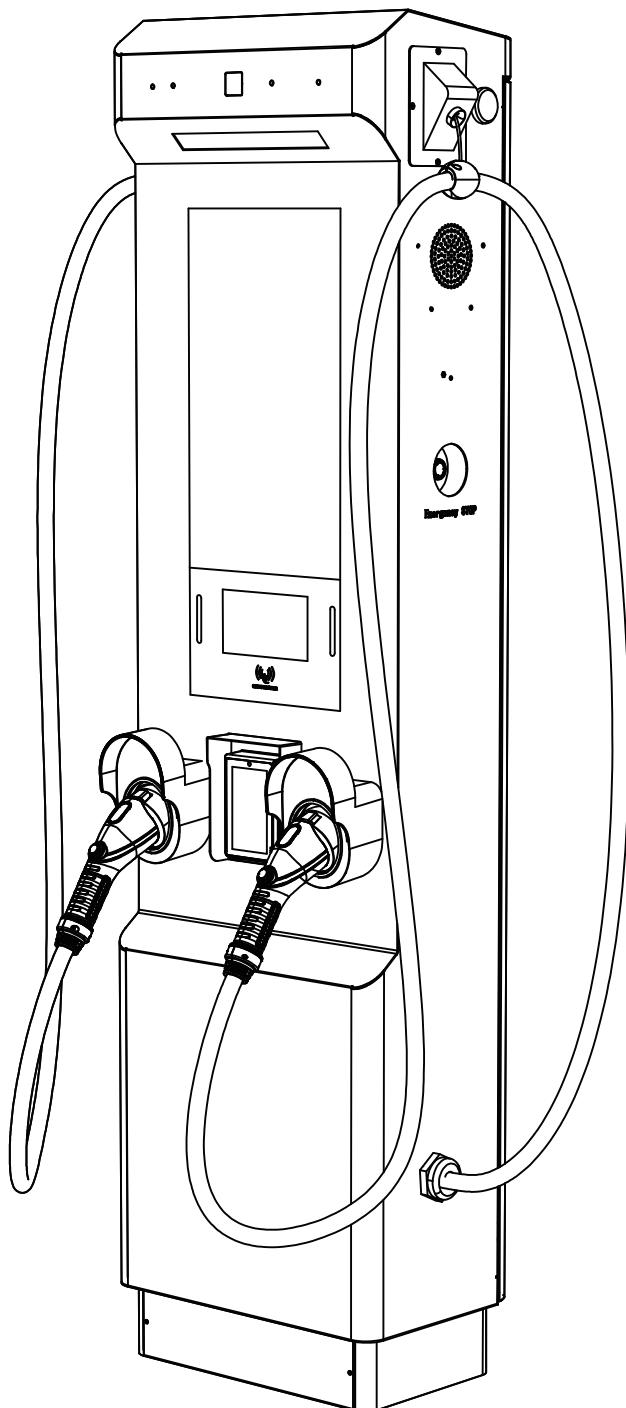


# EV AC Charger Instruction Manual

**HBE-AC80A02ST-U-D21.5NWB4GG**



## Catalogue

IMPORTANT SAFETY INSTRUCTIONS.....	3
CONCERNANT LA SÉCURITÉ CONSERVER CES.....	4
For Both FCC & IC application.....	5
MPE Requirements.....	5
Safety Precautions.....	6
1. Brief account.....	6
2. Equipment parameters.....	7
3. Schematic diagram.....	8
4. Shape Model Diagram.....	8
5. Product installation.....	9
5.1 Tools and Materials Required.....	9
5.2 Basic Requirements for hanging plate.....	9
5.3 Column Installation Requirements.....	9
5.4 Input Device Requirements.....	10
5.5 Device Commissioning.....	10
6. Charging operation.....	13
6.1 Charging operation flowchart.....	13
6.2 Charging Mode Startup operation interface.....	14
7. Operating instructions and use of emergency stop switch.....	18
7.1 Operating procedures.....	18
7.2 Use of emergency stop switch.....	18
Warm reminders.....	19
8. User maintenance instructions.....	19
8.1 Instructions.....	19
8.2 Maintenance.....	20
9. Description of packing, handling, transportation and storage.....	20

## 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 etre supervise lorsqu'il est utilisé autour des enfants.
- c) Ne mettez pas les doigts dans le connecteur du vehicule electrique.
- d) N'employez pas ce produit si le cordon d'alimentation flexible ou le cable Ev est effiloché, a N'isolation cassee, ou tout autre signe de dommages.
- e) N'utilisez pas ce produit si le boitier ou le connecteur EV est casse, fissure,ouvert, ou montre toute autre indication de dommages.
- f) Cette pile de charge ne peut etre démontee, reparée ou modifiée par le client.
- g) Pour reduire le risque d'incendie, branchez uniquement un circuit pour l'protection contre les surintensités de circuit de branche conformément a la norme CSAC22.1-15 du Code canadien de 'electricite , partie 1 (Canada) ou a la norme NOM-001-SEDE Electrical installations (utility)(Mexique) ou a la norme ANSI/NFPA 70 du Code National de l'electricite (Etats-Unis).
- h) CONSIGNES DE MISE A LA TERRE Ce produit doit etre raccordé a un reseau cablage mis a la terre, metallique et permanent, ou un conducteur de mise a la terre de l'appareil doit etre ajouté au circuit et raccordé a 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 etre envoyé a l'entretien après-vente ou appeler le service après-vente pour l'aide.
- J) Risque de choc électrique.



## CONSERVER CES INSTRUCTIONS

## For Both FCC & IC application:

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.

## 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 plug core with your hand when it is electrified.
3. Do not use charging piles in case of charging plug or charging cables are broken, cracked, exposed 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 leakage phenomenon.
5. If there is any abnormal situation during usage, 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 engine before charging the hybrid electric car.
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 during charging to avoid electric shock.
10. During the charging process, the charging connector should not be pulled out forcibly, which may cause fire at the connector and result in a safety accident.

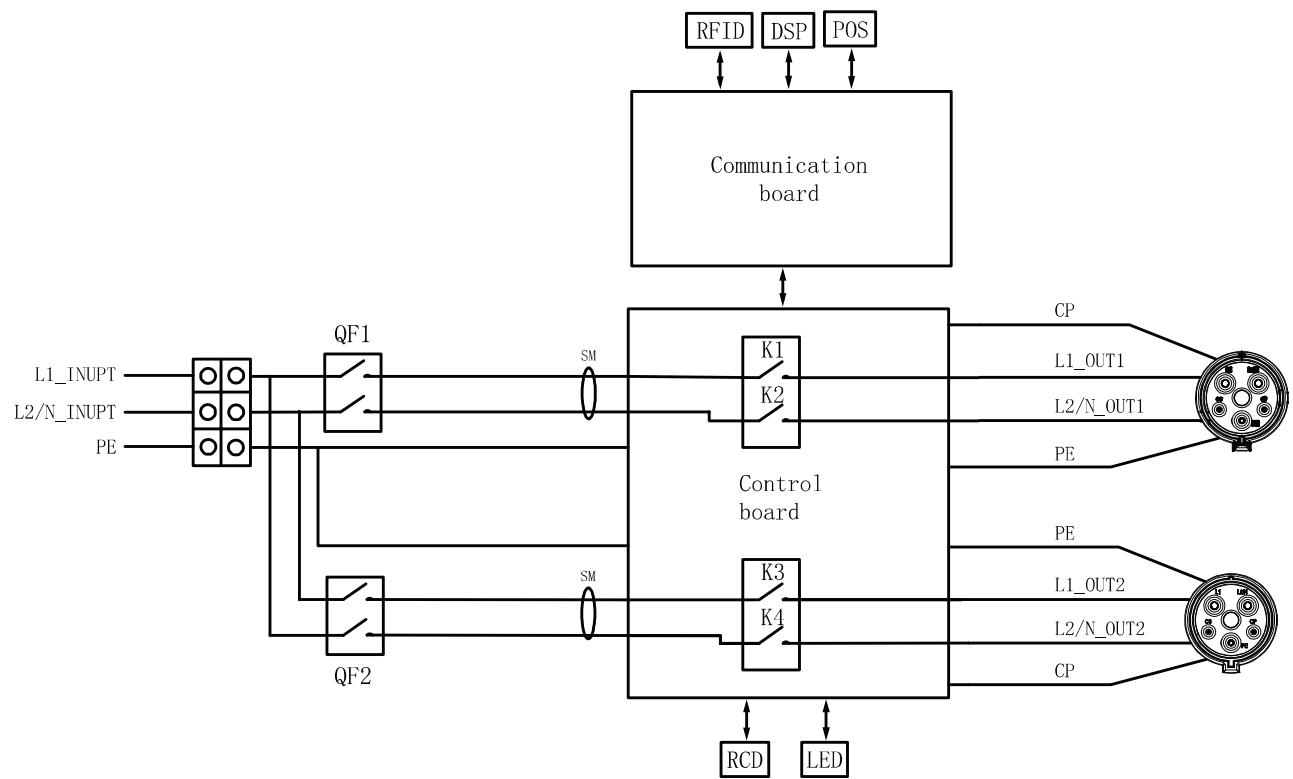
## 1. Brief account

This product is a floor type AC charging pile, mainly used for AC slow charging of electric vehicles. It integrates charging control, human-computer interaction control, communication, billing and metering functions. With protection class up to IP54, it can work safely indoors (If installed outdoors, chargers should be equipped with an awning, if not, users can't charge cars when it rains). 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 AC slow charging.

## 2. Equipment parameters

Specifications	Values
Maximum power of the product	19.2KW*2
Input Voltage	200-240VAC
Input Frequency	60Hz
Output voltage	200-240VAC
Single Maximum Output Current	80A*2
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
Communication Mode	Optional: <input type="checkbox"/> Ethernet <input type="checkbox"/> WIFI <input type="checkbox"/> 4G
Operating Temperature	-30~+50°C
Relative Humidity	≤95%
Protection Level	TYPE 3R
Safety Design	The protection of leakage protection, over-voltage protection, protection over current, under-voltage protection, emergency stop protection, full stop charging protection, short circuit protection, Overtemperature protection
Installation Mode	Floor-type
Interfaces Count	Two cable with( Optional: <input type="checkbox"/> 5 m <input type="checkbox"/> 7 m <input type="checkbox"/> 7.5 m)
Size	21.89" x 11.81" x 72.05" (556x300x1830mm)
Operating Environment	Indoor,Outdoor
Operating Occasion	Residential charging, Commercial charging
Certification Standards:UL 2594: 2022 Ed.3 Clause, CSA C22.2#280:2022 Ed.3, 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	

### 3. Schematic Diagram



### 4. Shape Model Diagram



## 5. Product Installation

### 5.1 Tools and Materials Required

#### Recommended Tools for Installation:

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 hammer drill
Percussion drill bit	Diameter φ16 one
Wire nipper	One
Needle nose pliers	One

### 5.2 Charging pile installation requirements :

The pile installation needs to be surrounded by an operating space of not less than 1 meter. Charging piles must be installed on customized concrete.

The height of concrete installation should be 200MM above the horizontal ground and the vertical inclination of installation should not exceed 5 degrees. Drill φ16 holes in the cement base according to the drawing spacing and install M12 expansion screws.

### 5.3 Installation method :

Place the body into the corresponding hole on the base and tighten the screws. The charging pile and cement base should have reliable grounding connection, the grounding resistance must be less than  $4\Omega$ .

## 5.4 Input Device Requirements :

- a. Cable: 3\*1/0AWG(53.49mm<sup>2</sup>)
- b. Breaker: 100A/2p

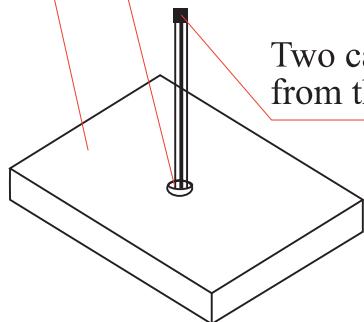
## 5.5 Equipment protection :

Rat control measures must be taken inside the pile body.

Build a cement pier on the ground(27.56"\*19.685"\*7.87").

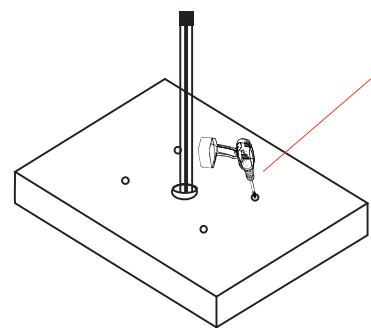
Pre-embedded dia 3.15" PVC Pipe in cement tunnel.

Two cables are drawn from the pipeline.



1

Drill 4 holes in the cement pier(4-dia 0.551") The depth of the drilled hole is 3.54".



2

Display direction

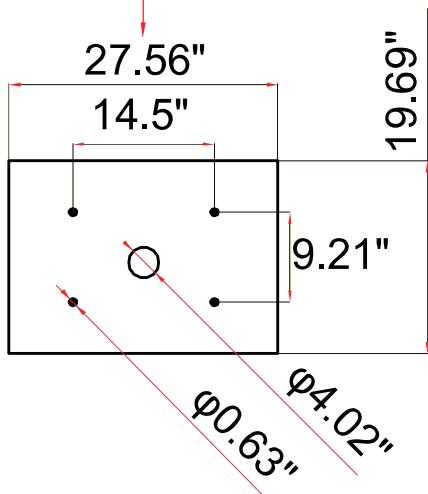
27.56"

14.5"

19.69"

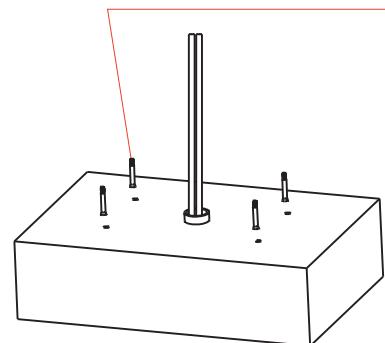
9.21"

$\varnothing 4.02"$   
 $\varnothing 0.63"$

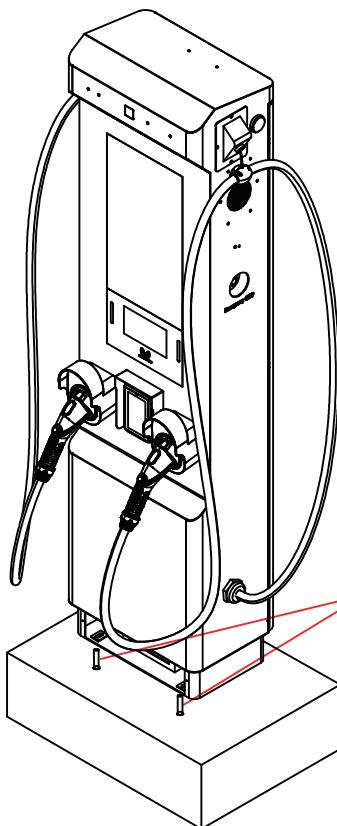


3

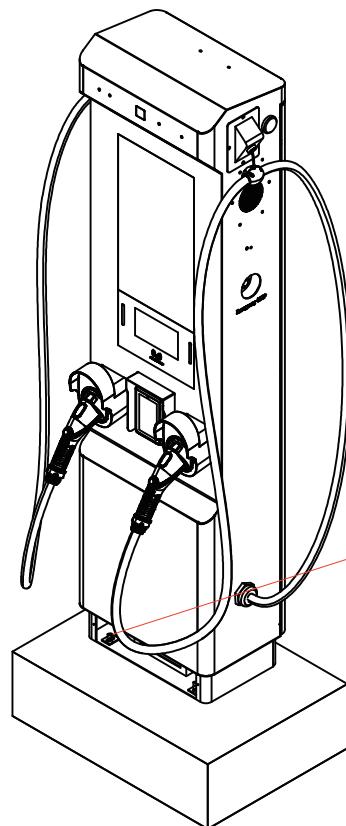
Drive the expansion screw into the cement pier.



4



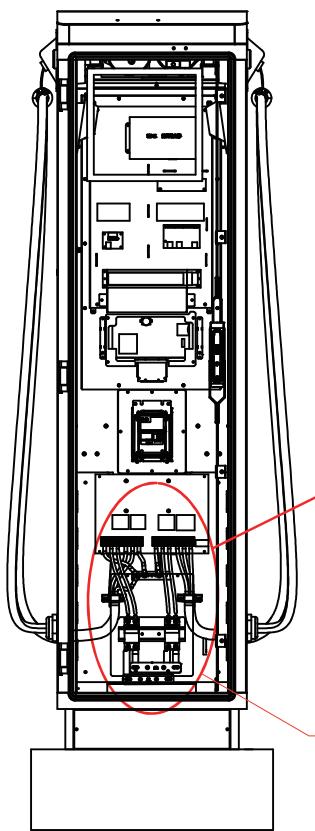
Align the screw holes of the pile with the ones in cement pier.



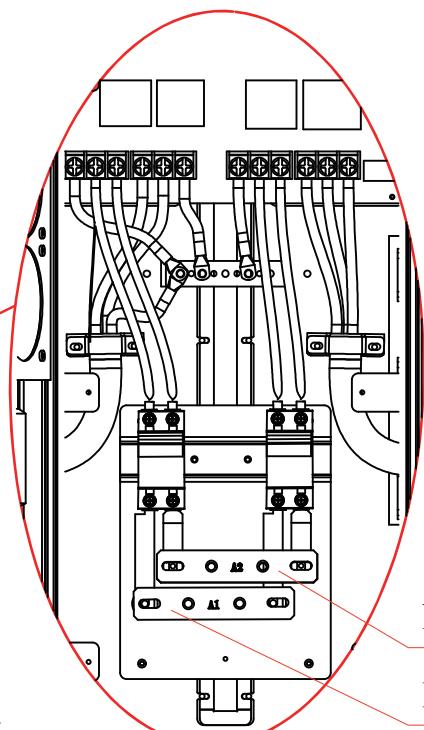
Lock base screws.

5

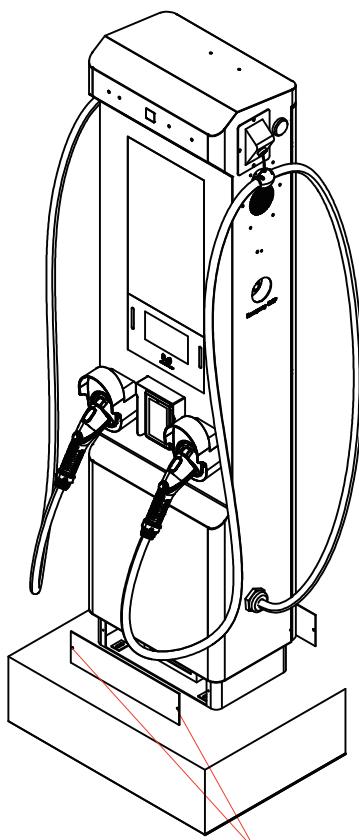
6



Unscrew the screw indicated by the arrow and open the cover of junction box.

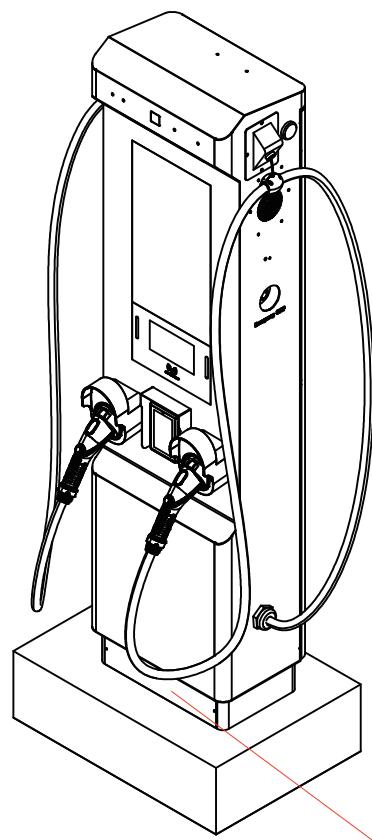


7



Cover the front  
and rear plates.

8

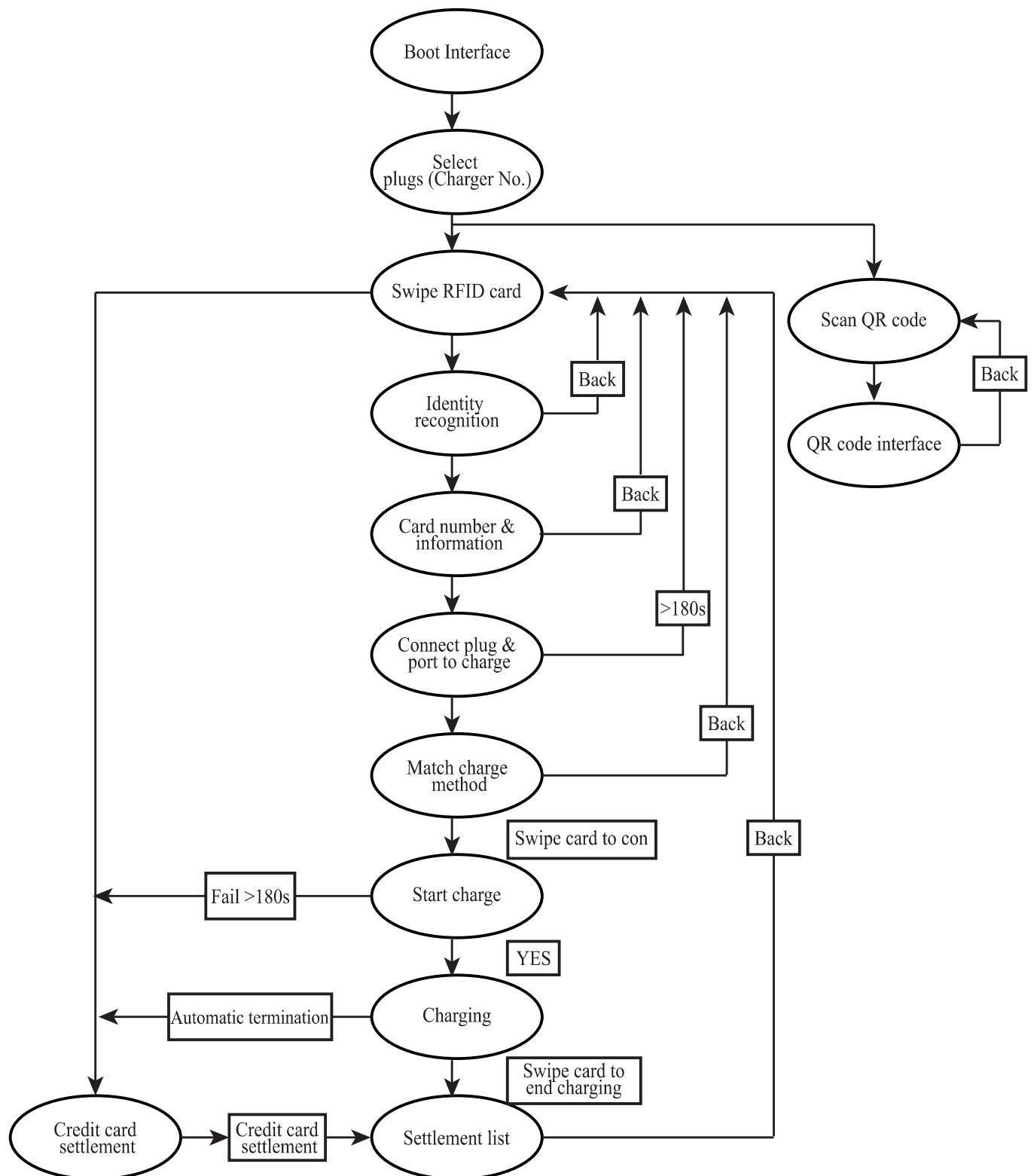


Lock the front  
and rear plates.

9

## 6. Charging operation

## 6.1 Charging operation flowchart

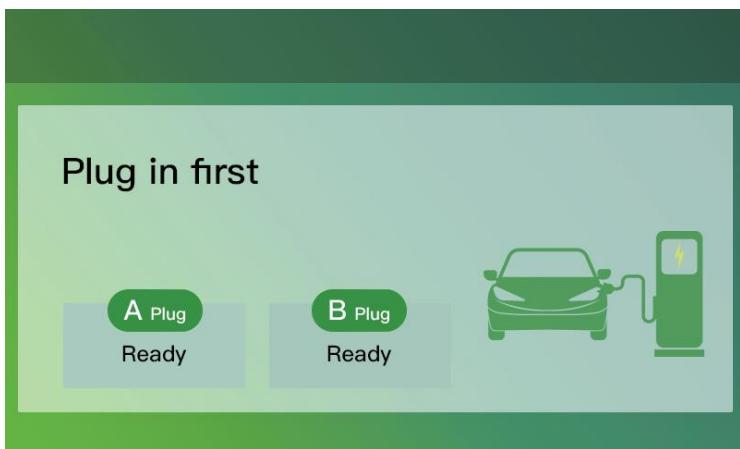


## 6.2 Charging Mode Startup operation interface

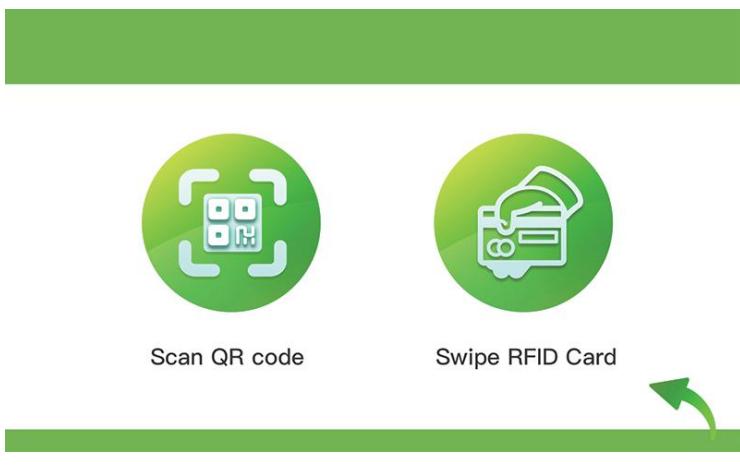
This series of charging machine has two charging startup modes: swiping card(online card swiping/ offline card swiping) and scanning QR code. Specific operation examples are as follows:

### a. Charging by swiping card(online card swiping/ offline card swiping)

1. Click on the middle position of the screen to enter the charging method selection interface.



2. Click on the card reading charging method and select the card swiping charging mode.



3. Enter the waiting card swiping to start charging interface.



Waiting To Swipe The Card



4. Swipe card successfully and enter the charging interface.



Charging Amount:  \$

Voltage:  V/ac

Current:  A

Electric Quantity:  kW·h

Charging Duration:  Min



Page up

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



Card No.:

Account Balance:  \$

Order Amount:  \$

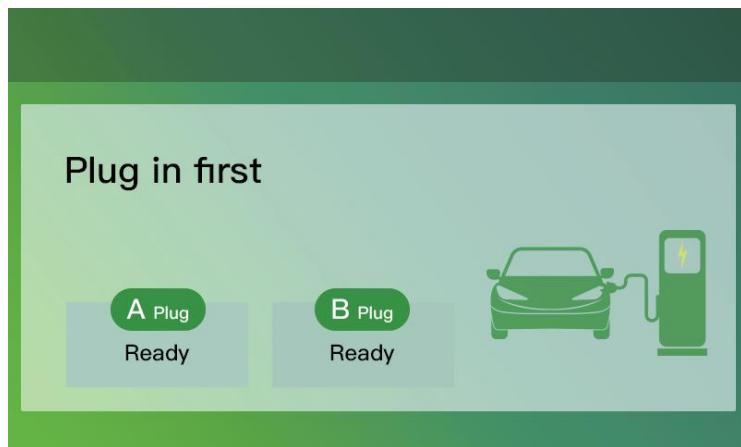
Charging Capacity:  kW·h

Charging Duration:  Min

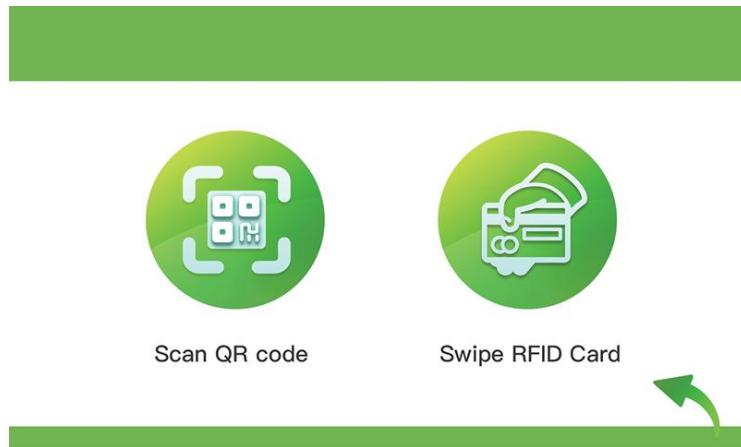
Prompt:

**b. Scan QR code for charging mode** Scan the QR code on the pile directly with APP.

1. Click on the middle position of the screen to enter the charging method selection interface.



2. Click on scan QR code.



3. wait for the user to start using the APP scan code.



4. The APP successfully scanned the code and entered the charging interface.

Charging Amount:  \$  
Voltage:  V/ac  
Current:  A  
Electric Quantity:  kW·h  
Charging Duration:  Min

 A\_Plug Page up

5. Users use the app to remotely stop charging and enter the settlement interface.

Card No.:    
Account Balance:  \$  
Order Amount:  \$  
Charging Capacity:  kW·h  
Charging Duration:  Min  
Prompt:  Confirm

## 7. Operation procedures and the use of emergency stop switch

### 7.1 Operating procedures

1. Open the hatch cover and charging socket protective cover on the vehicle after parking it in the charging station space.
2. Connect the car socket and the charging station plug.
3. Choose the appropriate mode (swipe card/ scan QR code), save and then begin charging in accordance with the instructions above.
4. The combined instrument will display the pertinent parameters as soon as the charging indication turns on.
5. When the vehicle is fully charged, press and hold the unlock button to pull out the plug , insert it into the holder of the pillar.
6. Close the hatch cover and protective cover of the socket, end charging.

### 7.2 Use of emergency stop switch

1. In case of fire or electric shock, press the emergency stop switch immediately;
2. If the machine leaks electricity, please press the emergency stop switch immediately;
3. When the emergency stop switch is pressed in the charging state, the charging will stop immediately, the circuit breaker on the output side will be disconnected, and the fault light will turn on;
4. In case of pile failure, unable to stop charging, internal circuit short circuit and other abnormal conditions, please immediately press the emergency stop switch;
5. When the emergency stop switch is pressed in the non-charging state, the fault light will be on and the display screen will jump to the fault interface;
6. When the critical situation is relieved, please rotate the emergency stop switch, otherwise the charging cannot continue;

## Warm reminders:

1. Please read the operation instructions and precautions carefully.
2. Before charging, check whether the charging gun is firmly in contact with the charging interface and whether the indicator works well.
3. During the charging process, do not forcibly pull out the charging connector. Forcibly pulling out the charging connector may cause fire at the connector, resulting in safety accidents.
4. To stop charging in advance, press the stop button and hold it for 5-10 seconds before pulling out the charging gun.
5. If any safety accident occurs during the charging process, such as abnormal sound or short circuit, press the emergency stop button immediately, disconnect all power supplies, and contact the on-site personnel.

## 8. User maintenance instructions

### 8.1 Instructions

The maintenance of AC charging pile is relatively simple. During operation, attention should be paid to ventilation and heat dissipation and keep the environment clean. There should be no explosive dangerous medium in the air, and no gas enough to corrode metal and destroy insulation. The device should be placed in a stable place without violent vibration or turbulence. Before the device is put into operation for the first time after transportation, or when it is put into operation again after a long-time outage, the whole machine should be checked. In addition to checking the wiring according to the drawings, it is also necessary to check whether the components are loose or fall off, whether the connection is strong, whether the contact is good due to transportation and other reasons. After the inspection, carry out the electrification test. Dust removal and cleaning should be carried out regularly according to the degree of ambient air. When cleaning, all power supplies should be cut off, and the surface and internal components of the device and the connection of wires should be cleaned with compressors, vacuum cleaners, or small brushes. Do not use any cleaning agent or damp rags when cleaning the internal components of the device, including the circuit board.

## 8.2 Maintenance

According to the need to clean the pile inside and outside, regularly check wiring terminals, wiring cables, contactors, switching switches, insurance for excessive dust and dirt. Check whether the insulation of terminals and wiring cables is strong, check the contact force of contactors, contacts and insurance, check whether the jumper cap of the circuit board is loose, whether the component is strong, and the control function and state switch of each module, to avoid the hidden trouble caused by failure.

## 9. Instructions of packing, handling, transportation and storage

9.1 Package:19.2KW\*2 charging pile product weight 253.53lb(115KG) (including outer box)  
Dimensions: 25.2\*24.02\*79.13inch (640\*610\*2010mm) .

9.2 The transportation can be by car, vessel or aircraft.

9.3 During transportation, attention should be paid to sunscreen and civilized loading and unloading, avoiding violent vibration and impact.

9.4 Products 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.