

AC EV Chargers User Manual



Before using this product, please read the enclosed operating instructions in full

CATALOGUE

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Preface

Thank you for your support of our products, our company focuses on the field of new energy electric vehicle charging. We are committed to providing customers with excellent charging equipment and perfect charging operation solutions.

The electric vehicle charging gun developed and produced by our company has advanced function, stable performance, wide application and strong practicability, and has a good reputation in the industry.

Safety Measures

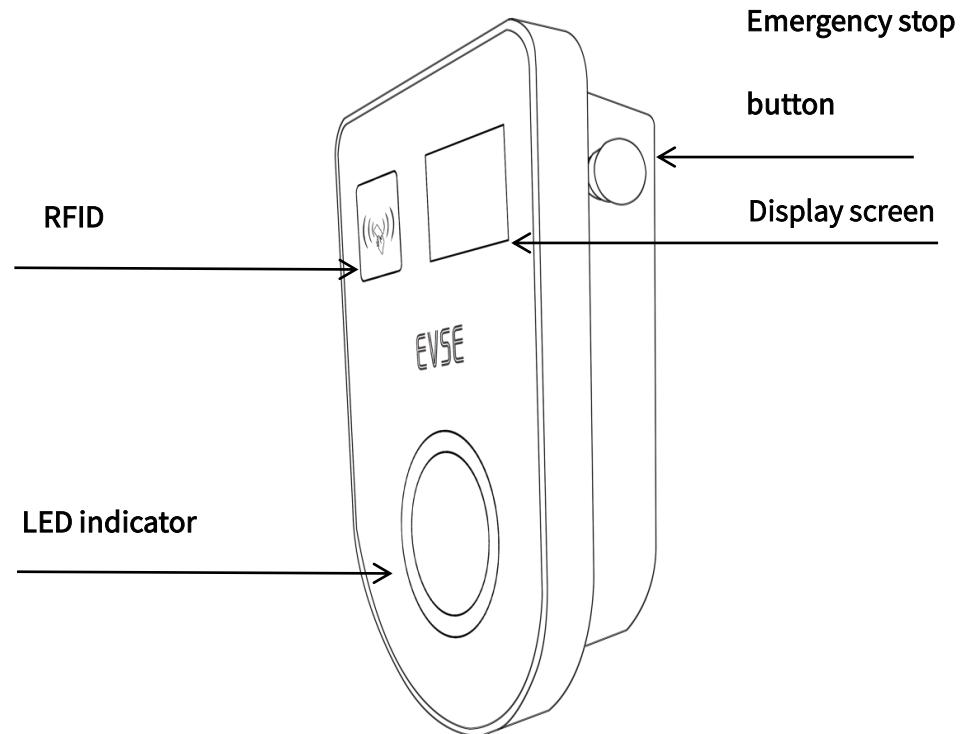
- 1) Please do not place inflammable, explosive or combustible items, chemicals, combustible steam and other dangerous goods near the charging gun.
- 2) Keep the charging gun head clean and dry. If dirty, wipe with a clean dry cloth. Do not touch the gun when the charging gun is charged.
- 3) It is strictly prohibited to use the charging pile in the case of the charging gun head or charging line with defects, cracks, wear, damage or exposed charging line. If any defect is found, please contact the staff in time.
- 4) Please do not try to remove, repair or modify the charging gun. For repair or modification, please contact the staff. Improper operation may lead to equipment damage, water leakage and electricity leakage.
- 5) If any abnormality occurs during use, immediately turn off the leakage insurance or air switch, and turn off all input and output power.
- 6) In case of rain and lightning, please be careful charging.
- 7) Children are not allowed to approach and use the charging gun during the charging process to avoid injury.
- 8) During the charging process, the vehicle is prohibited from driving and can only be charged when it is stationary. Hybrid electric vehicles should be switched off before charging.

Chapter 1. Product Introduction Description

1.1 Product introduction

This product is an AC charger, which is mainly used for AC slow charging of electric vehicles..

The design of this product is very simple. It provides plug-and-play, appointment timing, Bluetooth/WiFi multi-mode activation with charging protection function. The equipment adopts industrial design principles to ensure the safe operation of the equipment. The protection level of the whole set of equipment reaches IP54, with good dustproof and waterproof function, which can be safely operated and maintained outdoors.



※Sample picture shows a charging post with screen display

Product parameter description

Detailed parameters		Parameter details		
Appearance structure	Shell material	Gun head PC9330/Control box PC+ABS		
	Equipment Size	Gun head220*65*50mm/Control box 368*228*100mm		
	Use	Pillar/Wall mounted		
	Cable specifications	10AWG/3C+18AWG WG	9AWG/2C+10AWG+18A WG	8AWGx2C+10AWG+18A WG
Electrical indicators	Input voltage	85V-265Vac		
	Input frequency	50Hz/60Hz		
	Maximum power	7.6KW	9.6KW	11.5KW
	Output voltage	85V-265Vac		
	Output current	32A	40A	48A
	Standby power	3W		
Environmental indicators	Applicable scenarios	Indoor/Outdoor		
	Working humidity	5%~95% non-condensing		
	Operating temperature	-30°C~+50°C		
	Working altitude	≤ 2000 meters		
	Protection class	IP54		
	Cooling method	Natural cooling		
	Flammability rating	UL94 V0		
Functional design	human-computer interface	<input type="checkbox"/> LED indicator <input type="checkbox"/> 4.6inch display <input type="checkbox"/> APP (match)		
	Communication interface	<input type="checkbox"/> 4G <input type="checkbox"/> WIFI <input type="checkbox"/> 4G+WIFI <input type="checkbox"/> OCPP1.6 (match)		
Security by design	Under-voltage protection, over-voltage protection, overload protection, over-current protection, over-temperature protection, leakage protection, grounding protection, lightning protection, flame retardant protection			

1.2 Product performance

- ① Modular design, stable and reliable: the equipment adopts modular design principle, flexible configuration and convenient maintenance.
- ② All-round protection, safe operation: over-voltage protection, under-voltage protection, overload protection, leakage protection, grounding protection, over-temperature protection, low-temperature protection, lightning protection, to ensure safe and reliable operation of the equipment, effectively prevent accidents.
- ③ Easy to use: easy to carry and use.

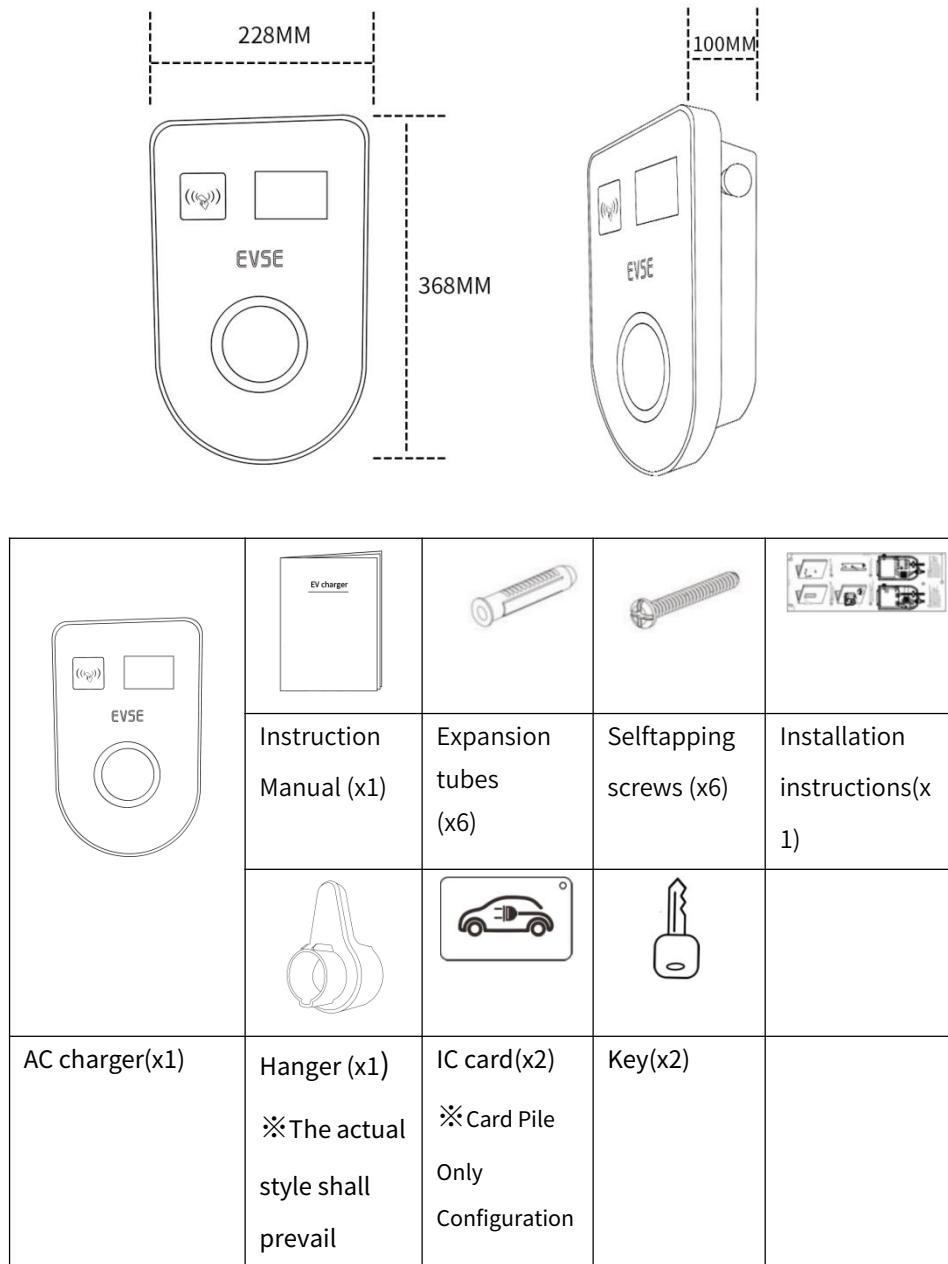
Product features

- ① High protection level: IP54, support the harsh outdoor environment, no need to set up additional umbrella cover, etc.
- ② Low power consumption: equipment standby power consumption as low as 3W, energy saving and low consumption.
- ③ Strong compatibility: the device is a simple home version, which can be configured by software for remote operation mode. Only the software needs to be set up, and the hardware does not need to be converted.

1.3 Product operation environment

- ① Altitude: ≤2000m
- ② Equipment operating temperature: -30 C~ + 55 C
- ③ Relative humidity of air: 5%~95%
- ④ Indoor / outdoor operation
- ⑤ Can be wall-mounted with back bracket

1.4 Product Structure/Accessories



Chapter 2. Installation and operation instructions

2.1 Unpacking inspection

After the AC charging gun arrives, open the package and check the following things:

Visually inspect the appearance and inspect the AC charging gun for damage during transportation.

Check whether the attached accessories are complete according to the packing list.

2.2 Installation and preparation

Tool name	Physical drawing	Key features:
multimeter		Check the electrical connections and electrical parameters
screwdriver		Install the wall mounting screws
hammer		Install the expansion tube
electric drill		Holes in the wall
Diagonal pliers		Cut the cable short

prepare material

name	specification	quantity
Power cord	Corresponding Matching Cables	Configure according to the actual installation length

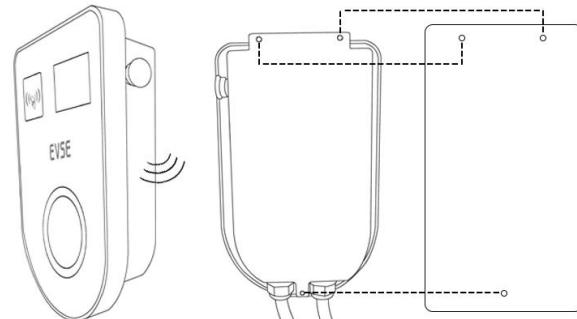
2.3 Installation process

Installation Precautions

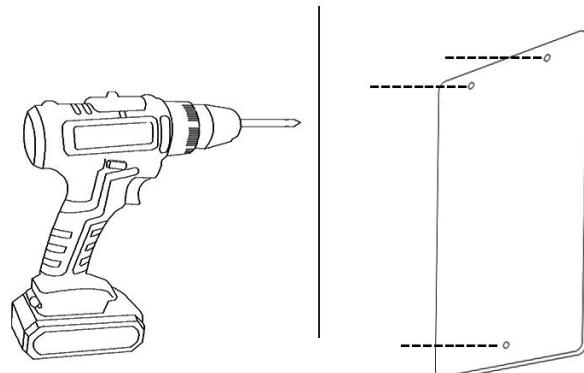
Electrical equipment should only be installed, operated and maintained by qualified personnel. A competent person is a person who has certified skills and knowledge related to the construction, installation and operation of this type of electrical equipment and who has received safety training as well as the identification and avoidance of associated hazards.

Installation steps

① Reverse the back of the charging post and use cardboard to trace the three mounting holes on the back of the charging post in sequence.

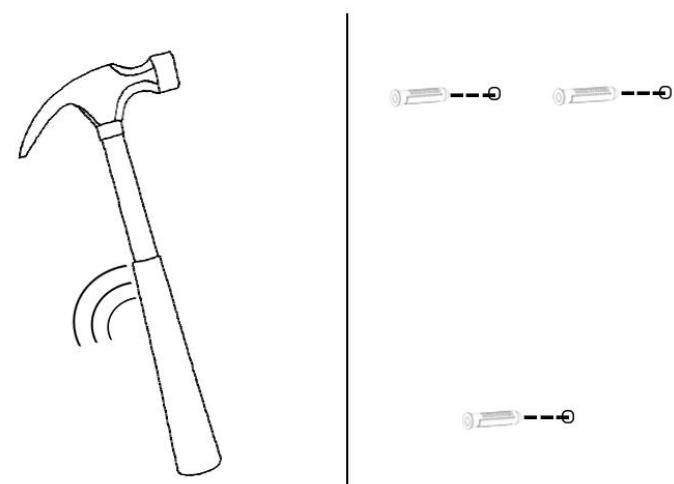


② Use a drill to follow the three holes on the traced cardboard and punch holes in sequence on the wall to be installed.

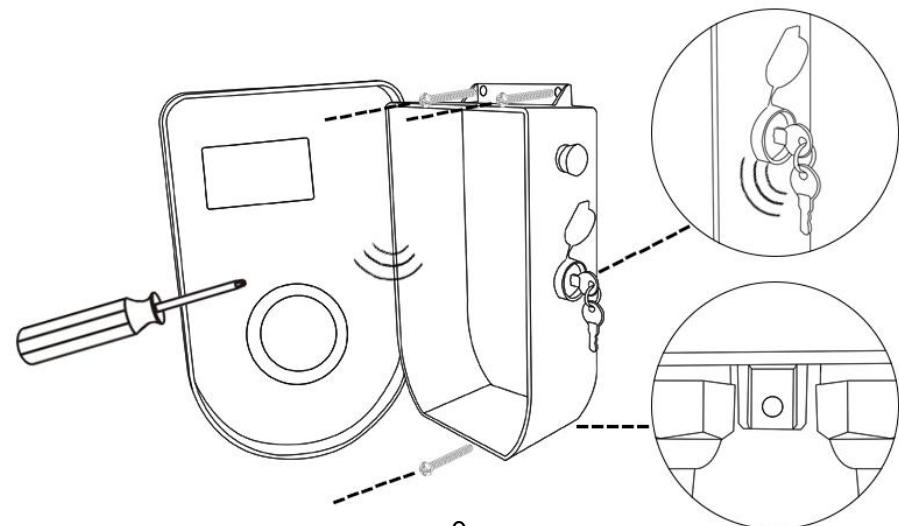


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③ Use a hammer to tap the three expansion tubes into the three holes that have been punched.

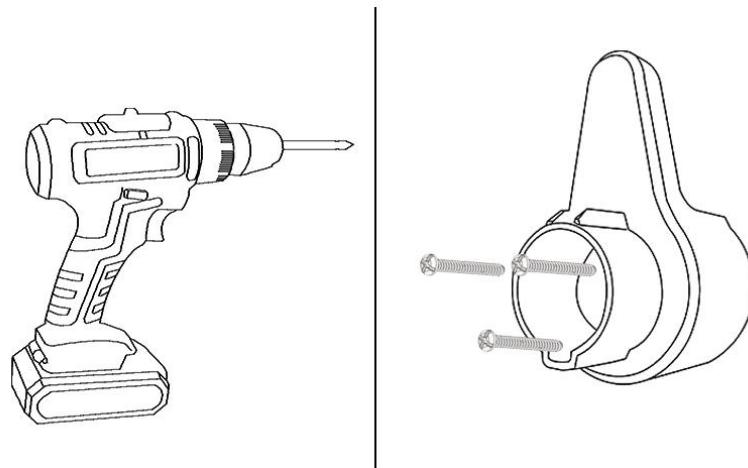


④ Open the panel of the charging post with the key and install the three screws in sequence according to the three holes on the housing to fix the charging post to the wall.

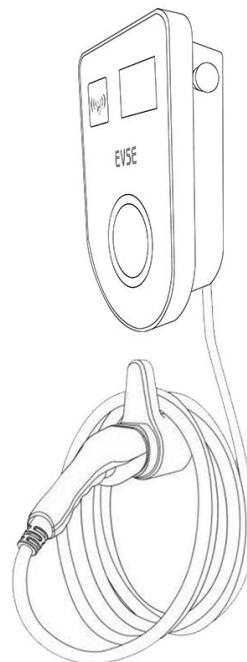


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⑤To start the installation, use a drill to punch the holes according to the eyelets of the wall mount at about 20-30cm from the bottom of the charger, and refer to the charger for the installation method.

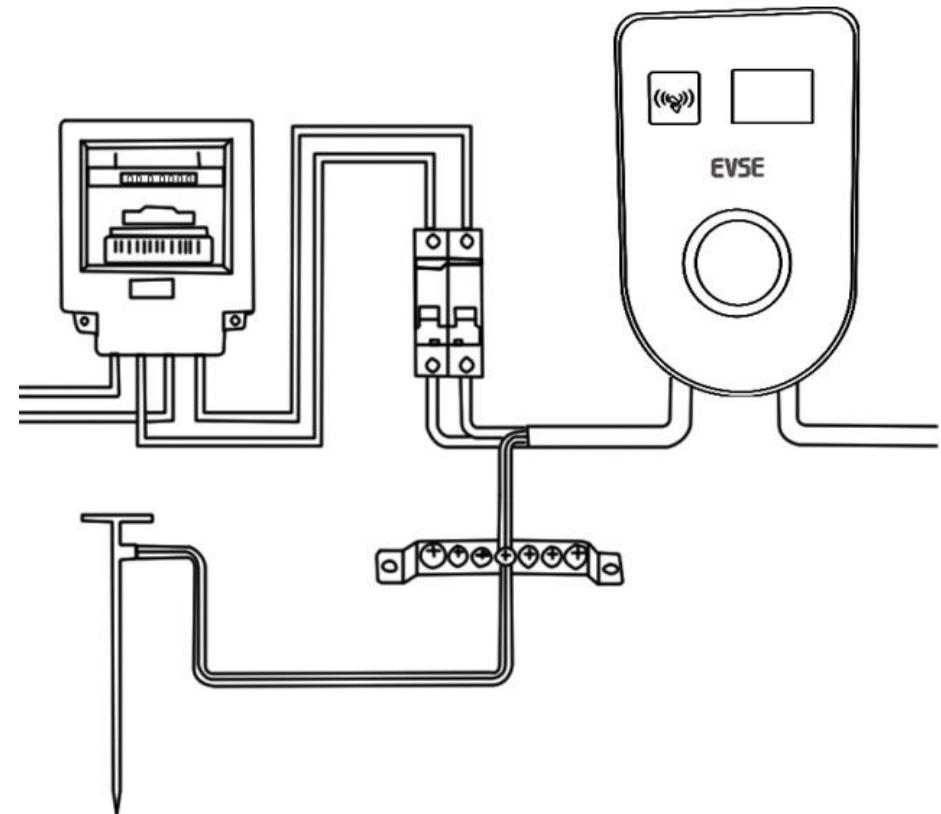


⑥All installed, charger and mount secured.



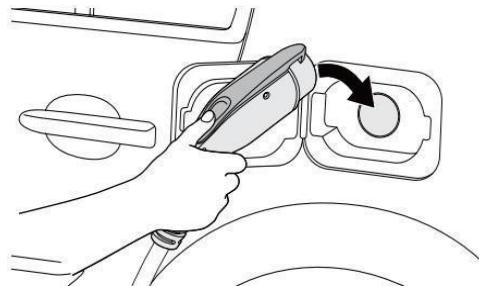
2.4 Equipment power wiring and commissioning

①Wiring Installation Diagram for Wall Mounted Charger



※Please arrange for a professional/electrician to operate the wiring installation. Please pay attention to personal safety during installation and use. Disconnect the power supply before installation.

2.5 Charging operation



1) Charging connection

After the EV owner has parked the EV, insert the charging gun head into the charging seat of the EV. Please double check that it is inserted in place to ensure a reliable connection.

2) Charging control

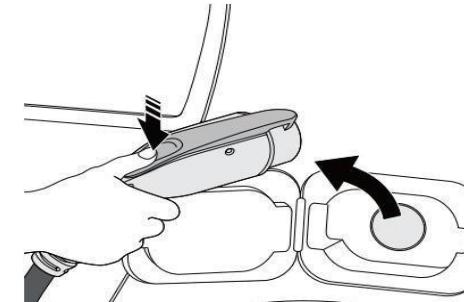
- ①Plug-and-charge type charger, turn on charging immediately after plugging in the gun;
- ②Swipe card start type charger, each charging needs to use the matching IC card to swipe the card to start charging;
- ③Charger with APP function, you can control the charging and some series of function operation through ‘NBPower’ APP;

3) Stop charging

When the charging gun is in normal operation, the vehicle owner can end the charging by the following operation.

- ①Plug-and-play type charger: After unlocking the vehicle, press the red emergency stop button on the side of the stake box and unplug the gun to stop charging.
- ②Swipe card to start the type of charger: after unlocking the vehicle, press the red emergency stop button on the side of the stake box, or use the corresponding IC card to swipe the card in the swipe area of the stake box to unplug the gun and stop charging.
- ③Charger with APP applet: after unlocking the vehicle, press the red emergency stop button on the side of the stake box, or stop charging through the stop charging button on the APP interface to stop charging.

※You need to unlock the vehicle before pulling out the gun. Some vehicles have electronic locks, so you cannot remove the charging gun head normally without unlocking the vehicle. Forcibly pulling out the gun will cause damage to the charging seat of the vehicle.



Indicator light colour status meaning

LED Colour	Displayed State	Hidden Meaning	What to do at this point
	Green light flashing	The charger is in standby mode	You can insert the gun at this point.
	Yellow light always on	Charger is plugged in	At this point you can start the charging operation
	Green light to breathe	Charger is on	The car is charging normally.
	Green light always on	Charger is fully charged or de-charged	Unplug the charging gun cable
	Red light always on	The charger is in a faulty state	Check what the charger is reporting as faulty and seek a solution

Chapter 3. Common Troubleshooting Instructions

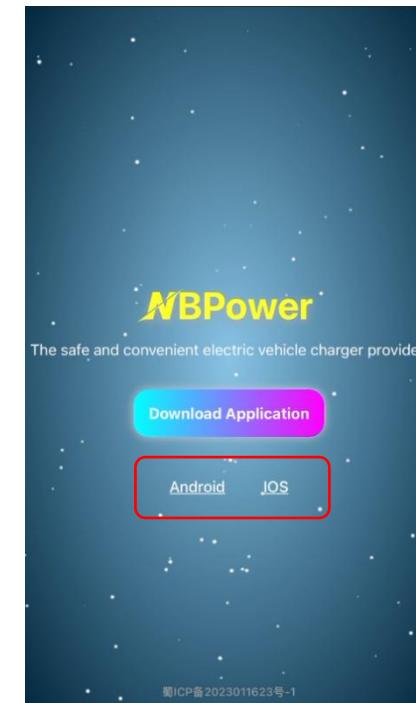
Fault name	Possible causes	Troubleshooting recommendations	Fault display code
Voltage protection	AC input voltage may be too high	1. Check input voltage from background monitoring data	
		2. Voltage exceeds 480V AC for a short period of time, wait for the grid to return to normal voltage range or disconnect and restart	
		3. If the fault cannot be eliminated, please contact us	
	AC input voltage may be too low	1. Check input voltage from background monitoring data	
		2. If the voltage falls below 140V AC for a short period of time, wait for the power grid to return to normal voltage range or disconnect and restart	
		3. If the fault cannot be eliminated, please contact us	
Current protection	The AC input current may be too large	1. Immediately switch off the leakage/overcurrent protection switch in the switchboard cabinet	
		2. Check whether there is a low resistance connection between the two AC output wires	
		3. Eliminate the above reasons, turn on the power again, if the fault continues, please contact us	
Emergency stop fault	The emergency stopbutton is pressed	1. Reset emergency stop button	
Leakage current fault	Leakage current to ground may be too high	1. Immediately switch off the leakage/overcurrent protection switch in the switchboard cabinet	
		2. Check whether the AC output line has broken wire or low resistance grounding	
		3. Exclude the above reasons, reconnect the power supply, if the fault continues unresolved, please contact us	
Ground fault	Input/output not standard grounding or reverse connection of L/N wire	1. Immediately switch off the leakage/overcurrent protection switch in the switchboard cabinet 2. Check whether the AC input/output line is normal, or reverse connection with L/N line input 3. Exclude the above reasons, reconnect the power supply, if the fault persists, please contact us	

Chapter 4. How to download and use the APP applications

4.1 The operation mode of downloading the APP

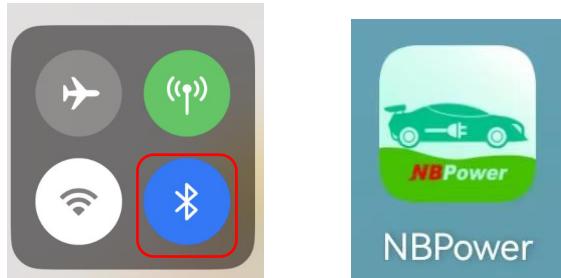


① Scanning mobile phone to identify the QR code
 ② Once the QR code is recognised, you will be redirected to the download screen, which you need to open in your browser, select the download channel of your corresponding mobile phone model, and then download the 'NBPower' APP

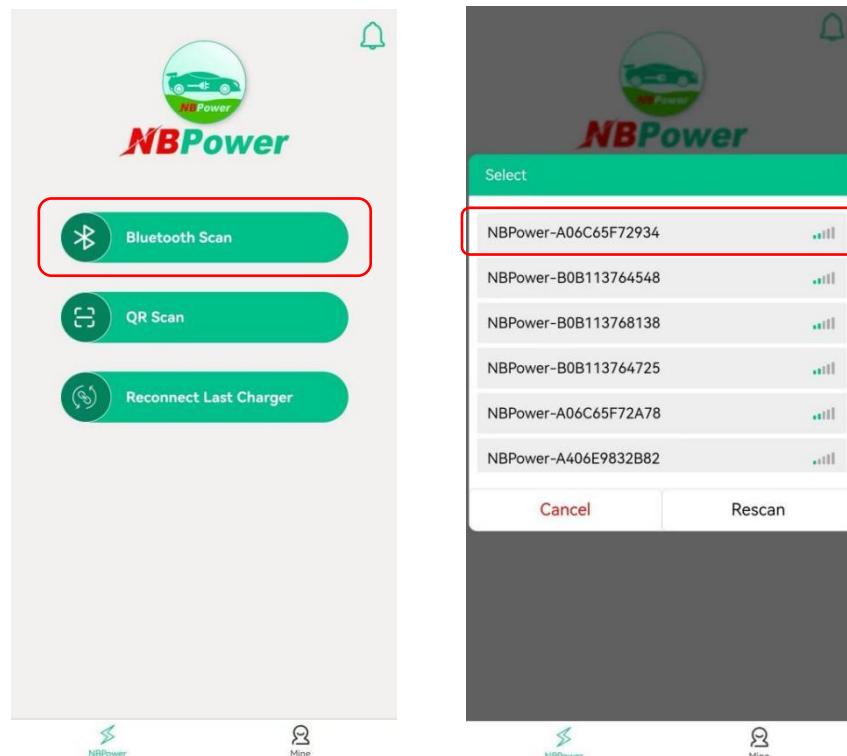


4.2 Bluetooth connection APP operation mode

①First of all, we need to turn on the Bluetooth of the mobile phone, and then open the ‘NBPower’ APP



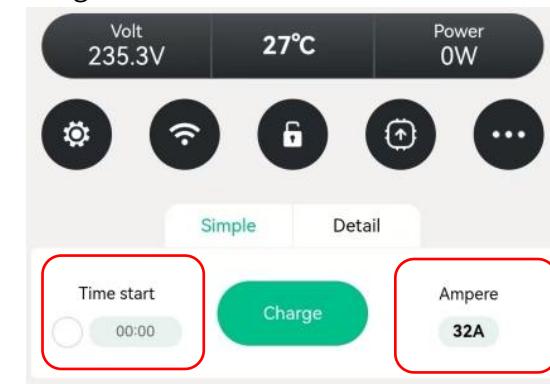
②Click on Bluetooth scanning in the initial interface of ‘NBPower’ APP and select the corresponding Bluetooth connection



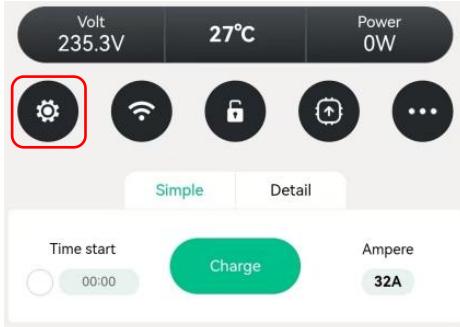
③Successful Bluetooth connection will jump to the main operation interface



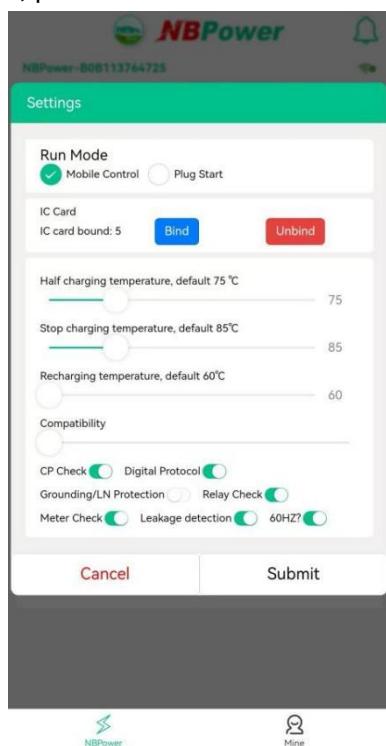
④You can view the current charging related values in the main control interface, start charging, stop charging and other functions, you can also make appointments for charging, current size adjustment settings



⑤After clicking on Settings, more features will be displayed



⑥Within the settings, you can change the operation mode, mobile phone start or plug and play, set the ground-free mode, adjust the 50/60HZ frequency and a series of other functions. (For detailed function explanation, please contact online customer service)



FCC Caution.

This device complies with part 15 of the FCC Rules. 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.

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

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.