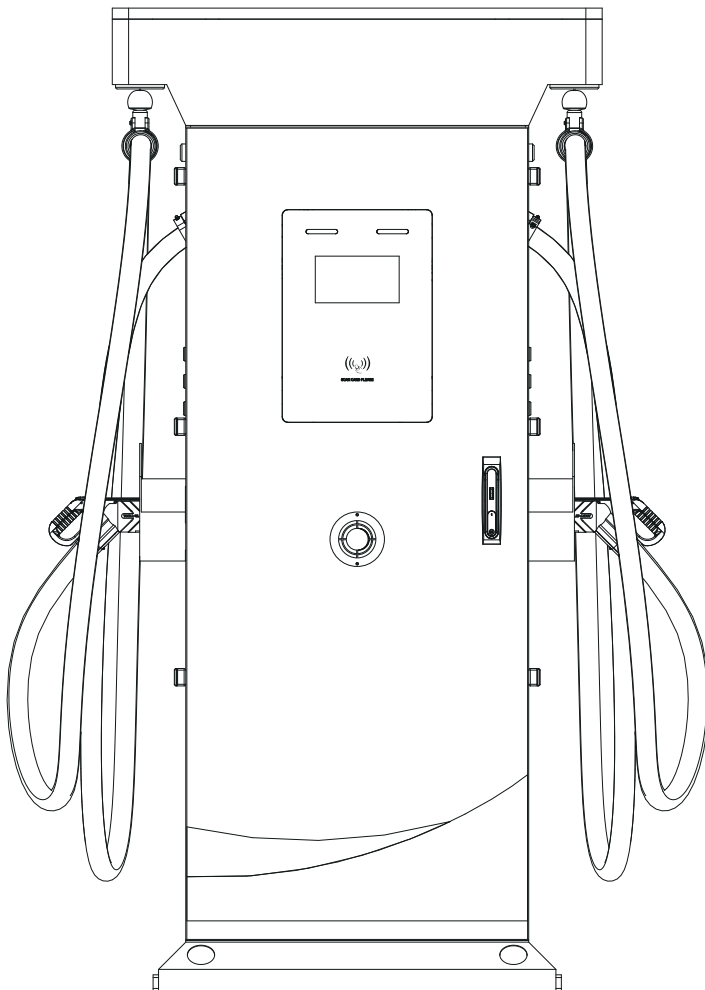


# User Manual

## EV DC charger

### HBE-DC60KW02ST-U





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## IMPORTANT SAFETY INSTRUCTIONS



**WARNING** – When using electric products, basic precautions should always be followed, including the following

- a) Read all the instructions before using this product.
- b) This device should be supervised when used around children.
- c) Do not put fingers into the electric vehicle connector.
- d) Do not use this product if the flexible power cord or EV cable is frayed, has broken insulation, or any other signs of damage.
- e) Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- f) This charging pile cannot be dismantled, repaired or modified by the customer.
- g) To reduce the risk of fire, connect only to a circuit provided branch circuit over-current protection in accordance with the CSA C22.1-15 Canadian Electrical Code, Part 1 (Canada) or NOM-001-SEDE Electrical installations (utility) (Mexico) or ANSI/NFPA70 National Electrical Code (USA).
- h) WARNING

## GROUNDING INSTRUCTIONS

This product must be connected to a grounded, metal, permanent wiring system, or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment grounding terminal or lead on the product.

- i) When any fault occurs, the product is prohibited to use, the user is prohibited to repair, must be sent to the after-sales maintenance or call the after-sales service for help.
- j) Risk of electric shock.



**SAVE THESE INSTRUCTIONS**

## CONCERNANT LA SÉCURITÉ CONSERVER CES



**AVERTISSEMENT:** Des mesures de précautions de base devraient être utilisées avec tous les produits électriques, y compris les mesures indiquées ici.

- a) lisez toutes les instructions avant d'utiliser ce produit.
- b) Ce dispositif devrait être supervisé lorsqu'il est utilisé autour des enfants.
- c) Ne mettez pas les doigts dans le connecteur du véhicule électrique.
- d) N'employez pas ce produit si le cordon d'alimentation flexible ou le câble Ev est effiloché, a N'isolation cassée, ou tout autre signe de dommages.
- e) N'utilisez pas ce produit si le boîtier ou le connecteur EV est cassé, fissuré, ouvert, ou montre toute autre indication de dommages.
- f) Cette pile de charge ne peut être démontée, réparée ou modifiée par le client.
- g) Pour réduire le risque d'incendie, branchez uniquement un circuit pour une protection contre les surintensités de circuit de branche conformément à la norme CSAC22.1-15 du Code canadien de l'électricité, partie 1 (Canada) ou à la norme NOM-001-SEDE Electrical installations (utility) (Mexique) ou à la norme ANSI/NFPA 70 du Code National de l'électricité (États-Unis).
- h) **CONSIGNES DE MISE À LA TERRE** Ce produit doit être raccordé à un réseau de câblage mis à la terre, métallique et permanent, ou un conducteur de mise à la terre de l'appareil doit être ajouté au circuit et raccordé à la borne de terre de l'appareil ou au conducteur d'alimentation de l'appareil.
- i) Quand n'importe quel défaut se produit, le produit est interdit pour employer, l'utilisateur est interdit pour réparer, doit être envoyé à l'entretien après-vente ou appeler le service après-vente pour l'aide.
- J) Risque de choc électrique



**CONSERVER CES INSTRUCTIONS**

## Safety Precautions

1. Do not bring dangerous items such as inflammable, explosive, or combustible materials, chemicals, and combustible steam near charging piles.
2. Keep the head of the charging gun clean and dry. If there is any dirt, please wipe it with a clean dry cloth. Do not touch the charging refill with your hand when it is energized.
3. Do not use charging piles in case of broken charging guns or charging cables, cracks, exposed wires, etc. If anything above is found, please contact the staff in time.
4. Do not disassemble, repair and modify charging piles without permission. If there is any need for maintenance and modification, please contact the staff. Improper operation may cause equipment damage and power leakage.
5. If there is any abnormal situation during use, please immediately press the emergency button and cut off the power supply.
6. During the charging process, the vehicle is not allowed to drive and can only be charged when it is stationary. Please turn off the hybrid tram before charging.
7. In case of rain and thunder, please charge carefully.
8. Children should not approach and use charging piles during charging to avoid injury.
9. Please close the doors on both sides when charging to avoid electric shock.
10. During the charging process, the charging connector shall not be forcibly unplugged, which can avoid safety accidents caused by the ignition at the joints.

## **Certification Standards**

- UL 2202: 2022 Ed.3 Clause
- CSA C22.2 #346:2022 Ed.1Clause
- UL 2231-2:2012 Ed.2+R:15Dec2020 Clause
- UL 50E: 2020 Ed.3 Clause
- UL 991:2004 Ed.3+R:09Jun2010: Clause
- UL 1998:2013 Ed.3+R:24Sep2018 Clause

## 1. Interface





**Cable Management (Optional)**

**LED Indicator**

**7" Interactive Screen**

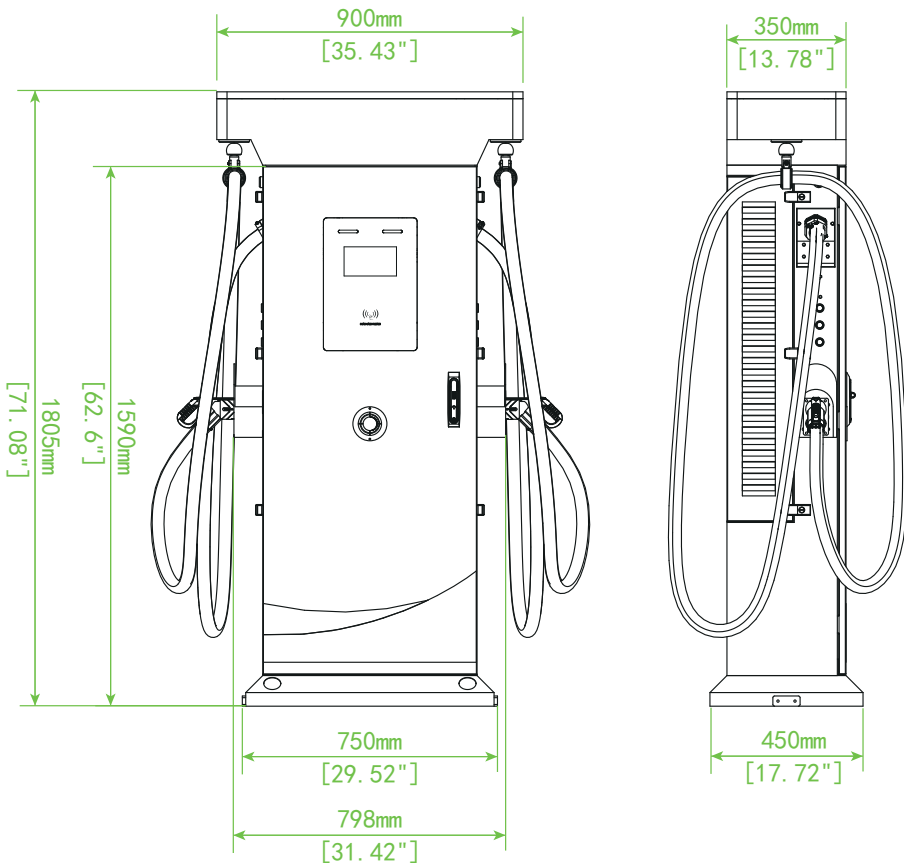
**Auto Cable Management  
Operational Buttons**

**Door Lock**

**Emergency Stop**



## 2. Dimensions



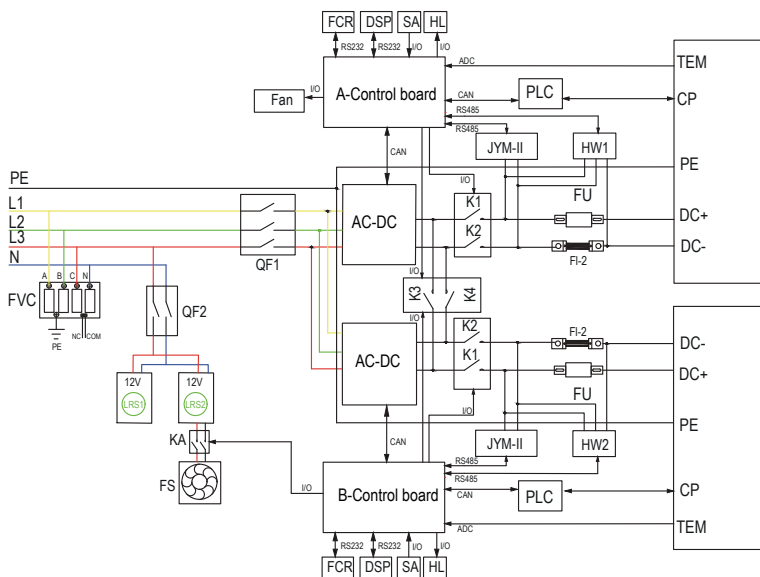
### 3. Brief Account

This product is a floor-type DC charging pile, which is mainly used for DC fast charging of electric vehicles. It integrates charging control, human-machine interaction control, communication, billing and metering functions. With protection class up to IP54, it can work safely outdoors. The power conversion unit of the charging pile follows the principle of modular design to meet the charging needs of electric vehicles with different capacities. It is the best choice for DC fast charging.

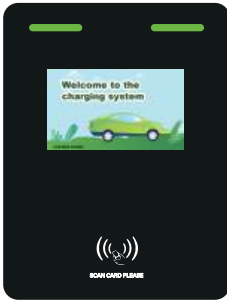
### 4. Equipment parameters

Specifications	Values
Maximum power of the product	60KW
Input Voltage	480VAC
Input Frequency	60Hz
Output voltage	200-1000DC
Single Maximum Output Current	200A
Charge Mode	Optional: <input type="checkbox"/> Offline swipe card <input type="checkbox"/> Operation online scan code <input type="checkbox"/> Operation online swipe card <input type="checkbox"/> Plug and play <input type="checkbox"/> Credit card terminal <input type="checkbox"/> Password charge
Communication Mode	Optional: <input type="checkbox"/> Ethernet <input type="checkbox"/> WIFI <input type="checkbox"/> 4G
Operating Temperature	-30 ~ +55°C
Relative Humidity	≤95%
Protection Level	TYPE 3R
Anti-vandalism:	IK10, except screen
Safety Design	Leakage protection, Over-voltage protection, Over current, Under-voltage protection, Emergency stop protection, Full stop charging protection, Short circuit protection, Over temperature protection
Installation Mode	Wall mounting type
Interfaces Count	One cable with 5 meters
Size	900x 450 x 1805 mm
Operating Environment	Outdoor & Indoor
Operating Occasion	Residential charging, Commercial charging

## 5. Schematic Diagram

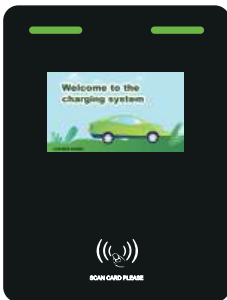


## 6. Status Description



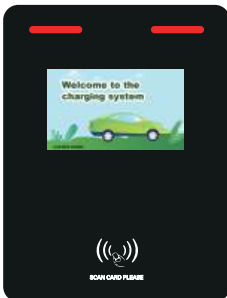
STANDBY

Green light stays steady in standby mode



CHARGING

Flashing Green Light

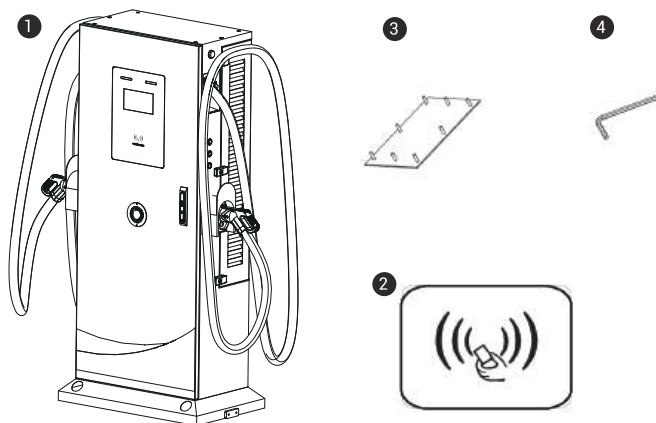


FAULT

Steady red light when fault occurs

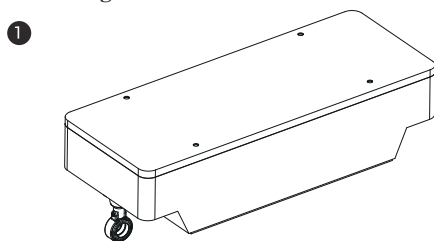
## 7. Packing List

### 7.1 Main Unit



No.	Product Name	Qty	Notes
1	DC Charger (With Charging Cables)	1	
2	RFID card (Optional)	1	
3	POS Cover Plate (Optional)	1	
4	Opposite side 3mm HEX Wrench	2	The cable puller clamp uses a fixed charging gun cable

### 7.2 Cable Management



No.	Product Name	Qty	Notes
1	Cable Management	1	

## 8. Product Installation

### 8.1 Tools and Materials Required

Type	Description
Stanley screwdriver	No. 2 and 3
Stanley brand adjustable wrench	Pieces 6.3MM metric machine set STMT82672-23
Socket screwdriver	No. 8, 10, 17 and 19
Electrical tape	Black / 15mm (0.6inch) Width
Electric drill	One manual electric drill (Diameter $\phi$ 12)
Wire nipper	One
Needle nose pliers	One

### 8.2 Basic Requirements for Installation

8.2.1 Reserve not less than 1 meter space around for the charger.

8.2.2 Chargers must be installed on customized concrete.

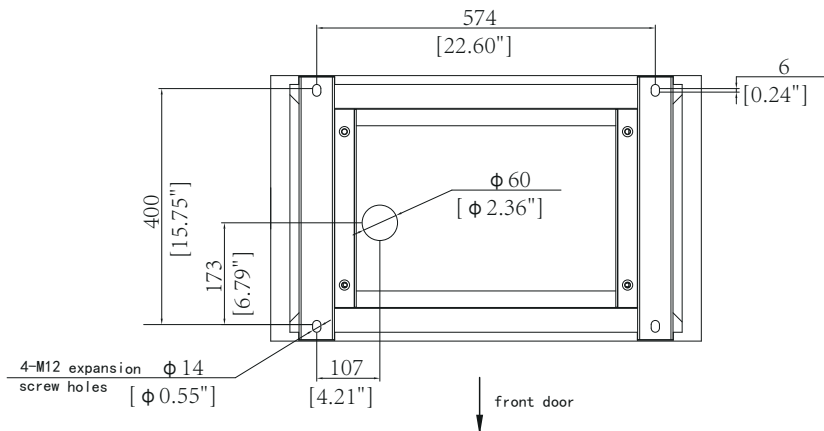
8.2.3 The height of concrete should be 200MM above the horizontal ground and the vertical inclination should not exceed 5 degrees. Drill  $\phi$ 13 holes in the cement base according to the drawing spacing and install M10 expansion screws.

8.2.4 Place the body into the corresponding hole on the base and tighten the screws.

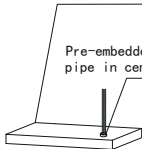
8.2.5 The charging pile and cement base should have reliable grounding connection, the grounding resistance must be less than  $4\Omega$ .

Attention: Rat control measures must be taken inside the pile body.

### 8.3 DC Charging Pile Installation Requirements

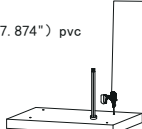


Build a cement pier on the ground 950\*650\*200mm (37.4"\*25.59"\*7.87")



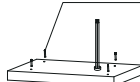
A

Drill 4 holes in the cement pier- $\phi 12\text{mm}$  ( $\phi 0.472$ ")

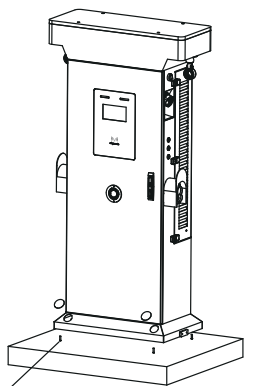


B

Drive the M10 expansion screw into the cement pier.

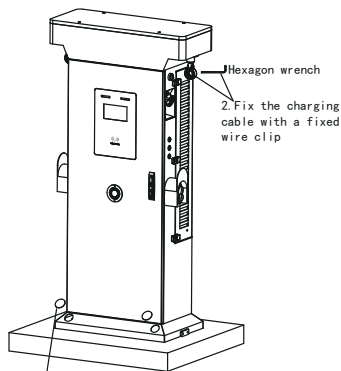


C



1. Align the screw holes of the pile with the ones in cement pier And ensure that the cables are threaded into the cabinet. Then tighten the screws

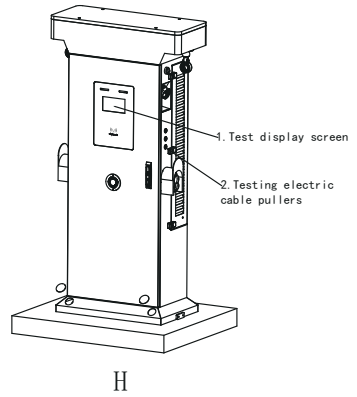
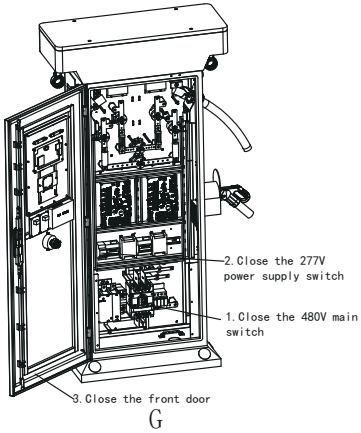
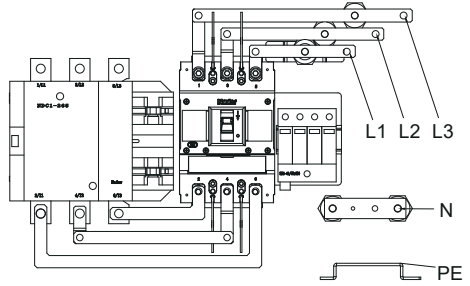
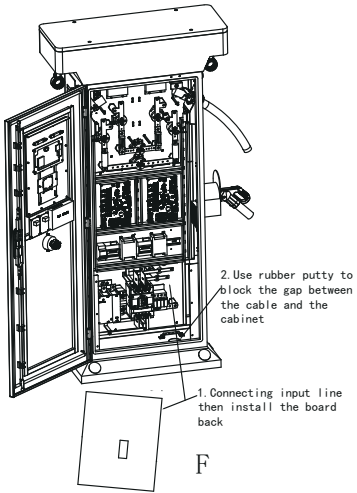
D



1. Install plastic cover plate

E

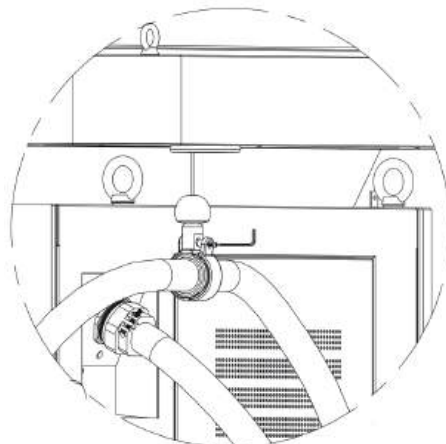




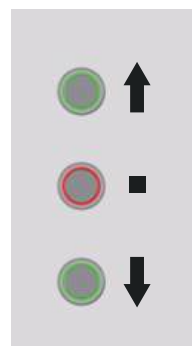
## 8.4 Cable Management Installation

Use a hex wrench to loosen the screw of the cord coil and install the cord coil at a suitable length on the charging cable.

Replace the cover on the cable and fasten the screw to finish installation



- When the “↑” button is pressed, the charging cable will move upward. At this time, the cable is in the process of retracting the cable. The reset will be completed when the retracting operation stops automatically.
- When the “↓” button is pressed, the charging cable will move downward. At this time, the cable is in the process of releasing the cable. Each cable release lasts about 30 seconds and the length of the cable is 2~3 meters.

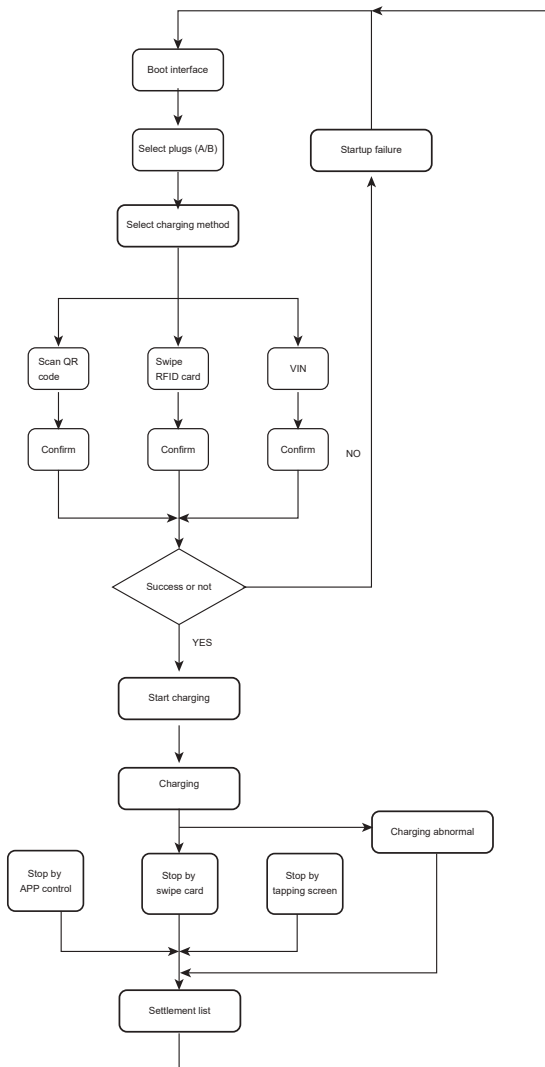


### Please note:

1. Press the “■” button for the first time to ensure that the cable moves upwards and repositioning is completed.
2. During the cable release operation, you can choose to stop or continue releasing the cable.
3. During the cable retracting process, as the main control board is resetting each time the cable is wound, please do not press any button to ensure the next operation can be smoothly into the cable. The “■” button should only be used in case of emergency.

## 9. Charging operation

### 9.1 Charging operation flowchart




## 9.2 Charging Mode Startup operation interface


This series of charger has three startup modes: VIN code, scanning QR code and swiping card (online card swiping/ offline card swiping) . Specific examples are as follows:

### a. VIN Code Chagering.



1. Main interface.



2. Select plugs (A/B).



3. Click VIN code to charge.

4. After successfully identification, enter the charging interface.



5. Stop charging and enter the settlement interface.

Please return the plug to the organizer and drive away from the parking space to avoid taking up pile fees. Thank you for your cooperation.



6. Enter the settlement interface.



7. Thank you.



## b. Charging by Scanning QR Code.

Scan the QR code on the pile directly with APP

1. Main interface.



2. Select plugs (A/B).



3. Charging by Scanning QR Code.



4. Wait for the user to scan code and confirm to start by using APP.



Scan code successfully, please wait.



5. Scan the code and enter the charging interface.



6. Stop charging and enter the settlement interface.



7. Enter the settlement interface.



8. Thank you.



### C. Charging by Swiping Card(Online/ Offline Card Swiping)

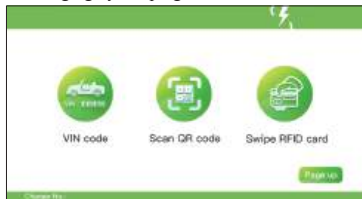
1. Main interface.



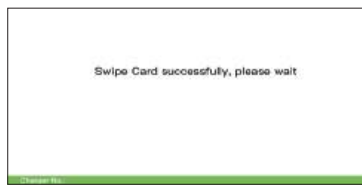
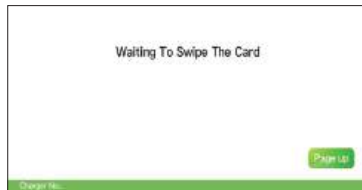
2. Select plugs (A/B).



3. Charging by Swiping RFID Card.



4. Select swipe RFID Card, then put the card to swipe.



5. Enter the charging interface.



6. Swipe the card again to stop charging and enter the settlement interface.



7. Enter the settlement interface.



8. Thank you.



### 9.3 Process for Setting Parameters

1. Click on the top right corner for language selection, and click continuously on the bottom left corner 5 times to enter the settings page.



2. Here comes parameter setting page.



3. Enter a 4-digit password \*\*\*\*.



4. Choose communication settings, charging mode selection.



## 9.4 Troubleshooting

If the charging device is malfunctioning, the prompt light is always red , and the screen displays the cause of the malfunction, please follow the instructions in the table.

Description	Reason	Solution
Failure of electric meter!	Unable to communicate with the electricity meter	Check if the terminal is loose, otherwise contact customer service
Failure of insularion!	Unable to communicate with DC insulation tester	Check if the terminal is loose, otherwise contact customer service
Lightning protection fault!	Pile detected lightning protection signal	Check if the terminals are loose or if the lightning protection changes from green to red, otherwise contact customer service
Door fault!	The door is open.	Check that the door is closed, otherwise contact customer service
Emergency stop!	Emergency stop button pressed or broken button	Check that the emergency stop is pressed, otherwise contact customer service
Power module error!	Incorrect number of charging modules, or module failure	Open the side door to check if the module lights up red, otherwise contact customer service
PLC error!	Unable to communicate with PLC	Check if the terminal is loose, otherwise contact customer service

### Notes:

- If the above fault information occurs simultaneously in a large number of devices, it is highly likely to be a firmware error, and technical personnel need to be contacted to upgrade the pile
- Please pay attention to high voltage when dealing with the above related troubleshooting, and try to complete it under the guidance of professionals.



## 10 Maintenance

### 10.1 General Maintenance

- The DC Fast Charger is cooled by forced air. Please keep charger in a ventilated location and do not block the air vents of the DC Fast Charger.
- Please clean or replace the air filters regularly to ensure the DC Fast Charger works properly.
- The housing was made of welding process and surface painting. It is necessary to keep the exterior clean all the time. It's easy to get rusty if not keeping the exterior clean especially in corrosion sensitive environment. Slightly rusty will not affect charger performance, but if charger is serious rusty during or exceed the warranty period, please contact local vendor for instruction.
- Clean the DC fast Charger at least three times a year, keep the exterior clean at all times.
- Clean the outside of the cabinet with damp cloth or wet cotton towel, only use low-pressure tap water and cleaning agents with PH level between 6 to 8.
- Do not apply high-pressure water jets.
- Do not use cleaning agents with abrasive components and do not use abrasive tools. Improper cleaning agents might spoil coating, painting, surface, brightness and durability of all exterior parts.
- If there is water intruding into the DC Fast Charger then please cut off the power source immediately and contact the DC Fast Charger provider for repair.
- Please make sure the charging connector is returned to the holder of the charging connector after charging to prevent damage.
- If there is damage to the charging connector, charging cable or holder of the charging connector then please contact the DC Fast Charger provider.
- When using the DC Fast Charger please handle properly. Do not strike or scrape the cabinet or screen.
- If the enclosure or screen is broken, cracked, open or shows any other indication of damage then please contact the Standalone DC Fast Charger provider.



**WARNING:** Danger of electrical shock or injury. Turn OFF power at the panelboard or load center before working on the equipment or removing any component. Do not remove circuit protective devices or any other component until the power is turned OFF.

- Disconnect electrical power to the DC Fast Charger before any maintenance work to ensure it is separated from the supply of AC mains. Failure to do so may cause physical injury or damage to the electrical system and charging unit.

NOTE:

- Before switching off main breaker to begin maintenance, please record the status code number on the LCD monitor.
- After maintenance door opened or NFB of charger turned off the charger is still hazardous. Only visual inspection can be operated.
- Maintenance of the DC Fast Charger shall be conducted only by a qualified technician.
- After opening the front door of the DC Fast Charger, turn off the main breaker and auxiliary breaker before any maintenance work.
- Clean the ventilation filter every six to twelve months.
- Please confirm the main power junctions are tightened every month, and rotate cables testing when the power off. If any main power screw is loose will be resulted in damage on charger or smoke on the connections. Please confirm screw torque requirement table.
- Charging cable maintenance: Do not twist, bend the charging cable. The metal contact should not fade or be rusty.
- Please provide the EVSE information including serial number, model name, status code, failure behavior and timing, and also connect the EVSE to the Internet before remote diagnostics and upgrading

## 11.Instruction of Packing, Handing, Transportation and Storage

Package:

Weight	300Kg
Package Dimensions	1020*620*2035mm(40.16"*24.41"*80.12")

- The transportation can be by car, vessel and aircraft.
- During transportation, please pay attention to sunscreen and civilized loading and unloading, avoiding violent vibration and impact, etc.
- Products should be stored in Class I environment and stored for more than 6 months are recommended to be re-tested and can only be used if they are qualified.

## 12. Limited Product Warranty

The warranty period of this charger is according to purchasing contract; two years typically.

Any spare parts provided by Supplier and used as replacements for repair are covered by a two-year guarantee.

Replacement and repair parts manufactured by alternative manufacturers to those on the maintenance parts are only allowed if authorized by Supplier.

The housing was made of welding process and surface painting. It is necessary to keep the exterior clean all the time. It's easy to get rusty if not keeping the exterior clean especially in corrosion sensitive environment. Slightly rusty will not affect charger performance, but if charger is serious rusty during or exceed the warranty period, please contact local vendor for instruction.

Warranty Exclusions:

- Damage or rendered non-functional as a result of power surges, lighting, earthquake, fire, flood, pest damage, abuse, accident, misuse, negligence or failure to maintain the product or other event beyond Supplier's reasonable control or not arising from normal operating condition.
- Cosmetic or superficial defect, dents, marks or scratches after use.
- Components which are separate from the product, ancillary equipment and consumables, such as door key, RFID card, air filter, fuse, cable, wires, and connectors.
- Damage as a result of modifications, alterations, or disassembling that were not pre-authorized in writing by the Supplier.
- Damage due to the failure to observe the applicable safety regulations governing the proper use of the product.
- Installed or operated not in strict conformance with the documentation, including without limitation, not ensuring sufficient ventilation for the product as described in the Supplier installation instruction.

If a defect in the product arises and a valid claim is received within the warranty period, your sole and exclusive remedy will be for Supplier, at its sole discretion and to extent permitted by law, to

- Repair the defect in the product at no charge, using new or refurbished parts.
- Exchange the product with a new or refurbished product that is functionally equivalent to the original product.

Any remedy hardware product will be warranted for the remainder of the original warranty period or 90 days from delivery to the customer, whichever is longer.

To receive the remedy, set for above, you must contact the Supplier during the warranty period and provide the model number, series number, proof of purchase, and date of purchase.

This warranty does not cover the damages caused by adapter usage accidents or by other unauthorized operations/services.

Name of Manufacturer: SHENZHEN HB ELECTRONIC CO., LTD

Address : Floor 301, Bldg 21, Zhengdaan Industrial Park, 172 Xiangshan Rd,  
Luotian Village Yanluo Town, Baoan District Shenzhen City 518105, China