

DC Model:HF-CD30-1000A

DC EV Charger

Installation and Use Manual



Xiamen Hongfa Electric Co.,Ltd.

FCC Cautionary statement

This device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

MPE Requirements

To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended.

Les antennes installées doivent être situées de façon à ce que la population ne puisse y être exposée à une distance de moins de 20 cm. Installer les antennes de façon à ce que le personnel ne puisse approcher à 20 cm ou moins de la position centrale de l'antenne.

La FCC des états-unis stipule que cet appareil doit être en tout temps éloigné d'au moins 20 cm des personnes pendant son fonctionnement.

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1.About this manual

1.1 Purpose

This document only applies to this charger(HF-CD30-1000A).

This document provides the basic information regarding the onsite installation and application.

1.2 Applicable objects

This document is exclusively intended for installation and use by qualified installation engineers.

Users who are familiar with and understand this document.

1.3 Revision record

Version	Date	Remark
01	August 2024	Initial version

1.4 Picture

This file cannot display the configuration of all charging stations. Therefore, the illustrations in this document only show typical settings. They are only used for illustration and description.




1.5 Measurement unit

This document uses the International System of Units(mm).

1.6 Instructions for use

1. Ensure that you understand the structure and content of this document.
2. Read the safety chapter to ensure that you understand all the instructions.
3. Complete the steps in the program in the correct order.
4. This document is part of the charger.

1.7 Special symbols

Symbol	Remark
	Risk of Shock Indicates an operation or situation where great care must be taken with hazardous voltages.
	High temperature hazard Indicates the risk of burns in high temperature zones or areas with high component temperatures.
	Be careful Important security information, operations or situations where great care must be taken

2.Description

2.1 Overview

HF-CD30-1000A is a series of American standard movable DC charger that you can use to charge electric vehicles.

2.2 Purpose

HF-CD30-1000A for DC charging of electric vehicles.

HF-CD30-1000A must comply with the characteristics of the power grid, environmental conditions, and the requirements of electric vehicles.

HF-CD30-1000A can only use accessories provided by the manufacturer or those that comply with local standard specifications.

HF-CD30-1000A AC access equipment needs to comply with local national standards.



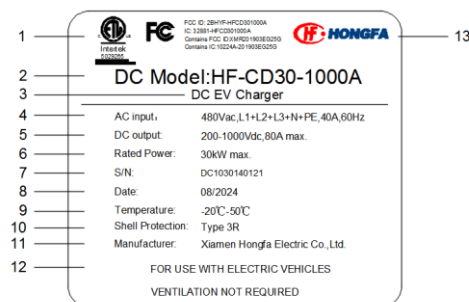
Danger:

Be careful

If you use the charger in any other way not described in the relevant documents, it may cause personal injury and property damage.

Charger can only be used for their intended purpose.

2.3 Nameplate



1 Certification Mark

2 Product Model

3 Product Name

4 AC Input Parameters

5 DC Output Parameters

6 Rated Power

7 Serial Number

8 Manufacturing Date

9 Operation Temperature

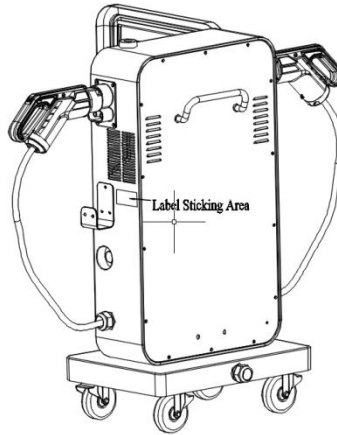
10 Shell Protection

11 Manufacturer

12 Warning message

13 Logo

Note: The data in the figure is only for illustration. For specific parameters, please refer to the nameplate on the charging station.



2.4 Warning label、

WARNING

Fuse technical parameters:

Rated Current:160A

Rated Voltage:1000Vdc

Breaking Capacity:50kA@1000Vdc

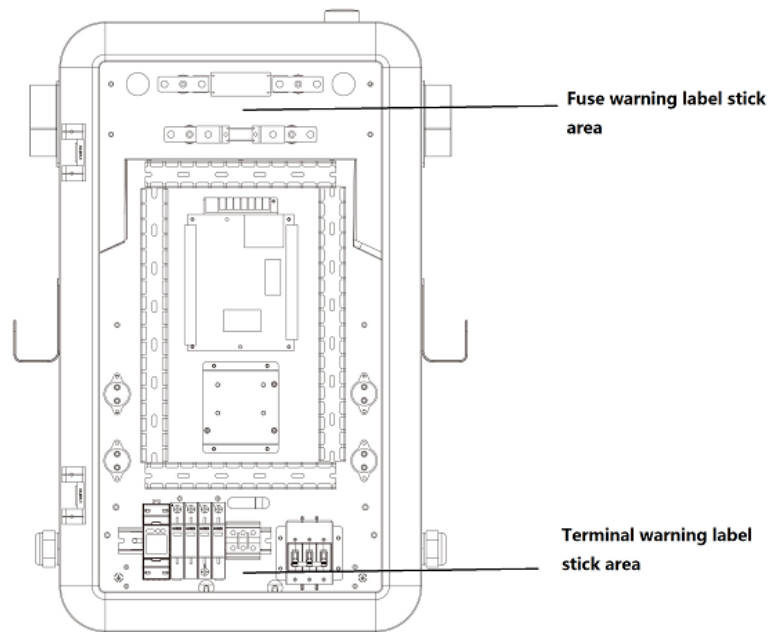
To reduce the risk of fire, replace only with same type and ratings of fuse.

Fuse warning label

Use Copper or Aluminum Conductors Only.

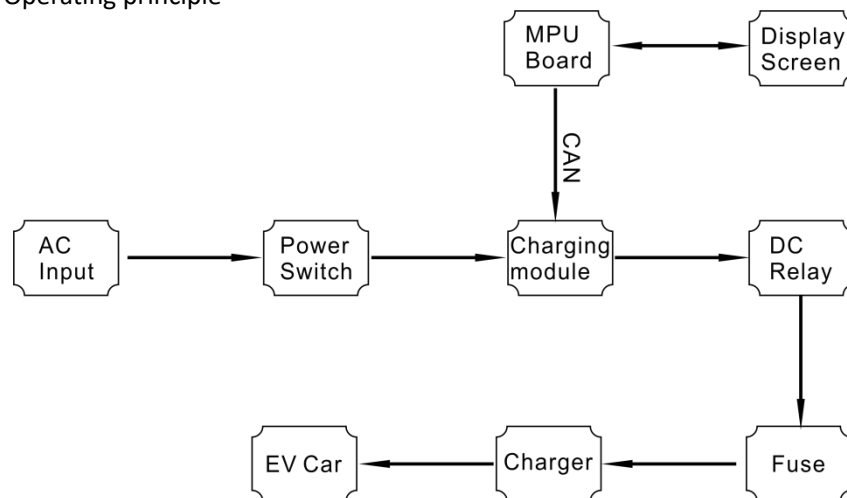
Tightening torque force: 1.6-2.2N·m

Terminal warning label



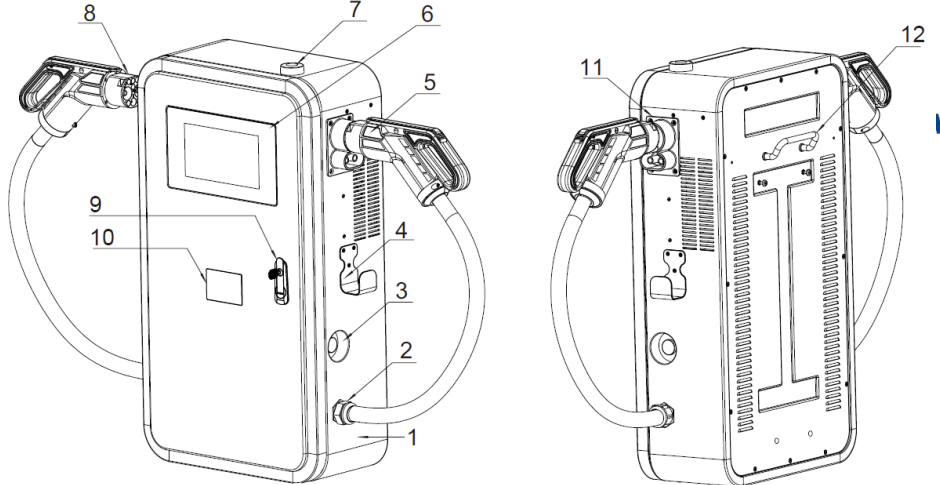
Warning label sticking diagram

2.5 Operating principle



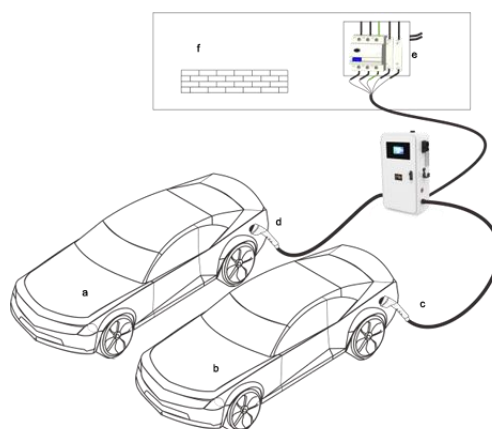
1. Connect the AC power input and switch on the power button.
2. Charging gun inserted into electric vehicle.
3. Swipe card or OCPP remote control to start charging.
4. The charging module outputs DC power to charge the electric vehicle.
5. The display screen shows the charging status.

2.6 Product Overview



- | | | | |
|---|-----------------------|----|-----------------|
| 1 | Enclosure | 7 | 4G antenna |
| 2 | Gland | 8 | Plug B |
| 3 | Emergency stop button | 9 | Lock |
| 4 | hook | 10 | Swipe card area |
| 5 | Plug A | 11 | Socket-outlets |
| 6 | 7" Touch screen | 12 | Handle |

2.6 Installation environment



- | | | | |
|---|--------|---|----------|
| a | EV A | d | Plug B |
| b | EV B | e | 60A MCCB |
| c | Plug A | f | Wall |

3.Safety

3.1 Responsibility

The following rules have to be strictly followed. Otherwise, the manufacturer will not be liable for any damage, loss, cost or expense:

- Comply with the instructions in the relevant documents.

- It is strictly prohibited to use it outdoors on rainy days.
- Abuse or misuse of this charger.
- Unauthorized modification of charger.

3.2 Qualified installation engineer



A qualified installation engineer must have a thorough understanding of the charging station and its safe installation.

Installation engineers are qualified to engage in high-voltage and high current electrical installation work.

Qualified installation engineers must comply with all local rules and instructions in the installation manual.

Charging station users must ensure that all qualified installation engineers comply with local regulations, installation instructions, and charging station specifications.

3.3 Safety instructions

The warnings contained in this document and related documents cannot replace your responsibility to apply common knowledge on the charging station.

Only programs displayed in relevant files and programs that you are qualified to execute can be executed.

Comply with local regulations and the instructions in this manual. If there is a contradiction between the local regulations and the instructions in this manual, the local regulations shall prevail.




3.4 Safety instructions during installation



- Ensure that there is no voltage on the AC input cable throughout the entire installation process.
- Keep unauthorized personnel at a safe distance during installation.
- Ensure that the load capacity in the power grid matches the charger.
- Properly grounding the charging station.
- Ensure that water cannot enter the charger.

4.Install

4.1 General installation program

	<p>Obtain all permits that comply with local regulations.</p> <p>An AC input cable is available.</p>		<p>Throughout the installation process, there was no voltage on the AC input cable.</p>
	<p>Torque cross screwdriver</p>		

Procedure

1. Unpacking of charging stations.
2. Environmental preparation.
3. Implement electrical installation.

4.2 Unpacking

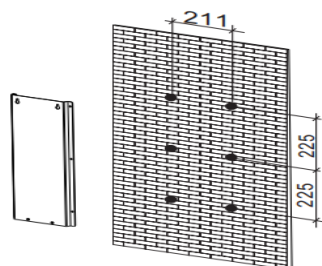
1. Open the packaging box.
2. Remove the charging station from the packaging box.
3. Remove all packaging materials from the charging station.
4. Discard packaging materials.(Meets local environmental requirements)
5. Ensure that all parts are delivered according to the order.
6. Check if the charging station and installation parts are damaged.
7. If damage or missing parts are found, please contact the local manufacturer or seller.

4.3 Choose a venue

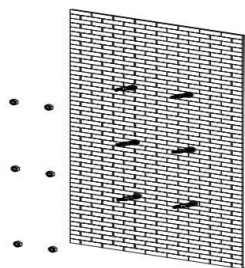
1. In a cool, ventilated, and rain free location.
2. Ensure appropriate power supply is available.

4.4 Installation instructions

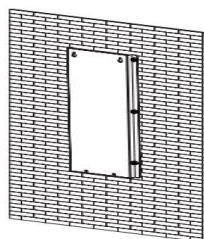
1. Based on the size requirements of mounting plates, locate mounting holes on the selected installation wall, and drill expansion nut holes for M6-50.



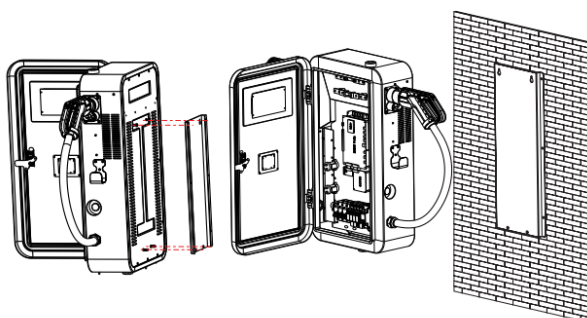
2. Insert M6-50 304 stainless steel expansion stud in the mounting hole of the wall.



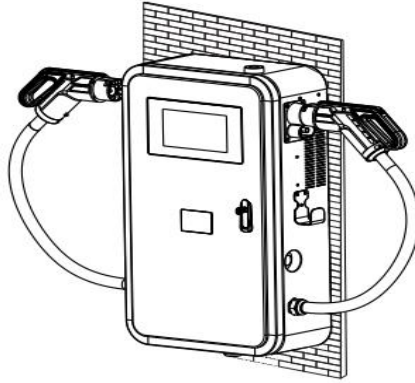
3.Lock the mounting plate on the wall with M6-50 304 stainless steel screws.



4.Install the charging pile product on the hanging plate, open the product door panel, and use M6-15 304 stainless steel screws to lock the product installation on the wall panel as shown in the picture below.



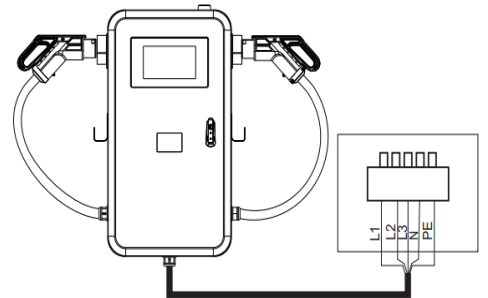
5.wall hanging installation is completed



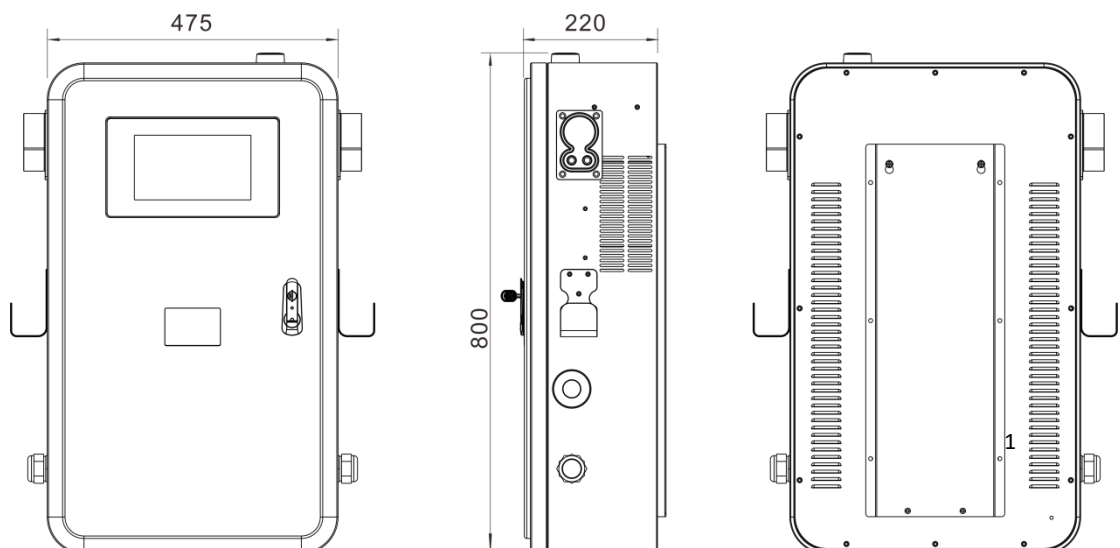
4.4 Electrical installation

Tips:the Wall-mounting type sell without input cable, so you need install input cable yourself

1. Loosen the screws in the four holes under the MCCB.
2. Connect the PE cable to the ground bar of the power supply.
3. Insert the cable into the corresponding terminal port in phase sequence.
4. Use the correct torque to tighten the screws
5. Ac input cable $\geq 7\text{AWG}$ 105°C 600V PVC VW-1.
6. This unit must be connected to a grounded, metal, permanent wiring system.



5. Technical Parameter



5.1 Dimensions

Parameter	Wall-Mounting type
Length	220
Width	475
High	800

5.2

5.2 Weight

Type	Wall-Mounting type Weight
Net weight	Approximately 68kg
Gross weight	Approximately 82kg

5.

5.3 Ambient condition

Parameter	Value
Operation temperature	-20°C~+50°C
Storage temperature	-40°C~+70°C
Relative humidity	<95%, No condensation
Use condition	Indoor and outdoor (without raining)
Operating altitude	<2000m

5.4 D

5.4 Delivery includes materials

Parameter	Value
Charger	Please refer to the nameplate. Please refer to section 2.3 for

	details.
Installation and Use Manual	This document
Certificate of conformity	1 PCS
Test report	1 PCS

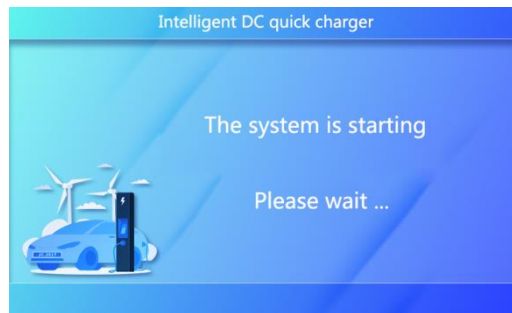
5.5 Electrical parameters

Parameter	HF-CD30-1000A
Input voltage	480Vac \pm 10%
Input frequency	50/60Hz
Earthing system	PE
Power factor	0.95
Harmonic distortion(THD)	\leq 5%
Charging mode	CCS1 or NACS
Output power	30kW
Output voltage	200-1000Vdc
Max output current	80A
Number of outputs	CCS1 \times 2 or NACS \times 2 or CCS1 \times 1+NACS \times 1
Peak efficiency	95% typ.
Screen type	7 "touch screen
Input cable length	Customer Provided
Output cable length	5m
Status indication	LCD
User interface	LCD
Software update	Uart
Safety and compliance	UL 2202, UL 2231-2
Charge standards	ISO15118, DIN70121
EMC compliance	FCC 15 Class A
Certificate of conformity	ETL 5029265、FCC
Charging gun durability	10000 cycles

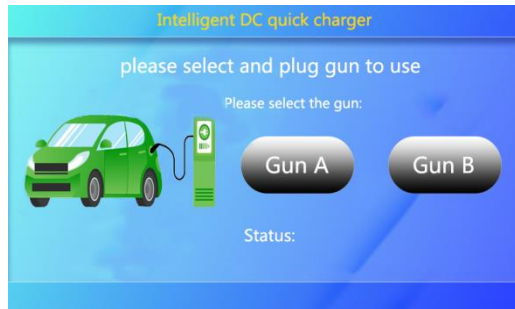
6.Charging steps

Direct use

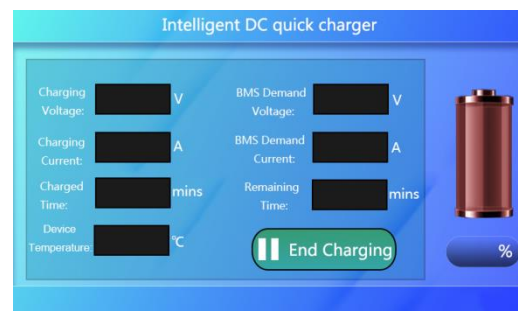
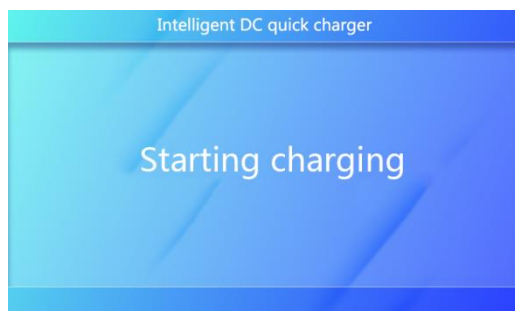
1. Connect the AC input cable to the corresponding circuit breaker, and **ensure that the plug is in place!!!**
2. Insert the charging gun into the fast charging port of the vehicle, **making sure it is in place!**
3. Close the input circuit breaker in the charging pile and wait for the screen to start



4. The communication between charging pile and vehicle will enter the gun selection screen normally, otherwise an error code will be displayed.



5. Please select the gun, within 60 seconds to start charging, after 60 seconds charge will be restart, Charging page below.



6.The full charge stop screen and halfway stop screen are as follows. If you want to stop charging halfway, please press the end charge button.



If the charging fails, the fault code page is as follows:

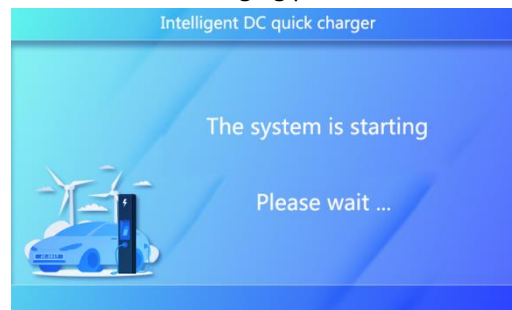


Swipe card(nfc)

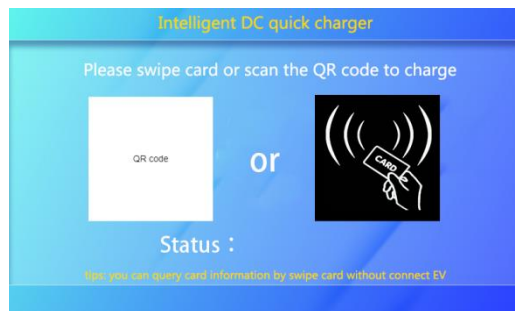
1. Connect the AC input cable to the corresponding circuit breaker, and **ensure that the plug is in place!!!**

2. Insert the charging gun into the fast charging port of the vehicle, **making sure it is in place!**

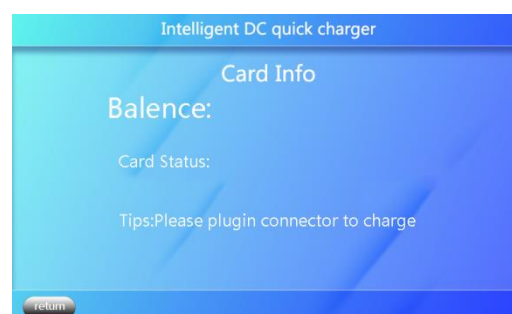
3. Close the input circuit breaker in the charging pile and wait for the screen to start



4. The communication between charging pile and vehicle will enter the idle screen display normally,and you can swipe card or scan QR code to use ocpp , otherwise an error code will be displayed.

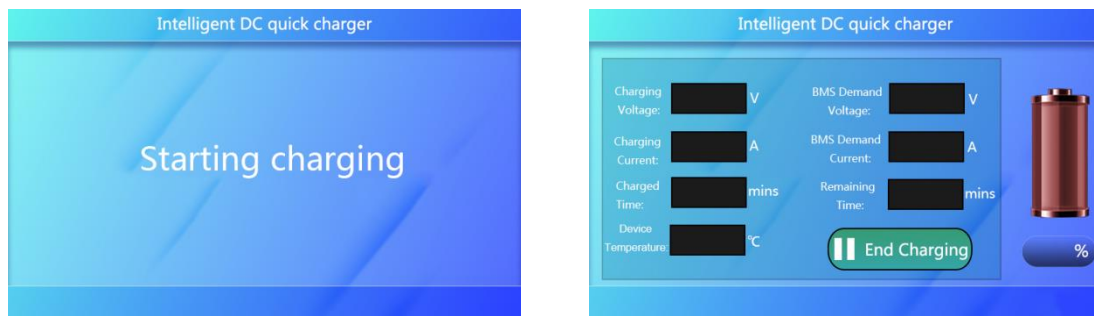


5. If you want to get information about the card,please swipe card without plug the gun



6. Please select the gun, within 60 seconds to start charging, after 60 seconds charge will be

restart, Charging page below.



6.The full charge stop screen and halfway stop screen are as follows. If you want to stop charging halfway, please press the end charge button.



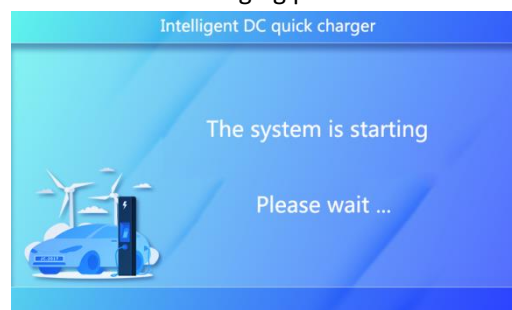
If the charging fails, the fault code page is as follows:



Swipe card (pos)

1. Connect the AC input cable to the corresponding circuit breaker, and **ensure that the plug is in place!!!**

2. Close the input circuit breaker in the charging pile and wait for the screen to start

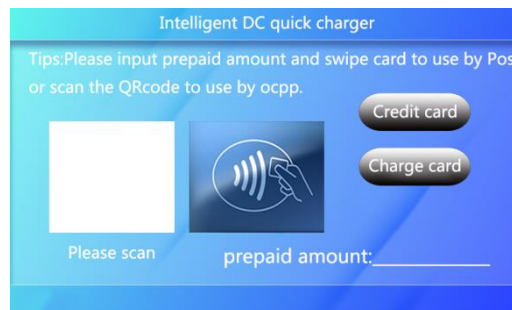


3. The communication between charging pile and vehicle will enter the pos idle screen display normally,and you can swipe card or scan , otherwise an error code will be displayed.

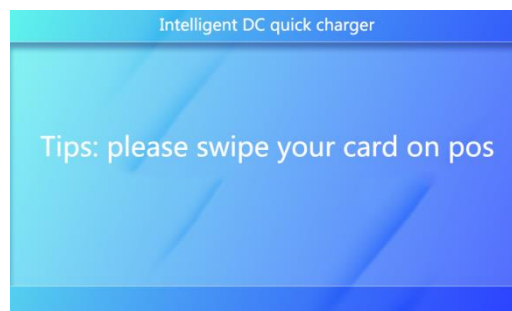


4. Insert the charging gun into the fast charging port of the vehicle, **making sure it is in place!**

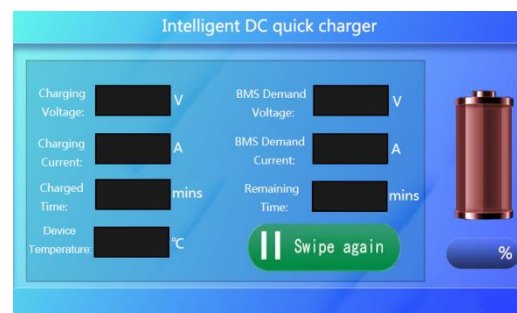
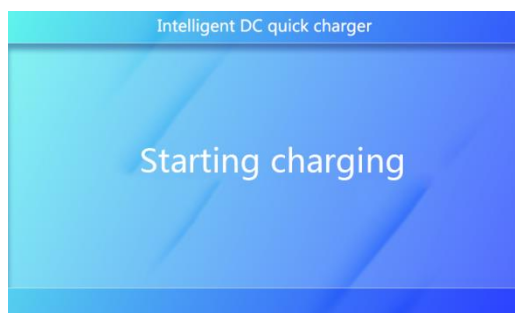
5. When the charger is successfully connected to the bms, go to the pos_amount page. In pos_amount page, you can select Credit card to use Credit card or Deposit card. select charge card is used as nfc, you can swipe a type of card which is selected in card setting. before use Credit card, you need insert a prepaid amount of charge. Of course, you can also use ocpp to start charge by scanning the QRcode.



6. After select the type of card, the charge will refresh to pos_swipe page, this page is just to prompt customers to swipe their cards



7. Please select the gun, within 60 seconds to start charging, after 60 seconds charge will be restart, Charging page below. If you want stop charge



8. The full charge stop screen and halfway stop screen are as follows. If you want to stop charging halfway, please press the end charge button.

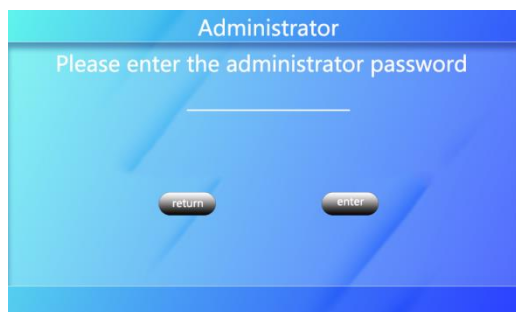


9.If the charging fails, the fault code page is as follows:



Setting configuration

1. In normal page Tap the top left corner of the screen 3 times in 5s,will open login page.please insert manager password



2. When you have entered the correct password,click enter,you will enter the manage page.



3. In Net Setting,you can set the networking mode.

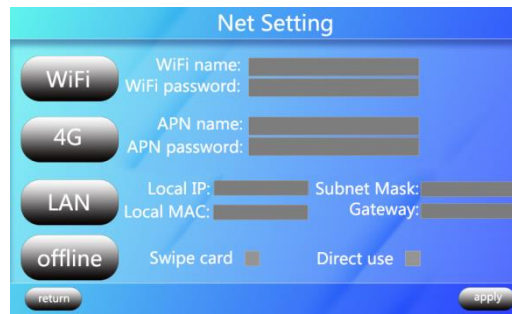
When you choose WiFi mode you can enter the name and password of WiFi

When you choose 4G mode you can enter the name and password of APN

When you choose LAN mode Your network configuration will be automatically recognized by charger

When you choose offline mode you can select swipe card or direct use

When you are finished setting, click apply and the system will restart automatically



Net Setting

WiFi: WiFi name: _____ WiFi password: _____

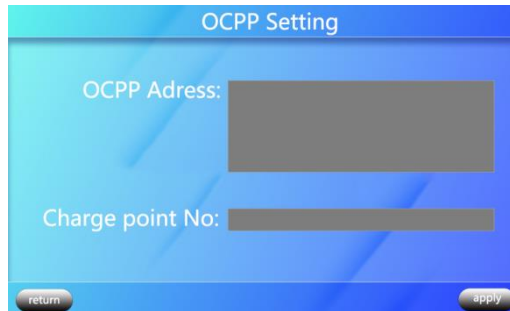
4G: APN name: _____ APN password: _____

LAN: Local IP: _____ Subnet Mask: _____
Local MAC: _____ Gateway: _____

offline: Swipe card ☐ Direct use ☐

return apply

4. In OCPP setting, you can set ocpp configuration, include OCPP address and charge point No. The OCPP Address is URL of OCPP Central system service



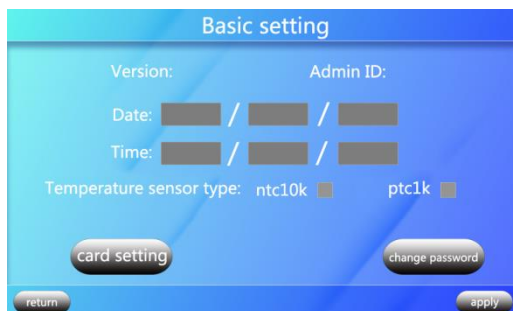
OCPP Setting

OCPP Address: _____

Charge point No: _____

return apply

5. In basic setting, you can set offline time, and get program version and admin ID. admin ID will be used to set card. the two check box follow Temperature sensor type are used to set resistance type of the temperature sensor. You can click card setting button for set card configuration or click change password button to change admin password.



Basic setting

Version: _____ Admin ID: _____

Date: ____ / ____ / ____

Time: ____ / ____ / ____

Temperature sensor type: ntc10k ☐ ptc1k ☐

card setting change password

return apply



Change Password

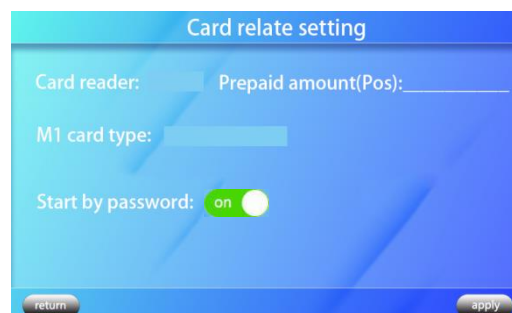
Old Password: _____

New Password: _____

Confirm Password: _____

return apply

6. In card setting you can select type of card reader, select Pax to use pos, select goiot to use nfc. Enter an amount to 'Prepaid amount(Pos):' to set default value of Prepaid amount when use pos. M1 card type is used to set charge card type of pos, there are three options, select local ID card to use local authentication card; select wallet card to use goiot wallet card; select online ID card to use ocpp authentication card. start by password is used to start charging using a password in debugging situations.



Card relate setting

Card reader: _____ Prepaid amount(Pos): _____

M1 card type: _____

Start by password: ☒ on ☐ off

return apply

7. In Price setting, you can set the price per kW*h in different time periods

Manage-Parameter-Price							
period	price	period	price	period	price	period	price
0:00		6:00		12:00		18:00	
0:30		6:30		12:30		18:30	
1:00		7:00		13:00		19:00	
1:30		7:30		13:30		19:30	
2:00		8:00		14:00		20:00	
2:30		8:30		14:30		20:30	
3:00		9:00		15:00		21:00	
3:30		9:30		15:30		21:30	
4:00		10:00		16:00		22:00	
4:30		10:30		16:30		22:30	
5:00		11:00		17:00		23:00	
5:30		11:30		17:30		23:30	

8. In Record page,you can view all charging records in the latest period of time.When the record store is full, the newest record overwrites the oldest record

Manage-Records					
index	transaction id	start/end charge time	electricity(W)	fee(\$)	paid

9. In alert page,you can view all the recent errors of the charger,if this error is fixed, the record will be erased.

7. Card

Card swiping function of Charger card requires special wallet cards, wallet card No is 16 digits, the first six to be the same as the charger admin ID(in Basic setting,can be changed).

For instance,this charger's admin ID is 123456,so we need a 16 digits card, and the first card No should be 123456.we use a card with card No 1234560000000001.



Card identification	<input type="text" value="135EBD95"/>	Operator	<input type="text" value="goiot"/>
Card No	<input type="text" value="1234560000000001"/>		
Password	<input type="text"/>		
balance	<input type="text" value="5000.00"/>		
Name	<input type="text"/>		
Cell-phone number	<input type="text"/>		
ID card	<input type="text"/>		
last charge duration	<input type="text"/>		
last charge point No	<input type="text"/>		
Card status	<input type="text"/>		

release card
top up
Fee deduction
unlock
change password
sign out

8.Fault code table

0x10	SLAC_START timeout 20s for 3 times	Contact after-sales personnel to replace the parts
0x1a	App Handshake directive, the protocol is not supported by version 15118 or 70121, the protocol is not supported.Charging is not supported.	Contact after-sales personnel to replace the parts

0x1b	The leakage voltage of DC2 is greater than 60v	Contact after-sales personnel to replace the parts
0x1c	The ADC failed to get the voltage, and the ADC board bus was faulty	Contact after-sales personnel to replace the parts
0x1d	Meter reading failed, meter bus error	Contact after-sales personnel to replace the parts
0x1e	K1K2 relay is not controlled	Contact after-sales personnel to replace the parts
0x22	The payment method provided by EV is not EIM	Contact after-sales personnel to replace the parts
0x23	EV did not request charging	reboot
0x26	Authorization wait 60s timed out. The gun must be re-inserted	Pull out and plug in the charge gun
0x29	ask_AC_charging	Check the EV
0x2a	charge_with_AC_pin	Check the EV
0x2b	During the insulation test, the voltage read by the meter deviates from more than 5V	Contact after-sales personnel to replace the parts
0x2C	insulation_error evse_malfunction	Check vehicle's insulation
0x2e	not_got_CP6V	reboot
0x71/ 0x2d/ 0x2f	Insulation monitoring failed	Check the grounding status of the device
0x34	The K1 relay does not open at the end of charging	Shut down the device, wait for a period of time, and then restart
0x51	Equipment over temperature fault	Pull out and plug in the charge gun
0x52	Access control failure	Pull out and plug in the charge gun
0x53	Emergency stop button to stop charging	Pull out and plug in the charge gun
0x54	Meter failure	Contact after-sales personnel to replace the parts

0x55	Module failure	Contact after-sales personnel to replace the parts
0x56	SPD failure	Contact after-sales personnel to replace the parts
0x57	Relay failure	Contact after-sales personnel to replace the parts
0x5e	NFC failure	Contact after-sales personnel to replace the parts
0x71	The device is unipolar grounded	Contact after-sales personnel to replace the parts
0x72	Fuse break	Contact after-sales personnel to replace the parts
0x73	The output voltage of the ACDC module is 15V lower than the set insulation voltage	Contact after-sales personnel to replace the parts
0x74	Pcba over temperature	Shut down the device, wait for a period of time, and then restart
0x75	The ACDC module is faulty	Contact after-sales personnel to replace the parts
0x76	Over 30V for 3 seconds without plug gun.	Reboot
0x77	fail_read_ADC	Shut down the device, wait for a period of time, and then restart
0x79	Equipment not grounded	Check the grounding status of the device
0x7a	The insulation detection circuit of the insulation detection board is faulty.	Shut down the device, wait for a period of time, and then restart
0x7b	The other circuits of the insulation detection board are faulty	Shut down the device, wait for a period of time, and then restart

9.Maintenance

Clean the air inlet and outlet with an air gun every 3 months to prevent dust from blocking them and causing poor heat dissipation.

To ensure product stability, 24-hour use is prohibited. After 12 hours or more of continuous use, please stop using for 1 hour.

10. Transportation and storage

10.1 Transportation

The product should not be subjected to violent vibration, impact and inversion during transportation.

10.2 Storage

If the product is not used immediately after purchase and needs short-term or long-term storage, the equipment should be stored in a dry and well-ventilated indoor place, away from high temperature, humidity, dust and metal powder environment

10.3 Storage and transportation of equipment

During the transportation process, the charger body should be firmly packed and intact with a solid wooden packing box and the loading and unloading direction should be marked, and the charger should not be stored and transported upside down. During transportation, appropriate fastening measures should be taken to avoid strong vibration and turbulence damaging the outer packaging of the equipment. After the arrival of goods, we should check whether there is any damage. If there is any transportation damage, we should negotiate with the carrier and our company to solve it. Immediately after unpacking, check whether the contents are in accordance with the packing list.

The packaged equipment should be stored in a room with relative humidity $\leq 80\%$ and ambient air temperature of $-10\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$. The storage place should be dry, clean, air circulation, and can prevent the intrusion of various harmful gases, and it is strictly prohibited to store items with corrosive effects in the same place.

Note: Non-professionals are forbidden to remove equipment components