PRISHDA ENERGY

PEEV-ACK041-44KW-2G

Operation manual







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01

Introduction

1.1 Main Features

Use of
Charging Pile

This product is a single-phase AC charging unit, mainly used for AC fast charging of electric vehicles. The design of the product is simple. It provides card swiping, plug-and-play charging modes, and online charge control. The principle of industrial design is adopted for the equipment, with the original function of toppling protection to ensure the safe operation of the equipment. The protection level of the whole equipment reaches IP55, and it has good dustproofing and waterproofing functions and can be safely operated and maintained outdoors.

The charging unit is intelligent, with timing, billing (optional), electricity metering, and human-computer interaction interface.

This product is a Dual gun with 7.4kW each AC charging unit (14kW total output) with OCPP for commercial operation, advanced Wi-Fi/App/Bluetooth/RFID control features, and Tamper proof sensor.

It provides AC charge to EVs and features an intuitive, interactive touch screen, card reader, electric power metering module, and network communication module.

The customer is the one, who purchases the charger and is responsible for its operation and maintenance. On the other hand, the user is the individual who uses the charger to charge their electric vehicle.

This EV charger has OCPP, which allows the customer to integrate the charger with various billing systems or apps for easier payment and management. However, even if the customer does not set up OCPP, they can still manually input prices and charge their users based on those prices. In such a case, an external payment meter would be required for billing purposes.

It's worth noting that setting up OCPP is highly recommended, as it provides a streamlined and automated billing system, making it much easier for the customer to manage the charger and its users.

This unit comes with a built-in electricity meter, providing detailed insight into electricity usage and expenditure. Perfect for keeping track of how much electricity your charger has consumed.

This unit comes with a built-in Tamper-proof sensor. The device records any attempts to remove the front cover and notifies the charge point's owner via the charger smart app installed.

1.1 Main Features

1.1.1 Modular design, stable and reliable: Modular design principle is adopted for the equipment, with flexible configuration and convenient maintenance.

1.1.2 All-round protection and safe operation: It has over-voltage protection, under-voltage protection, overload protection, earth leakage protection, grounding protection, over-temperature protection, low-temperature protection, lightning protection, and toppling protection, ensuring safe and reliable operation of the equipment and effectively preventing accidents.

1.1.3 Easy to use: Easy to install and set up.

1.1.4 High protection level: IP55, supporting outdoor harsh environment, not needing to set up additional canopy, etc.

1.1.5 Low power consumption: The standby power consumption of the equipment is as low as 3W, energy saving, and low consumption.

1.1.6 Compatibility: The equipment is a simple home & light commercial version and is configured in a swipe, online control mode, or plug-and-play operating modes.

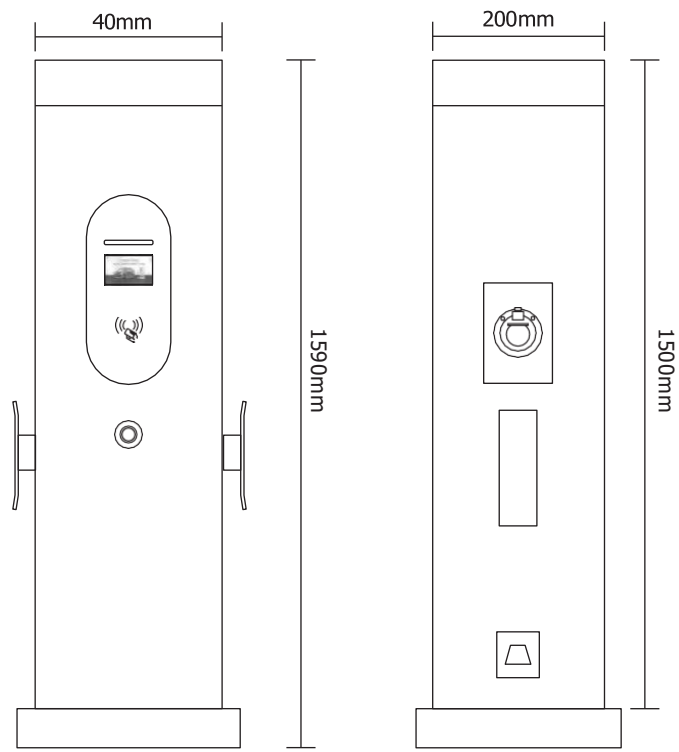
1.1.7 Installation: Occupying a small space, the equipment is to be installed to a solid wall or a compatible floor mount.

02

Design Specification

2.1 Input Wiring Steps
2.2 Output Wiring Steps

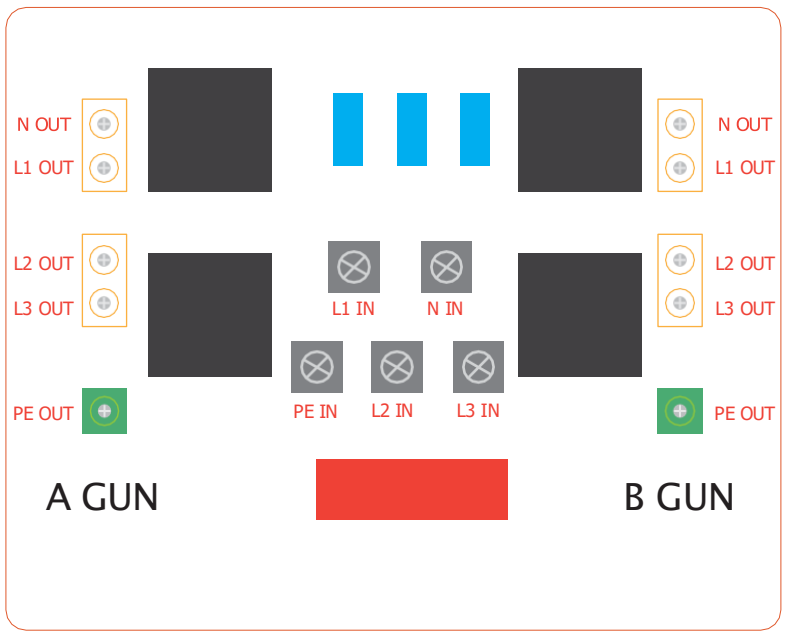
Use of
Charging Pile



1.2 Internal Connection

1.2.1 Input Wiring Steps

Step 1: Open the shell of the charging station and check the input interface of the circuit board. The image without wiring is as follows.

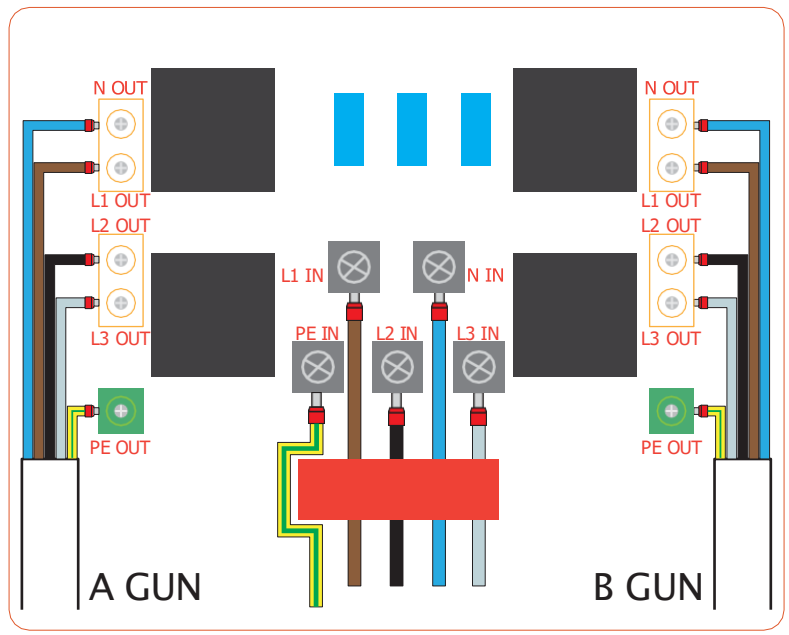


No Connection

Step 2: Check the prefabricated input cable and confirm that the phase correspondence is correct.



Step 3: Check the prefabricated input cable and confirm that the phase correspondence is correct.



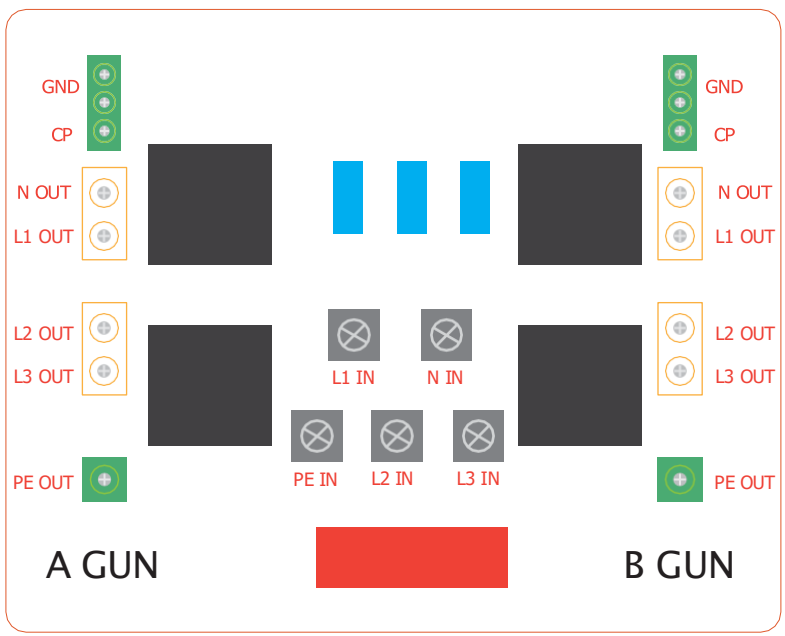
No Connection

NOTE:

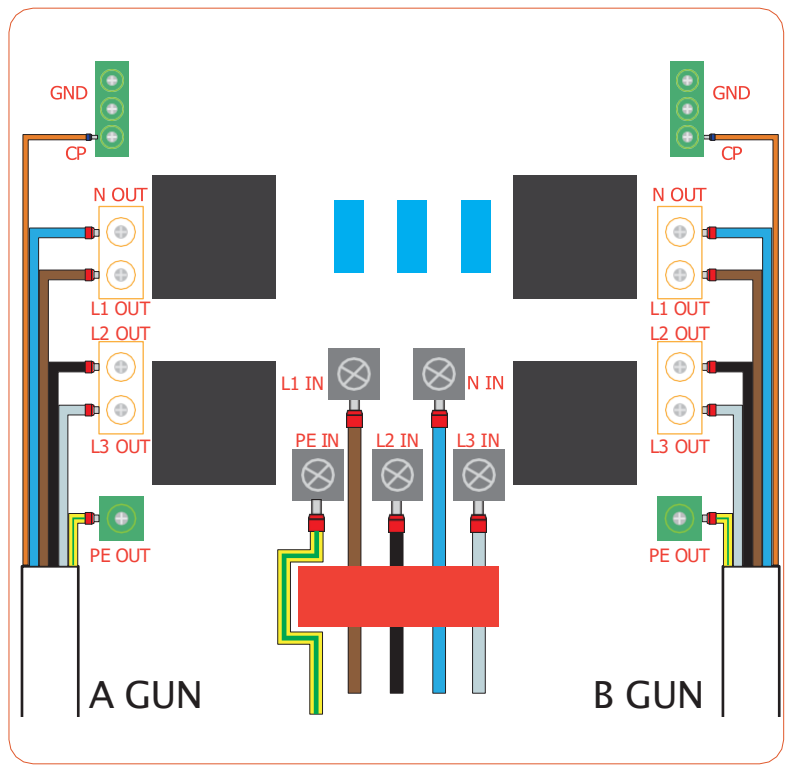
Just connect the L1 wire for a single-phase EV charger.

1.2.2 Output Wiring Steps

Step 1: Open the shell of the charging station and check the output interface of the circuit board. The image without wiring is as follows.



Step 3: Check the prefabricated output cable and confirm that the phase correspondence is correct.



NOTE:

Just connect the L1 wire for single phase EV charger

03

Technical Specification

Use of
Charging Pile

Table 1. Technical Specification of AC charging unit.

Name	Single-phase Dual Gun
Maximum output power	7.4kW each gun
Input voltage	AC 220V
Input voltage frequency	50Hz/60Hz
Output voltage	AC 230V
Output current	32A
Efficiency	≥98%
Insulation resistance	≥10MΩ
Power consumption of control module	≤7W each gun
AC & DC Fault Protection	AC: Type A 30mA RCD + DC: 6mA
Earthing Protection	PEN Protection Built In – No Earth Rod Needed
Operating ambient temperature	-30°C ~+50°C
Storage ambient temperature	-40°C ~+80°C
Ambient humidity	5% ~ 95% No frost, no condensation
Altitude	Not more than 2000 meters
Status indication	LED indicator
Screen	4.3-inch LCD color screen
Charging interface	IEC 62196 Type 2
Degree of protection	IP55, IK10
Safety protections	Overvoltage protection, undervoltage protection, grounding protection, lightning protection, leakage protection, flame retardant protection, vercurrent protection.
Cable Length	5 meters for each gun
Weight	12kg

04

Equipment debugging

4.1 Pre-operation inspection
4.2 Power on the equipment
4.3 System configuration
2.3.1 Add device
2.3.2 Equipment configuration

Use of Charging Pile

4.1 Pre-operation inspection

Before the operation, please carefully check and ensure the following items:

The installation location of the charging pile is convenient for operation and maintenance;

The charging pile is correctly connected to the accessories and installed firmly;

The selection and installation of AC incoming leakage protection circuit breakers are reasonable;

The charging pile accessories are complete and the charging gun is in the hung state.

4.2 Power on the equipment

After all pre-operation inspection items meet the requirements, close the power supply inlet leakage protection circuit breaker, and observe the status of the LED indicator light after power-on is complete

Normal standby: green light is always on

Charging status: blue light is always on

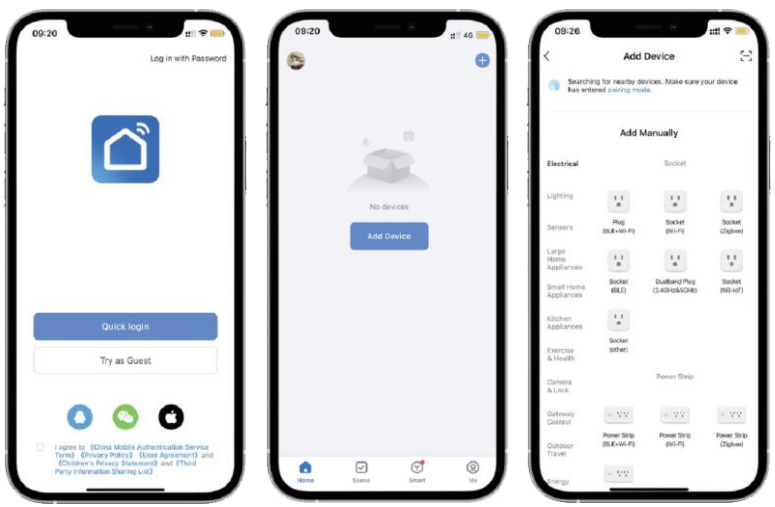
Equipment fault: red light is always on

4.3 System configuration

After the charging pile is powered on normally, configure the relevant parameters through the mobile phone APP, download the "Smart Life" APP from the mobile phone mall, install it, open the APP, register, log in, and enter the APP configuration interface.

4.3.1 Add device

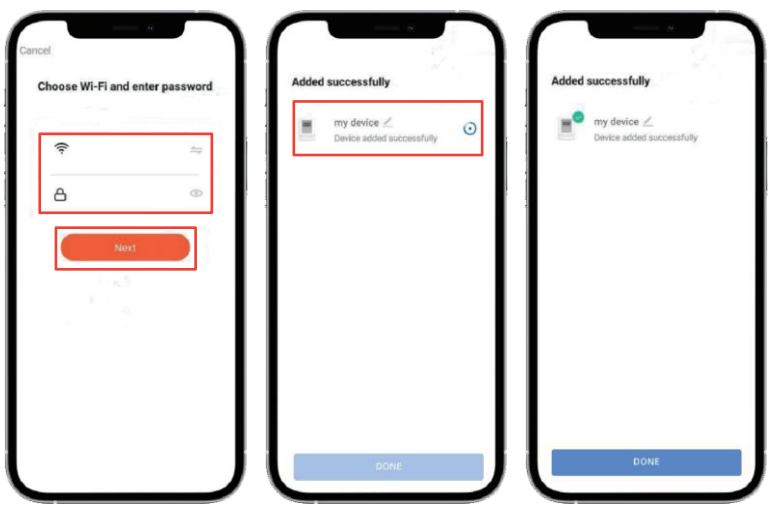
Open the app, log in, enter the add device interface, turn on your phone's WIFI and Bluetooth, search for charging pile devices, and click the add button after finding the device.



Click the add button to jump to the WiFi configuration interface, select a good WiFi (try to choose a 2.4G band), enter the password, click the Next button, enter the Add interface, and it takes about 1 minute to complete the addition.

NOTE:

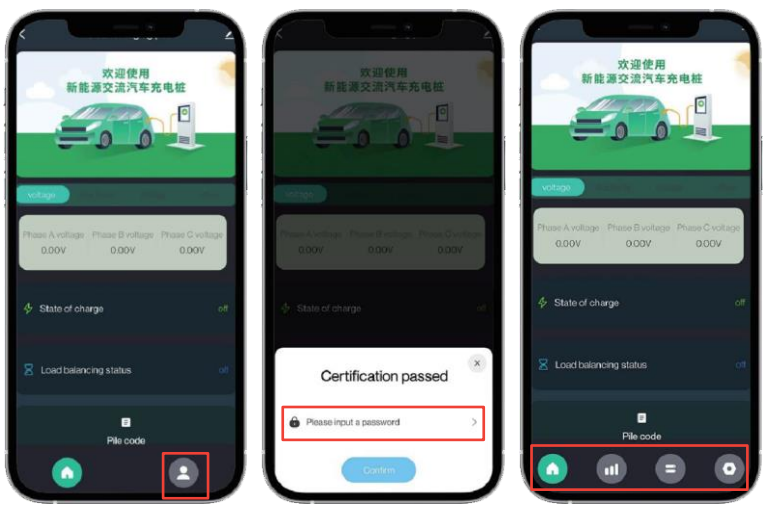
If there is no WiFi on-site, turn on the hotspot on your phone, and then connect another phone to this hotspot to configure the Wi-Fi of the charging pile. Alternatively, you can configure it in a place with Wi-Fi and ship it to the installation site.



4.3.2 Equipment configuration

After adding the device, enter the charging pile data configuration and status display interface, which displays the voltage, current, charging capacity, amount, balance, charging status, pile code, etc.

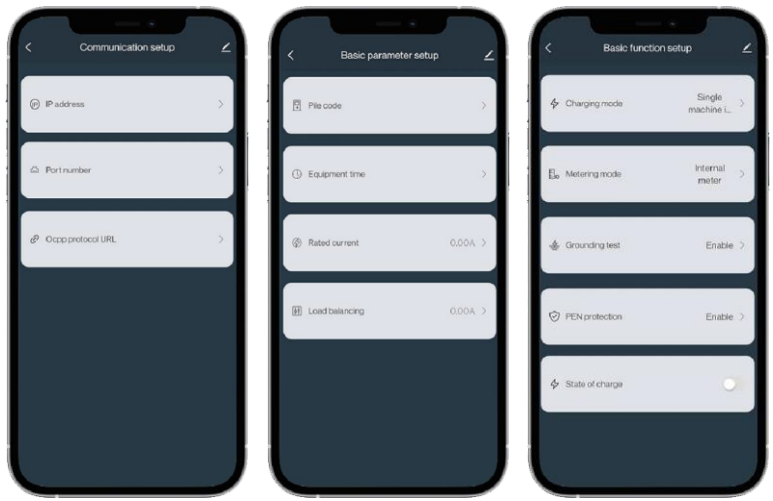
Click the Authentication button in the lower right corner, enter the password 888888, and after authentication, enter the charging pile data configuration interface. There are three configuration buttons below: communication data configuration, basic parameter configuration, and basic function configuration.



Communication data configuration: configure OCPP protocol, TLS encryption, APN, APN user name, APN user password;

Basic parameter configuration: configure the pile code (multiple piles with different names), device time, pile rated current, load balancing current, electricity card authorization, and QR code prefix;

Basic function configuration: configuration of charging mode, metering mode, grounding test, PEN protection, charging status, charging plan, and network mode.



NOTE:

It is only necessary to configure the charging pile once for the APP. When you encounter the following situations, you need to reconfigure it:

(1) The Wi-Fi account or password connected to the device has been changed;

(2) If you delete the device in the APP, you need to reconfigure it when reconnecting.

05

Interface Introduction

5.1 Main interface
- 3.1.1 Charge Query
- 3.1.2 Record Query
- 3.1.3 Unlock Card

5.2 Management configuration interface
- 3.2.1 Administration entrance
- 3.2.2 Introduction to management configuration
- 3.2.3 Unlock Card

5.3 Charging operation

Use of Charging Pile

5.1 Main interface

After the charging pile configuration is complete, restart the charging pile and enter the main interface of the dual-gun charging pile, displaying two charging guns A and B (the following image is the charging gun status). The function buttons are Charge Query, Record Query, and Unlock Card. The bottom displays the charging pile name, the main program version number, and the screen program version number.



5.1.1 Charge Query

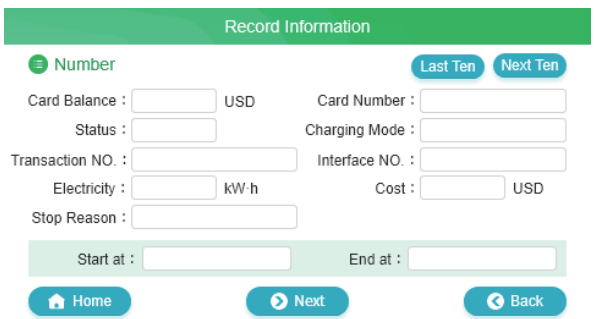
Click [Charge Query] to enter the Fee Details interface to view the unit price and service fee for the charging period.



5.1.2 Record Query

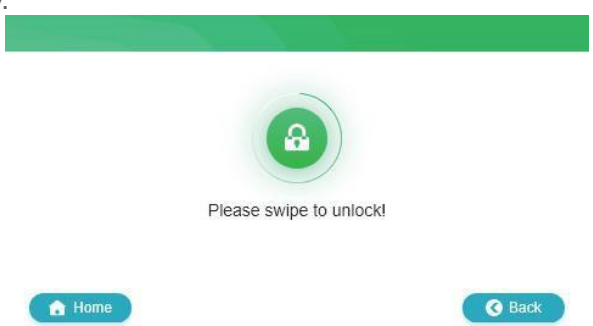
Click [Record Query] to enter the Record Information interface to view the charging record in standalone mode (network mode, plug-and-charge mode, and no record display). The record display content includes Card Balance, Status (Settled after charging settlement,

UnSettled if not settled, Settleded if the unsettled order is settled by swiping the card), Electricity, Cost, Stop Reason, and the start and end time of charging.



5.1.3 Unlock Card

Click on 'Unlock Card' to enter the charging card unlocking interface. Place the charging card locked by this charging spot near the swiping area and the unlocking will be successful. The charging card can then be used normally.



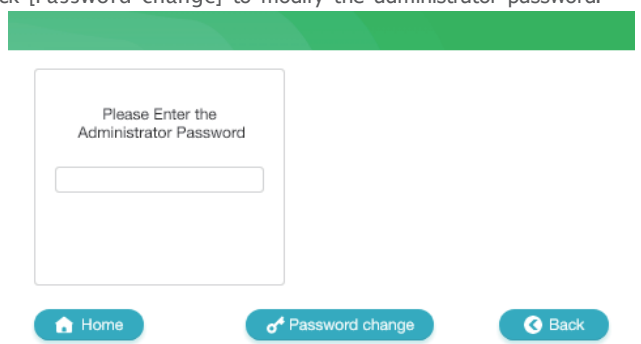
5.2 Management configuration interface

5.2.1 Administration entrance

Click on the upper right corner of the main interface to enter the management portal.

5.2.1.1 Change password

Click [Password change] to modify the administrator password.



5.2.1.2 System Settings

Enter the administrator password at the management portal, enter the System Settings interface, and modify different functional parameters of the charging pile. Function buttons: Basic Parameter, Communication Data, Basic Function, Card Management System.



5.2.2 Introduction to management configuration

5.2.2.1 Basic parameter

In the System Settings interface, click Basic Parameter to enter the Basic Parameter Configuration interface, where you can modify the relevant parameters:

Charger No.: Set the name of the charging pile;

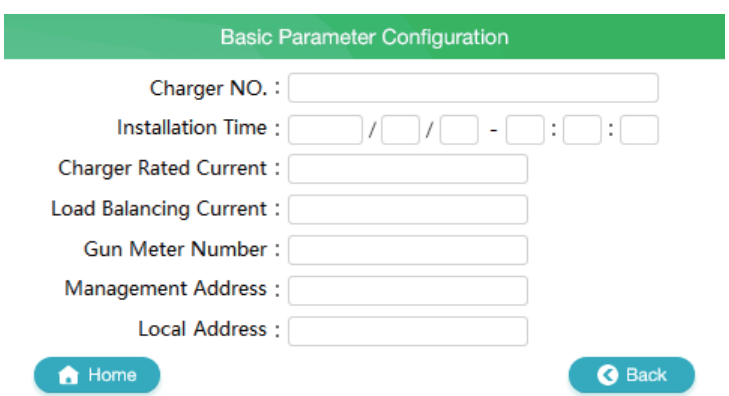
Installation Time: Set the charging pile time;

A/ B Rated Current: Set according to the upper limit of charging power, and can be set to a value less than the upper limit;

A/B Meter Number: external meter address, used to access external meters;

Management Address: The platform address, used to connect to the user platform;

Local Address: used for 485 communication to fill in the address.



5.2.2.2 Communication Data

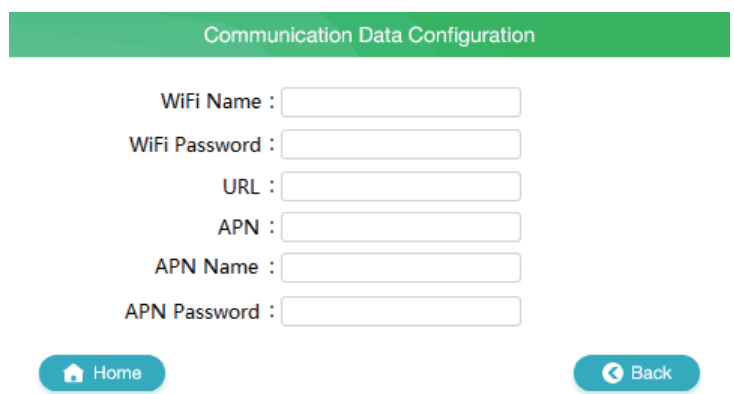
In the System Settings interface, click [Communication Data] to enter the Communication Data Configuration interface, where you can modify the relevant parameters:

WiFi Name: Local WiFi networking;

WiFi Password: Enter the correct password;

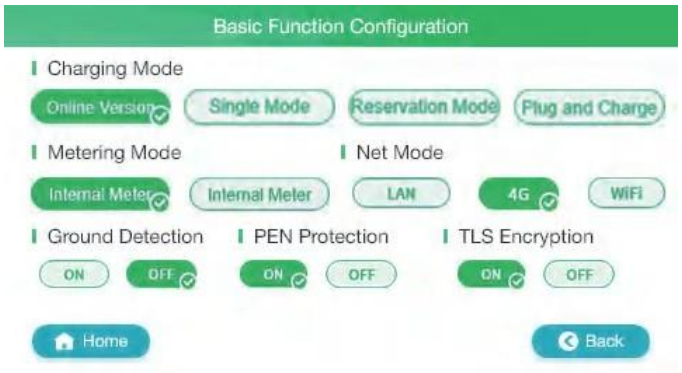
URL: the platform address of OCPP;

APN, APN Name, APN Password: Edit and fill in according to the information provided by the operator.



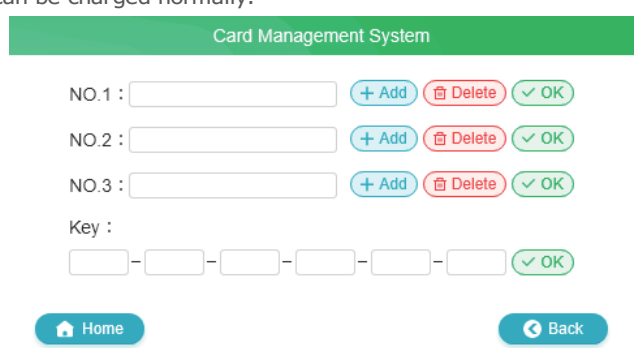
5.2.2.3 Basic Function

In the System Settings interface, click Basic Function to enter the Basic Function Configuration interface. The dual-gun AC charging pile is divided into Online Version, Single Mode, and Plug and Charge three charging modes. For detailed operation, see the Charging Operation below



5.2.2.4 Card Management System

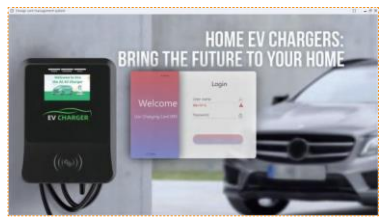
In the System Settings interface, click [Card Management System] to enter the Card Management System interface. Here, card binding or key only takes effect in the stand-alone charging mode. If a card is already bound, only the bound card can be used for charging. If no card is bound, the key card can be charged normally.

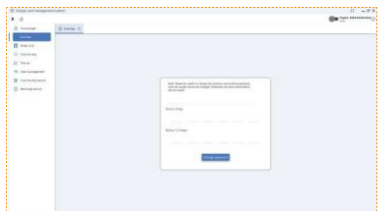


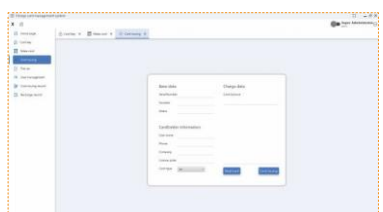
Our company has professional business card printing tools. The following figure shows our business card printing software and card reader. You can use the business card printing tools to view and set up charging cards: business card printing keys, recharge, user management, card issuing records, recharge records, and more.

5.3 Charging operation

Click on the upper right corner of the main interface to enter the management portal, enter the administrator password, and then click on the "Basic Function" button to enter the Basic Function Configuration interface. The dual-gun AC charging pile is divided into Online Version, Single Mode, and Plug and Charge modes. The specific operation of the charging modes is as follows:









06

Charging operation

6.1 Online Version
4.1.1 LAN mode
4.1.2 Start charging
4.1.3 Stop charging
4.1.4 4G mode
6.2 Single Mode
4.2.1 Plug and Charge

Use of Charging Pile

6.1 Online Version

6.1.1 LAN mode

First, in the Basic Function Configuration interface, configure the following parameters, and fill in the network platform address in the URL of the Communication Data Configuration interface. Restart the charging pile (rebooting the device is required to modify the charging mode). After checking the charging pile online on the network platform, start charging.

NOTE:
The charging card used in the network mode must be added to the network platform as an authenticated card.

Charging Mode: Online Version;

Metering Mode: Internal Meter (selecting without connecting to external ammeter), External Meter (selecting with connecting to external ammeter);

Net Mode: LAN;

Ground Detection: select ON;

PEN Protection: select ON;

TLS Encryption: Select ON.

6.1.2 Start charging

In the state of gun insertion, click Gun A or Gun B on the main interface, and a QR code will appear. After swiping the card, charging will begin.



In the charging interface, it displays Electricity, Amount, Balance, power, current, and voltage. The following image shows two guns charging simultaneously.

In the network mode, the charging gun can be remotely controlled through the network platform to start charging.



6.1.3 Stop charging

There are several ways to stop charging in network mode:

Start charging by swiping the card, and stop charging by swiping the card again;

Stop charging through the network platform;

When full, stop.

6.1.4 4G mode

This mode is configured the same as the LAN mode. Please select 4G in Net Mode, fill in the APN-related parameters in the Communication Data Configuration interface (edited according to the information provided by the operator), restart the charging pile (rebooting the device is required to modify the charging mode), and then start charging (the same as starting and stopping charging in the LAN mode).



6.1.5 WiFi mode

This mode is configured the same as the LAN mode. Please select WiFi in the Net Mode, fill in the WiFi Name and WiFi Password in the Communication Data Configuration interface (the WiFi signal near the charging pile must be stable and good), restart the charging pile (rebooting the device is required to modify the charging mode), and then start charging (the same as starting and stopping charging in the LAN mode).



62 Single Mode

First, in the Basic Function Configuration interface, configure the following parameters, and then restart the charging pile (rebooting the device is required to modify the charging mode).

Charging Mode: Single Mode;

Metering Mode: Internal Meter (selecting without connecting to external ammeter), External Meter (selecting with connecting to external ammeter);

Net Mode: Not selected by default;

Ground Detection: select ON;

PEN Protection: select ON;

TLS Encryption: Select ON.



In the standalone charging mode, it is necessary to bind a card or set a key in the Card Management System interface (the charging pile must be consistent with the charging card key). If the card is already bound, only the bound card can be used for charging. If the card is not bound, the key card can be used for normal charging.

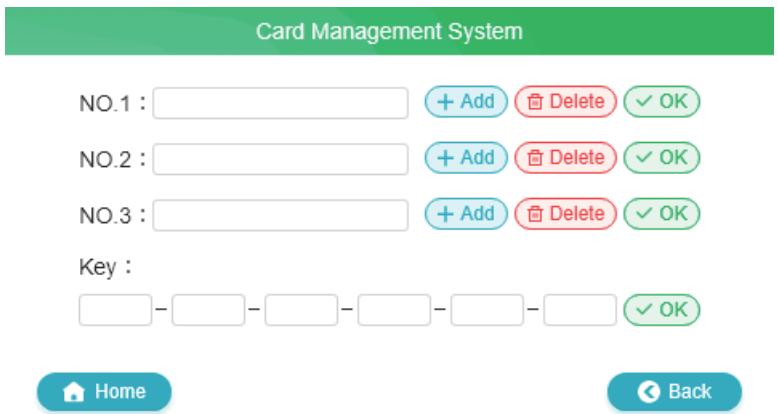
In the standalone mode, click Gun A or Gun B on the main interface when the gun is plugged in. A charging QR code will appear. Swipe the card to start charging, and swipe again to stop charging.

Card binding operation: Place the charging card at the charging pile swiping area, click Add, the card number will be displayed on the left side, click OK, and the binding is successful.

Key card making: Modify the key in Key, click OK, restart the charging pile, and then view the key in this interface. The key of the charging card needs to be set using our company's professional card-making tool with the same key as the charging pile.

Suggestion:

Individual users should adopt the card-binding charging mode, while operators should adopt the key card-making charging mode.



6.2.1 Plug and charge

First, in the Basic Function Configuration interface, configure the following parameters, and then restart the charging pile (rebooting the device is required to modify the charging mode). The plug-and-charge mode allows charging by simply plugging in the gun and stopping charging when it is fully charged.

Charging Mode: Plug and Charge;

Metering Mode: Internal Meter (select when not connected to an external meter), External Meter (select when connected to an external meter);

Net Mode: Not selected by default;

Ground Detection: select ON;

PEN Protection: select ON;

TLS Encryption: Select ON.

07

Common problems and solutions of charging pile

◆ 1. The main reasons for slow charging may be the insufficient power of the charging pile, current limit of the electric vehicle, and the insufficient power supply of the parking spaces. Please choose a higher-power charging pile, check the vehicle settings to adjust charging parameters, choose another parking space, or report the power supply issue to the relevant department.

◆ 2. When using a charging pile, sometimes you may encounter charging failure and cannot charge normally. This may be due to a charging connector fault, charging pile fault, or charging card issue. Please check the connector for damage and ensure that, the plug is firmly inserted. Contact the charging pile management unit for repair or replacement. Report the fault condition for repair or replacement.

◆ 3. The charging card may have poor contact, damage, or other issues that cause charging failure. If there is a problem, please replace the charging card or contact the issuing institution of the charging card promptly to resolve the issue. When the charging pile system changes the charging mode, it should restart the power supply to verify that the mode change is successful before use.

◆ 4. During charging, it is not allowed to forcefully remove the charging connector, as doing so may cause sparks at the connector and result in safety accidents.

◆ 5. The charging ends or the charging ends abnormally, resulting in unsettled charges. Please swipe your card to settle the charges.

◆ 6. Please swipe the same card when charging starts and ends.

◆ 7. When installing the charging pile, the grounding line should be reliable and free of defects or ungrounded, otherwise it will not be able to charge.

◆ 8. If you need to stop charging in advance, please use the card to stop charging as usual.

◆ 9. If there is a safety accident during the charging process, such as abnormal sound, short circuit of wires, etc., please press the emergency stop button on the panel to disconnect all power supplies and immediately contact the on-site management personnel.

◆ 10. If the display screen is not working, restart the charging pile or contact a professional technician for repair.

◆ 11. If the charging cable, power supply, or interface is damaged, please get in touch with a professional technician for repair and replacement, and conduct regular inspections.

◆ 12. If the gun head is damaged or there are foreign objects in the needle hole, check and clean it. Power off and restart the device every one or two months.

◆ 13. If the card is not working, restart the device, replace the card, and call customer service for advice.

◆ 14. Please switch off the power when the equipment has not been used for a long time. Avoid touching the emergency stop button in non-emergency situations.