.9 V, Current: 0.00 A, Remain: 31 Minute. A large '100%' (SOC) is displayed. The 'Charging information' button is highlighted in green.</p>	Charging information
6	 <p>Battery information screen showing: Bat Type: Other battery, BMS Version: 0.1, Capacity: 0.0 Ah, Max Voltage: 480.0 V, Max Current: 150.0 A, Max Cell Temp: -50 °C, Min Cell Temp: -50 °C, Max Cell Volt: 0.00 V, Demand Voltage: 455.0 V, Demand Current: 10.0 A, DC+: 8.5 °C, DC-: 9.2 °C. The 'Battery information' button is highlighted in green.</p>	Battery Information
7	 <p>Billing information screen showing: ChargingTime: 3 Minute, Energy: 0.060 kWh. An 'OK' button is visible at the bottom.</p>	Settlement Information
8	 <p>Fault information screen showing two error messages: 1#Emergency stop failure and 2#Emergency stop failure. Navigation arrows and a back button are visible at the bottom.</p>	Fault information

9		Enter password 77777777 to go to the settings interface
10		Main interface
11		CCU
12		PCU

13	 <p>The screenshot shows the 'Charger ID Test1' settings page. It includes fields for Protocol (OCPP1.6), Charger ID (Test1), QR Code Prefix (123), IP Address (ws://39.100.93.165:8080/steve/websocket/CentralSystemService/), Host (ocpp.sarge.live), NetMode (TCP/DTU), IP Address (192.168.7.108), Gateway Address (192.168.7.1), and WiFi Name/Password fields. A 'Create QR code' button and a QR code are also visible.</p>	OCPP
14	 <p>The screenshot shows the 'Rates' configuration page. It features a table with columns for Time, Rate, and Service Fee. The table lists time intervals from 00:00 to 04:30, all with a rate of 1.00000. The Service Fee is set to 0.00000 COM. There are 'Setting All', 'Save', and 'Refresh' buttons at the bottom.</p>	Rates
15	 <p>The screenshot shows the 'Charging record query' page. It displays a table with columns: No., CardNo., Starting Time, Ending Time, CostTime, KWH, bSOC, and eSOC. A single record is shown for card 'd3f9130b' on 24-02-19.</p>	Charging record query
16	 <p>The screenshot shows the 'Fault record query' page. It displays a table with columns: No., Description, and Occurrence time. A record is shown for 'Successful login of the operating platform!' on 2024/02/19 at 07:33.</p>	Fault record query
17	 <p>The screenshot shows the 'Password charging settings' page. It features a list of input fields labeled 'Number' for adding passwords. At the bottom, there is an 'Add Number' input field and an 'Add' button.</p>	Password charging settings

4. Transportation methods and precautions

1. Preparation

Before transporting, check that the device packaging is intact. The packaging should effectively protect the device from damage during transport. If the packaging is damaged or defective, replace it promptly.

Before loading the equipment onto the transport, ensure that it is securely fastened. This can be achieved by using ropes, safety harnesses or other securing devices.

During transportation, the device can be wrapped with foam plastic, air cushion film or other cushioning materials to reduce shock and vibration.

Relevant information should be marked on the package before shipping, such as shipper, consignee, transport vehicle, etc. This helps to avoid confusion and misdelivery of goods.

2. Transportation plan and precautions

2.1 Road transport



- Route selection: Choose flat, wide and well-maintained roads and avoid bumpy or rugged roads.
- Speed control: Control the speed of the vehicle and avoid sudden braking or speeding to reduce the impact on the equipment.
- Regular inspection: Regularly check whether the fixings of the equipment are loose and make necessary adjustments.
- Choose the right transport vehicle: Make sure the

vehicle you choose meets the size and weight requirements of your

equipment to avoid problems caused by overloading or size mismatch.

- For long-distance transportation, mid-way rest and inspection should be considered: long-term continuous transportation may cause the equipment fixtures to loosen or the vehicle to malfunction. Therefore, during long-distance transportation, appropriate rest stops should be selected for inspection and adjustment.

Upon arrival at the destination, the equipment should be inspected promptly: check whether the equipment has been damaged during transportation and confirm that all accessories and documents are complete. If any problems arise, contact the shipping company and take appropriate measures.

2.2 Water transport



- It should be noted that water transportation has a long cycle and is greatly affected by weather and hydrological conditions, so careful consideration should be given when choosing.
- When choosing water transport, ensure that the vessel's loading capacity and stability meet the equipment's size and weight requirements. Also, pay attention to the vessel's route and port conditions to ensure the equipment arrives safely and smoothly at its destination.

- Before the equipment is loaded onto the ship, it should be carefully inspected and secured. Professional fixing devices and cushioning materials should be used. At the same time, the packaging should be marked with waterproof and moisture-proof labels to prevent the equipment from getting wet or damaged.
- Upon arrival at the destination, the equipment should be unloaded and inspected promptly. Check the equipment for damage during transportation and confirm that all accessories and documentation are complete. If any issues arise, contact the shipowner and shipping company immediately and take appropriate action.

5. Maintenance and care

In order to ensure the long-term stable operation of the equipment, we recommend that you regularly inspect and maintain the equipment.

1. Maintenance points

- Regularly inspect the appearance of the equipment to ensure it is free of damage, deformation, or corrosion. Pay special attention to checking that cables, plugs, and other connections are securely fastened to prevent loose connections or short circuits.
- Clean the inside and surrounding areas of the device to prevent accumulation of dust and debris that could affect heat dissipation or create safety hazards. Use a dry, soft cloth to wipe the surface of the device; avoid using a wet cloth or corrosive cleaners.
- Check the electrical system of the device, including the power cord, fuses, circuit breakers, etc., to ensure that they are in good condition. If any damage or abnormality is found, replace or repair it in time.
- For the device's battery pack, you need to regularly check the battery charge, voltage, and other indicators to ensure that the battery is in a healthy state. At the same time, pay attention to follow the battery usage and maintenance regulations to extend the battery life.
- Regularly test the various functions of the device, such as charging, discharging, and protection, to ensure normal operation. If any malfunction or abnormality is found, stop using it immediately and contact a professional for repair.
- For devices that have not been used for a long time, it is recommended to charge and discharge them regularly to maintain battery activity. Also, make sure to store the device in a dry, ventilated environment free of corrosive gases.

2. Notes



Caution

1. Wear appropriate protective equipment during maintenance, such as insulating gloves, protective glasses, etc., to ensure personal safety.
2. Before performing any maintenance operation, be sure to cut off the power supply of the equipment and hang up a warning sign such as "Do not close the switch" to prevent electric shock

accidents caused by improper operation.

3. Non-professionals should not disassemble the internal components of the device or perform complex maintenance operations without authorization. If you encounter a complex fault, please contact our professional maintenance personnel in time for processing.

4. During maintenance, if you find that the equipment has safety hazards or does not comply with safety regulations, please stop using it immediately and take appropriate safety measures to ensure the safety of personnel and equipment.

5. It is recommended to establish an equipment maintenance file to record the time, content, maintenance personnel and other information of each maintenance, so as to track the use and maintenance history of the equipment and provide a reference for future equipment management and maintenance.

By following the above maintenance recommendations and precautions, you can better ensure the safe and stable operation of the equipment and provide strong support for your business development.

6. Troubleshooting

During the maintenance and care process, we also need to pay attention to some common troubleshooting methods so that we can respond and solve problems quickly when equipment problems occur.

- If the device fails to start or is not working properly, check that the power supply is properly connected and that the power switch is on. Check if the fuse is blown and replace it if necessary.
- If the device overheats, makes unusual noises, or charges slowly during operation, it may be due to a problem with the device's internal cooling system or battery aging. In this case, stop using the device immediately and contact a professional for inspection and replacement of related components.
- In addition, you should also pay attention to whether the connecting parts of the device are loose or damaged, such as the charging port, cable, etc. If any abnormality is found, please tighten or replace the relevant parts in time to ensure the normal operation of the device.
- We recommend that you conduct comprehensive troubleshooting and performance testing of your equipment regularly to promptly identify and resolve potential safety hazards. When troubleshooting, be sure to follow the product manual and safety procedures to ensure personal and equipment safety.

7. After-sales service

Accessories replacement: Original accessories must be used, and repairs are free of charge if not caused by human factors.

Remote maintenance: When a device fails during normal use, remote guidance can be provided to repair the device.

When replacing parts, we recommend using genuine parts to ensure compatibility and safety. If your device experiences a malfunction not caused by human error, we offer free repair services. Contact our repair personnel, who will promptly repair your device and restore it to normal operation.

In addition, to better meet your needs, we are constantly committed to improving service quality and efficiency. Whether it is pre-sales consultation, in-sales guidance or after-sales maintenance, we will be customer-centric and wholeheartedly provide you with comprehensive, high-quality services.