TA-DC-DD

Manual Operation

TARY
泰瑞通达

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Model	TA-DC-40DD	TA-DC-60DD	TA-DC-80DD
Output Power	40KW	60KW	80KW
Output Current	0-133A	0-200A	0-250A
Output Voltage	200-750V(200-1000V optional)		
Frequency	50/60 Hz		
Input Current	0-64A	0-116A	0-134A
Input voltage	AC380V±20%		
Gun quantity	ONE/TWO (CCS-1/CCS-2/CHAdeMO/GBT)		
Charging way	Quick or Slow charge automatic switch		
charging mode	SWIPEARD.APP.MANUAL		
Display	7"Color Touch Screen		
Networkconnection	Standard configuration :CAN/485/ Ethernet Selective configuration:GPRS/4G		
Dimension(cm)	69*135*24		77*155*30
Weight	147KG	157KG	210KG
OperatingTemperature	-20C to +50℃		
Altitude	2000M		
IP LEVEL	IP54		
Working Relative Humidity	RH≤95%		
Input cablelength	0M(Customization Acceptable)		
Gun cableLength	5M(Customization Acceptable)		
Interface Standard	CCS CHADEMO GB/T		
Charging protocol	GBT27930/CHADEMO 2.0/ DIN 701210CPP 1.6(JSON)ISO 15118		

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01

Charging station operation

1.1 Pre operation inspection

Before running, please carefully check and ensure the following:

· The installation position of the charging station is convenient for operation and maintenance;

· Connect the charging station and accessories correctly and install them firmly;

· Reasonable selection and installation of AC incoming leakage protection circuit breakers;

·The relevant accessories of the charging station are complete, and the charging gun is in a suspended state.

1.2 Power on the device

After all the pre operation inspection items meet the requirements, close the power supply incoming leakage protection circuit breaker. After powering on, observe the status of the LED indicator light

·Normal standby: The blue light is always on

·Charging status: Green light always on

·Equipment malfunction: Red light always on

1.3 Technical indicators

1. AC input voltage: 380V±15%

2. Grid frequency: 50Hz~60HZ

3. Output current level: 5A~200A

4. Rated output voltage: 450V ~ 1000V

5. Output voltage range: 200V ~ 750VDC

6. Voltage accuracy: ≤±0.5%

7. Current accuracy: ≥30A: Not more than ±1%; <30A: Not more than ±0.3A

8. Voltage regulation accuracy:≤±0.5%

9. Steady flow accuracy:≤±1%

10. Ripple coefficient: RMS: no more than ±0.5%; peak value: no more than ±1%

11. Current unbalance: ≤5%

12. Standby power consumption: ≤0.1% output rated power

13. Total harmonic current: ≤5%

14. Efficiency: ≥93%

15. Full load power factor: ≥0.99

16. Load class: continuous operation at rated output current of class I (100%)

17. Automatic current limiting feature: when the output current exceeds the output current limiting set value, the constant current output will not increase the output current

18. Output short-circuit protection: When the output is short-circuited, the module will protect itself to prevent damage, and it can automatically resume work after troubleshooting

19. Output overvoltage protection: the output voltage will automatically stop output when the output voltage exceeds the rated output voltage 5%±5-VDC to prevent damage to the equipment

20. Start delay: 5S-8S

21. Insulation resistance: ≥10M

22. Dielectric strength: output to ground, input to ground, input to output 2.5KVAC, no arcing and no flashover for 1min

23. Oscillating wave immunity: Class 3 (1MHz and 100kHz)

24. Electrostatic Discharge Immunity: Class 3

02

Interface Introduction

2.1 Main interface

- 2.1.1 Record query
- 2.1.2 Card checking
- 2.1.3 Rate inquiry
- 2.1.4 Equipment query

2.2 System settings interface

- 2.2.1 Administrator entrance
- 2.2.2 Introduction to System Settings
- 2.2.3 Card management

- Card making software
- Card reader

2.1 Main interface

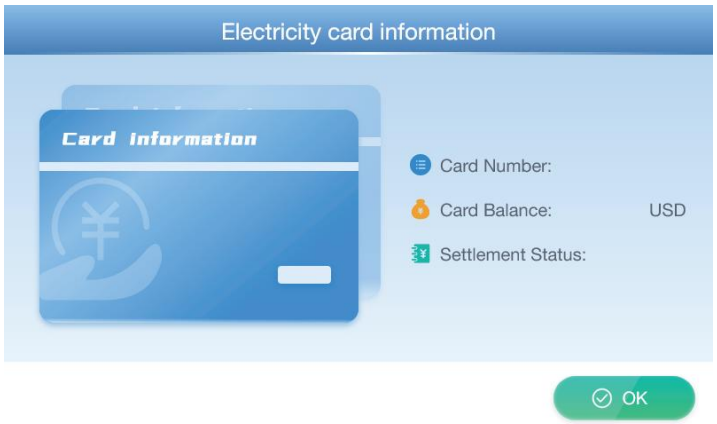
The main screen interface of the dual gun DC charging station displays two charging guns, A and B. The menu buttons below are Record query, Card checking, rate inquiry, and Equipment query.

2.1.1 Record query

Click on 【 Record Query 】 to enter the Record information interface and view the charging records, including NO Card balance, Status, Transaction NO., Electricity, Stop reason, Card number, Charging mode, Interface NO., Cost, Vehicle VIN, and other information. Click the Last ten, Last ten, Next, and Back buttons to flip the page and view the records.

2.1.2 Card checking

Click on 【 **Card Checking** 】 to enter the Electricity card information interface, enter the card swiping interface, place the charging card at the swiping point, read and display the card number, card balance, and settlement status of the charging card.

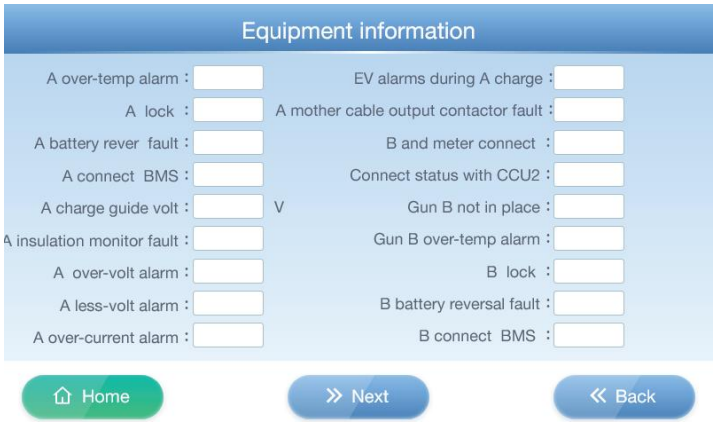


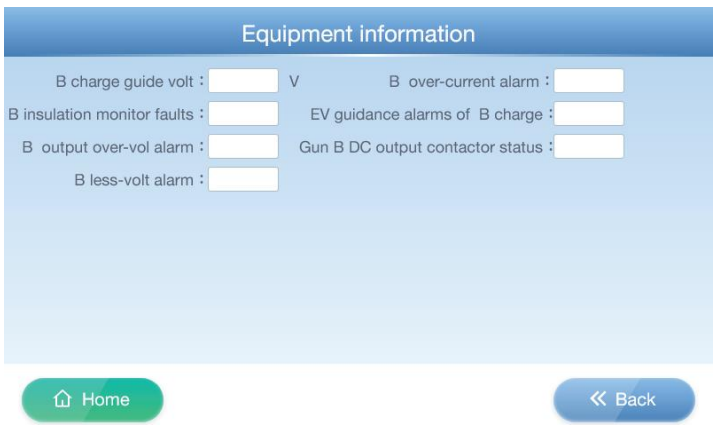
2.1.3 Rate inquiry

Click on 【 **Rate inquiry** 】 to enter the Rate details interface, where you can view the unit price and service fee during the charging period (which can be set in the Rate setting function menu in the system settings).

2.1.4 Equipment query

Click on 【 **Equipment Query** 】 to enter the Equipment information interface, check the operating status of the charging station, and facilitate the quick and easy search for operational faults of the charging station.

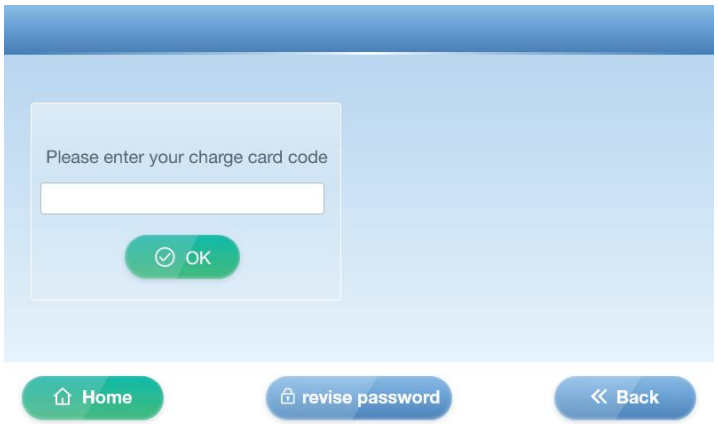




2.2 System setting interface

2.2.1 Administrator entrance

Click continuously three times in the upper right corner of the main screen interface to enter the administrator entrance, enter the administrator password to enter the system settings interface, and click **【 Revise password 】** to change the administrator password.



2.2.2 Introduction to System Settings

At the administrator entrance, enter the password and enter the system settings interface to view and configure all functions of the charging station. The function menu includes Mode switching, System configuration, Card management, Rate setting, System upgrade, Voltage calibration, Network settings, and Help.

2.2.2.1 Mode switching

Click on the Mode Switch function menu to enter the Mode Switch interface, where you can view and modify relevant parameters:

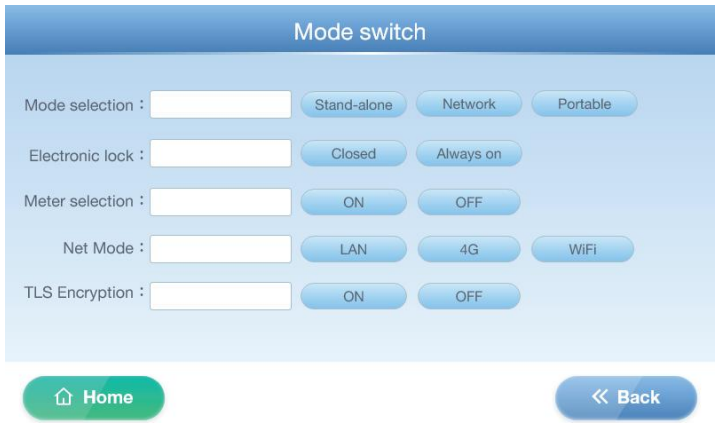
Mode selection: Select different charging modes according to the application scenario. Currently, there are three charging modes: Stand alone, Network (optional function), and Portable

Electronic lock: defaults to Always on (the charging gun head electronic lock only works when the gun head is equipped with an electronic lock function)

Meter selection: select ON or OFF (select not to connect to the meter, charging level will not be displayed and fees will not be charged)

Net mode: LAN, 4G, WiFi (after selecting Network, choose the connection method according to your needs)

TLS encryption: ON, OFF (After selecting Network, choose based on the encrypted or non encrypted network platform)



2.2.2.2 System configuration

Click on the【 **System configuration** 】function menu to enter the System configuration interface:

1) On the first page of System configuration, view and modify relevant parameters:

Pile Number: Fill in the number of the charging station

Overvoltage threshold: filled in based on the voltage of the charging station module, with a default value of 1010V

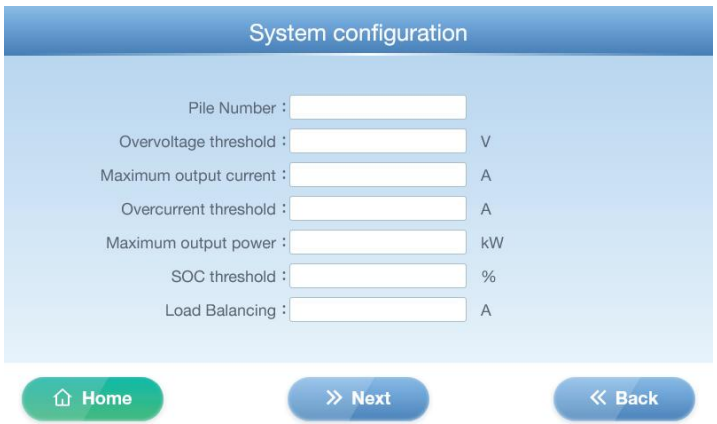
Maximum output current: Fill in based on the charging station module current or the rated current of the gun wire

Over current threshold: greater than the rated current of the charging station module or gun wire, default value 260A

Maximum output power: Fill in the maximum output power value as needed, with the default value being the rated power of the charging station

SOC threshold: default to 100%, with the SOC of electric vehicles, taking the minimum value of both as the upper limit of SOC.

Load Balancing: detects the total incoming line load and automatically adjusts the charging current (optional function)



2) Click the Next button to navigate to the second page of System configuration, where you can view and modify relevant parameters:

AC input voltage: set to 450V by default based on the voltage of the power input system

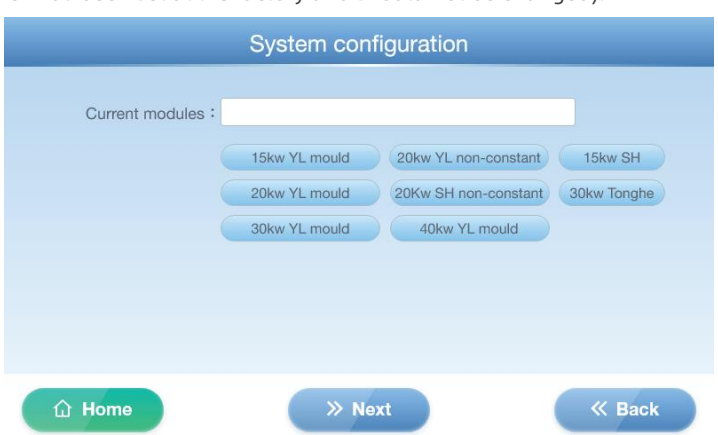
AC input undervoltage: According to the system voltage setting of the power supply, the default setting is 330V

Gun A meter number: Fill in the meter address

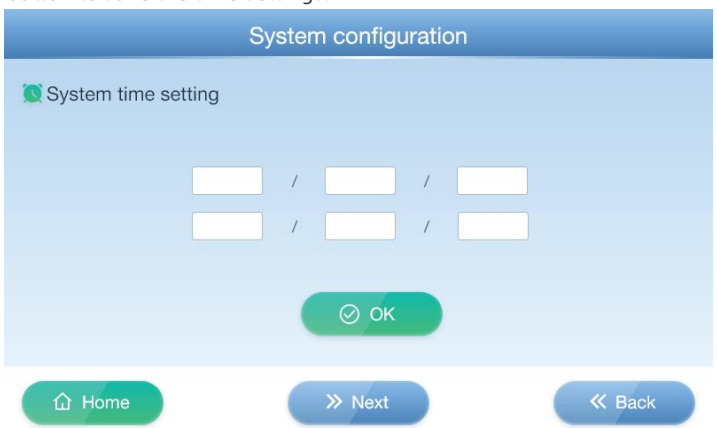
Gun B meter number: Fill in the meter address

Recording information: Clear Records

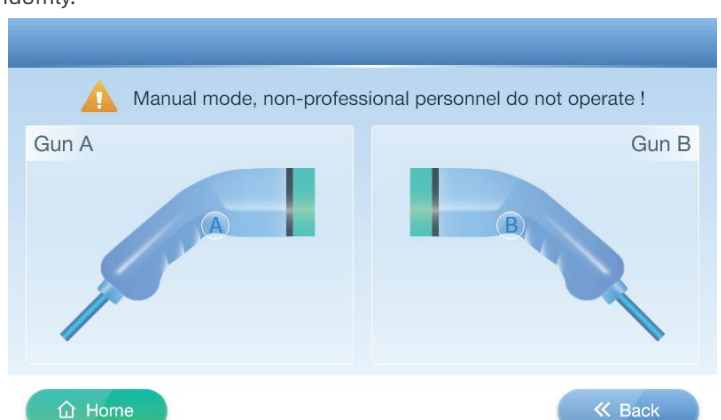
3) Click the Next button to go to the third page of System configuration, view and select the power of the charging station module (select the corresponding power module based on the actual power of the charging station, which has been set at the factory and should not be changed).

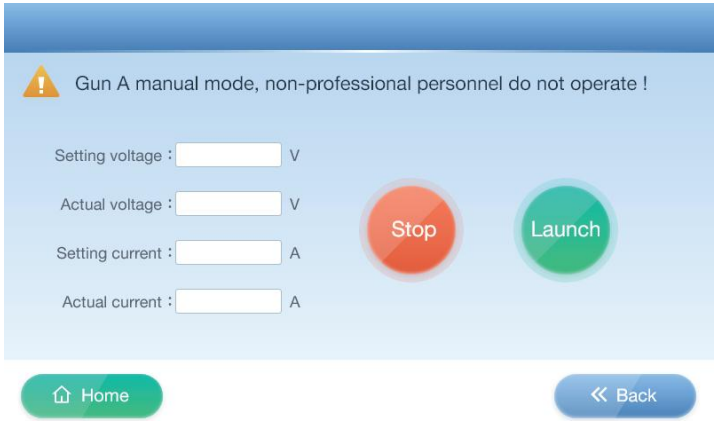


4) Click the Next button to navigate to the fourth page of the System configuration and modify the system time. The top line displays the year, month, and day, while the bottom line displays the hours, minutes, and seconds. Click on the input box to enter the correct time, and finally click the OK button to save the time settings.



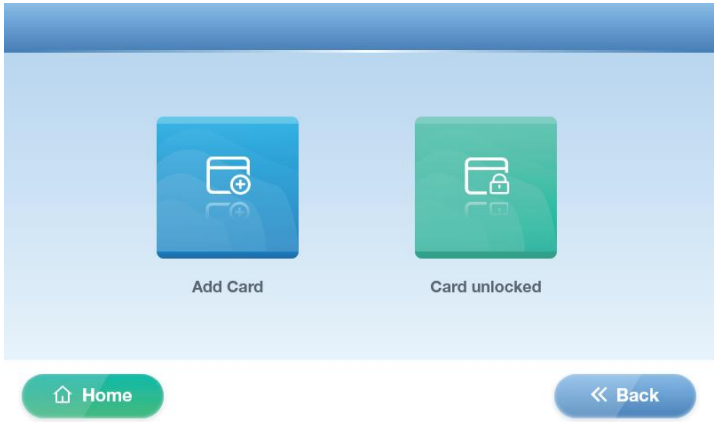
5) Click the Next button to go to the fifth page of the System configuration and enter manual mode. Calibrate the charging current and voltage, which have already been calibrated at the factory. Please do not calibrate them randomly.





2.2.3 Card management

Click on the 【 **Card Management** 】 function menu to enter the Card Management interface. The main functions include Add card and Card unlocked.

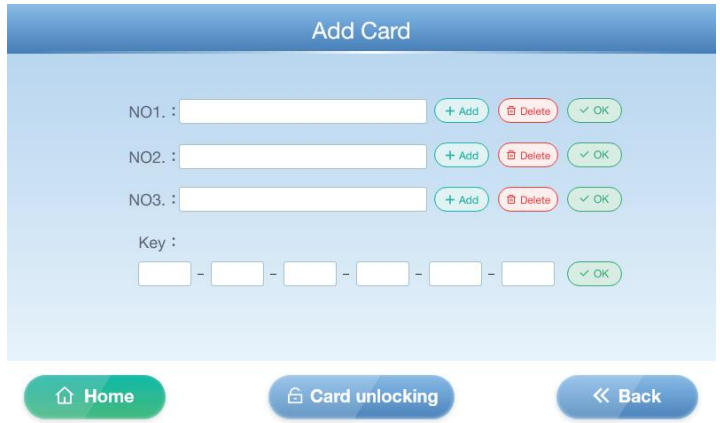


1) Add card

Click the Add card function button to enter the Add card interface, where you can view and modify relevant parameters.

NO1.: Place the charging card at the card swiping location, click the+Add button on the right, and the card number will be displayed on the left. Click the OK button, and the card binding will be successful (three charging cards can be bound). The card binding here only takes effect in Stand alone charging mode. If the card has been bound, only the bound charging card can be swiped for charging,

Key: The default value is 17 (all 6 input boxes are 17), which is the same as the Key provided for the charging card. If you need to modify the Key (the charging card needs to be modified to the same Key, use professional card making tools to change the Key), click the OK button after modification, and restart the charging station. When there is no bound card, charging cards with the same Key can be swiped and charged normally in Stand alone mode.



Card making software

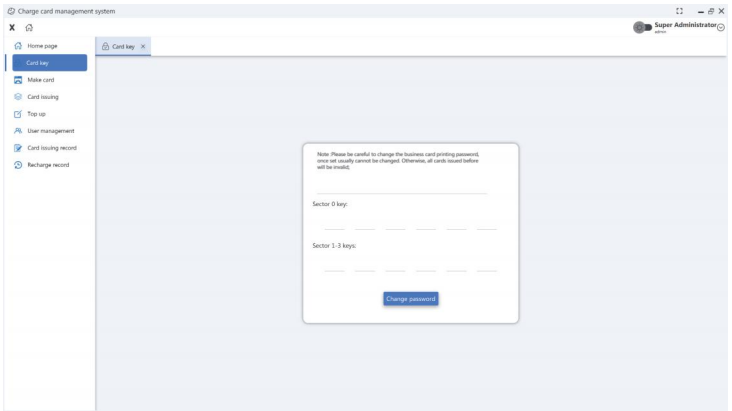
Our company has professional card making software and card readers, which can be used to view and set charging cards through card making tools. The function menu of the card making software includes Card key, Make card, Card issuing, Top up, User management, Card issuing record, Recharge record, etc.

A Login interface

Enter the correct username and password to log in to the card making software.

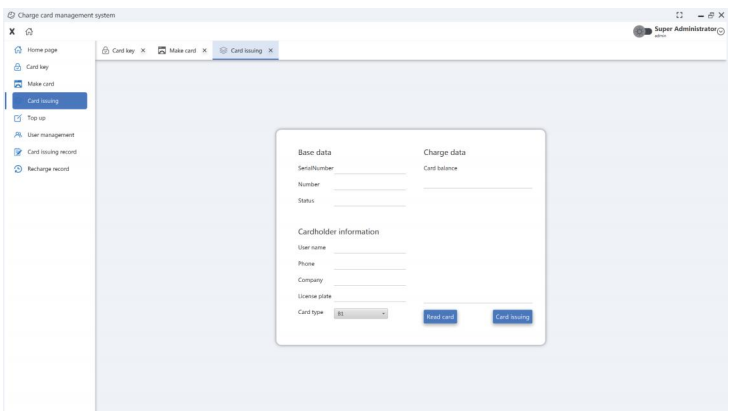
B Card key

The Key of the charging card and the charging station must be the same. If it needs to be changed, the card making tool needs to change the Key of the charging card.



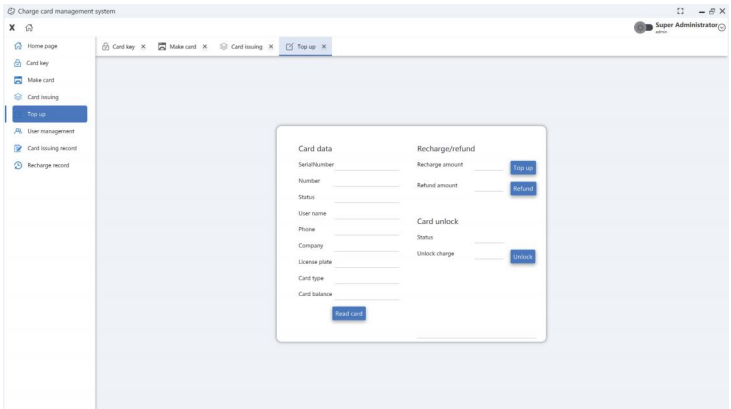
C Card issuing

Place the charging card on the card reader, click the Read card button, and read the base data of the new card. Fill in the Cardholder information according to the actual situation, and generally choose C1 for the Card type (the paid card is of type C, the free card is of type B, and the rate is adjusted for type S).



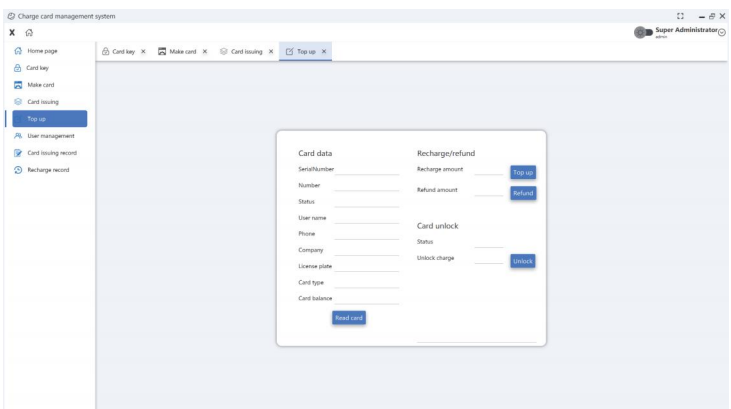
D Top up

New cards can be issued on this interface for Top Up, Refund, Card Unlock, etc.



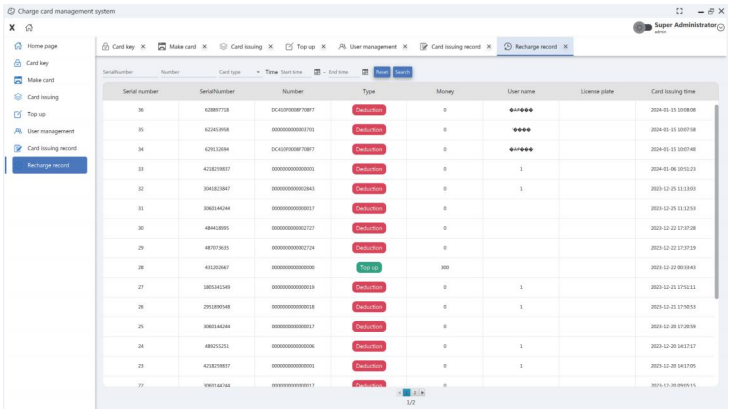
E Card issuing record

Search for card issuance records on this page.



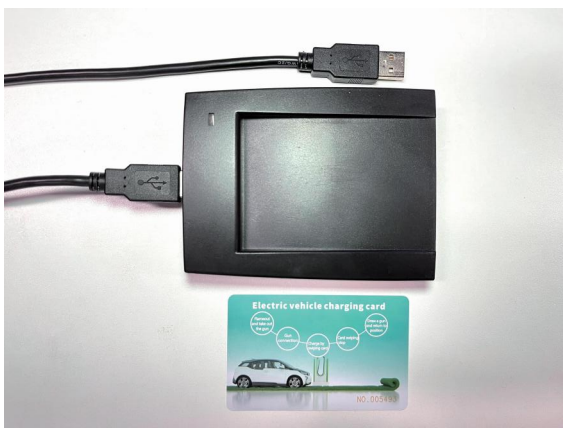
F Recharge record

View recharge records on this page.



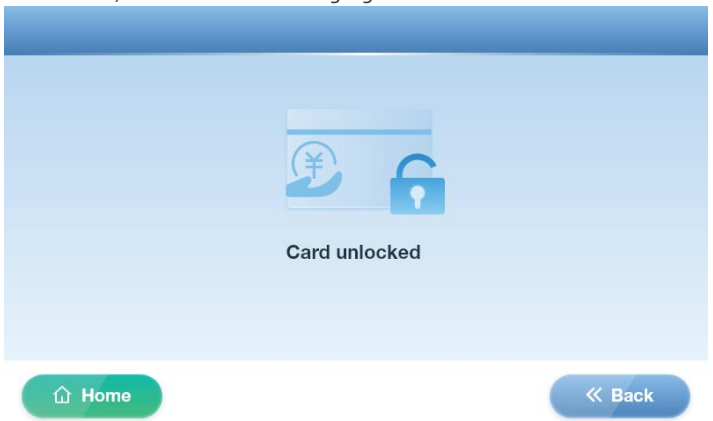
2.4 Card reader

After installing the card making software on the computer, the card reader is connected to the computer through a USB cable.



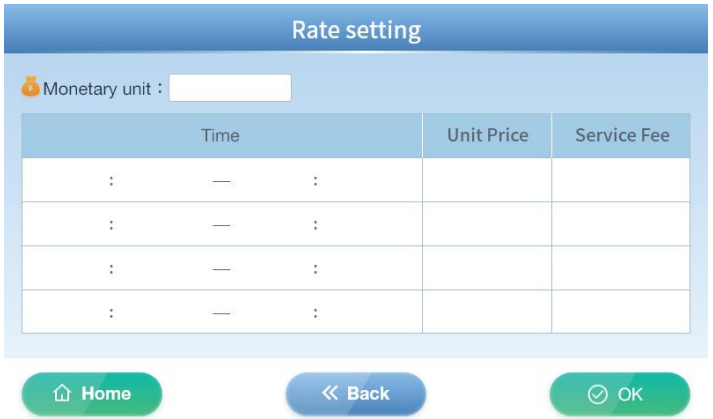
2) Card unlocked

You can place the charging card locked at this charging station at the card swiping point, click on the Card unlocked button in the Card management interface, and unlock the charging card.



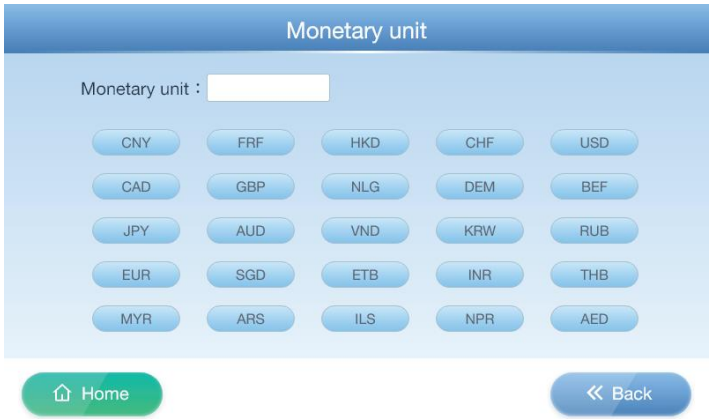
2.2.2.4 Rate setting

Click on the 【 **Rate Setting** 】 function menu to enter the Rate Details interface,



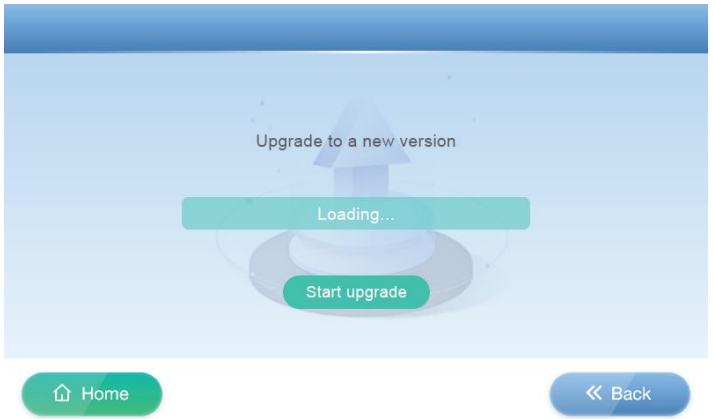
1) Modify Time, Unit Price, and Service Fee, click the OK button to save (if both Unit Price and Service Fee are 0, charging will not be charged).

2) Click on the Monetary unit input box to enter the Monetary unit interface and select the desired currency unit.



2.2.2.5 System upgrade

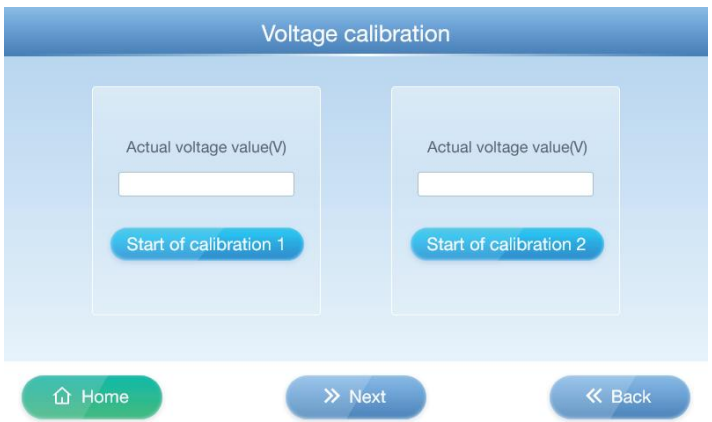
Click on the 【 System upgrade 】 function menu to enter the System upgrade interface. Save the motherboard program to a USB drive,



then insert the USB drive containing the program into the USB interface of the charging station motherboard. Click the Start upgrade button to start upgrading the program. The progress bar at the bottom reaches the far right, and the upgrade is completed. Restart the charging station.

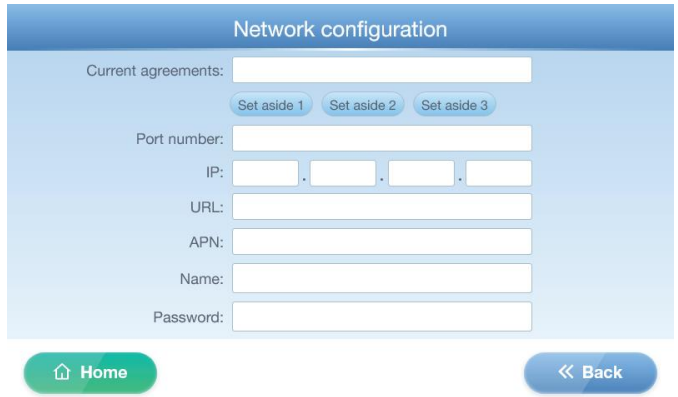
2.2.2.6 Voltage calibration

Click on the 【 **Voltage calibration** 】 function menu to enter the Voltage calibration interface. The first page is for calibrating the actual voltage value, the second page is for calibrating the actual current value, and the third page is for calibrating the voltage value with or without the gun inserted. It has been calibrated at the factory, so please do not calibrate it randomly.



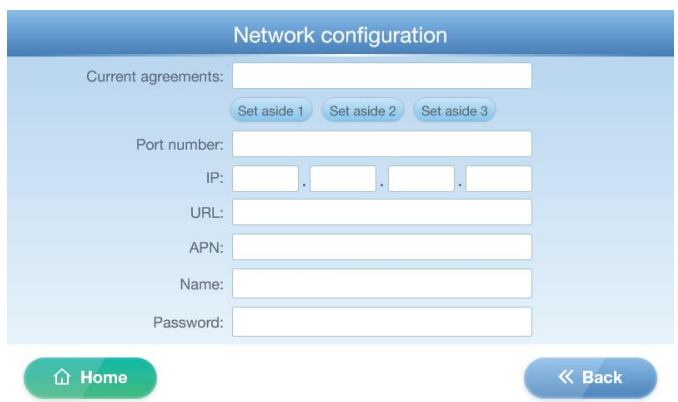
2.2.2.7 Network settings

In Network mode, click on the 【 **Network settings** 】 function menu to enter the Network configuration interface, where you can view and modify parameters such as Current agreements, Port number, IP, URL, APN, etc.



2.2.2.7 Help

Click on the 【 **Help** 】 function menu to enter the Help interface. The main functions include Matters Needing Attention, Operation Instructions, Common Problems and Solutions. Click the corresponding function button to display the relevant main content.



03

Charging operation

Click continuously three times in the upper right corner of the main screen interface to enter the administrator entrance. Enter the administrator password and enter the system settings interface. Click 【**Mode Switching**】 to enter the Mode Switch interface. There are three charging modes: Stand alone, Network (optional function), and Portable. The specific operation of the charging mode is as follows:

Note: The charging card used in the Network charging mode must have this card number added to the network platform to become an authentication card.

The charging card used in the Stand alone charging mode must be bound in the Add card or have the same Key, and charging priority should be given to binding the card. When there is no binding card, charging cards with the same Key can be swiped for charging.

3.1 Network

1.LAN mode

Firstly, in the Mode switch interface, configure according to the following parameters, then fill in the network platform address in the URL of the Network configuration interface, restart the charging station (changing the charging mode requires restarting the device), and check on the network platform that the charging station is online successfully before starting charging.

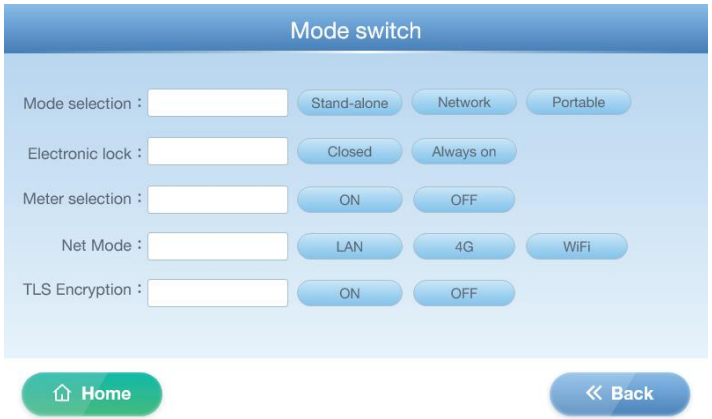
Mode selection: Network

Electronic lock: defaults to Always on (the charging gun head electronic lock only works when the gun head is equipped with an electronic lock function)

Meter selection: Select ON (to connect to the meter selection)

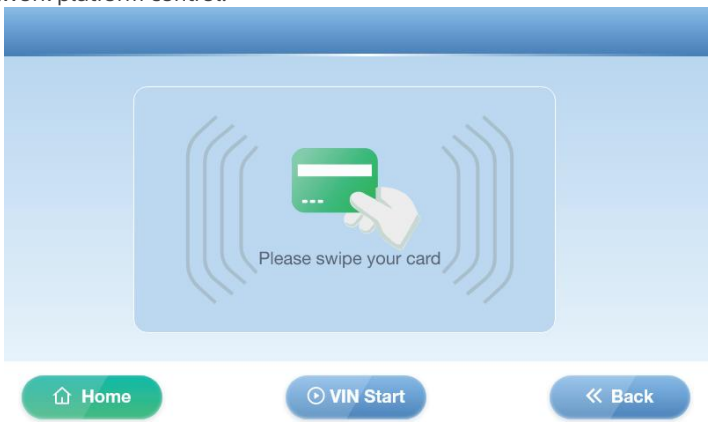
Net mode: LAN (after selecting Network, connect with a network cable)

TLS encryption: ON, OFF (selected based on encrypted or non encrypted network platform)

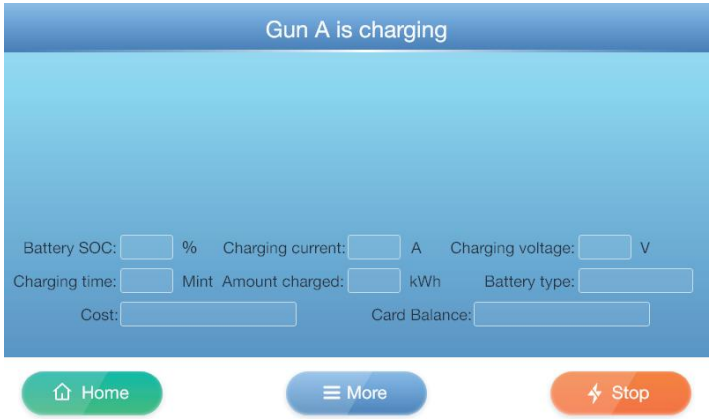


3.1.1.1 Start charging

1) The charging gun head and the charging interface of the electric vehicle must be reliably connected and properly docked. When the gun is inserted, click on the main interface Gun A to display the card swiping interface. Please swipe your card, or you can start charging through the network platform control.



2) After swiping the card, the charging station automatically detects for a few seconds and starts charging. The charging interface displays information such as Battery SOC, Charging time, Card Balance, Charging current, Amount charged, Battery type, Charging voltage, etc.



3) The network starts charging, and the charging station automatically detects for a few seconds before starting charging.

The charging interface displays information such as Battery SOC, Charging current, Charge volt, Charging time, Power charged, Value spent, etc.

3.1.1.2 Stop charging

There are several ways to stop charging in Network charging mode:

· To start charging by swiping the card, click the Stop button on the charging interface and swipe the card again to stop charging;

· Stop charging through online platforms;

· Stop when full;

· Press the emergency stop button to stop (do not touch non emergency faults).

After the charging is completed, a settlement interface will appear, displaying information such as charging time, charging power, and Amount on the card. Click the OK button to return to the main interface.

3.1.2 4G mode

This mode is configured the same as LAN mode. Please select 4G (using an IoT card to connect to the network) in the Net mode of the Mode switch interface, then fill in the network platform address and APN related parameters in the URL of the Network configuration interface (edit and fill in according to the information provided by the operator), restart the charging station (changing the charging mode requires restarting the device), and then start charging (the same as starting or stopping charging in LAN mode).

3.1.3 WiFi mode

This mode is configured the same as LAN mode. Please select WiFi (optional function) in the Net mode of the Mode switch interface, and fill in the network platform address in the URL of the Network configuration interface. Locally fill in WiFi Name and WiFi Password (the WiFi signal near the charging station must be stable and good), restart the charging station (changing the charging mode requires restarting the device), and then start charging (the same as starting or stopping charging in LAN mode).

3.2 Stand alone

1.Mode configuration

Firstly, in the Mode switch interface, configure the parameters below, restart the charging station (changing the charging mode requires restarting the device), and start charging.

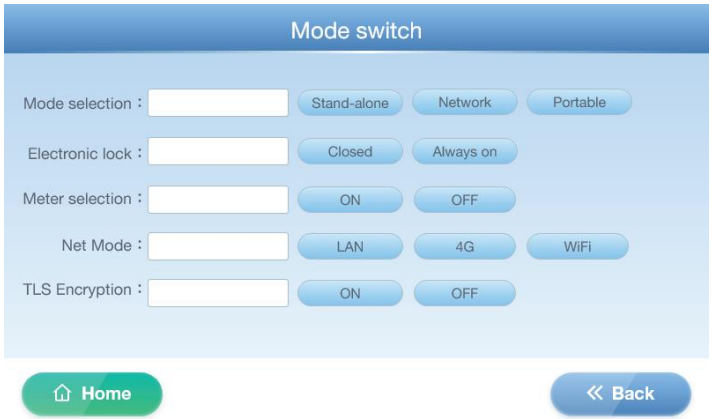
Mode selection: Stand alone

Electronic lock: defaults to Always on (the charging gun head electronic lock only works when the gun head is equipped with an electronic lock function)

Meter selection: select ON or OFF (select not to connect to the meter, charging level will not be displayed and fees will not be charged)

Net mode: is empty

TLS encryption: ON, OFF (no need to choose, the system does not recognize this parameter by default)



3.2.1.1 Start charging

The charging gun head and the charging interface of the electric vehicle must be reliably connected and properly docked. When the gun is inserted, click on the main interface Gun A to display the card swiping interface (all mode card swiping interfaces are the same). Please swipe a charging card with the same binding or key to start charging (the same as the card swiping charging interface in Network mode).

3.2.1.2 Stop charging

There are several ways to stop charging in Stand alone charging mode:

· Click the Stop button on the charging interface, swipe the card again to stop charging;

· Stop when full (please swipe your card to settle);

· Press the emergency stop button to stop (do not touch unless in an emergency).

04

Common problems and solutions of charging stations

·The main reasons for slow charging speed may be insufficient power of charging stations, limited charging current of trams, and insufficient power supply in parking spaces. Please select a higher power charging station, check the vehicle settings, adjust charging parameters, choose other parking spaces, or report power supply issues to relevant departments.

·When using a charging station, sometimes you may encounter charging failure and be unable to charge normally. It may be a problem with the charging connector, charging station, or charging card. Please check if the connector is intact and ensure that the plug is securely inserted. Contact the charging station management unit for maintenance or replacement. Report the malfunction and carry out repairs or replacements. The charging card may have poor contact, damage, and other issues, leading to charging failure. If there are any problems, please replace the charging card in a timely manner or contact the charging card issuing agency to solve the problem.

·Swipe card rechargeWhen charging, do not use the same charging card to swipe other charging stations to avoid being locked.

·When changing the charging mode of the charging station system, the power should be restarted to check if the mode change is successful before it can be used.

·During the charging process, do not forcefully pull out the charging connector. Forcefully pulling out the charging connector may cause a fire at the connector and cause safety accidents.

·Entering the system configuration interface while charging will cause the charging to stop.

·If the charging has ended or the charging has ended abnormally, resulting in outstanding settlement, please swipe your card for settlement.

·Swipe the card to start charging, and at the end of charging, please swipe the same card.

·When installing the charging station, the grounding line should be reliable, without defects or ungrounded, otherwise charging cannot be carried out.

·If you need to stop charging in advance, please follow the normal operation of swiping your card to stop.

·If a safety accident occurs during the charging process, such as abnormal noise, short circuit of wires, etc., please press the emergency stop button on the board below, disconnect all power sources, and immediately contact the on-site management personnel.

·The display screen does not light up. Restart the charging station or contact professional technicians for repair.

·The charging cable, power supply, and interface are damaged. Please contact professional technicians for repair and replacement, and conduct regular inspections.

·Check and clean the damaged gun head and foreign objects in the gun needle hole. After one or two months, power off and restart the equipment.

·No response from card swiping, restart the device, replace the card, and call customer service for consultation.

·When the equipment is not used for a long time, please turn off the power by pulling the switch.

·Emergency stop button, avoid touching in non emergency situations.