

PEVC3106E/3107E/3108E DC 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.

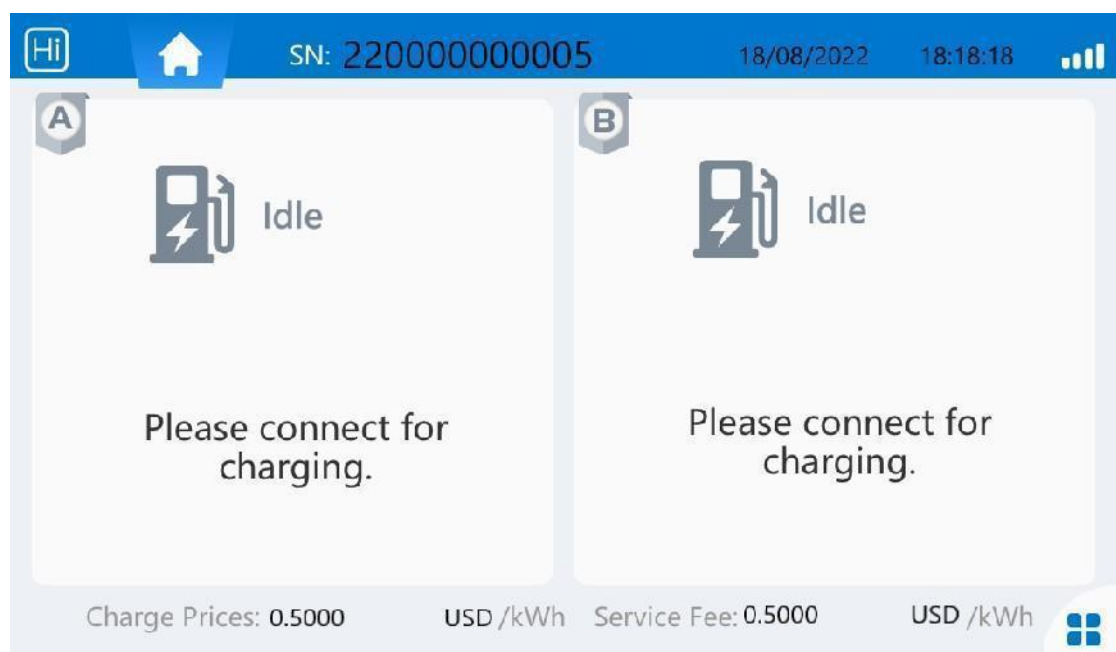
2、Charging station debugging

2.1 Signal indicator light

- Standby state: A/B is always green ;
- electric car is connected: A/B green flashes;
- Charging: A/B is always blue ;
- Charging completed : A/B green flashes ;
- Fault alarm : **A/B** is always red .

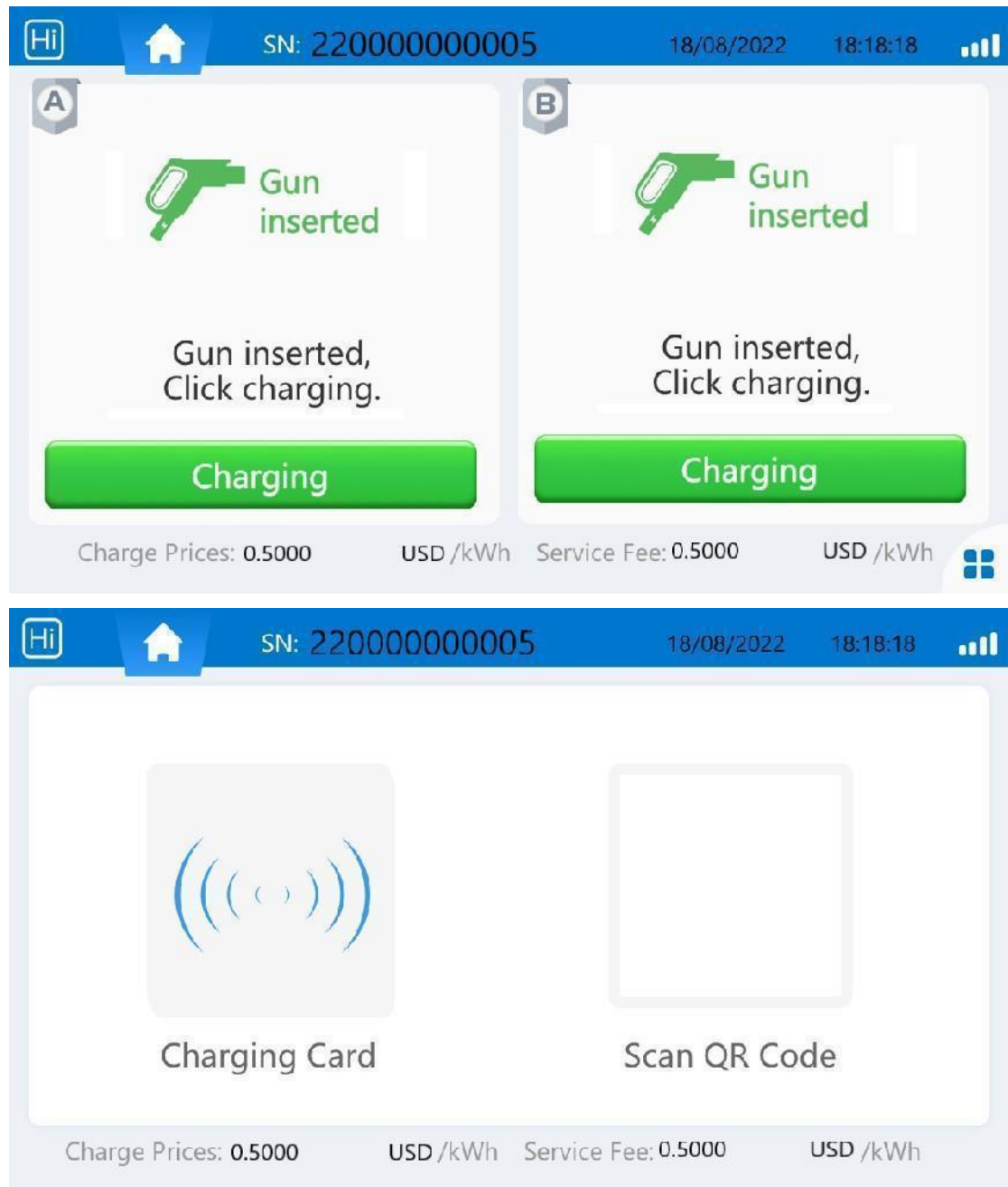
2.2 standby

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



2.3 Ready state

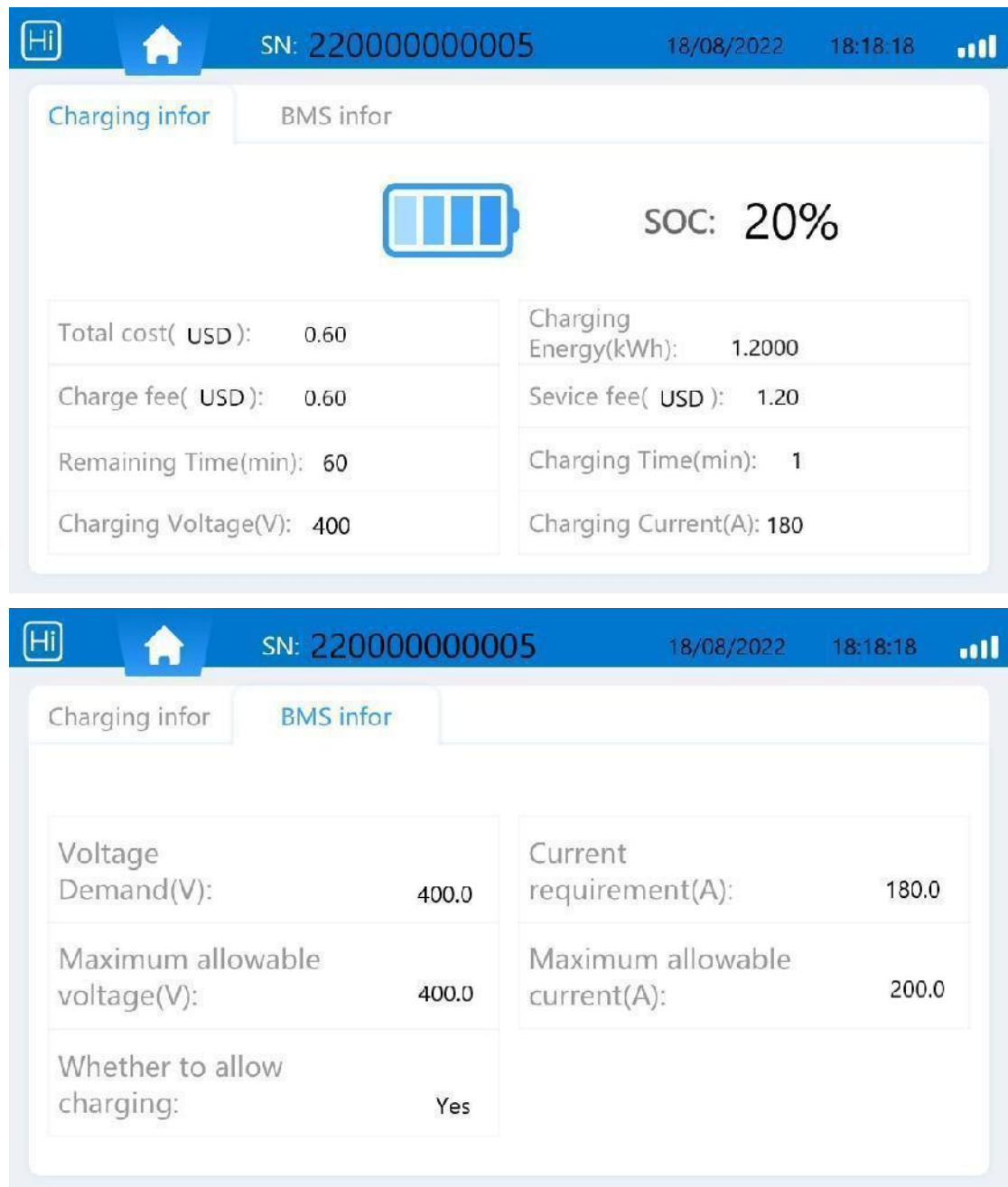
After the electric vehicle is successfully connected, click the corresponding gun Charging to enter the ready-to-charge interface. At this stage, you can swipe the card or OCPP to start charging remotely, as shown in the figure below:



2.4 Charging status

After the charging is successfully started, it will enter the charging interface. At this stage,

the corresponding voltage (V) and current (A) will be output according to the needs of the electric vehicle, as shown in the figure below:



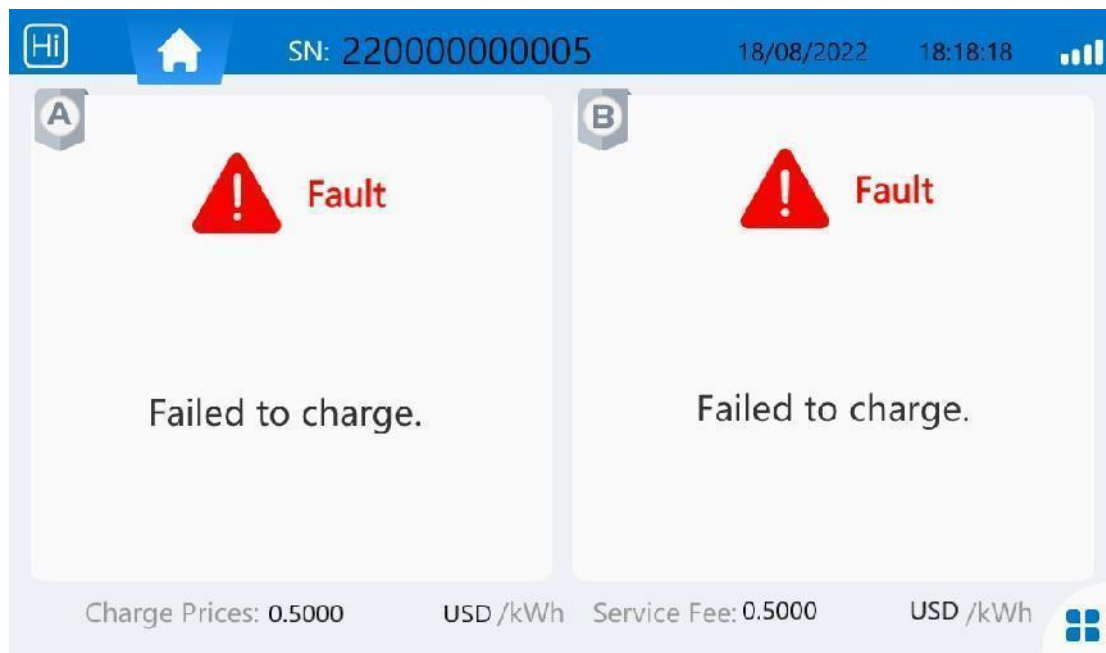
2.5 Charging completed status

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 stop charging immediately, the fault indicator light will be red, and the interface will jump to the charging end interface, and the interface will display the specific reason for the charging stop. Go to the fault standby interface, as shown in the figure below:



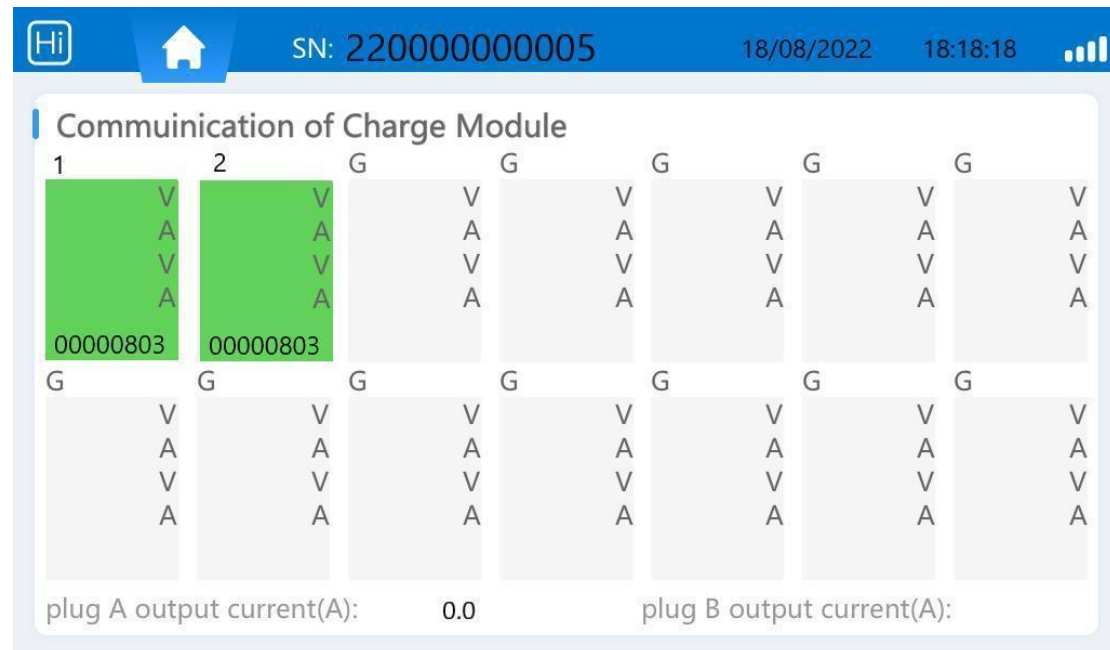


2.6 Status information

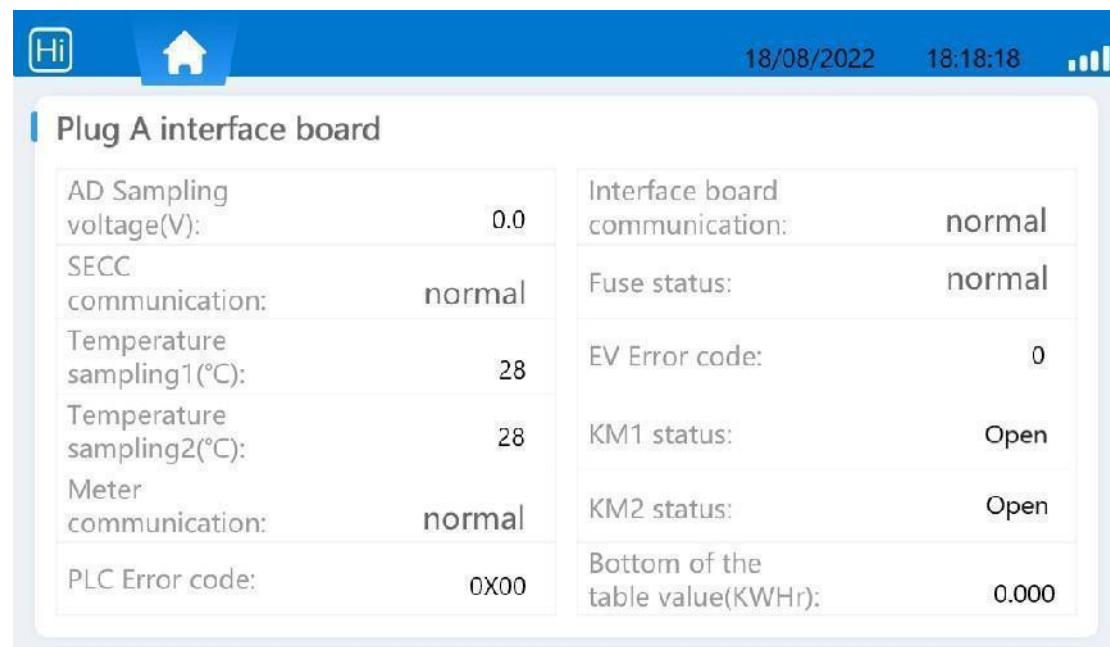
(1) In any state, when the charging station fails (non-alarm) , the fault indicator light is always red , and charging is not allowed at this stage. Click the network icon on the main interface to enter the status information interface, and the location of the corresponding fault will be displayed. Click the home icon in the upper left corner to return to the main interface, as shown in the following figure:



(2) On the status information interface → click Details of Communication of Charge Module to query the status of the charging module, as shown in the figure below:



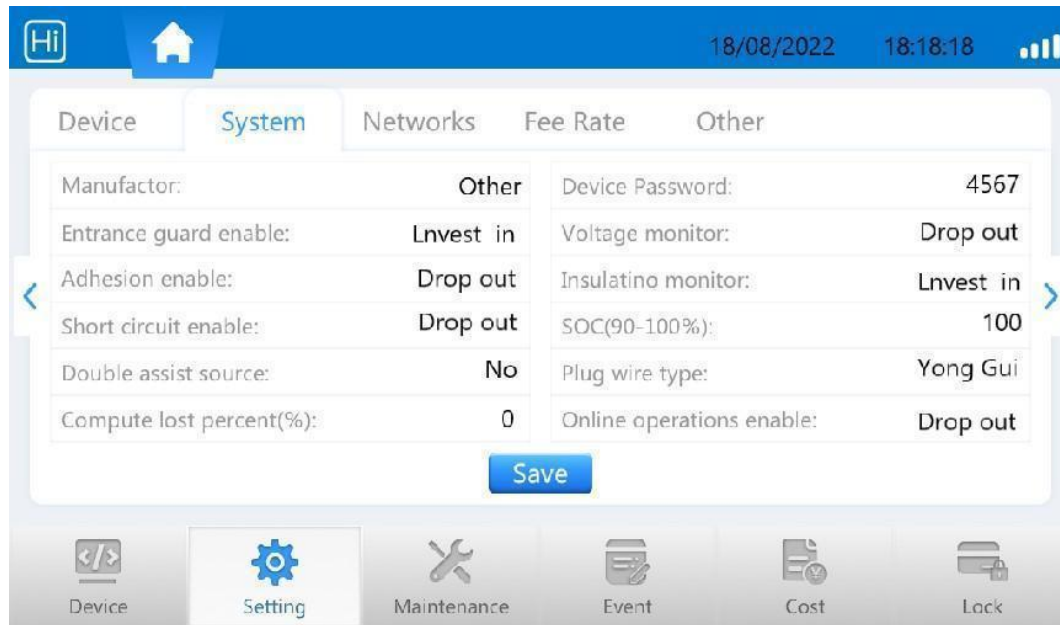
(3) On the status information interface → click the Plug A details/Plug B details button to query the status information about the gun part: gun temperature, KM1, KM2, status, total meter power, etc., as shown in the figure below:



2.7 Maintenance password modification

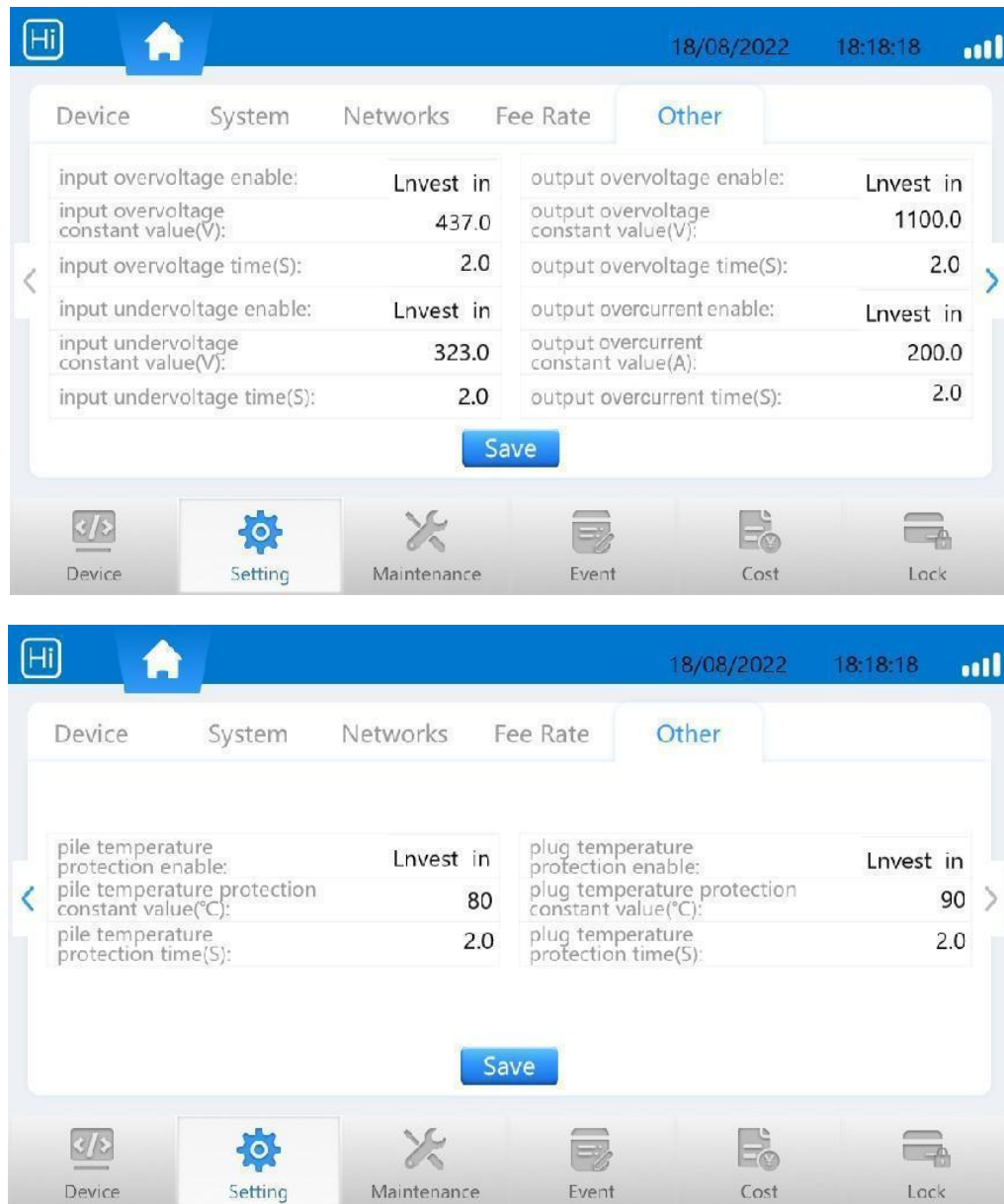
Factory default maintenance password: 4567, users can modify this password according to

individual needs, screen modification method: In the main interface state → click the upper left corner of the screen (Hi) position → enter the password → factory default password 4567 → enter the maintenance system → Setting → right Turn the page → Device Password → can be modified to 1~8 digits → Save, please keep the password after modification, as shown in the picture below:



2.8 Protection function configuration

In the main interface state → click the upper left corner of the screen (Hi) → enter the password → the factory default password is 4567 → enter the maintenance system → Setting → Other → various protection functions are turned on and off, as shown in the figure below:



2.9 Event record query

Screen query method: In the main interface state → click on the upper left corner of the screen (Hi) → enter the password → the factory default password is 4567 → enter the maintenance system → Event → you can turn left and right to query the latest 1000 event records, as shown in the figure below:

S.N	Event occurrence time		Event description
996	18-08-2022	18:18:19	AC Power down Ret
997	18-08-2022	18:17:19	AC Power down
998	18-08-2022	18:16:18	Guard Ret
999	18-08-2022	18:15:16	Guard Err
1000	18-08-2022	18:14:18	Guard Ret

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Device Setting Maintenance **Event** Cost Lock

2.10 Consumption Record Query

Screen query method: In the main interface state → click the upper left corner of the screen (Hi) → enter the password → the factory default password is 4567 → enter the maintenance system → Cost → you can turn left and right to query the latest 1000 consumption records, as shown in the figure below:

S.N	Gun ID	User Card NO.	Start Time	Stop Time	Charging Energy(KWh)	Power Usage(USD)	Stop Cause
996	A	88888888	18-08-2022	18-08-2022	4.913	5.8956	Manu Stop
997	A	88888888	17:45:32	17:47:55	4.913	5.8956	Manu Stop
998	A	88888888	18-08-2022	18-08-2022	4.913	5.8956	Manu Stop
999	A	88888888	17:30:31	17:33:11	4.913	5.8956	Manu Stop
1000	A	88888888	17:20:22	17:23:33	4.913	5.8956	Manu Stop

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Device Setting Maintenance Event **Cost** Lock

2.11 Maximum Current Limit

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

Control method: In the main interface state → click the upper left corner of the screen (Hi) → enter the password → the factory default password is 4567 → enter the maintenance system → Setting → Maximum Current → limit the range to 10~200A → Save , as shown in the figure below:



2.12 Charging method

(1) Swipe card charging: after connecting the electric vehicle, you need to swipe the corresponding charging card to start charging; as shown in the figure below:

(2) OCPP remote start: that is, remote start can be realized after connecting to the OCPP platform; as shown in the following figure:

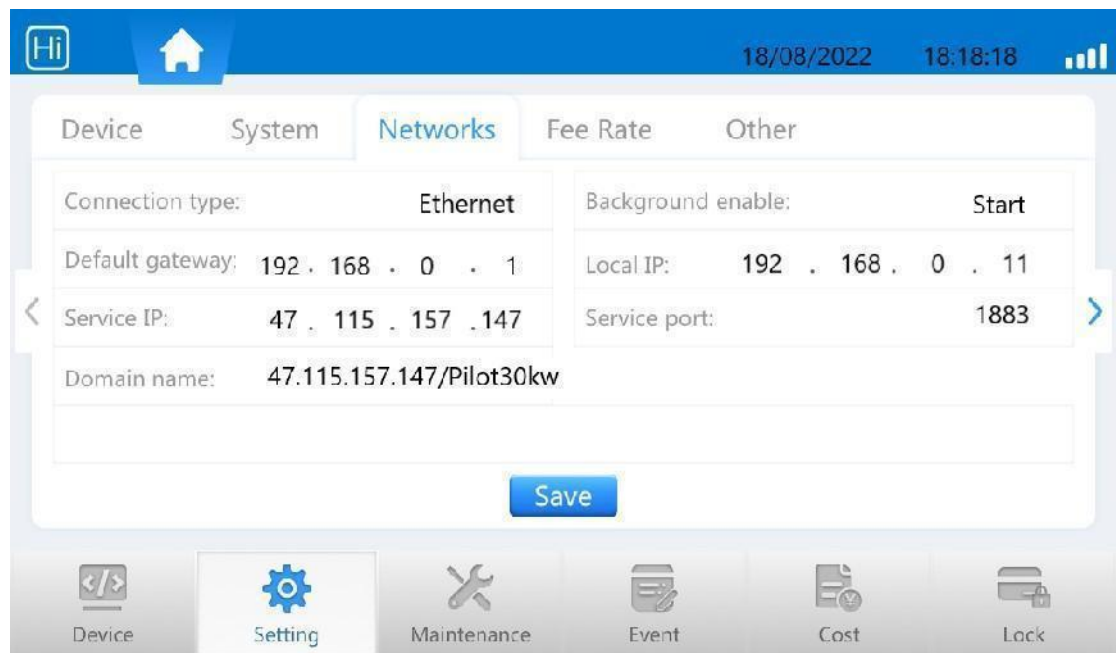


2.14 Platform configuration

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

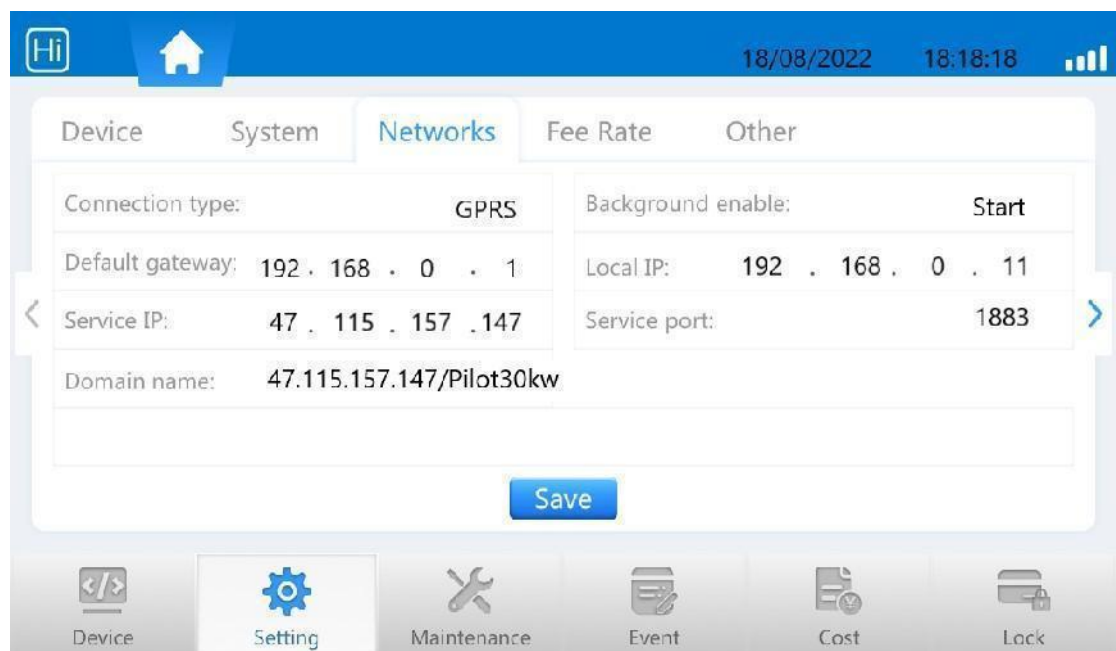
(1) Ethernet networking method:

Screen configuration: In the main interface state → click the upper left corner of the screen (Hi) → enter the password → factory default password 4567 → enter the maintenance system → Setting → Networks → Background enable : Start → Connection type: Ethernet → Local IP → Default gateway;



(2) GPRS networking mode:

Screen configuration: In the main interface state → click the upper left corner of the screen (Hi) → enter the password → factory default password 4567 → enter the maintenance system → Setting → Networks → Background enable : Start → Connection type: GPRS;



(3) WIFI networking method:

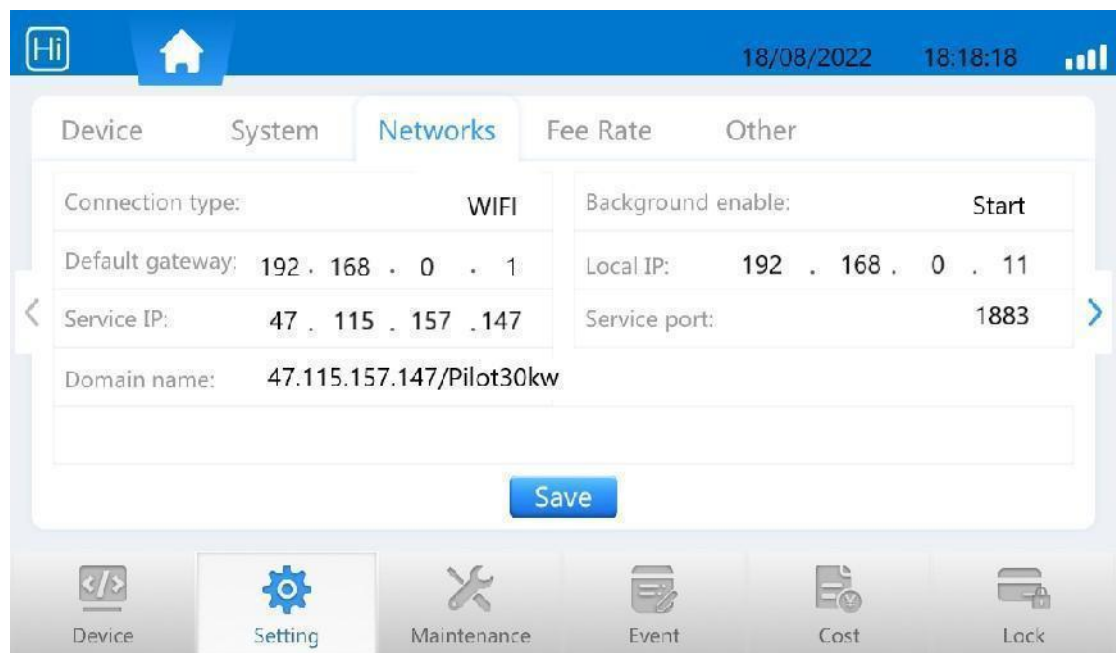
Screen configuration: In the main interface state → click the upper left corner of the

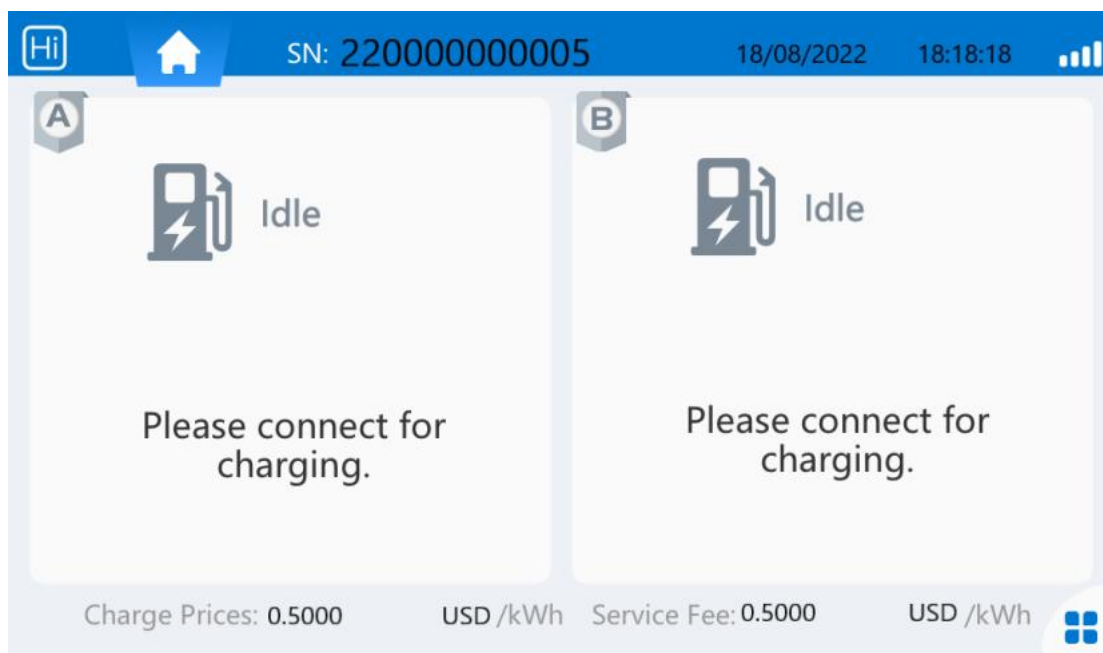
screen (Hi) → enter the password → the factory default password is 4567 → enter the maintenance system → Setting → Networks → Background enable : Start → Connection type: WIFI → turn two pages on the right → WIFI name → WIFI password;

The image displays two screenshots of the Hi device's network configuration interface. The top screenshot shows the 'Networks' tab with the following fields: Connection type: WIFI, Default gateway: 192.168.0.1, Service IP: 47.115.157.147, Domain name: 47.115.157.147/Pilot30kw, Background enable: Start, Local IP: 192.168.0.11, and Service port: 1883. The bottom screenshot shows the 'WIFI name' (12345678) and 'WIFI password' (12345678) fields. Both screens have a 'Save' button and a bottom navigation bar with icons for Device, Setting, Maintenance, Event, Cost, and Lock.

(4) Platform parameter configuration: first decompose the platform parameters, such as the following platform parameters: ws :// 47.115.157.147 : 1883 / Pilot30kw
It consists of four parts of the platform: ① Service IP (47.115.1457.147), ② Service port (1883), ③ station ID (Pilot30kw is defined by the platform and entered in the backend of ws), ④ Domain name (47.115.157.147 / Pilot30kw), press this to decompose and enter the location of the charging station , then enter → D device → Charging station Test → click the Reset button to restart the charging station , check that the icon in the upper right corner of the screen is not

displayed The fork means that the connection is successful, 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.

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 personnel 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.

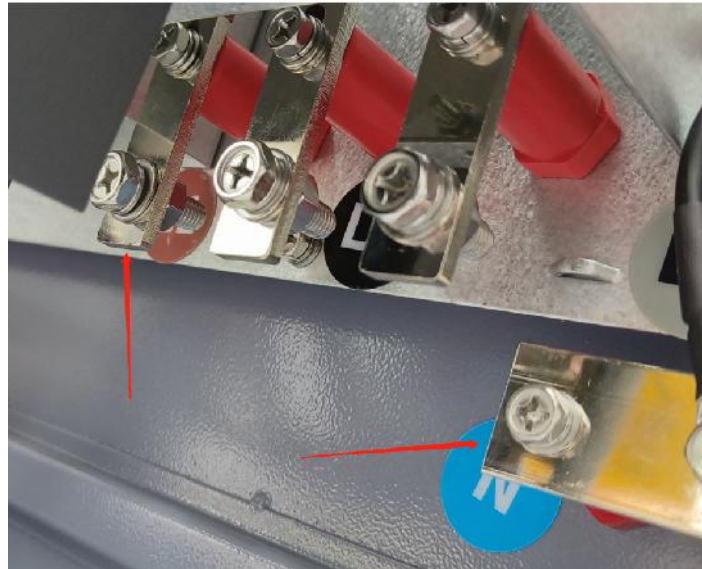
3.4 Charging station function check

- (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;

3.5 Common troubleshooting

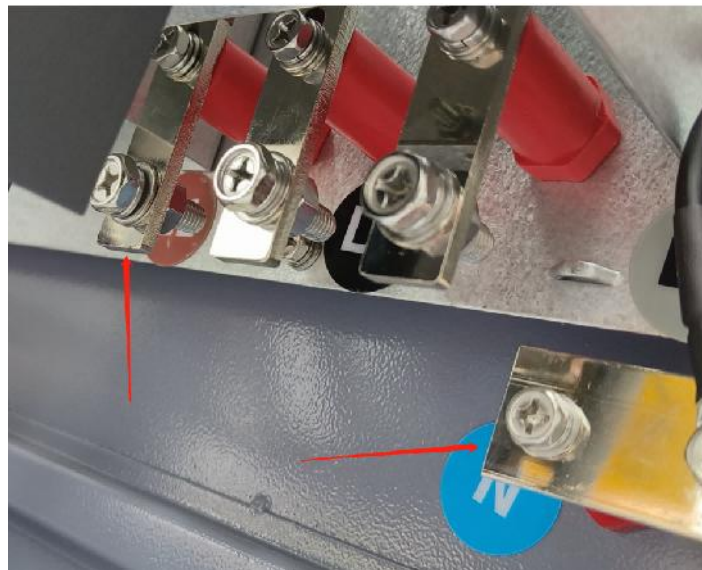
3.6.1 Over voltage of Power Supply abnormal

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.



3.6.2 Under voltage of Power Supply abnormal

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.



3.6.3 Temperature of Equipment abnormal

Please check if the fan at the left door exhaust outlet is running normally, normal: 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.



3.6.4 Emergency abnormal

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.



3.6.5 SPD abnormal

Please check whether the lightning protector has been damaged by lightning, whether the surface color changes from green to red, red: please replace the lightning protector; full green: Please contact the after-sales service department.



3.6.6 Storage state abnormal

Please contact the after-sales service department.

3.6.7 Card Detector abnormal

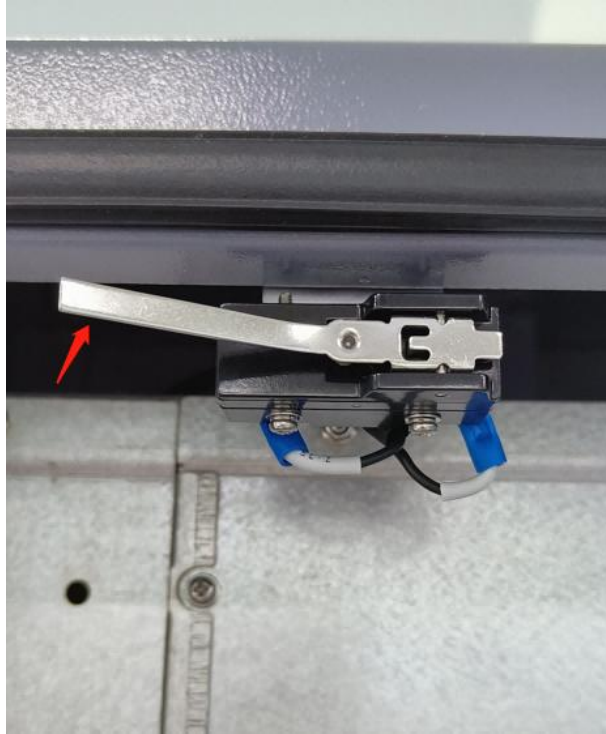
Please check whether the card reader cable is loose. If it is loose: please restore the cable; if it is not loose: please contact the after-sales service department to replace the card reader.



3.6.8 Cabinet Door abnormal

Step 1: Please check whether the charging station door is open or not fully closed and locked;

Step 2: Please try to increase the amplitude of the door shrapnel and then close the door.



3.6.9 AC power supply abnormal

Please check whether the circuit breaker is disconnected; disconnected: restore the circuit breaker, normal: check the input 380VAC power supply.



3.6.10 Communication of Charge Module abnormal

Please disassemble the right side door panel to check whether the charging module alarm and fault indicators are on. Fault: Please try to reinstall the charging module in place and lock it;
Normal: Please contact the after-sales service department.



3.6.11 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.



3.6.12 Unable to enter the system

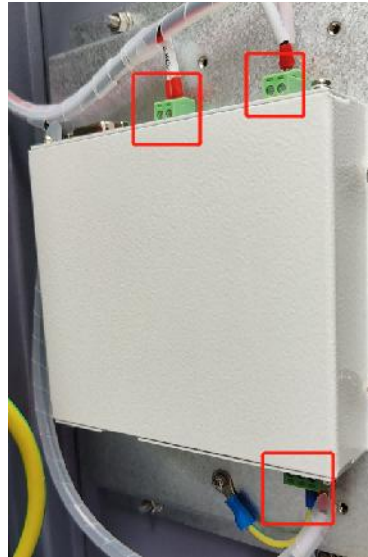
Please check whether the communication cable of the display screen is loose. If it is loose: please restore the connection cable again. If it is not loose: Please contact the after-sales service department.



3.6.13 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 cable communication cable in the station is loose or not. If it is loose: please restore the connection cable. If it is not loose: Please contact the after-sales service department.



3.6.14 PLC timeout stop

Step 1: Please check whether the electric vehicle is in a ready state; please try to restart the electric vehicle and turn it off again to charge;

Step 2: Please try to replace the electric vehicle for charging;

Step 3: Please contact the after-sales service department.

3.6.15 Ins Err

Step 1: Please try to replace the electric vehicle for charging, and check whether the electric vehicle has poor insulation;

Step 2: Please contact the after-sales service department.

3.6.16 Cable overtemp stop

Please stop charging and wait for the temperature of the charging cable cable to return to normal, then try charging again; No: Please contact the after-sales service department.

3.6.17 Meter com err

Step 1: Please check whether the instrument screen is on after power on, if it is not on: please measure whether the DC12V power supply voltage of pin 7 and pin 8 of the instrument is normal, normal: please replace the instrument; not normal: please replace the main control

board;

Step 2: Please check whether the communication cable of the instrument in the station is loose or not. If it is loose: please restore the connection cable. If it is not loose: Please contact the after-sales service department.



3.6.18 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

SN: 2200000000005
18/08/2022 18:18:18

Cost(USD): 1.20

Card number: 8888888888888888		Emergency stop
Start Time: 18-08-2022 18:18:18	Charging Energy(KWHr)	1.200
Stop Time: 18-08-2022 18:19:18	Charge fee(USD):	0.6
Charging Time: 00 h 01 m 00 s	Service fee(USD):	0.6

18/08/2022 18:18:18

S.N	Gun ID	User Card NO.	Start Time	Stop Time	Charging Energy(KWHr)	Power Usage(USD)	Stop Cause
996	A	88888888	18-08-2022	18-08-2022	4.913	5.8956	Manu Stop
		88888888	17:45:32	17:47:55			
		88888888	18-08-2022	18-08-2022	4.913	5.8956	Manu Stop
997	A	88888888	17:30:31	17:33:11			
		88888888	18-08-2022	18-08-2022	4.913	5.8956	Manu Stop
		88888888	17:20:22	17:23:33			
998	A	88888888	18-08-2022	18-08-2022	4.913	5.8956	Manu Stop
		88888888	17:18:10	17:23:44			
		88888888	18-08-2022	18-08-2022	4.913	5.8956	Manu Stop
999	A	88888888	17:10:22	17:14:33			
		88888888					
		88888888					
1000	A	88888888					
		88888888					
		88888888					

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Device

Setting

Maintenance

Event

Cost

Lock