

PEVC2107E AC charging station maintenance manual

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1、 overview

Charging stations bring efficient, safe and convenient energy supply to electric vehicles, and the daily maintenance of charging stations is even more necessary.

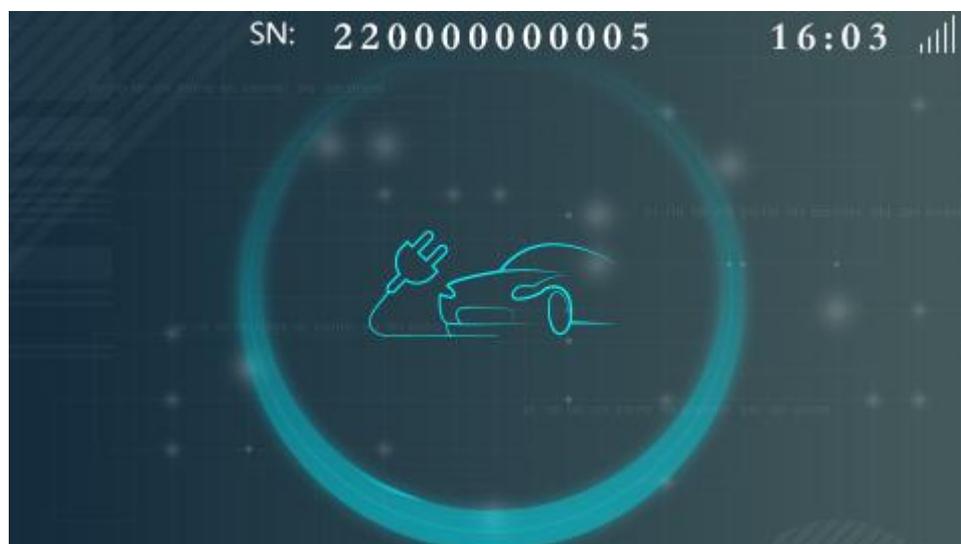
2、 Charging station debugging

2.1 Signal indicator light

- standby mode: The green indicator light flashes like breathing ;
- The electric car is connected: **the** blue indicator light turns on and off alternately ;
- charging: The blue indicator light is always on ;
- Charging complete : The blue and green indicators flash alternately ;
- Fault alarm : The red indicator light is always on.

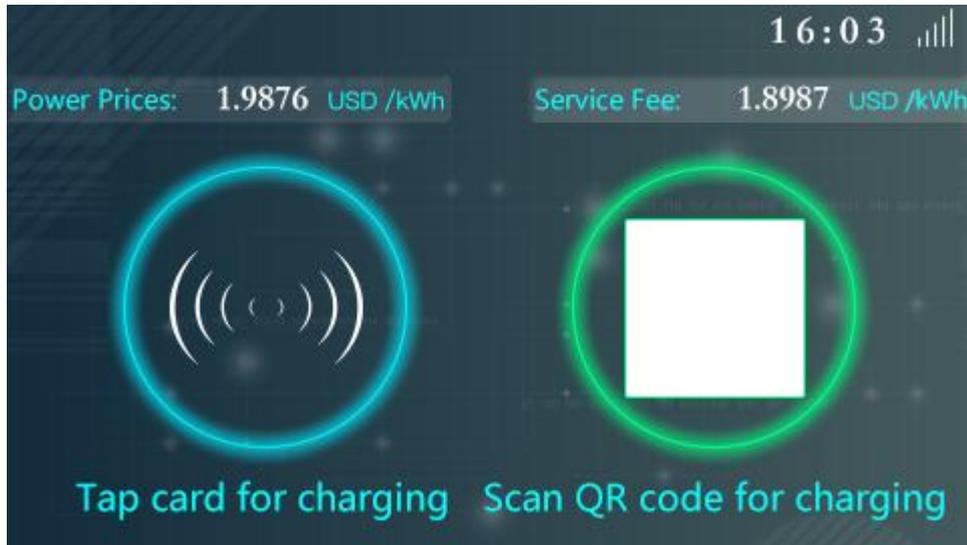
2.2 standby

After power on, the initial interface of the system is the standby interface , as shown in the figure below:



2.3 Ready state

After the electric vehicle is successfully connected, it enters the ready-to-charge interface. At this stage, you can swipe your card or remotely start charging with SINO APP, as shown in the figure below:



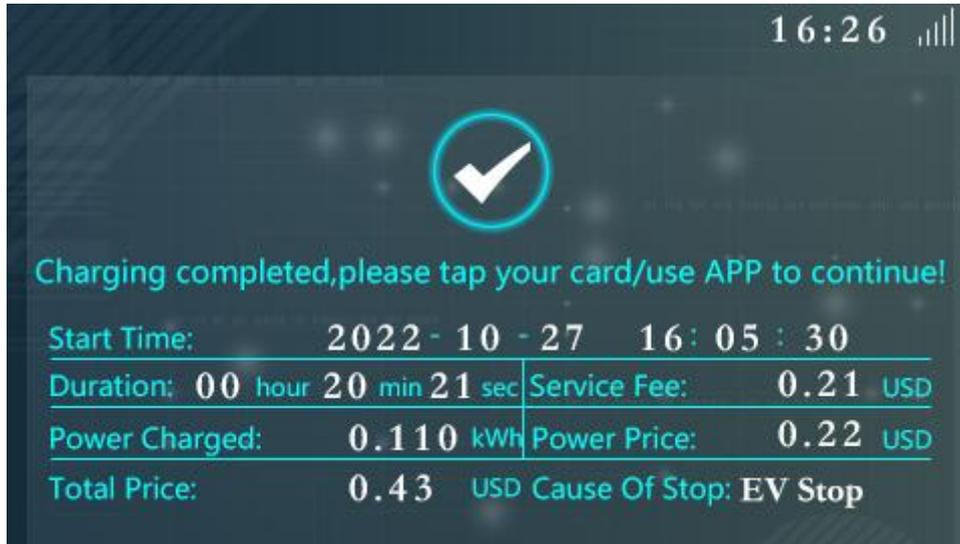
2.4 Charging status

After the charging is started successfully, it will enter the charging interface. At this stage, the corresponding current (A) will be output according to the demand of the electric vehicle, as shown in the figure below:

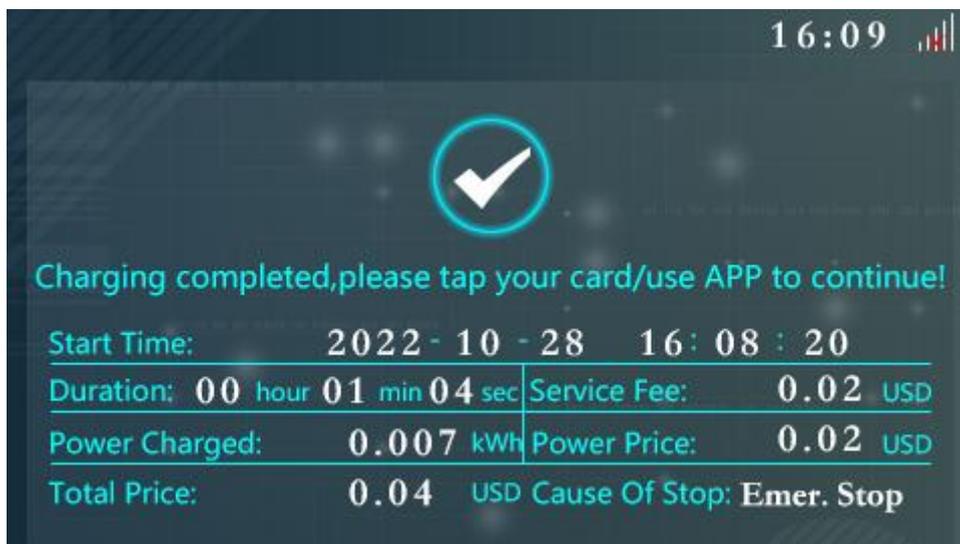


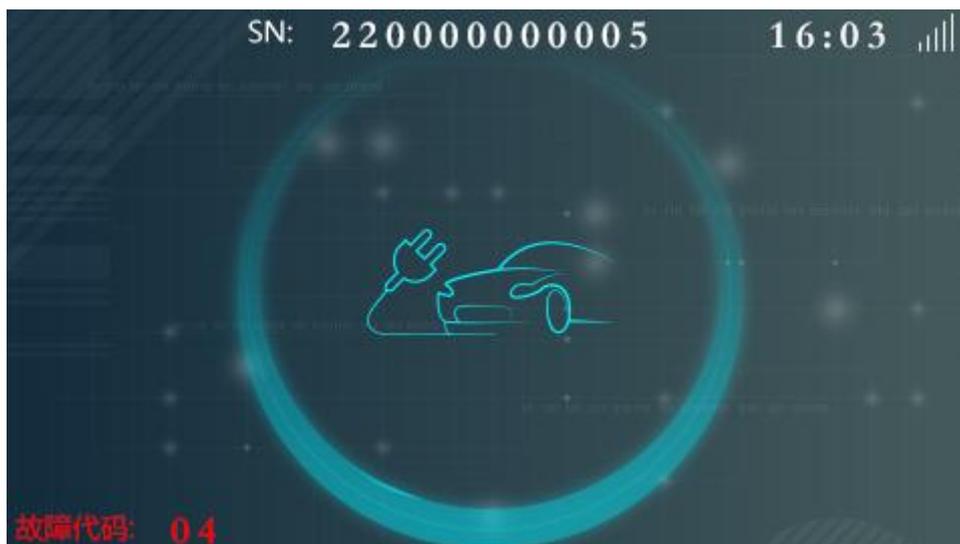
2.5 Charging completed status

After the vehicle is fully charged/manually stopped, it will enter the charging completion interface. At this stage, you can check the charging power, stop reason and other information, as shown in the figure below:



During the charging process: When the charging station fails, the charging station will automatically stop charging, the fault indicator light will turn red , and the interface will jump to the charging end interface, which will display the specific reason for the charging stop. After the charging gun returns to its original position, the page will jump to the fault standby interface, as shown in the figure below:





2.6 Fault status

In any state, when the charging station is faulty, the fault indicator light is always red and the fault code is displayed. Charging is not allowed at this stage. For the fault code explanation, see the fault code table at the end of the document , as shown in the figure below:



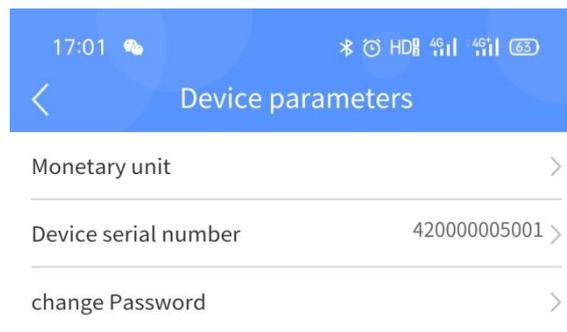
2.7 Maintenance password modification

Factory default maintenance **password: 4567**, users can modify this password according to individual needs, screen modification method: In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → factory default

password 4567 → enter the maintenance system → Setting → Device Password → can be modified to 1~8 digits → Save, please keep the password after modification, as shown in the picture below:



SINO APP modification method: open SINO APP → Charging → Add new device → select SN → Connect → enter the maintenance password → Modification → Device parameters → change Password; it can be modified to 1~8 digits, please keep the password after modification, as shown in the figure below Shown:



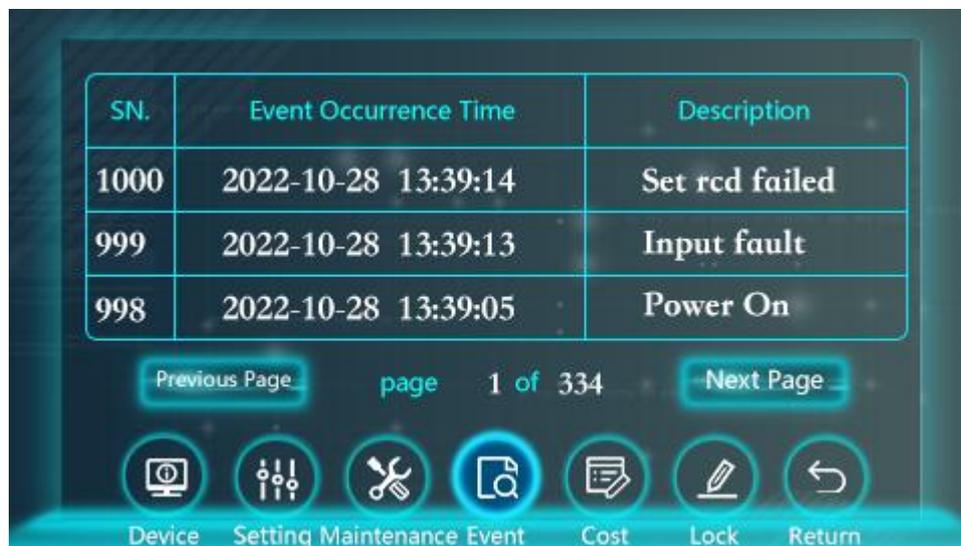
2.8 Protection function configuration

In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → the factory default password is 4567 → enter the maintenance system → Setting → turn the page with the left and right arrows → turn on and off various protection functions, as shown in the following figure:



2.9 Event record query

Screen query method: In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → the factory default password is 4567 → enter the maintenance system → Event → you can turn the page to query the latest 1000 event records, as shown in the figure below:



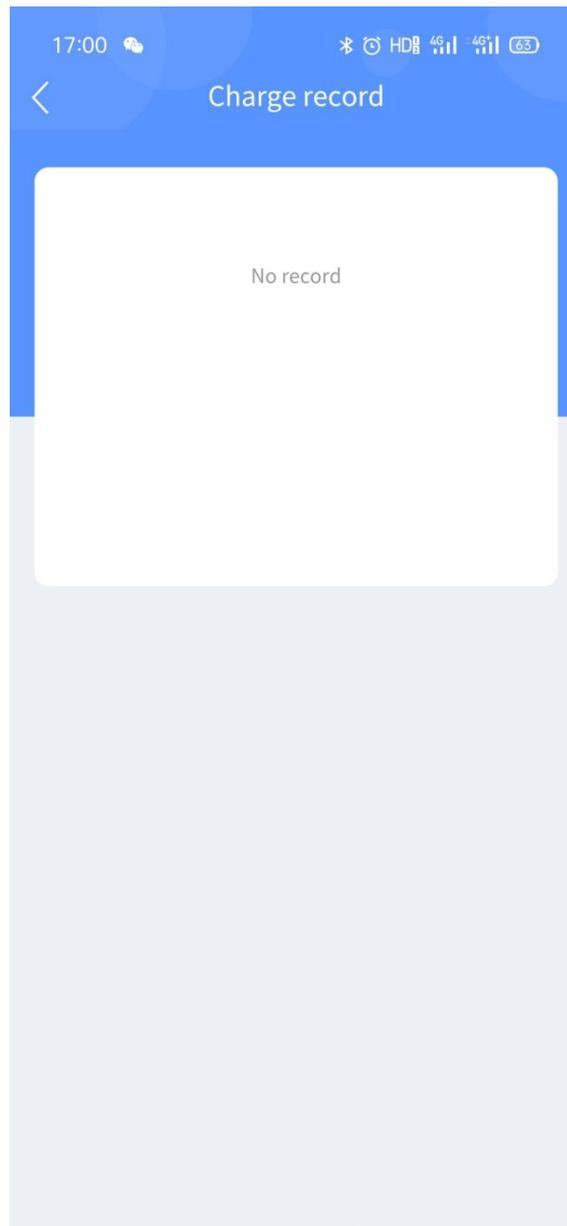
2.10 Consumption Record Query

Screen query method: In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → the factory default password is 4567 → enter the maintenance system → Cost → you can turn the page to query the latest

1000 consumption records, as shown in the figure below:



SINO APP query method: open SINO APP → Charging → Add new device → select SN → Connect → enter the maintenance password → Record, as shown in the figure below:



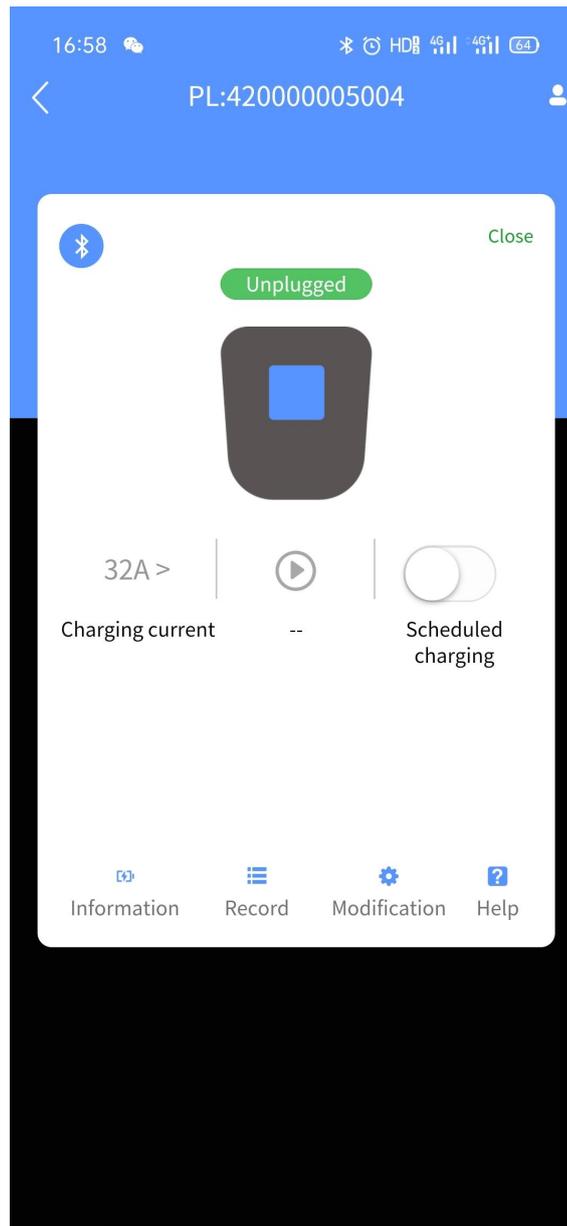
2.11 Maximum Current Limit

When the power distribution capacity is insufficient, the charging current can be limited according to the actual demand;

Screen limit method: In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → the factory default password is 4567 → enter the maintenance system → Setting → Max Charging Current → limit the range of 6A ~ rated current → Save , as shown in the figure below Show:

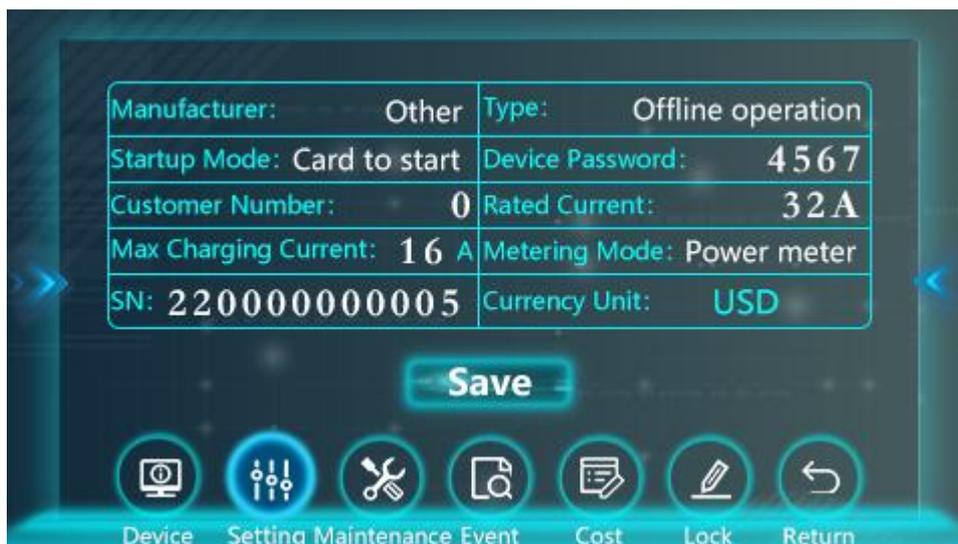


SINO APP restriction method: open SINO APP → Charging → Add new device → select SN → Connect → enter the maintenance password → Charging current → the limitable range is 6A~rated current, as shown in the figure below:



2.12 Charging method

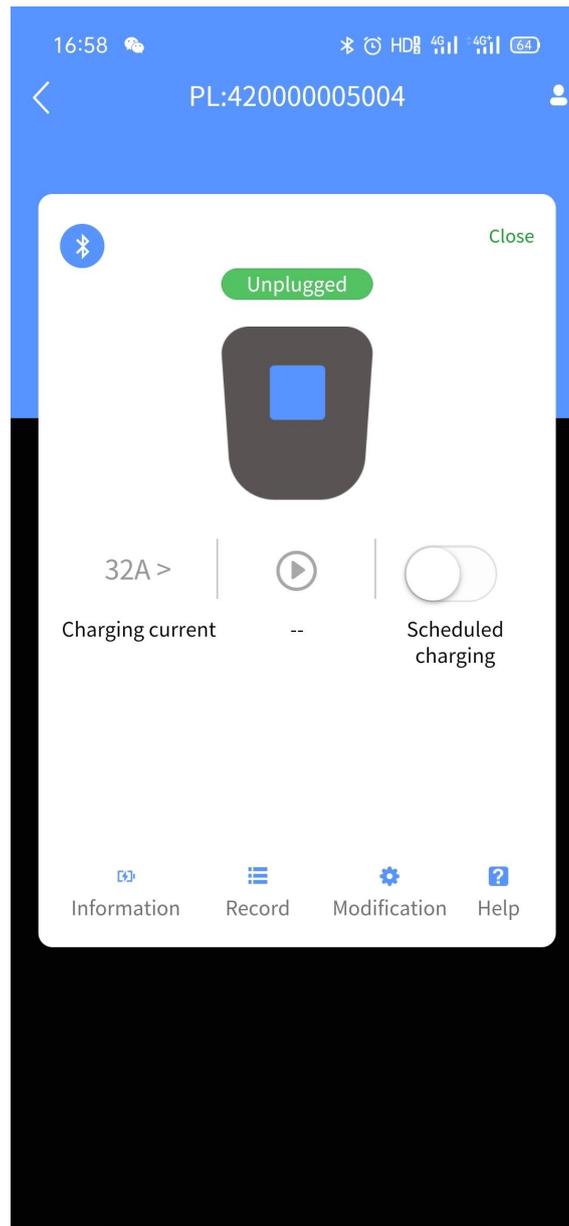
(1) Swipe card charging: after connecting the electric car, you need to swipe the card to start charging; screen configuration method: In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → factory default password 4567 → enter the maintenance system → Setting → Startup Mode → Card to start → Save , as shown below:



(2) Plug and charge(without card): automatically start charging after connecting the electric vehicle; screen configuration method: In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → factory default password 4567 → enter the maintenance system → Setting → Startup Mode → Auto start → Save , as shown below:

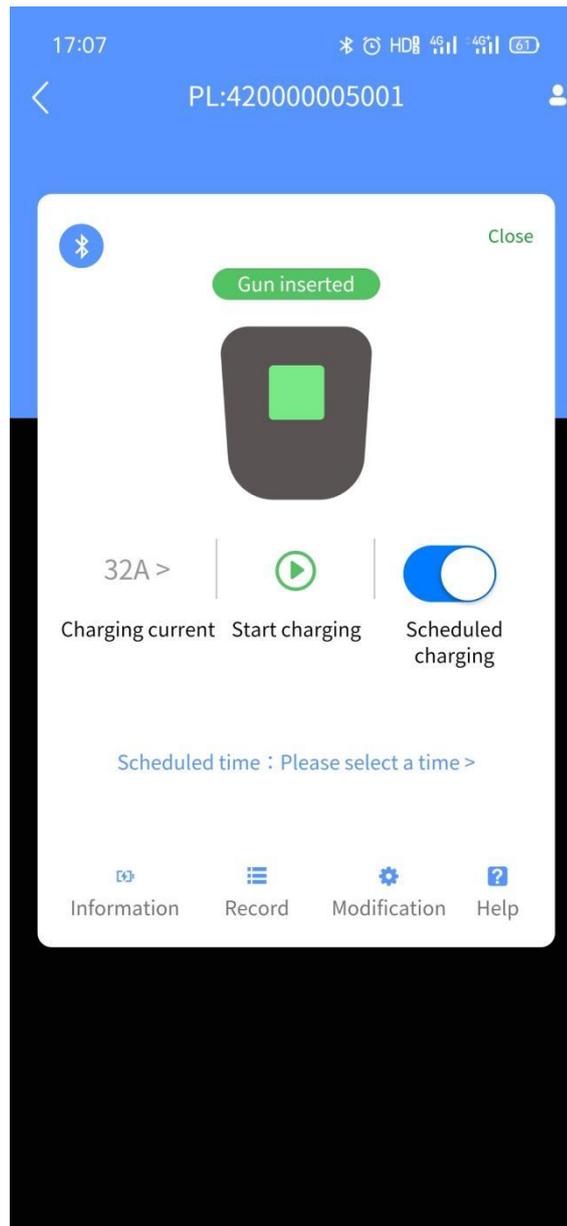


(3) SINO APP remote start: use SINO APP to connect to the charging station to realize remote start; SINO APP charging method: open SINO APP → Charging → Add new device → select SN → Connect → enter the maintenance password → Start icon, as shown in the figure below:



2.13 Make an appointment to charge

SINO APP appointment charging method: open SINO APP → Charging → Add new device → select SN → Connect → enter the maintenance password → Scheduled charging icon → Scheduled time: Please select a time → select an appointment time → connect the electric vehicle, as shown in the figure below:



2.14 Platform configuration

This product has three networking methods, supports OCPP 1.6 platform protocol, and configures according to the independent platform parameters;

(1) Ethernet networking method:

① Screen configuration: In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → factory default password 4567 → enter the maintenance system → Setting → Inremet Enable: Enable → Connection Mode: Ethernet → Local IP → Default Gateway;



② SINO APP configuration: open SINO APP → Charging → Add new device → select SN → Connect → enter the maintenance password → Modification → Network parameters → Background enable: Enable → Connection method: Ethernet;



(2) GPRS networking mode:

① Screen configuration: In standby mode → click the upper left corner of the screen → click the lower left corner of the screen → enter the password → factory default password 4567 → enter the maintenance system → Setting → Inremet Enable: Enable → Connection Mode: GPRS;

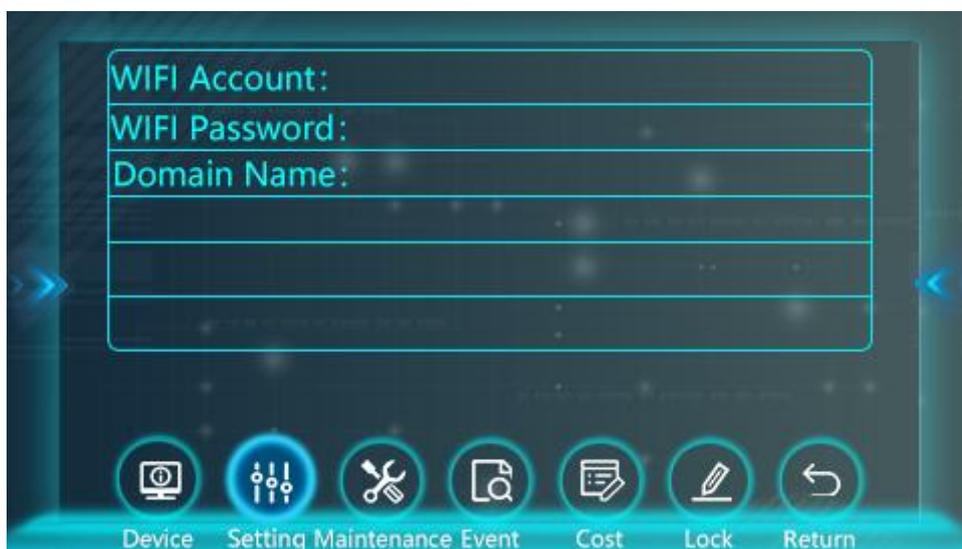


② SINO APP configuration: open SINO APP → Charging → Add new device → select SN → Connect → enter the maintenance password → Modification → Network parameters → Background enable: Enable → Connection method: GPRS;



(3) WIFI networking method:

SINO APP configuration: open SINO APP → Charging → Add new device → select SN → Connect → enter maintenance password → Modification → Network parameters → Background enable: Enable → Connection method: WIFI → WIFI account → WIFI password;

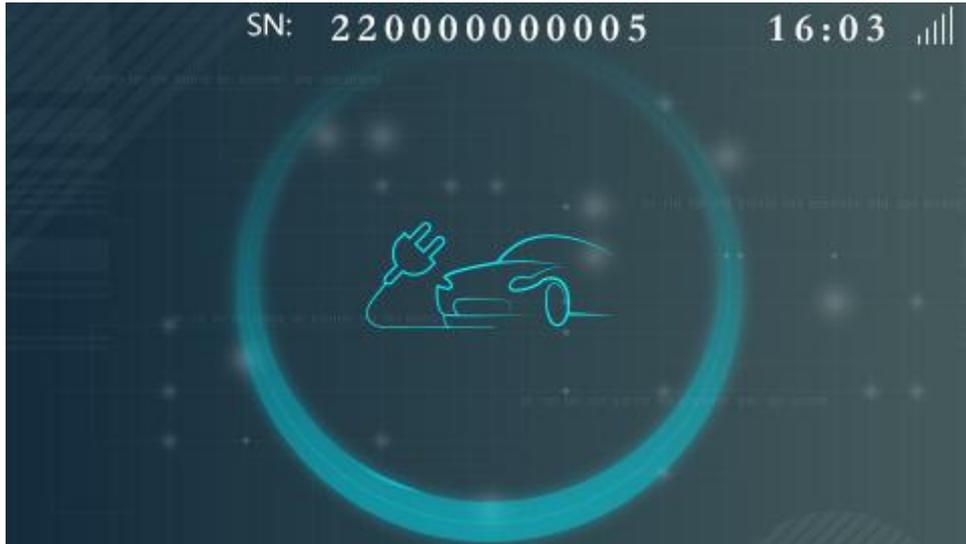


1. Platform parameter configuration: First decompose the platform parameters, such as the following platform parameters:

`ws://18.133.212.237:8080/steve/websocket/CentralSystemService/pilot60kw`

It consists of four parts of the platform: ①server IP (18.133.212.237), ②Backend port (8080), ③charger ID (pilot60kw is defined by the platform and entered in the ws backend), ④ws(18.133.212.237/steve/websocket/CentralSystemService/pilot60kw), click here to decompose and enter the location of the charging station to restart the charging station. Check the icon in the upper right corner of the screen and the connection is successful if the icon is not crossed, as shown in the figure below:





3、 Charging station maintenance

3.1 Inspection method

When checking the condition of the equipment, the direct sensory diagnosis method is generally used for fault diagnosis, which can be summarized as: asking, seeing, listening, smelling, touching, and testing.

To see: to observe. For example, look at the color of the indicator light of the charging station, the status of the indicator light of the charging station distribution box, etc.

Listen: Listen to the sound, and judge whether the charging station is normal according to the sound of the internal relay when the charging station is working.

Smell: Diagnose with the smell from inside the charging station.

To touch: to touch with hands. For example, whether there is any phenomenon of excessive temperature on the surface of the charging station, and whether there is any condensation of water vapor inside.

To test: test verification. For example, press the leakage test button of the internal circuit breaker of the charging station, whether the circuit breaker can be automatically disconnected, etc.

3.2 Maintenance Tools

Maintenance person should be equipped with charging station maintenance tools: multimeter, electric pen, insulating tape, large and small screwdrivers, pliers, sockets, wrenches and other common tools.

3.3 Overall safety inspection of charging stations

- (1) Whether the base of the charging station is damaged, cracked, or tilted;
- (2) Check the installation of the charging station itself, the wiring pipeline or the components of the bridge frame, the stability of the installation of each accessory, and whether the connection of the fixed expansion bolts is firm;
- (3)) Check the fixing condition of the charging station, whether there is any falling off or shaking;
- (4) Whether the outlet position of the charging gun line is loose, whether there is any broken skin on the charging gun line, and whether the connection between the charging gun line and the gun head is loose ;
- (5) Whether the charging gun head is damaged, whether the charging gun head pin is broken or abnormally burned, and whether the mechanical switch of the charging gun head is normal ;
- (6) Whether the wiring terminals in the charging station and the communication line wiring terminals are loose, Burnt black, the internal components of the charging station are installed firmly, without damage or falling off;
- (7) The grounding terminal in the charging station is well grounded.

Note: It needs to be carried out when the power distribution is completely cut off.

3.4 Charging station function check

- (1) Whether the display screen of the charging station is normally lit and touched normally;
- (2) Charging station indicator lights: whether green (standby), blue (charging), red (fault) can be indicated normally;
- (3) Press the emergency switch to see if the charging station is faulty and does not allow charging;
- (4) Use an electric vehicle to charge, and check whether the output current is consistent with the vehicle display;
- (5) In the standby state, use a multimeter with AC gear to measure the voltage of L → N, L → PE at the tip of the gun should not be greater than 36VAC.

3.5 Fault codes

Fault Code	Fault Status
01	RTC fault
02	Card reader fault
04	EPO fault
05	Over voltage alarm
06	Under voltage alarm
07	FRAM fault
08	Flash fault

09	Phase line alarm
11	Electric meter fault
12	Relay fault
13	Over temperature alarm

3.6 Common troubleshooting

3.6.1 RTC fault

Please contact the after-sales service department.

3.6.2 Card reader fault

Please check whether the card reader cable is loose. If it is loose: please restore the cable; if it is not loose: please contact the after-sales service department to replace the card reader.



3.6.3 EPO fault

Please check whether the emergency switch has been pressed.

Pressed: Please check that the charging station has no faults such as burning and turning the emergency switch clockwise to restore it;

Not pressed: please contact the after-sales service to replace the emergency switch.



3.6.4 Over voltage alarm

Please use a multimeter to measure whether the input voltage of the charging station is too high, 15% higher than the rated voltage: please adjust the power distribution; normal: Please contact the after-sales service department.



3.6.5 under voltage alarm

Please use a multimeter to measure whether the input voltage of the charging station is too low, 15% lower than the rated voltage: please adjust the power distribution; normal: Please contact the after-sales service department.



3.6.6 FRAM fault

Please contact the after-sales service department

3.6.7 Flash faults

Please contact the after-sales service department

3.6.8 Phase line alarm

**Please check whether the input phase line is reversed,
Reversed: restore normal wiring;
Not reversed: please check whether the input PE is connected normally or the power
distribution PE is normal.**



3.6.9 Electric meter fault

Please contact the after-sales service department.

3.6.10 Relay fault

Please contact the after-sales service department.

3.6.11 Over temperature alarm

Stop using for a period of time and wait for the equipment to return to the normal temperature range and restart , No: Please contact the after-sales service department.

3.6.12 Display is off

Please check whether the status indicator light is normal.

Normal: check whether the communication cable of the display screen is loose;

Abnormal: please use a multimeter to measure whether the input voltage is normal; normal: the screen or the main control board needs to be replaced;

abnormal: please check the distribution box.



3.6.13 Unable to enter the system

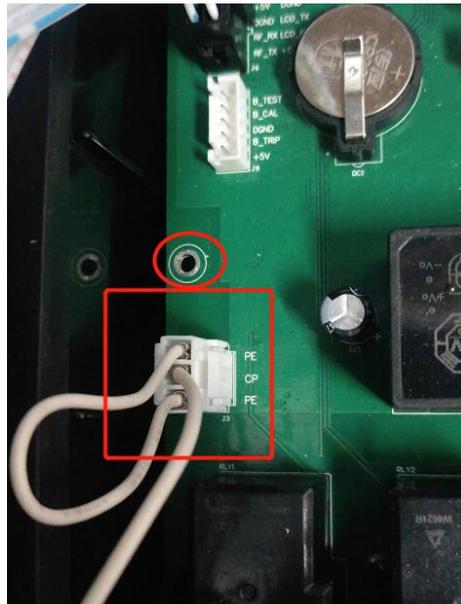
Please check whether the communication cable of the display screen is loose. If it is loose: please restore the connection cable. If it is not loose: Please contact the after-sales service department



3.6.14 Failure to detect connected EVs

Step 1: Please check whether the gun is inserted in place, normal: check whether the electric car is ready; abnormal: please re-insert the gun or restart the electric car;

Step 2: Please check whether the gun wire communication cable and grounding screw in the station are loose and fall off, loose: please restore the connection line, if it is not loose: Please contact the after-sales service department



3.6.15 There is voltage but no current during charging

Step 1: Please check whether the gun is inserted in place, normal: check whether the electric car is ready; abnormal: re-insert the gun;

Step 2: Please check whether the electric car APP or the vehicle has enabled the delay waiting function

Step 3: Please contact the after-sales service department

3.6.16 RCD Err

Step 1: Please replace the electric vehicle and try to charge it. Normal: the electric vehicle may have leakage; abnormal: check whether the input phase line of the charging station is connected incorrectly.

Step 2: Please contact the after-sales service department



3.6.17 Automatically stop when charging is not completed

Step 1: Please check the stop reason displayed on the stop charging interface, and analyze it according to the stop reason

Step 2: Please contact the after-sales service department

