



Technical Manual

Saturn AC EVSE



Star Charge



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1 Introduction

1.1 Function of this document

Star charge equipment is intended exclusively for charging Electric Vehicles (EV) in both indoor and outdoor areas. To ensure proper usage of the charging station (hereinafter can be referred to as Electric Vehicle Supply Equipment/EVSE or the Charger), the instructions in this manual must always be complied with. Installation, commissioning, and maintenance of this equipment shall only be performed by qualified personnel (Star charge certified partner).

1.2 Target user

This manual is for:

- **EVSE owners:** These are people who own and operate the EVSE for commercial or business purposes, or who may allow others to use it. EVSE owners are legally responsible for protecting users, other employees, and third parties while the EVSE is in operation.
- **Qualified engineers:** These are people who are fully familiar with the EVSE and are responsible for installing, operating, commissioning, and maintaining it. Qualified engineers should have knowledge of electrical safety, understand the principles and performance of chargers, and follow all local rules and instructions in this manual.

1.3 Version and revision history

The version of this document is V1.0.0 and the revision history is as follows.

Version	Date	Description
V 1.0.0	29th March 2024	Initial version

Table 1-1 Version of the technical manual

1.4 Disclaimer

- This document has been subject to rigorous technical review before being published. It will subsequently be revised at regular intervals.
- The information in this manual is for informational purposes only.
- This manual, related manuals, and warnings do not replace your responsibility to use common sense when working with the EVSE.
- Although Star charge has put its best efforts to keep the document as precise and up-to-date, Star charge shall not assume any liability for defects and damage that may come from using the information.
- In no event will Star charge be liable for direct, indirect, special, or consequential damages (including loss of profits) resulting from any errors or omissions in this manual. All of Star Charge's obligations are stated in the relevant contracts. Star charge reserves the right to revise this document from time to time.
- Any changes to the EVSE, including but not limited to user-specific modifications to the EVSE (such as placing stickers, SIM cards, or using different colors), hereinafter referred to as "Customization", may affect the final product's user experience, appearance, quality, and/or lifespan.
- Star Charge is not responsible for any damage to or caused by the product "Customization" and is not responsible for any damages, losses, costs, or expenses resulting from the improper handling of the product.

1.5 Copyright

All rights reserved. The disclosure, duplication, distribution and editing of this document, or utilization and communication of the content are not permitted, unless authorized in writing. All rights, including rights created by patent grant or registration of a utility model or a design, are reserved.

1.6 Warranty

The warranty period is defined in your warranty policy. If you have purchased extended warranty, the warranty period is defined in your purchase agreement.

The warranty only covers the product and its parts delivered by Star Charge. The warranty does not cover consumable parts such as cables and connectors, any other materials, labor, accommodation, or travel costs.

Changes or modifications to the equipment, unless specifically agreed upon with Star Charge, will void the warranty.



- When you replace parts under warranty, keep the old parts until you know that Star Charge does not need them for inspection.
 - Installation, operation, commissioning, and maintenance tasks should only be done by the people described in section 1.2. If someone who is not authorized to do these tasks does them, the warranty may be void.
-

1.7 Supplier

1.7.1 Europe

Star Charge Europe GmbH

Am Prime Parc 17, 3.OG, Raunheim 65479, Germany

Customer service hotline: +44 20 7096 1752

Customer service E-mail: service.europe@starcharge.com

Homepage: www.starcharge.com

1.7.2 APAC

Star charge Energy Pte., Ltd.

2 Kung Chong Road, #05-01 AA Centre, Singapore 159140

Customer service hotline: +60 15 4600 0603

Global customer service E-mail: service.global@starcharge.com

Homepage: www.starcharge.com

1.7.3 Americas

Star Charge Americas Corp.

46571 Fremont Blvd, Fremont, California 94538

Customer service hotline:

- For North America: +1 917 242 3088
- For South America: +55 21 2018 6947

Global customer service E-mail: service.global@starcharge.com

Homepage: www.starcharge.com

2 Safety and usage instructions

2.1 General safety

Before charging your EV, please read the safety rules and usage instructions in this chapter as failure to do so may result in safety hazards or device failure.

During the installation and connection of the Charger, it is imperative to comply with the legal acts or regulations set forth by the respective country.

- Only qualified electricians (Star Charge certified partners) should install, operate, commission, and maintain the EVSE.
- All installation and wiring must be done when the AC cables are not energized. This means that the EVSE cannot be turned on during this process. This helps to prevent electrical accidents, short circuits, and electric shock hazards. It makes sure that the system is not turned on during risky procedures, which reduces the chance of fires during installation or maintenance.
- Do not use the EVSE:
 - Near explosives or flammable substances.
 - In or near water.
 - If it is visibly damaged.
- Do not clean the EVSE with running water or a pressure washer.
- Do not change or modify the EVSE unless Star Charge has approved it.
- Do not wrap the cables around the EVSE while charging.
- Do not put the connector on the ground. Put it in its holder after charging.
- Only do things that are described in this manual or the related manual, and that you are qualified to do.
- Follow the safety rules and accident prevention rules for the EVSE and the area where it is used.
- Make sure the EVSE is used in the environmental conditions that are specified for it. For more information about environmental conditions, refer to section 3.3.6.
- When handling electrical connections, always follow safety protocols, wear the necessary personal protective equipment (PPE), and use insulated tools.
- Follow the local rules and the instructions in this manual. If any requirements in this manual are not the same as the local rules, follow the local rules or the stricter of the two, as allowed by law.
- Make sure the power cord connected to the charger is routed from the dedicated MCB in the distribution box. The MCB must match the capacity of the charging cable used. The short circuit current shall not exceed 6kA or I^2t shall not exceed 75000A²s.

2.2 Safety symbols

Symbols	Meanings
	Electric hazard: This symbol indicates that there is a danger of electric shock. Failure to pay attention to the procedures, practices or improper implementation may cause injuries or death. Only perform operations with this symbol if you fully understand and meet all of the requirements.
	Caution: This symbol indicates that there is a hazard that could damage the product. Only perform operations with this symbol if you fully understand and meet all of the requirements.
	Tips: This symbol indicates that the information is helpful or provides useful advice. It does not contain any information about danger or harm.
	Garbage disposal: This symbol indicates that the electrical and electronic equipment and their accessories should be disposed of separately from household waste. They can be reused, recycled, or disposed of in a safe and environmentally friendly way.
	Grounding: This symbol indicates ground protection. Once the ground fails or there is no grounding, the charger will report fault and stop charging.

Table 2-1 Safety symbols

2.3 Engineer requirements

2.3.1 Normal requirements

Engineers responsible for installation, operation, commissioning, and maintenance should:

- Be trained in safety and job skills, and pass the corresponding assessment.
- Follow the local rules and the instructions in this manual. If any requirements in this manual are different from the local rules, follow the local rules or the stricter of the two, as allowed by law.
- Learn the electrical safety requirements and how to do first aid and emergency treatment for electric shock.
 - If there is a safety accident, immediately start the emergency plan and report it to the relevant person in charge. Also, provide first aid and emergency treatment according to the plan, control the spread of the accident, and rescue people and property.
 - If there is an electric shock, immediately cut off the power and rescue the person using the emergency rescue method. At the same time, call for professional help, report to the relevant person in charge, and make a record.
- Strictly follow the operating procedures and job specifications when working to ensure safety and stability.
- Wear a uniform, work permit, insulated shoes and gloves, a safety helmet, and other protective gear if necessary.
- Be responsible for their work and fulfill their service commitments to the best of their abilities.
- Communicate with customers in a professional and courteous manner, using clear and concise language.

2.3.2 Responsibility requirements

Engineers responsible for EVSE installation, operation, commissioning, and maintenance are accountable for:

- Making sure the EVSE is safe to use
- Improving the EVSE's safety system
- Regularly checking the EVSE for safety issues
- Monitoring and reporting on the EVSE's safety status

2.3.3 Skill requirements

Engineers responsible for EVSE installation, operation, commissioning, and maintenance should:

- Understand how EVs and EVSEs work, how to troubleshoot common problems, how to maintain EVSEs, how to handle emergencies, and safety knowledge.
- Be familiar with the relevant national safety production rules and regulations, and know about charging safety and emergency treatment methods.

2.4 Safety guidelines for engineers

2.4.1 For installation engineers

- **Safety:**
 - Follow the safety rules of the construction site.
 - Wear a safety helmet, fasten the chin strap, and make sure it is in good condition.
 - Do not wear unsafe clothing, such as loose clothes or slippers.
 - Do not go to work inebriated.
- **Working at heights:**
 - Wear a safety helmet, fasten your safety belt, and wear non-slip shoes.
 - Tie up your work tools.
 - Be careful when entering areas such as foundation pits, roofs, and openings. This is to prevent falling from a height.
- **Protective measures:**
 - If there is heavy dust on the construction site or painting work is being done, wear a protective mask.
 - Do not enter dangerous areas, such as hoisting areas or the places under the position of vertical operation.
 - Do not strike objects.
 - Stay away from mechanical equipment and electrical circuits to prevent accidents.
- **When using portable power tools:**
 - Make sure you know how to use the tool safely.
 - Wear insulated shoes and gloves.
 - Make sure the metal shell is grounded or connected to the neutral line.

- **Temporary electricity:**
 - Replace damaged electrical components immediately.
 - Temporary wires must be made of rubber cables, not plastic flexible cords.
 - Do not plug temporary wires directly into sockets.
 - Do not use temporary electrical components when they are live.
- **Ground conditions:**
 - Be careful of ground conditions with iron nails and steel bars.
 - This is to prevent injuries such as piercing, touching, hanging, and falling.
- **Site maintenance:**
 - Do not dismantle construction site protection facilities, safety signs, and warning signs without permission.
 - Maintain construction equipment in good condition.
 - This is to prevent malfunctions or overload operation.
- **EVSE usage:** Keep the door of the EVSE closed after installing it to prevent it from getting wet in the rain.

2.4.2 For commissioning and maintenance engineers

- **Safety:**
 - Follow the safety management rules of the construction site.
 - Wear a safety helmet and fasten the chin strap.
 - Do not wear unsafe clothing, such as loose clothes or slippers.
 - Do not go to work after drinking or smoking.
- **Electrical safety knowledge:**
 - Know about electrical safety and how EVSEs work.
 - Know how to do first aid and emergency treatment for electric shock. This will help you to identify and deal with potential emergencies before commissioning the EVSE.
- **Preparation before work:**
 - Before commissioning the EVSE, confirm the upper power supply point, power supply lines, and whether there is a safety emergency plan on site.
 - Make sure there are at least two carbon dioxide fire extinguishers on site.

- **Protective measures:**

- Assume that all electrical equipment and lines are live and do not touch them before checking the power. If you need to touch them, turn off the power and check them again. Put a "No closing, someone is working" sign on the power switch handle or take other measures to prevent false closing.
- If possible, turn off the power before working. If you need to work with the power on, have someone monitor you. The person must meet the professional requirements and must not do anything else while monitoring you.
- When working on live equipment, first identify the L, N, and PE lines and choose a safe working position. When working, do not touch the conductive part and the zero (ground) part at the same time.
- Do not change the original wiring and structure of the charger without permission and approval.
- After the work is completed, restore the components to their original state, check the tools to prevent omissions, and clean and organize the site.

- **In case of a safety accident:**

- Immediately turn off the power at the upper power supply point and start the safety emergency plan.
- Report to the relevant person in charge immediately as required.
- Conduct on-site emergency treatment in accordance with the emergency plan for the first time.
- Control the spread and expansion of the accident, and rescue personnel and property.
- If there is an electric shock, immediately cut off the upper power and perform rescue according to the emergency rescue method.
- At the same time, make emergency calls for professional help and report to the superior leader.
- Make a record.



- Only Star Charge's personnel or people who have been authorized, certified, and trained by Star Charge or other qualified personnel can commission AC chargers. Star Charge will not be responsible for any losses caused by third-party personnel commissioning chargers without Star Charge's authorization.
 - Commissioning must be done carefully according to the procedures. If any operation cannot be completed, it must be stopped until the cause is found and fixed. Commissioning cannot be done in severe weather conditions such as rain, snow, or sandstorms.
-

2.5 Fire safety guidelines for construction sites

- **Flammable and explosive materials:**
 - Do not store flammable and explosive materials on the construction site.
 - Set up proper storage areas for these materials to prevent accidents.
- **Fire extinguishers:** The construction site must have at least two fire extinguishers, such as carbon dioxide fire extinguishers, to respond to any possible fire hazard.
- **Placement of fire extinguishers:**
 - Place fire extinguishers in a location that is easy to see and access.
 - Make sure they do not block any evacuation routes.
 - This ensures that they can be quickly and safely accessed in an emergency.

2.6 Fire emergency response plans

2.6.1 Initiation of the plan

If a fire happens, tell the emergency command leading group right away. Everyone must follow the orders of the emergency response team to help rescue people and clean up the damage.

2.6.2 Contingency procedures

- **If you see a fire accident:**
 - Stop charging immediately. If the fire is in the charging station, stop the charging process to prevent the fire from getting worse.
 - Turn off the power. Press the emergency stop button right away to prevent the fire from spreading.
 - Call the fire department. Call the fire department right away and tell them where the fire is.
 - Evacuate safely. Get away from the fire quickly and stay away from it.
 - Use a fire extinguisher (if possible). If the fire is small, you can use a fire extinguisher to put it out. But make sure you use the right type of fire extinguisher.
- **If there is a fire:**
 - Tell your supervisor right away.
 - If the fire is small and you can control it, use a fire extinguisher to put it out. While you are doing this, tell people at all levels about the fire.
 - Have at least two people fight the fire. Stand upwind, crosswind, or in a safe position.
 - If you cannot control the fire, have everyone in the area evacuate immediately.
 - If the fire gets bigger, the person in charge must evacuate everyone immediately.
 - Tell employees in the affected area to go to the assembly point along the designated route.

Follow the instructions of the person in charge of the company.

- The emergency response team (ERT) will organize rescue efforts according to the fire.
- If you cannot control the fire, report it to the government department in time for support. Cooperate with the fire brigade for rescue efforts.
- Collect information about what happened before the fire, what the monitoring system showed, and what witnesses saw. This will help you to understand what caused the accident. You will need to share this information with the owner and the site.
- Give the local fire department the information they need to investigate the cause of the fire.
- If the company did not cause the losses, the local branch will claim compensation from the relevant parties. The company's EHS and risk control center will provide support and cooperation.

2.6.3 Concluding fire emergency response

When the emergency crews have finished their work, the people in charge of emergencies will announce that the disaster is over and the emergency is lifted. Then, everyone can go back to their normal work.

2.7 Disposal

In accordance with the European Directive 2002/96/EC, Waste Electrical and Electronic Equipment (WEEE) and its implementation in national law, the electrical devices including chargepoints which are used must be collected separately and recycled in an environmentally responsible manner. We recommend that you return your used device to your dealer or obtain information regarding a local, authorized collection and disposal system. Failure to comply with this EU Directive may result in a negative impact on the environment.

3 Product overview

3.1 Nameplate



Figure 3-1 Nameplates

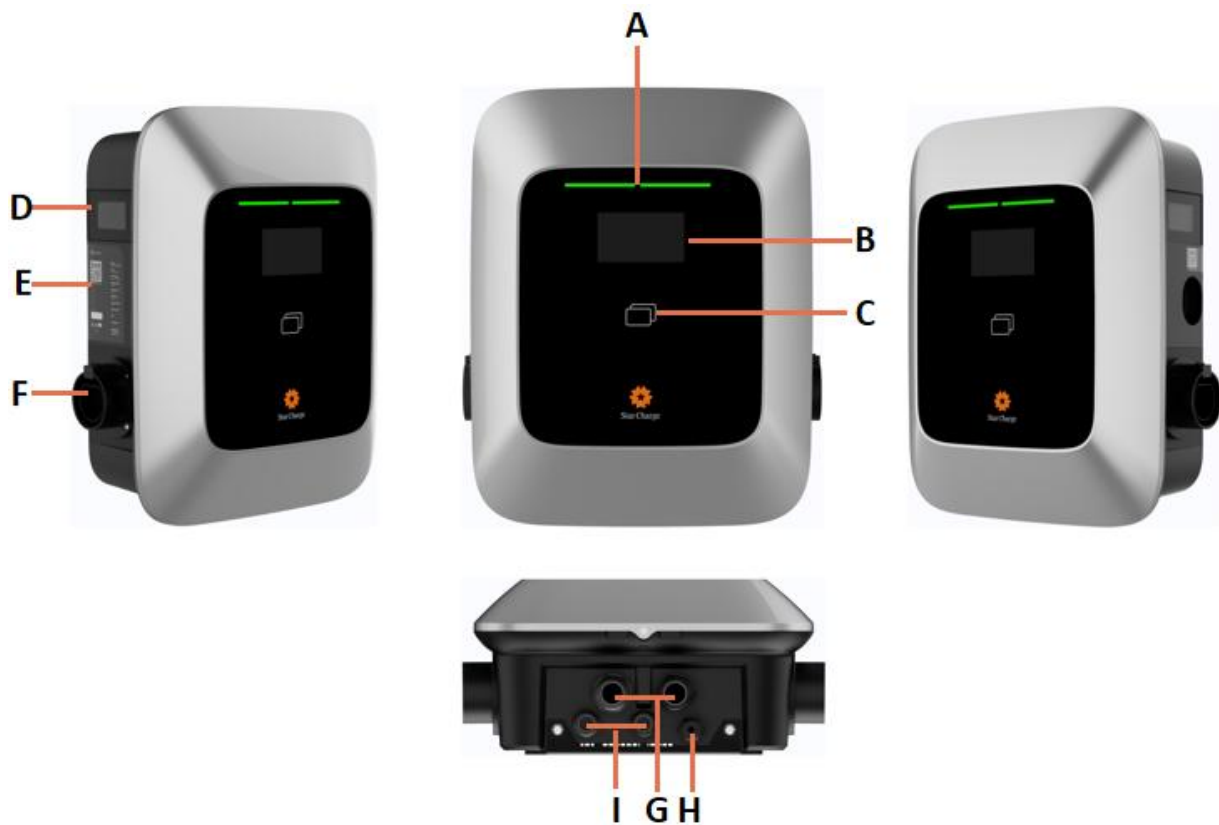
3.2 External view

3.2.1 Saturn MID charger (Case B)



- A LED indicator
- B 4.3-inch display screen
- C RFID card swiping area
- D Meter
- E Nameplate
- F Case B mode charging socket
- G Sealed casings at the power cable inlets
- H Network cable interface

3.2.2 Saturn MID charger (Case C)



- A LED indicator
- B 4.3-inch display screen
- C RFID card swiping area
- D Meter
- E Nameplate
- F Connector holder
- G Sealed casings at the power cable inlets
- H Network cable interface
- I Charging cable

3.3 Technical specifications

3.3.1 Product model

Power	Model No.	Model names
22kW	DH-AC0220XG58	CE-Saturn Case B
	DH-AC0220XG58-D	CE-Saturn Case C
	AC0220EN046	UK-Saturn Case B
	AC0220EN047	UK-Saturn Case C

3.3.2 Mains supply parameters

Recommended cable for input terminal	5 x 9AWGx (wire gauge 6mm ²) It is recommended to crimp the adapter terminals on the power cable conductor
Input wiring	3P + N for the power circuit 1P + N for the control circuit
Input rating	380-415 Vac for the power circuit 220-240 Vac for the control circuit
Input power limits	Dual-connector, three-phase: maximum: 2x22 kW
Frequency	50/60 Hz
Grounding	TN-S TT IT
Stand-by consumption	Less than 10W

Note: The supply circuit must not include a PEN conductor; a PME earthing facility must not be used as for the protective conductor contact of a charger located outdoors.

3.3.3 Output of the charger

Vehicle Connection	2 x type 2 sockets, in accordance with IEC62196-2 2 x type 2 connectors, in accordance with IEC62196-2
Output voltage	400V AC
Maximum charging current	Three-phase output, 32A per phase
Maximum output power	Dual-connector, three-phase: maximum: 2 x 22 kW

3.3.4 Protection features and integrated components for safety

Residual current protection	An independent Type B RCCB or Type EV RCCB is equipped for each charging circuit.
Energy meter	Class 1 (MID)
Over-current protection	• The charging current reaches 110% of the rated current, and circuit is disconnected for 1,001 seconds. • The charging current reaches 125% of the rated current, and circuit is disconnected for 6 seconds and the charging will be stopped. • The charging current reaches more than 170% of rated current, and circuit will be cut off immediately and the charging will be stopped.
Over/Under-voltage protection	Over-voltage protection: 269V Under-voltage protection: 165V
Classification fro EMC	Class B
Temper detection (optional)	Protection against attack (temper defection added proximity switch for unauthorized outer case opening security message)
Tilt protection (optional)	It is integrated in the mounting box of payment terminal. When the tilt of charging point in the direction of Z axis is greater than 30°, the parent MCB of the charger will be turned off immediately.
Randomised delay (optional)	The charger is configured such that it must operate at each relevant time, with a delay of random duration.

3.3.5 Charging and access

Charging mode	Mode 3
Display	4.3 TFT color display; resolution: 800 x 480 pixels
Status indication	Indicated by LED
Card reader	RFID (NFC) ISO 14443A/B ISO 18092 ISO 15693 MIFARE 13.56 MHz
Network communication	4G/ Ethernet/ Wi-Fi/ Bluebooth5.0
Communication protocol	OCPP 1.6 (JSON)
Payment method (optional)	APP/RFID card/Payment card on the payment terminal

3.3.6 Operating conditions

Operating temperature	-25°C ~ +45°C (natural cooling) Maximum operating temperature: -30°C ~ +50°C
Storage temperature	-30°C ~ +85°C
Relative humidity	5% ~ 95% (no condensation)
Altitude	≤ 2000m
Electrical safety class	I
Overvoltage category	OVC III
Protection rating	Case B (with charging connector holder): IP54 Case C (with charging connector cable): IP55
Anti-collision level	IK10

Attention

If the temperature is out of the maximum allowable value, the charger will automatically activate over-temperature protection (OTP) measures.

3.3.7 Mechanical parameters

Dimensions (H x W x D)	505mm×395mm×203mm
Packaging (H x W x D)	Case B: 620 x 490 x 330mm Case C: 620 x 490 x 410mm
Weight	Case B: About 10kg Case C: About 12kg

3.3.8 Network communications

Display screen	4.3 TFT color display	
Language support	English, German, French, Spanish, Italian, Norwegian, Swedish, Greek, Portuguese, Dutch, Turkish, Czech	
Mechanical button	Emergency stop button (Optional)	
RFID	ISO/IEC 14443A/B NFC reader mode MIFARE	
Credit	Apollo (Optional)	
Start method	Scanning QR code with APP Swiping RFID card	
4G module	Frequency band	Maximum radio-frequency power
	LTE FDD Band 1	23±2.7dBm
	LTE FDD Band 3	23±2.7dBm
	LTE FDD Band 7	23±2.7dBm
	LTE FDD Band 8	23±2.7dBm
	LTE FDD Band 20	23±2.7dBm
	WCDMA Band 1	24+1/-3dBm
	WCDMA Band 8	24+1/-3dBm
	GSM Band 3	33+2/-2dBm
	GSM Band 8	30+2/-2dBm

Wi-Fi module	Standard	IEEE 802.11 b/g/n, Wi-Fi compliant
	Frequency	WLAN: 2.400GHz~2.497GHz
	Transmission rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS 0-7 HT20
Bluetooth module	Standard	Bluetooth 2.1 + Enhanced Data Rate (EDR) Core Specification 5.1
	Frequency range	2400-2483.5MHz
	Output power	$0 \leq \text{output power} \leq +10\text{dBm}$ (conductive)
NFC module	NFC transmitting power: -2.59dBuA/m@3m	

3.3.9 Compliance and standard adhered to

The device has passed the CE certification and meets the requirements of RED Directive 2014/53/EU and Low Voltage Directive 2014/35/EU and the following standards:

- IEC 61851-1: 2019
- IEC 61851-21-2: 2018
- EN 300 328 V2.2.2
- EN 300 330 V2.1.1
- EN 301 908-1 V13.1.1
- EN 301 908-2 V13.1.1
- EN 301 908-13 V13.1.1
- EN 301 511 V12.5.1
- EN 301 489-1 V2.2.3
- EN 301 489-3 V2.1.1
- EN 301 489-17 V3.2.4
- EN 301 489-52 V1.1.0
- EN 50665:2017 & EN 62311: 2008
- ETSI EN 303 645

3.4 Status of the LED indicator

Lighting type		Meaning
	Steady green	Charger in standby
	Steady blue	Charging connector inserted into the EV
	Blue flashing quickly	RFID card detected
	Blue flashing slowly	Charging process suspended
	Blue breathing	Charging
	Steady red	Fault
	Red flashing quickly	Authentication failure
	Red flashing slowly	Card swiping or QR code scanning timeout

Table 3-1 Status of the LED indicator

Note: Red indicator will change to previous normal status when LED error is addressed and the charging connector is available.

4 Installation

4.1 Safety notice

4.1.1 General rules of safety

- The installation shall be done by qualified or licensed personnel based on safety and usage instructions (refer to Chapter 2).
- The installer must always ensure that the installation of the charger complies with local regulations.

4.1.2 Electrical safety

- Installation, maintenance, and repair of this product must be performed by a supplier-approved installer or electrician.
- Improper installation or maintenance can be dangerous.
- All installation and maintenance work must be done with the power off.
- Do not attempt to repair the charger yourself. No user-serviceable parts inside.
- Do not install the charger in explosive environments, areas with high electromagnetic radiation, or flood-prone areas.
- Before installation, disconnect the main power supply.
- Do not use adapters, converter adapters, or cable extension kits.
- Make sure that the power cable connected to the charger is led out from the special MCB in the distribution box. The MCB must match the capacity of the charging cable used.
- When installing underground cables for public charger networks, take care to avoid damaging existing underground utilities.
- Always consult the electricity transmission licensee before any excavation work (for structures, cables, grounding systems, etc.) to prevent damage to their underground cables.

4.1.3 Requirements for installation personnel

Only authorized technicians can install and maintain the product. These technicians must:

- Understand and follow the safety instructions and product installation sections in this Manual.
- Understand and abide by governing local, national and international laws and regulations.
- Be able to identify potential hazards of the product and take necessary measures to protect personal and property safety.
- Be an EVSE owner or operator who has been trained, certified, and possesses sufficient knowledge of the relevant standards and requirements for safe EVSE operation.

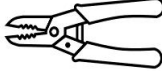
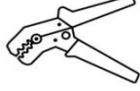
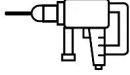
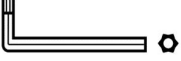
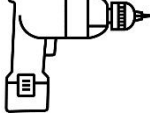
4.1.4 Safety protection measures

Personal Protective Equipment (PPE) is mandatory for installation work:

- insulation gloves are required when installing wires and electrical components to prevent shock from electrostatic discharge.
- Wear anti-static safety shoes (Level S3) for proper grounding and to prevent static discharge.
- Goggles must be worn while drilling to protect your eyes from dust and debris.
- Safety earmuffs are necessary to protect your hearing from drilling noise.

4.2 Preparation for installation

4.2.1 Installation tools

No.	Tool type	Name	Purpose	Picture
1	Power cable preparation	Electrician knife	Stripping of insulating layers	
2	Power cable preparation	Wire stripping pliers	Stripping of insulating layers	
3	Power cable preparation	Crimping pliers	Crimping of pin terminals	
4	Power cable preparation	Crimping pliers	Crimping of ring terminals	
5	Preparation	RJ45 Network crimping pliers	Crimping the RJ45 connector	 RJ45
6	Installation tool	Percussion drill	Drilling	
7	Installation tool	Combination wrench (full set)	Installing and removing nuts	
8	Installation tool	Screwdriver (PH2)	Installing and removing screws	
9	Installation tool	Screwdriver (SL2)	Installing and removing screws	
10	Installation tool	Torx screwdriver (full set)	Installing and removing screw	
11	Installation tool	Electric torque screwdriver (with full set of PH screw bit, Torx screw bit and SL screw bit)	Installing and removing screws	
12	Installation tool	Manual torque screwdriver (with full set of Phillips bits, hexagon screw bits and slotted screw bits)	Installation and removal of screws	
13	Installation tool	Hammer	Knocking	

14	Measurement tool	Spirit level	Horizontal measurement	
15	Measurement tool	Tape measure	Distance measurement	
16	Marking tools	Marker pen	Position making	

Notice: The above tools shall be selected based on the actual situations on site.

4.2.2 Installation environment

The environmental conditions listed in the following table should be met while selecting a installation site for the product.

Operating temperature	-25°C ~ + 45°C
Altitude	≤2000m
Relative humidity	5%~95%(no condensation inside the product)
Dust level	≤1mg/m ³
Corrosive substance	No pollutants, such as salt, acid, smoke, etc.
Vibration	≤1.5mm/s ²
Insects, pests, vermin, termites	None
Mold	None
Damp	Rain prevention
Fire prevention	No flammable substances on the top and bottom of cabinet

4.2.3 Concrete foundation (if necessary)

The charger should be installed on an appropriate hard mounting floor (e.g. cement floor), with a drilling depth of no less than 200mm and compressive strength of no less than 2.4MPa.

In the absence of a suitable existing mounting location, constructing a concrete foundation is recommended. The concrete foundation must be poured before installing the charger.

- Standard dimensions: 500mm x 350mm x 500mm (depth: 500mm)
- Adjustable size based on customer requirements and site conditions.

Refer to Figure 4-1 for the top view and Figure 4-2 for the front and left view construction drawing.

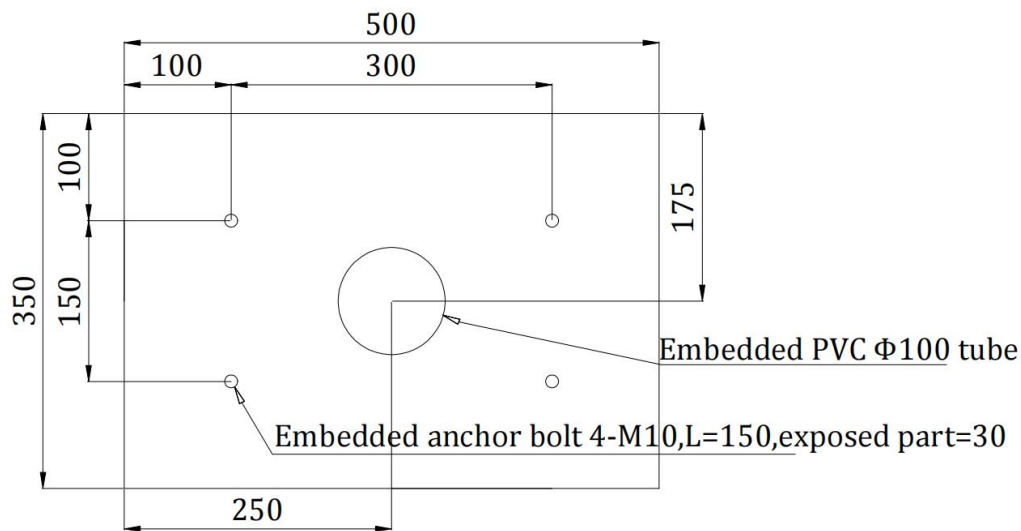


Figure 1-1 Top view of the concrete foundation

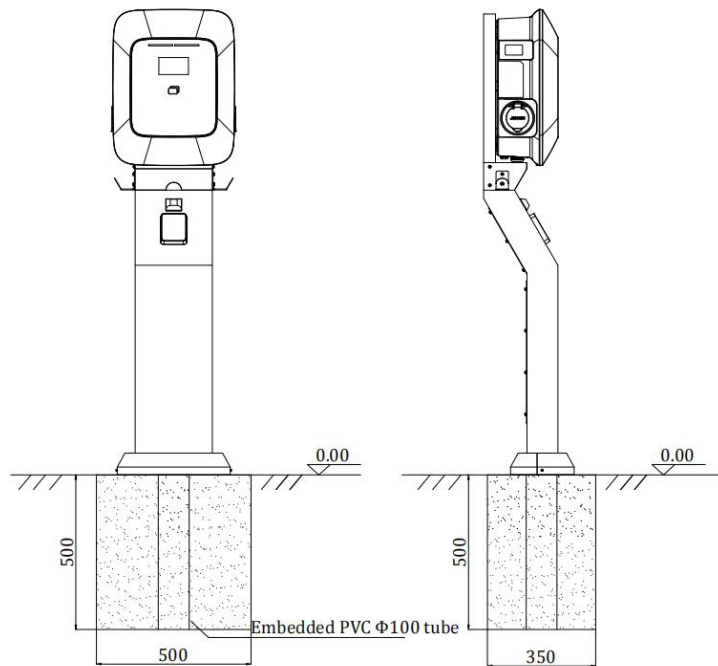


Figure 4-2 Front view and left view of the concrete foundation (Pole A)

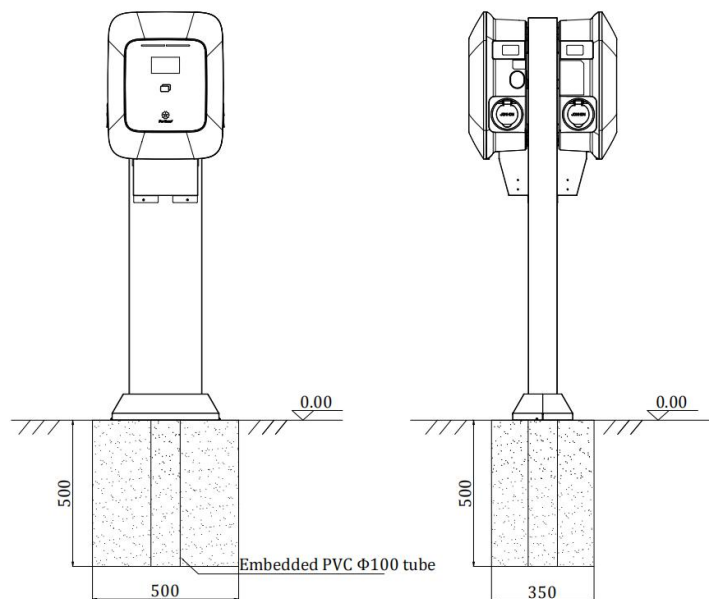


Figure 4-3 Front view and left view of the concrete foundation (Pole B)

4.2.4 Spacing requirements

Maintenance clearances:

Maintain sufficient clearance around the charger for future maintenance. Refer to Figures 4-4 for the required clearances when installing the charger near a wall or obstacle. (Unit: mm)

- Standard space in parking lot: 1,100mm (between the wheel chock and the charger)
- Adjustable size based on customer requirements and site conditions.

Refer to Figure 4-5 for the spacing requirement.

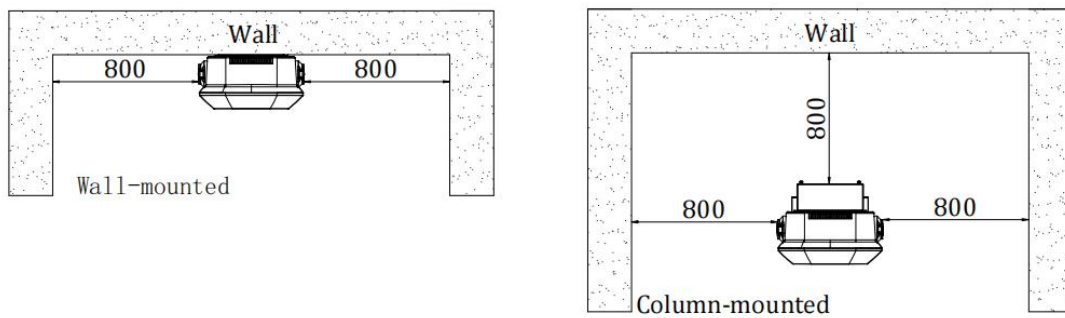


Figure 4-4 Maintenance distance for installation

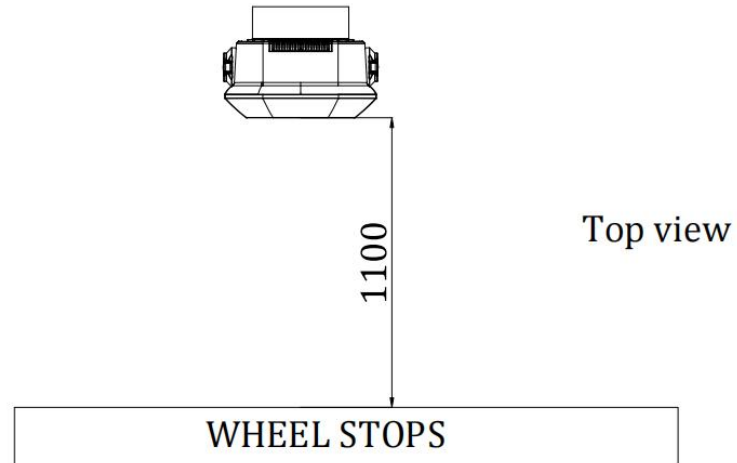


Figure 4-5 Requirements for distance between parking spaces

4.2.5 Power supply requirements

4.2.5.1 Power requirements

- Input voltage rating: 385-415Vac
- Operating frequency: 50/60Hz.
- Limitation of input power: Three-phase input; maximum: 32A per phase.
- Cable recommendations (Copper Core):
 - 5 x 6mm² (all mounting)
 - 5 x 16mm² (pole mounting)
- Solid wires or flexible wires are optional, and the flexible wire should be crimped to the terminal.
- Two incoming power cables are required for the dual-connector version.
- Please select solid wire for the trip signal cable in the pole.
- Recommended MCB in the power distribution cabinet:
 - Ue=400V, In≥32A, 4P, 2 pieces (wall mounting)
 - Ue=400V, In≥63A, 4P, 1piece, with shunt release (coil voltage of AC230V) (pole mounting)
- Recommended supply MCB for wall-mounted payment terminal: Ue=230V, In≥6A, 2P.
- The recommended specifications are for reference only. Customers can choose the upstream MCB as per site requirements

4.2.5.2 Grounding system compatibility

TN-S/ TT/ IT systems

Note: The supplying circuit must not include a PEN conductor; a PME grounding facility shall not be used as the means for the protective conductor contact of a charging point located outdoors.

4.2.5.3 Electrical system diagram

Power circuit:

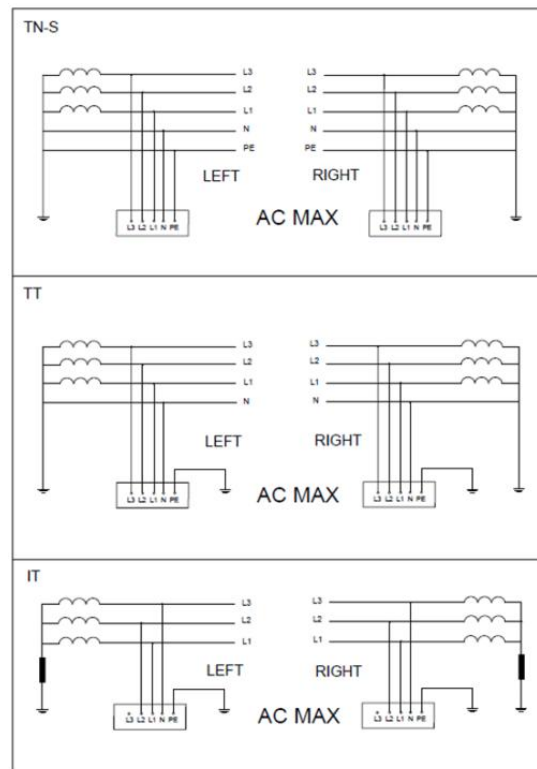


Figure 4-6 Power circuit wiring diagram

Note: IT system is only for the power system with line voltage of 230 Vac.

Tilt switch:

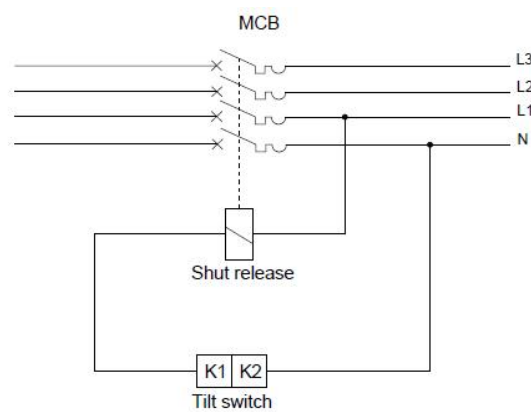


Figure 4-7 Tilt switch wiring diagram

4.2.5.4 List of cables

List of cables for wall mounting/pole B mounting:

- Inlet power cable:
 - Use a 5 x 10mm² copper core cable (outer diameter 15-22mm).
 - Two cables are required for dual-connector version.
 - Flexible wires are recommended for connection.
- Network cable (CAT5/CAT6):
 - Required only for Ethernet communication.
- Payment terminal power cable:
 - Use a 3 x 1.0mm² copper core cable (outer diameter 4-6.5mm).
 - Required only for wall-mounted payment terminal.

List of cables for pole A mounting:

- Inlet power cable:
 - Use a 5 x 16mm² copper core cable (outer diameter 18-25mm).
 - Flexible wires are recommended and solid wires are optional.
- Network cable (CAT5/CAT6):
 - Required only for Ethernet communication.
- Trip signal cable:
 - Use a 2 x 1.0mm² copper core cable (outer diameter 4-6.5mm).
 - Solid wires are recommended.

Note: The recommended power cable size is for reference only.

4.3 Installation procedure

4.3.1 Unpacking list

No.	Equipment	Quantity	Accessories
1	Charger	1	M4 x 8 Torx screw x2 (1 for standby) Front cover x 1 Template for wall mounting x 1
	Terminal	1	Pin terminal: E1012(KST) x 12 (2 for standby)
	Mounting bracket	1	Mounting bracket x 1 M6x60 expansion bolt x 5 (1 for standby) M6x16 Torx screw x 3 (1 for standby)
	RFID card	2	/
	Attached documents	1	User Manual x 1 Certificate x 1
2	Wall-mounted payment terminal (optional)	1	Φ8 x 60 plastic wall plug x 4 (1 for standby) M6 x 50 self-tapping screw x 4 (1 for standby)
3	Pole A (optional)	1	Polex1 M6 x 12 Torx screw x 3 (1 for standby) M4 x 12 Torx screw x 16 (2 for standby) M10 x 120 expansion bolt x 4 Cable protection cover x 1 Front decorative cover x 1 Rear decorative cover x 1
4	Pole B(optional)	1	Pole x 1 Cable protection cover x 2 M10 x 120 expansion bolt x 4 M4 x 12 Torx screw x 2 Front decorative cover x 1 Rear decorative cover x 1

4.3.2 Unpacking inspection

Upon unpacking, inspect the following:

- Verify the packing list quantity matches the actual number of equipment pieces.
- Check the equipment nameplate for accurate information.
- Ensure all accompanying documents are present.
- Confirm all accessories are included.
- Inspect the equipment for any signs of damage, such as dents, bumps, or stains.

4.3.3 Wall-mounting installation

The general assembly of wall mounting is shown in Figure 4-8.

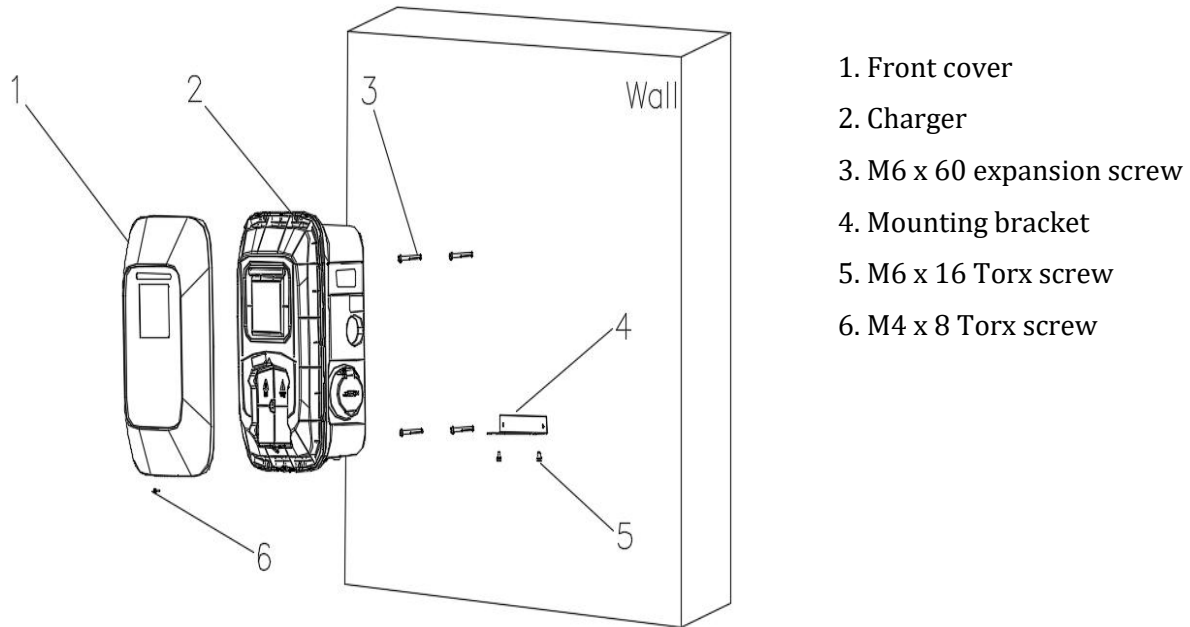


Figure 4-8 General assembly of wall mounting

- (1) Confirm the installation position. A distance of 1000mm~1450mm between the top hole of charger and the ground is recommended. Put the mounting bracket on the wall, mark the drill holes with a pencil.

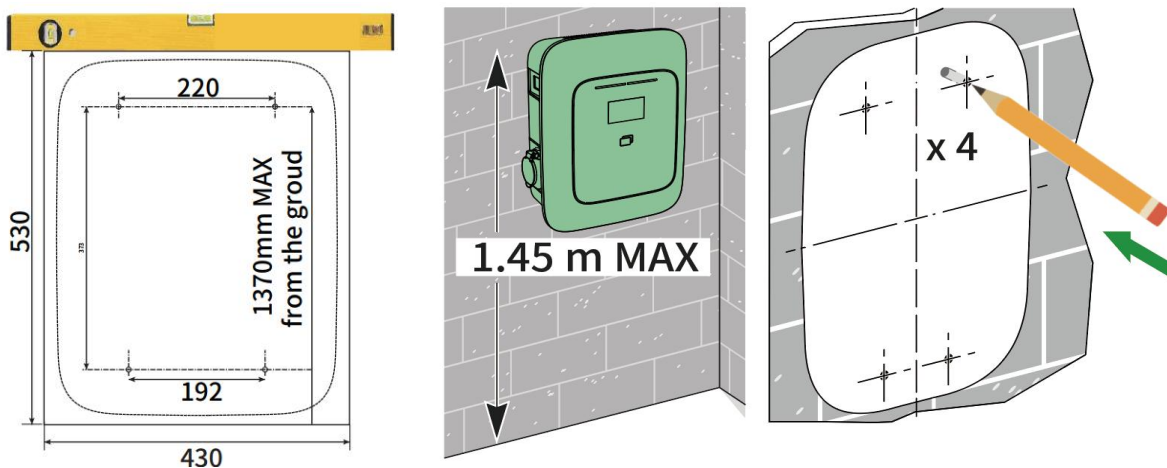


Figure 4-9 Marking drill holes

- (2) Drill holes at the marked position with a $\phi 10$ drill. The effective length of drill is not less than 80mm, and the drilling depth is 80mm. Insert M6 x 60mm expansion screws into the two holes at the bottom, and install the mounting bracket on the expansion screws.

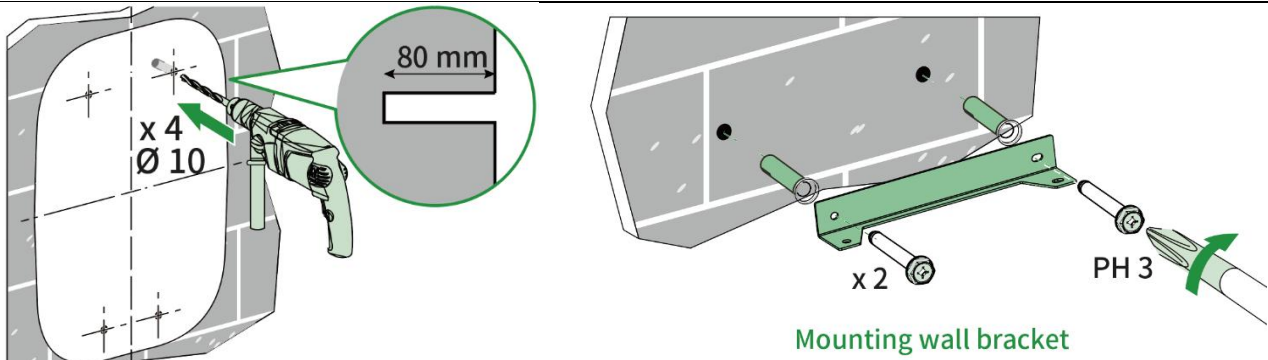


Figure 4-10 Drilling holes and hanging mounting bracket

- (3) Insert M6 x 60 expansion screws in the two holes on the top. The protruding length of the screws from the wall is 7mm. Secure the charger onto on the two expansion screws through the two concave buckles on the back (as shown in Figure 4-11).
- (4) Fix the bottom of charger on the mounting bracket by using two M6 x16 Torx screws with a T30 screwdriver, with torque of 2.0-2.2N.m (as shown in Figure 4-12). Then check that the charger is level with a spirit level.

The screw head protruding length is 7mm

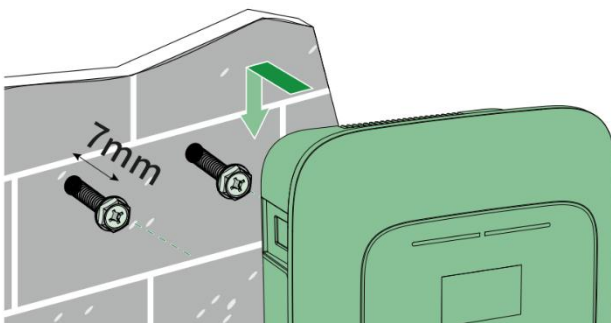


Figure 11 Hanging charger

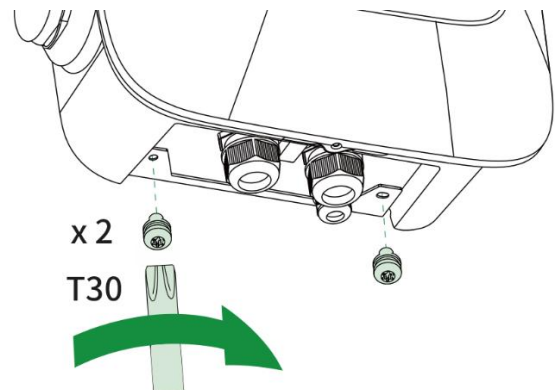
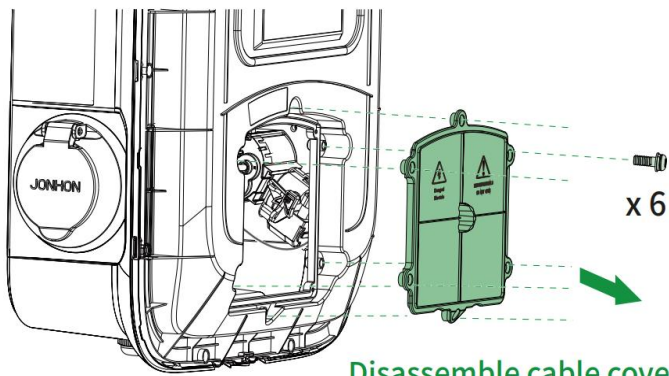


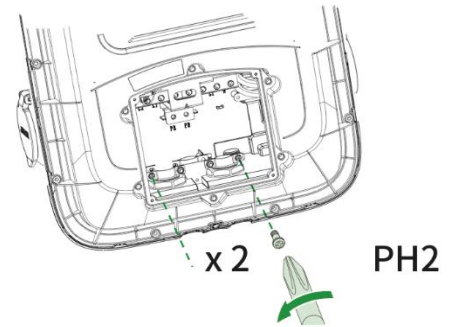
Figure 4-12 Fixing the bottom of charger

(5) Wiring

- To access the wiring compartment, loosen the screws of cable cover with a PH2 screwdriver and open it (as shown in Figure 4-13).
- Loosen the two clamp screws of inlet cable (as shown in Figure 4-14).



Disassemble cable cover



Loosen clamp screws of power cable

Figure 4-13 Removing cable cover

Figure 4-14 Loosening the cable clamp screws

(6) Route the Cables

Feed the two power cables into the charger through the waterproof glands located on the bottom of the unit. It is recommended to cover the exposed part of cable with corrugated hoses.

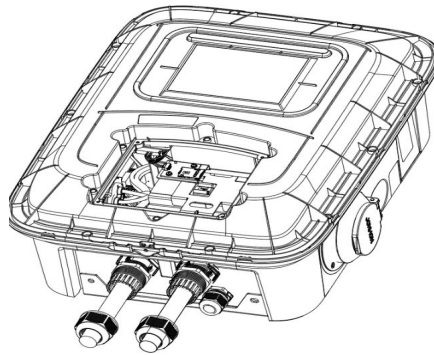


Figure 4-15 Inlet of power cable

(7) Wire Connection

- Stripping: Strip the wires and then connect cables to the corresponding letter markers (L3/L2/L1/N/PE). The cables are connected by using a PH2 screwdriver, with torque of 1.4-1.6N.m.

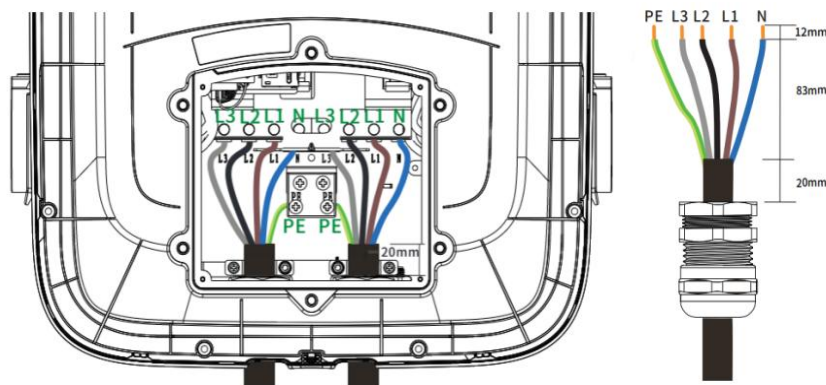
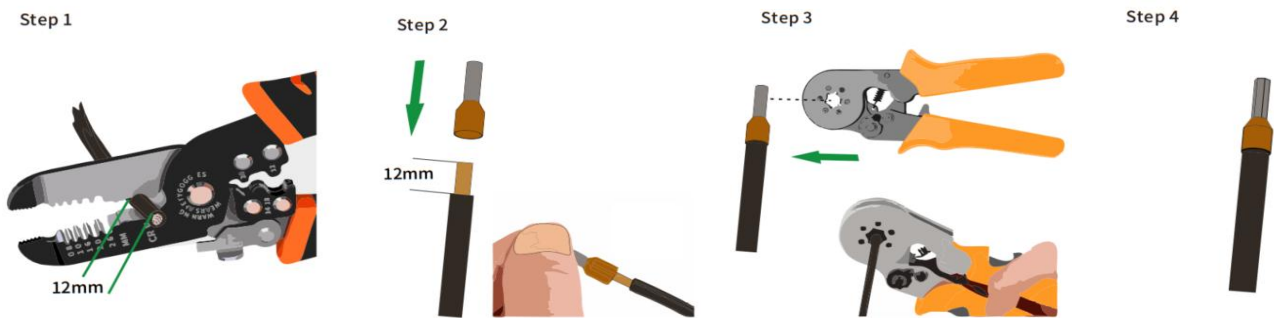


Figure 4-16 Wiring of the power cable

- Crimping: If the power cables are flexible wires, they should be crimped with pin terminals, as shown in Figure 4-17.



Cooper core cable 5 x 10mm², with an outer diameter of 15-22mm

Figure 4-17 Crimping of pin terminal

- Securing: Secure the cables using the cable clamps provided.

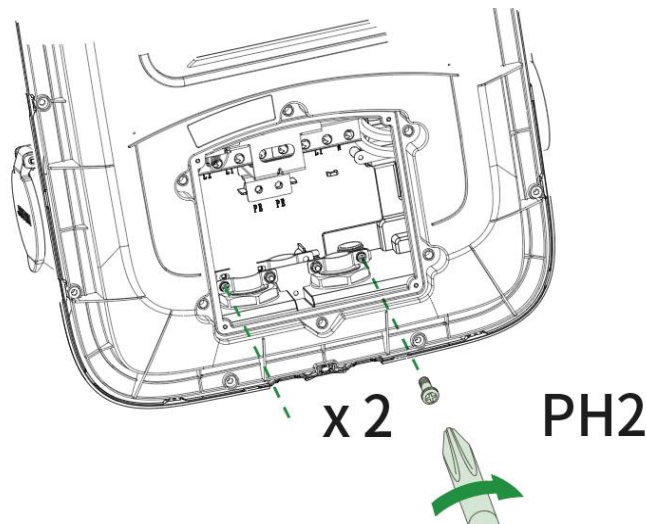


Figure 4-18 Fastening the power cable clamp screws

- (8) Network Connection: If Ethernet communication is required, a CAT5 or CAT6 network cable can be connected.
- Remove the rubber plug and waterproof rubber ring, put the network cable in the waterproof rubber ring, then connect the network cable to the charger through the gland, crimp the RJ45 connector and connect it to the internal network cable interface. Tighten all inlet glands with a torque wrench (as shown in Figure 4-19 and 4-20). The torque of incoming cable gland is 7.5N.m, and that of network cable gland is 3.75N.m.

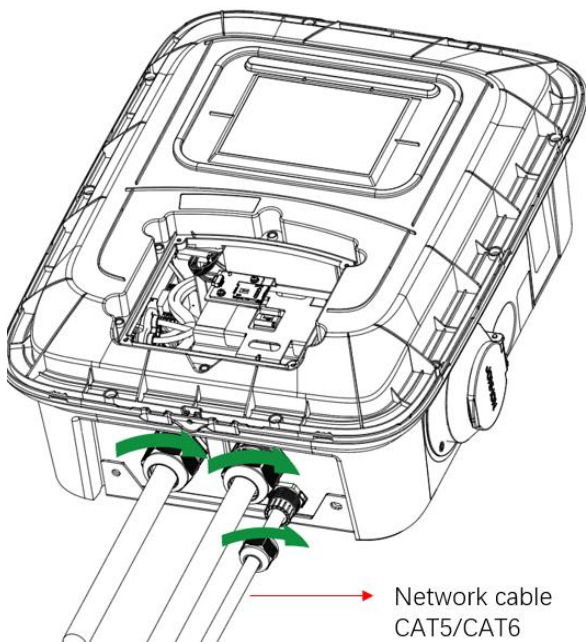


Figure 4-19 Network cable inlet

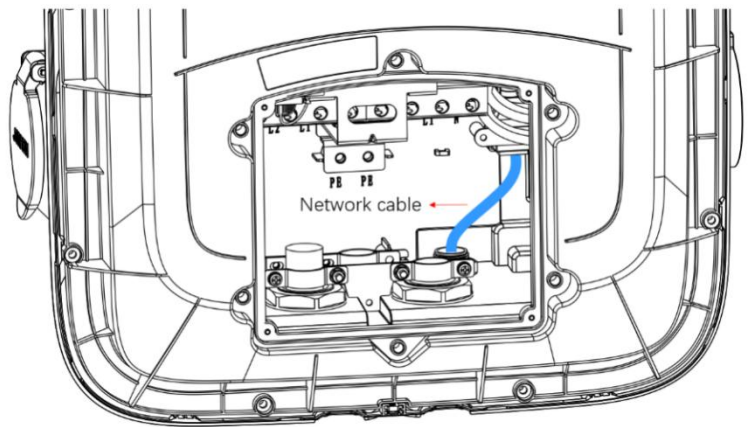


Figure 4-20 Network cable connection

- Insert SIM card (as shown in Figure 4-21).
- Complete power-on debugging before installing the cover of charger.
- Correctly install the cable cover with a PH2 screwdriver, with torque of 1.2-1.4N.m. Check whether the RCD is off before installing the cable cover (as shown in Figure 4-22).

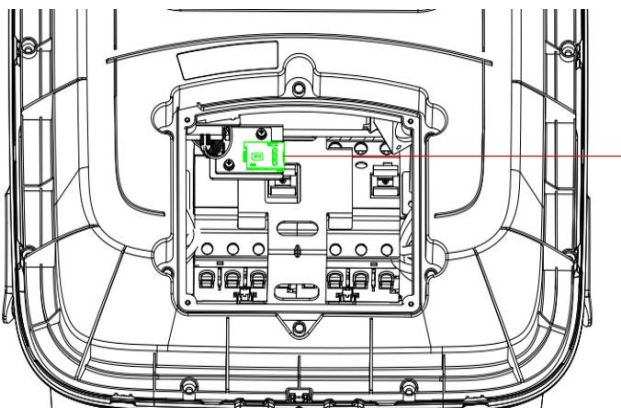


Figure 4-21 Inserting a SIM card

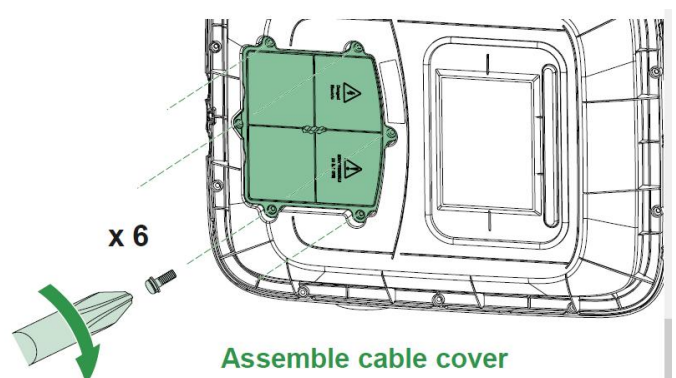
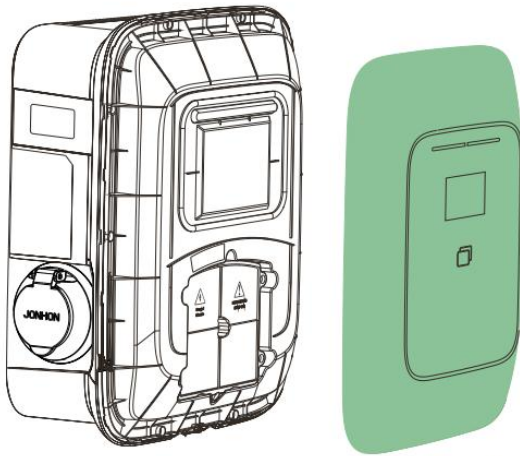


Figure 4-22 Installing the cable cover

Note: It is recommended that the power-on debugging process is completed first during first installation.

(9) Install the front cover, keep the buckles of front cover aligned with the buckle holes on the charger, and then start the installation (as shown in Figure 4-23).

(10) Fix the front cover by using an M4x8 Torx screw with a T20 screwdriver, with torque of 1.2-1.4N.m (as shown in Figure 4-24).



Install housing cover

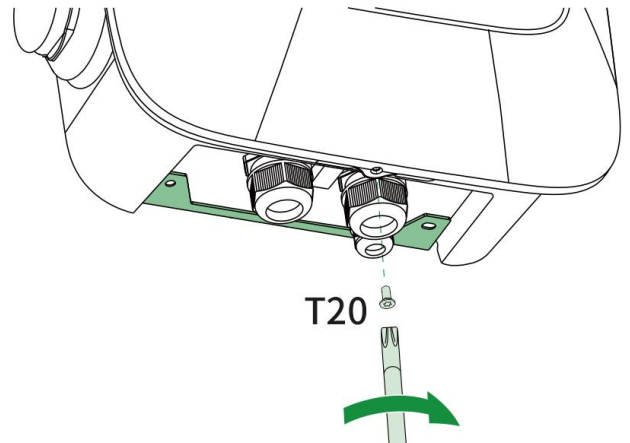


Figure 4-23 Installing the front cover

Figure 4-24 Fixing front cover

Note: Before installing the cable cover plate, be sure to check whether the RCCB is normal and whether the electrical connection is correct.

(11) Drilling holes for charging cable hook (if necessary)

Drill $\phi 8$ holes at suitable positions on the wall below the unit with a drilling depth of 60mm, and fix the charging cable hook on the wall using $\phi 8 \times 60$ plastic wall plugs (as shown in Figure 4-25).

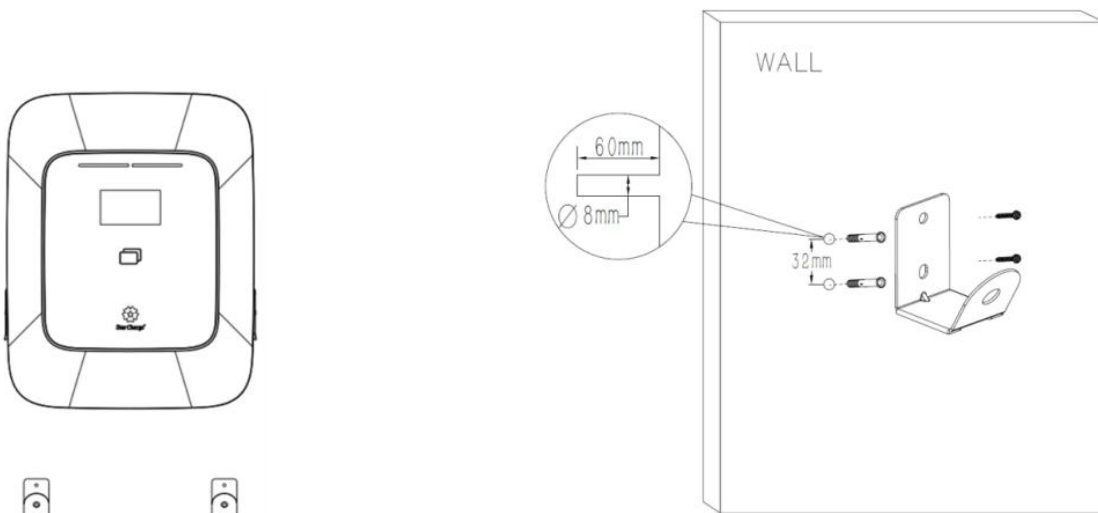


Figure 4-25 Installing a charging cable hook

(12) Installing payment terminal (if necessary)

- Take the payment terminal as a template and mark the positions of drill holes on the connector with a pencil. Drill holes at the marked positions with a $\phi 8$ drill. The effective length of drill is not less than 80mm (as shown in Figure 4-26).
- Insert $\phi 8 \times 60$ expansion tubes into the holes (as shown in Figure 4-27).

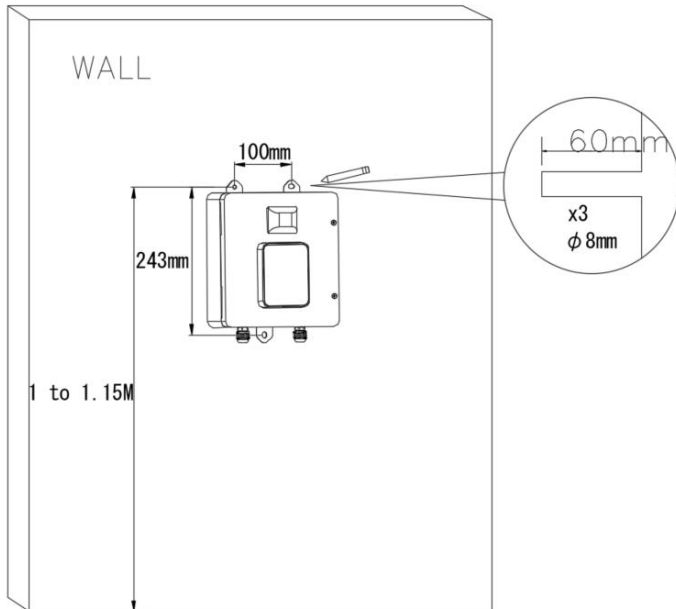


Figure 4-26 Positions of drill holes

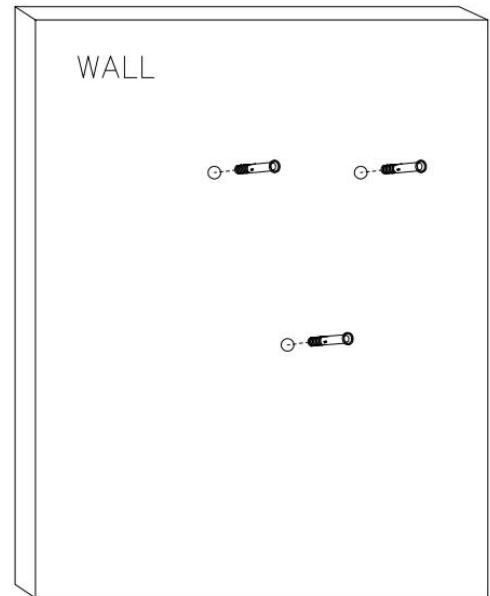


Figure 4-27 Installing plastic expansion tubes

- Fix the payment terminal on the expansion tubes with M6 x 50 self-tapping screws (as shown in Figure 4-28).
- Remove the two Torx M4 screws on the front door and open the front door with a T20 screwdriver (as shown in Figure 4-29).

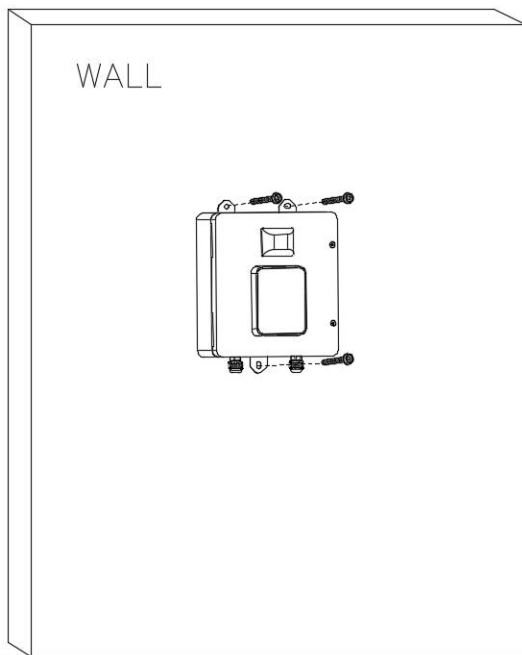


Figure 4-28 Installing the payment terminal

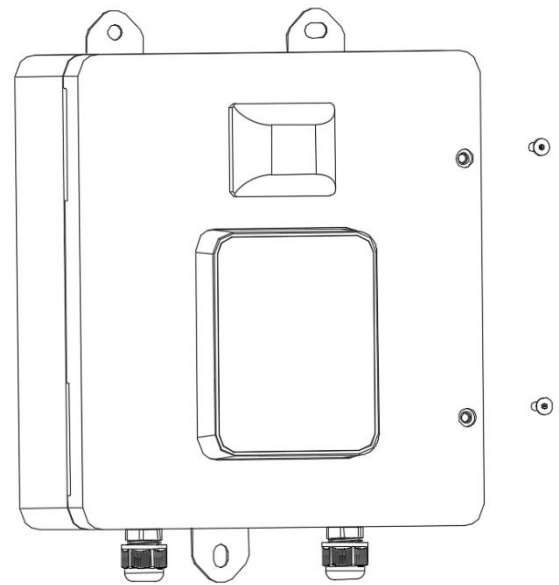
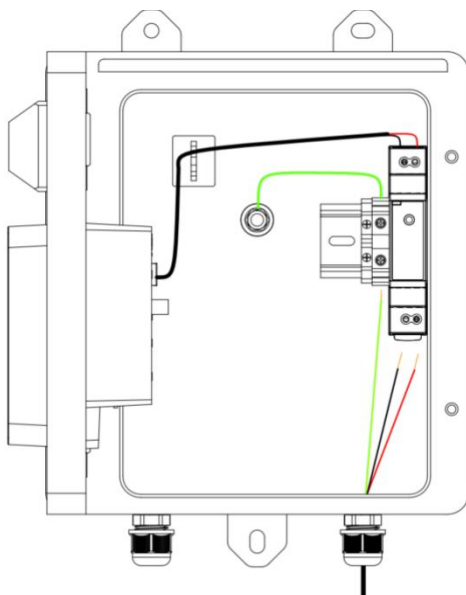


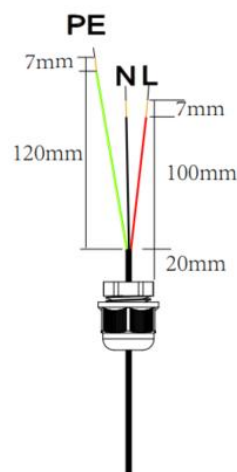
Figure 4-29 Opening the door of the payment terminal

- After the door is opened, connect the power cable through the inlet gland at the bottom of payment terminal (as shown in Figure 4-30). Ensure that the power supply on the upper terminal is turned off before wiring. An SL2 screwdriver can be used with torque of 0.65-0.75N.m. After wiring, fasten the gland by using a torque wrench, with torque of 2.5N.m.
- Loosen the screws of the SIM cover with an SL2 screwdriver, remove the cover, insert the SIM card and install the cover (as shown in Figure 4-31). Under normal conditions, the SIM is installed before delivery.



3 x 1.0mm² copper core cable, with an outer diameter of 4-8mm

Figure 4-30 Wiring of the payment terminal



Stripping length

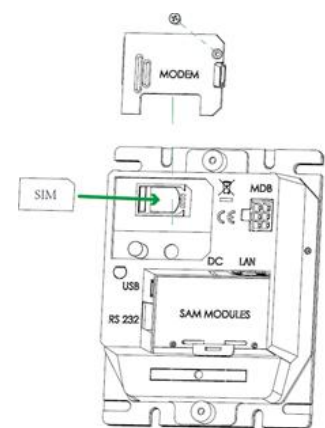


Figure 4-31 Inserting SIM card

4.3.4 Pole A installation (with the payment terminal)

The installation process of non-payment terminal version is the same as payment terminal version, with no need to insert a SIM card.

The general assembly of pole mounting is shown in Figure 4-32.

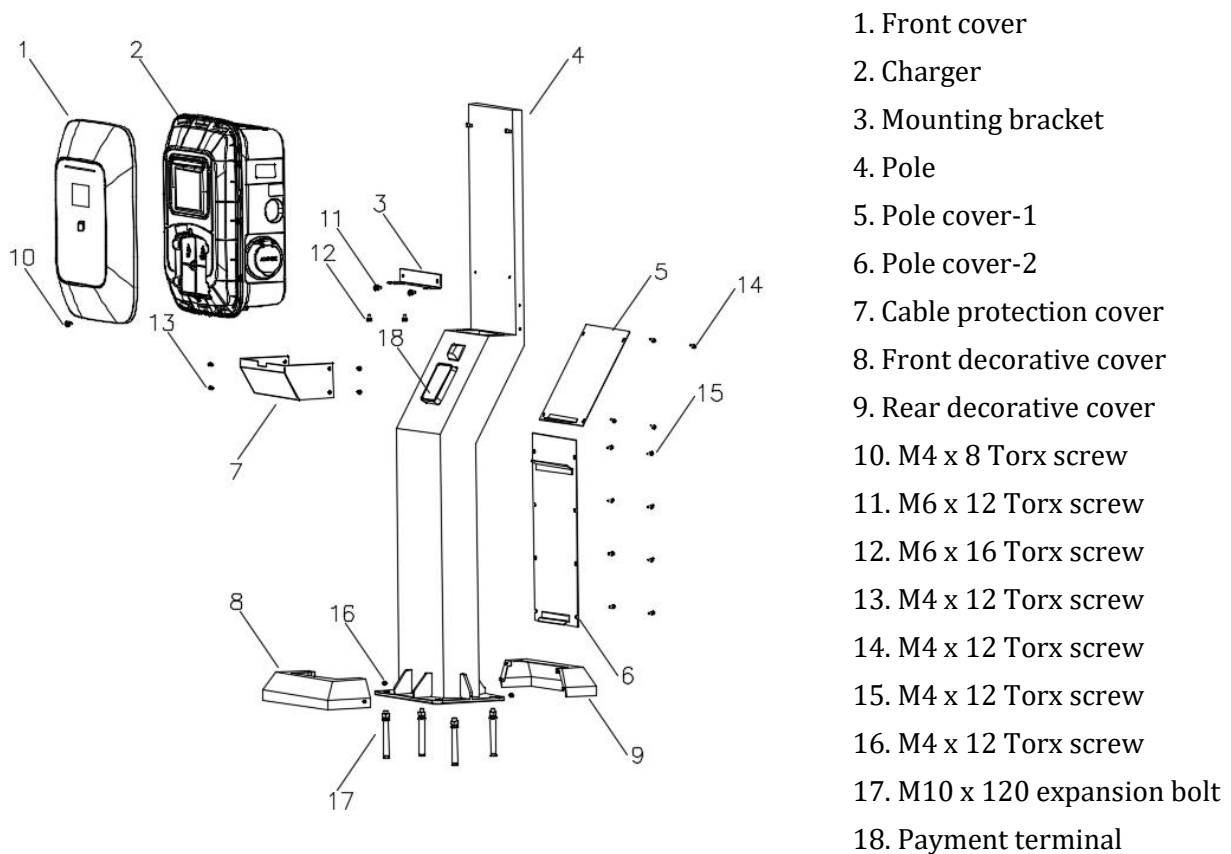


Figure 4-32 General assembly for pole A mounting

(1) Pole Installation

Prepare the pole:

Lay the pole flat on the ground, loosen the cover screws on the back of pole with a T20 screwdriver, remove the covers, and connect the laid cables to the pole through the bottom of pole (as shown in Figure 4-33).

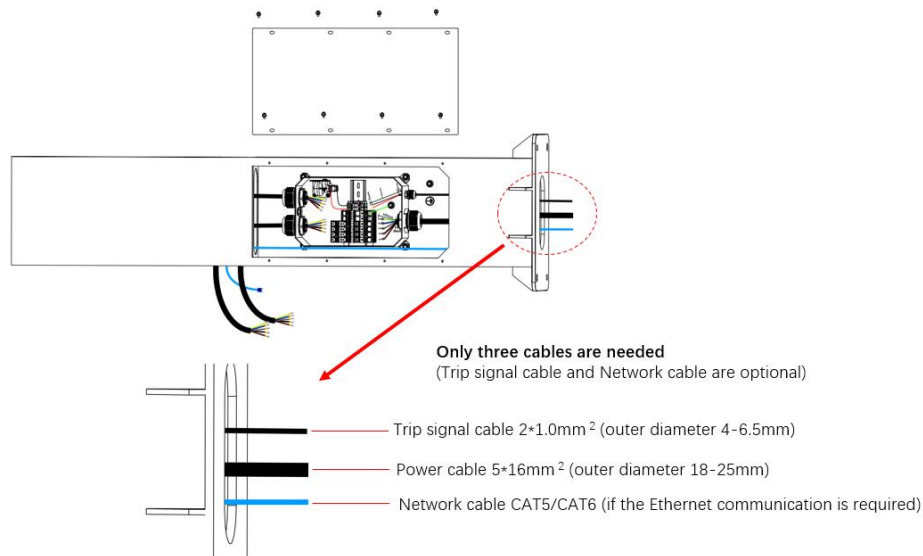


Figure 4-33 Inlet of pole cable

(2) Connect the cable

Connect the trip signal cable to the terminal 1 and terminal 2 (NC) or terminal 2 and terminal 3 (NO). A SL2 screwdriver can be used with torque of 0.6-0.75N.m. Connect the power cable as the phase sequence shown in Figure 4-34. After wiring is finished, lock the gland by using a torque wrench with torque of 7.5N.m.

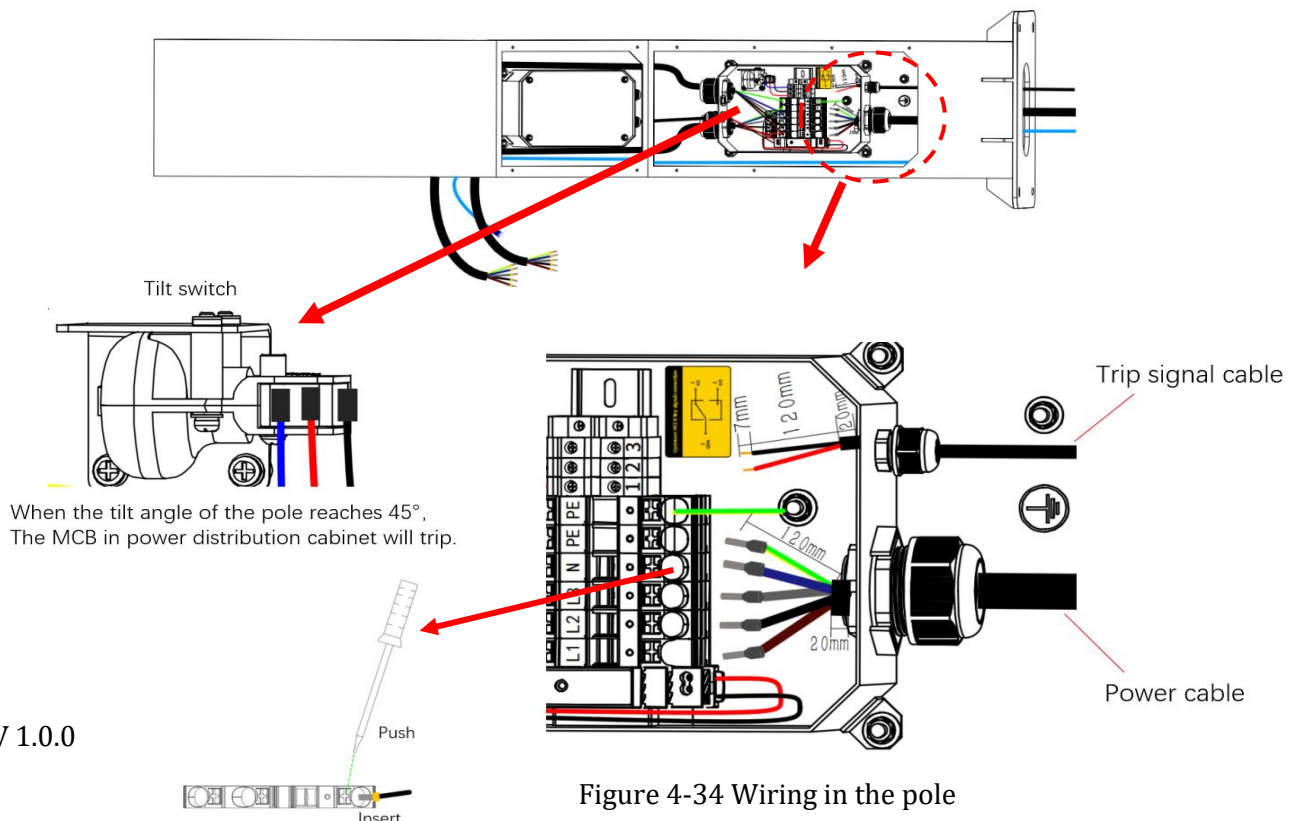


Figure 4-34 Wiring in the pole

(3) Insert the SIM card

Insert the SIM card of payment terminal. Remove the back cover of the payment terminal box. Loosen the screws of SIM card cover of Payment terminal with an SL2 screwdriver, insert the SIM card and install the cover (under normal condition, the SIM has been installed already before delivery).

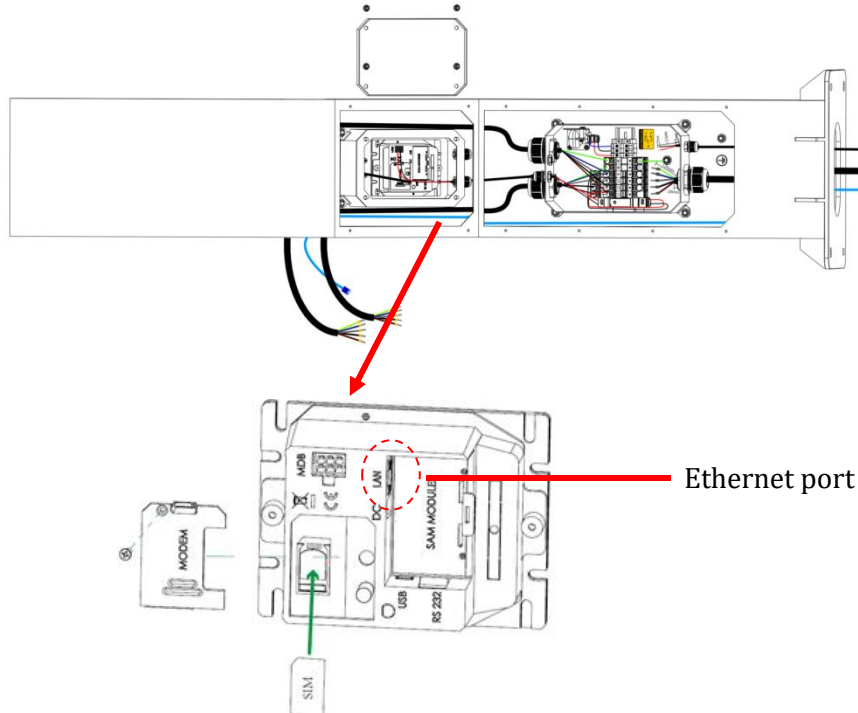


Figure 4-35 Inserting SIM card

(4) Fixing the pole

If no anchor bolts are pre-embedded on the mounting floor, expansion screws can be driven instead. Drill 4 holes with a depth of 120mm by using a $\phi 14$ drill (the effective length of drill is not less than 120mm) (Refer to section 4.2.3 for hole spacing), and then install 4 M10 x 120 expansion screws to fix the pole on the floor.

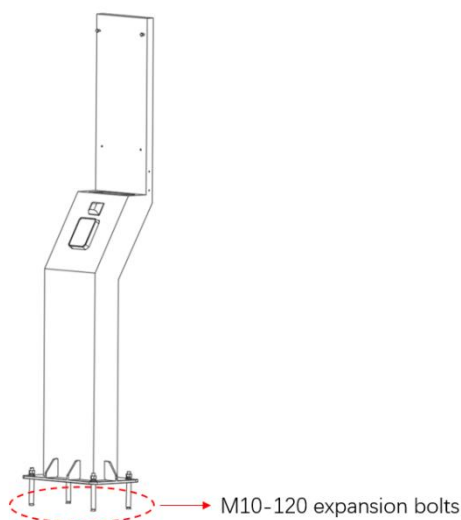


Figure 4-36 Fixing pole with expansion screws

(5) Fix mounting bracket and hang the charger

Fix the mounting bracket on the pole by using two M6 x 12 Torx screws (as shown in Figure 4-37). A T30 screwdriver can be used with torque of 2.2-2.5N.m. Hang the charger on the two screws on the top of pole through the two concave buckles on the back (as shown in Figure 4-38).

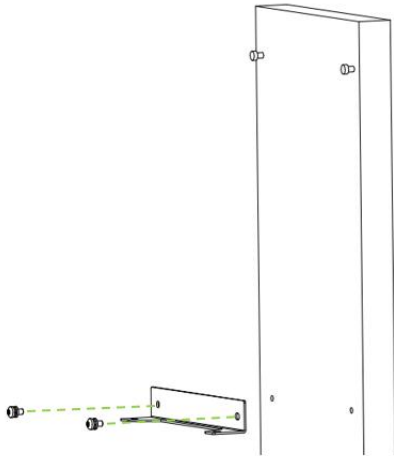


Figure 4-37 Fixing mounting bracket

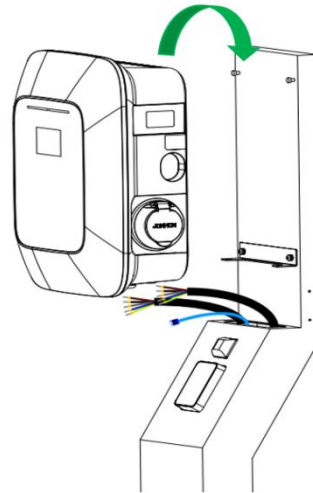


Figure 4-38 Hanging the charger

(6) Fix bottom of charger

Fix the bottom of charger on the mounting bracket by using two M6 x 16 Torx screws with a T30 screwdriver, with torque of 2.0-2.2N.m. Connect the power cable and network cable (if Ethernet communication is required) to the charger through the gland at the bottom. For wiring in the charger, please refer to wall mounting.

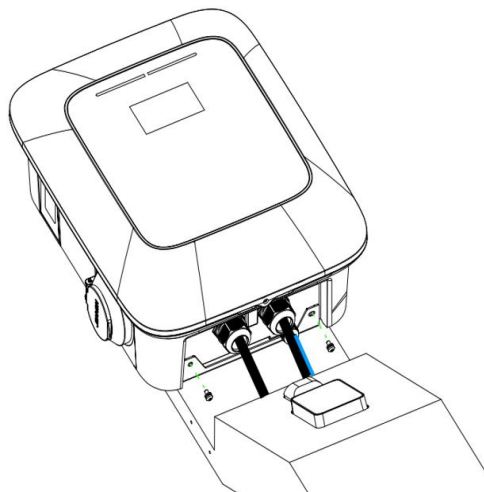


Figure 4-39 Fixing bottom of charger

(7) Secure the cable protection cover

Hang the cable protection cover on the pole, and secure it by using four M4x12 Torx screws with a T20 screwdriver, with torque of 1.8-2.0N.m (as shown in Figure 4-40).

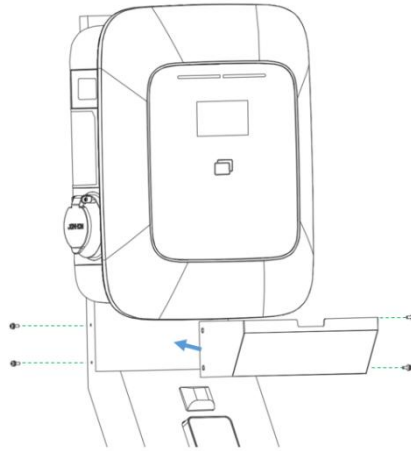


Figure 4-40 Installing cable protection cover

(8) Secure the covers

Secure back covers: Properly install the covers on the back of pole and fasten the screws with a T20 screwdriver, with torque of 1.8-2.0N.m (as shown in Figure 4-41). Before installing the covers, please check the all the cable glands in the pole are fastened enough.

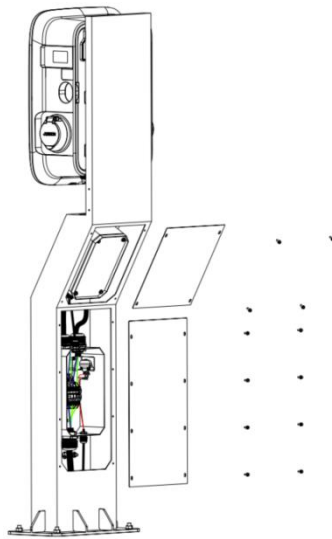


Figure 4-41 Installing the covers on the back of pole

Secure front and rear covers: Install the front and rear decorative covers at the bottom of pole, and fix them with two M4x12 Torx screws. A T20 screwdriver can be used with torque of 1.8-2.0N.m.

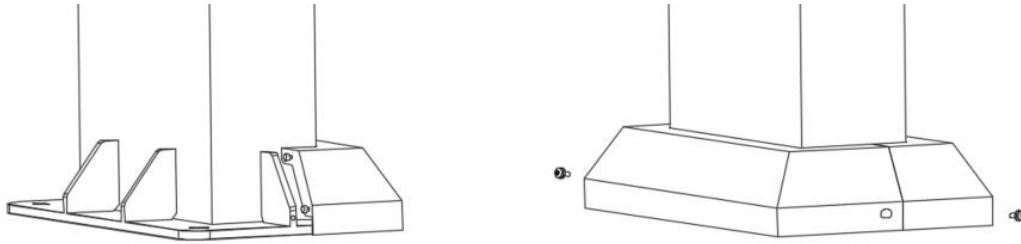


Figure 4-42 Installing front and rear decorative covers

(9) Wiring of trip signal cable (if necessary)

The wiring of trip signal cable of tilt switch in the distribution cabinet of client side is shown in Figure 4-43.

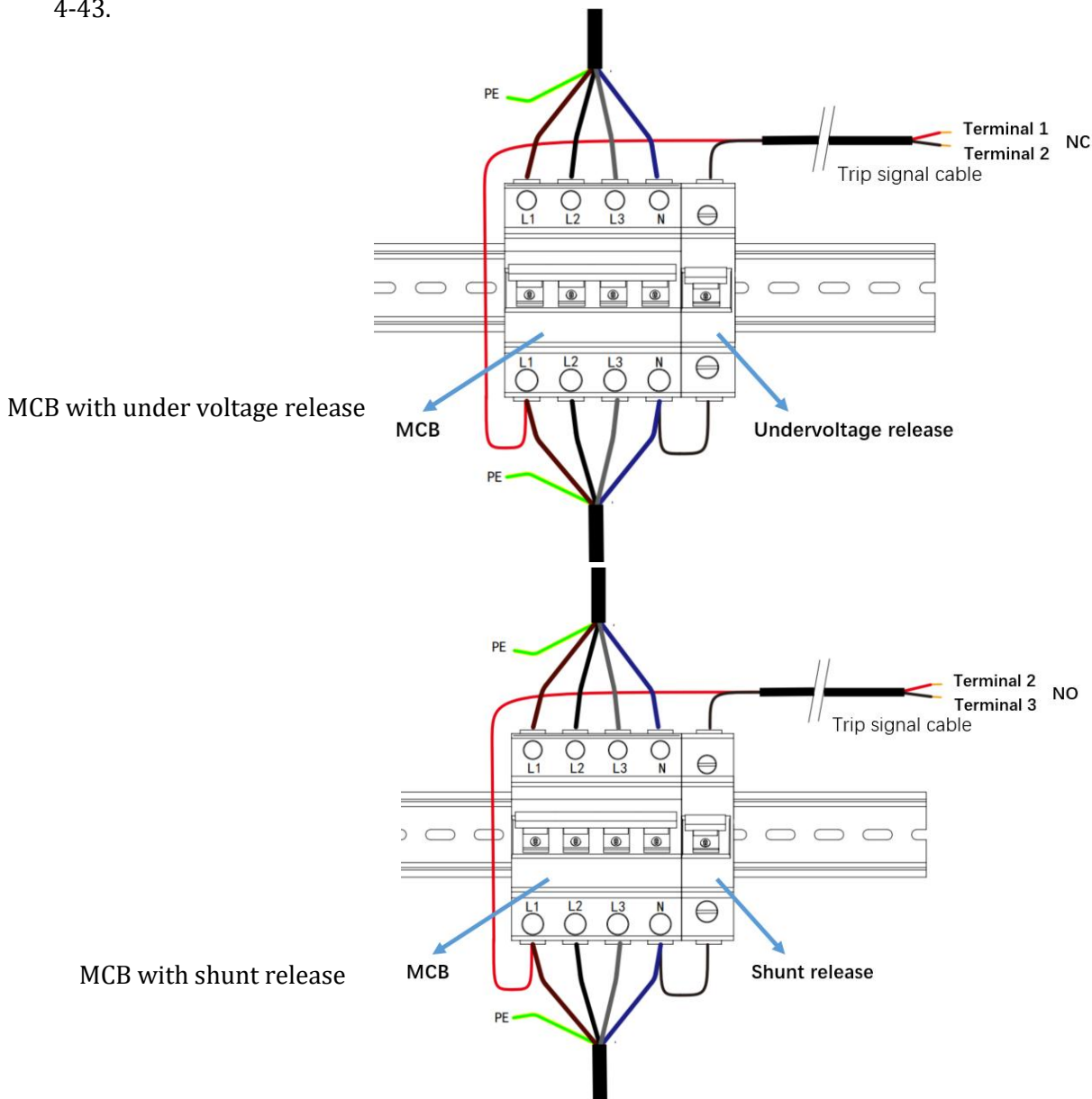


Figure 4-43 Wiring of trip signal cable in the distribution cabinet

4.3.5 Pole B installation

The general assembly of pole B mounting is shown in Figure 4-44.

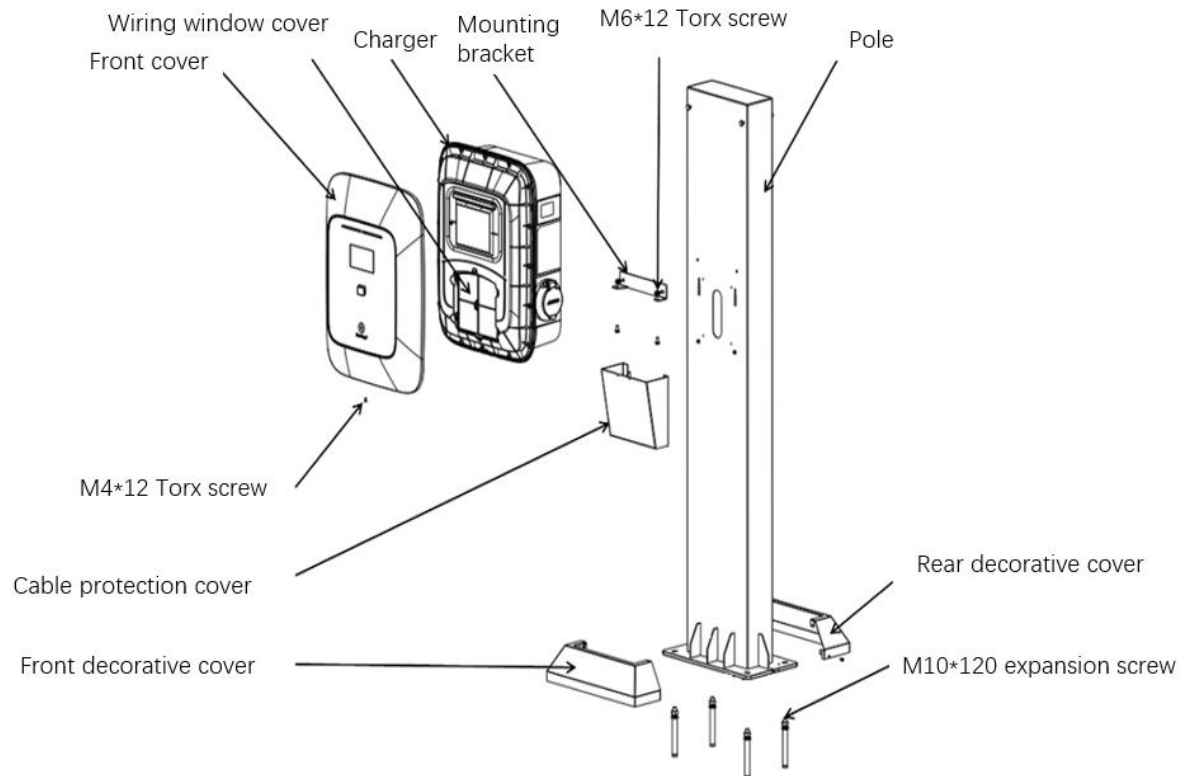


Figure 4-44 General assembly of pole B mounting

(1) Place the pole horizontally, and insert the cable into the bottom hole and put it out from the middle hole (as shown in Figure 4-45) .

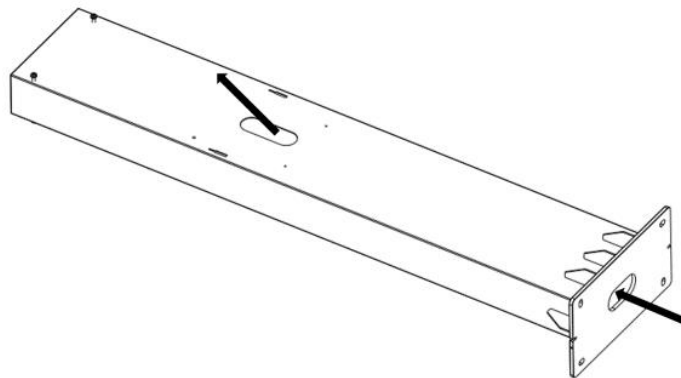


Figure 4-45 Cable inlet drawing

(2) Fasten the pole to the concrete foundation with 4 M10 x 120 expansion screws (as shown in Figure 4-46) .

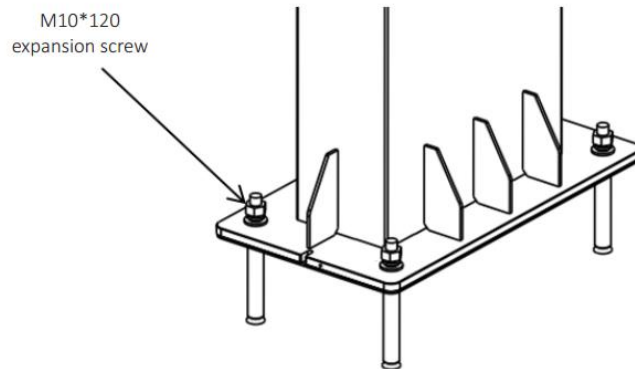


Figure 4-46 Install the pole to the concrete foundation

(3) Install the front and rear decorative covers at the bottom of pole, and fix them with two M3 screws.

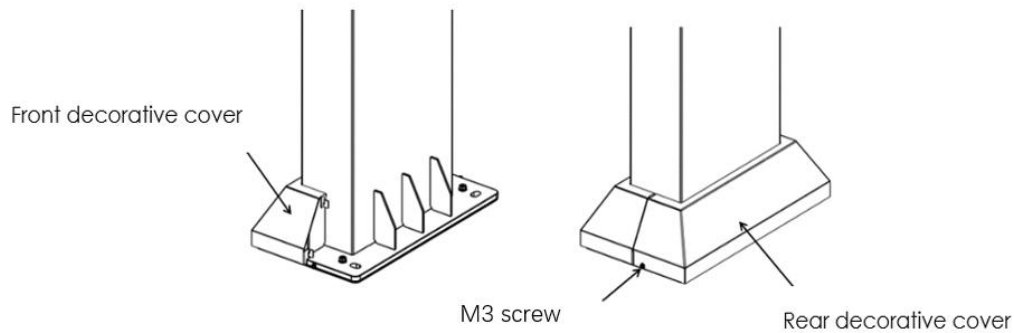


Figure 4-47 Install the decorative cover

(4) Fasten the mounting bracket to the pole with two M6 screws.

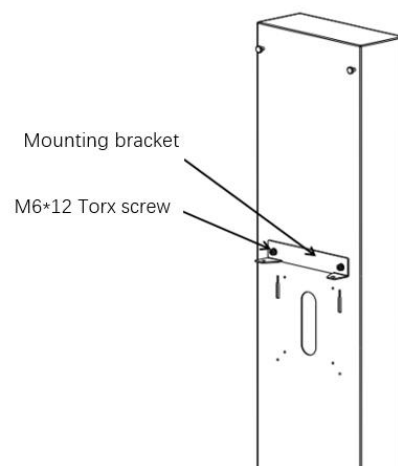


Figure 4-48 Install the mounting bracket

(5) Hang the charger onto the pole by the two welding screws on the pole and fix the bottom of the charger to the mounting bracket with two M6 screws. Refer to the wall mounting for wiring.

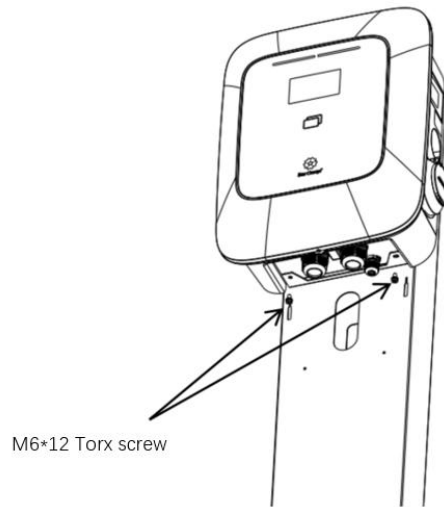


Figure 4-49 Install the charger onto the pole

(6) Secure cable cover to the pole.

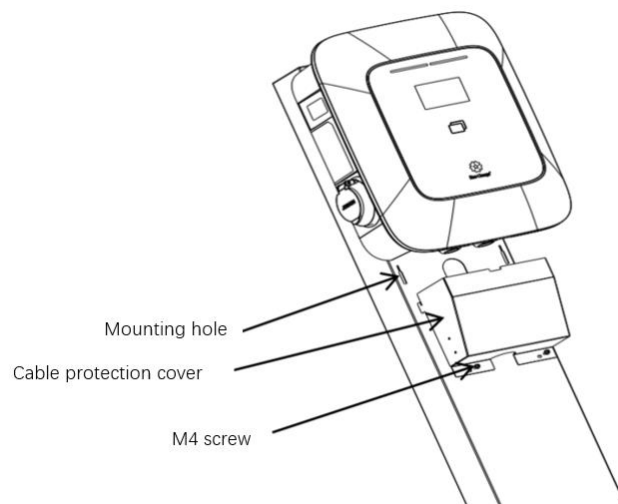


Figure 4-50 Install cable protection cover



Warning: Be sure to follow the specifications and correct operation steps, otherwise personal injury or death may be caused.

4.4 Check after installation

4.4.1 Clean up

- Dispose of all shipping and packaging materials in accordance with local regulations.
- Clean the charging station and surrounding debris, such as small cables, straps, screws, etc. Do not leave the installation tools on site or in the charging station (record the type and quantity of tools to prevent omission).
- Wipe the insulation with an anti-static cloth. Do not use any corrosive solvents.

4.4.2 Inspection

- Verify that the base is secure and properly sealed.
- Ensure all internal components of the device are securely fastened.
- Check if the protection level of the device meets the requirements, especially at the cable inlet at the bottom of the charger.
- Inspect the overall appearance, markings, completeness, and cleanliness of the unit.

5 Commissioning instructions

5.1 Pre-power on checks

- **Insulation Resistance (IR):** Measure the insulation resistance with a multimeter. It should be greater than 1MΩ.
- **Connections:** Verify that all screws and electrical connections are secure.
- **Wiring:** Ensure proper connection of all phase wires and data cables.
- **Voltage Verification:** Before activating the charger's protection device, measure the voltage on the applied MCB in the consumer unit. The voltage between the phase(s) and neutral should be within 10% of 230V.

5.2 Power on and startup

- **Turn on Power:** Switch on the power to the circuit where the charger is installed.
- **Charger Startup:** The charger will initiate and the LED will illuminate green.
- **Display Initialization:** Wait 2-5 minutes for the screen display to change to "Welcome."
- **System Checks:** Verify that the screen display and electricity meter readings appear normal.
- **Network Connectivity (optional):** Check if the charger is connected to the network (if applicable).

5.3 Network connection method

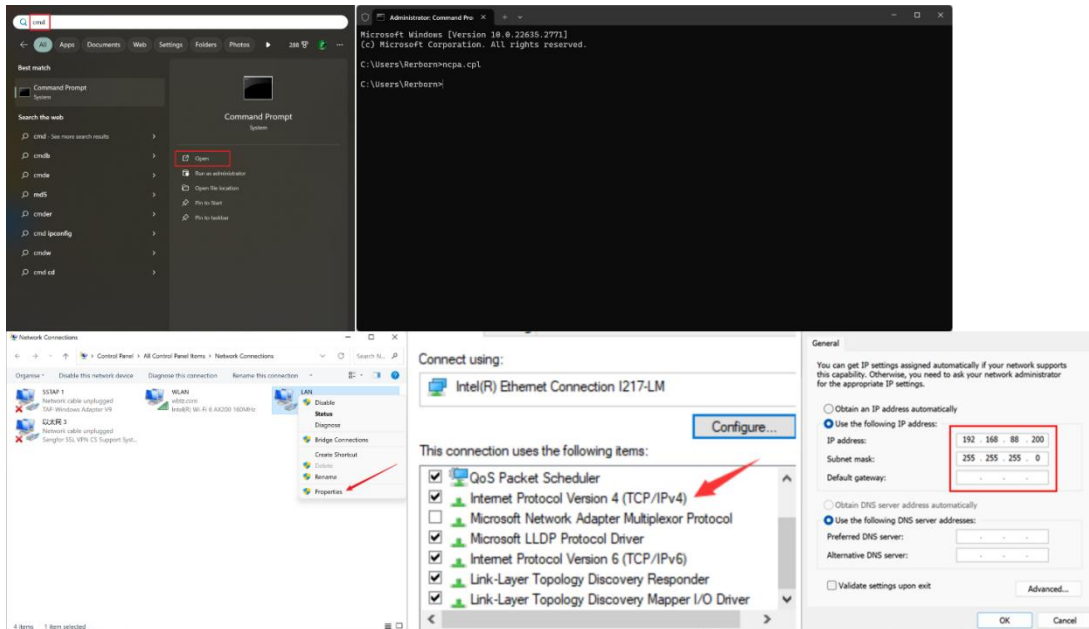
The charger offers three network connection options: data traffic, WiFi and Ethernet. You can choose any one method for your needs.

Note: If Ethernet communication is required, a network cable connection is mandatory.

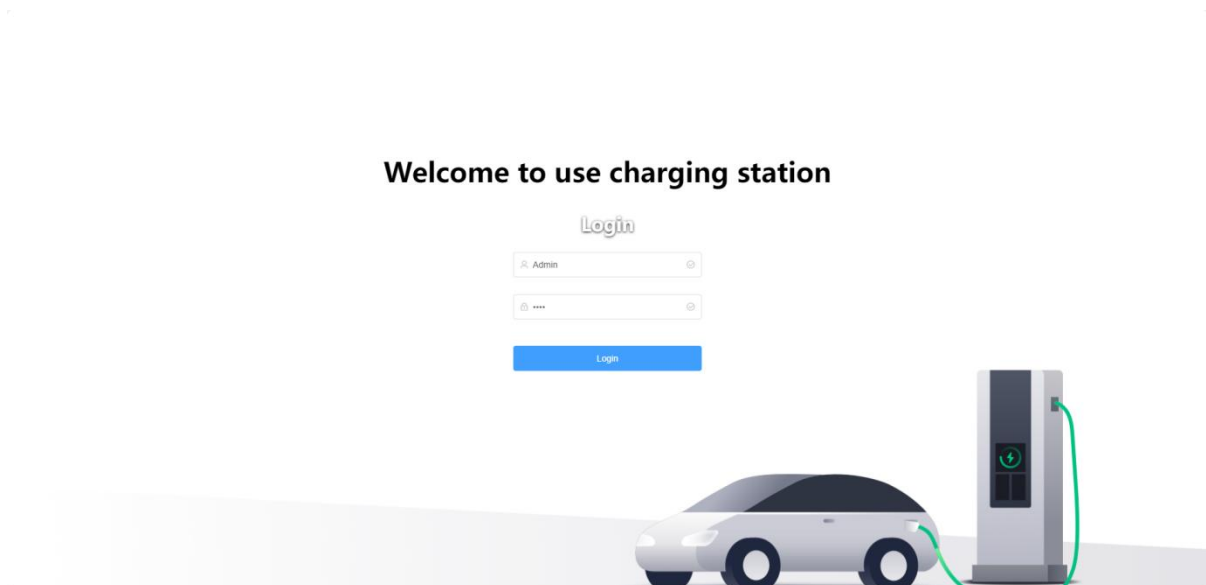
5.4 Web configuration of charger

5.4.1 Login into web configuration

(1) Connect the charger to the laptop by a LAN cable. Configure the IP address of laptop as shown below.



(2) Open the browser and input 192.168.88.206, log in with username (Admin) and password (1234).



(3) Reset password.

Reset Password

The password must be 8 to 31 characters, and must include at least one number, one uppercase, one lowercase and one special character ([-~!@_?]).

Reset

English

Admin

System Status

Common

System Configuration

Firmware Version

Firmware Version20.152.0

NetWork

Link StatusOffline

Link TypeEthernet

Cellular

Cellular StatusEnable

Link StatusOffline

Signal Level0

Cellular Type

ICCID

IP

NetMask

Gateway

Wi-Fi

Wi-FiEnable

SSIDSaturn

Signal Level0

Link Status

IP192.168.87.136

NetMask255.255.255.0

Gateway192.168.87.136

Ethernet

EthernetEnable

IP192.168.1.120

NetMask255.255.255.0

Gateway192.168.1.1

Charging Station

OCPP StatusOffline

Connector Error Info

Number of Connectors2

Connector ID1

Connector ID2

Error Code0

Error Code0

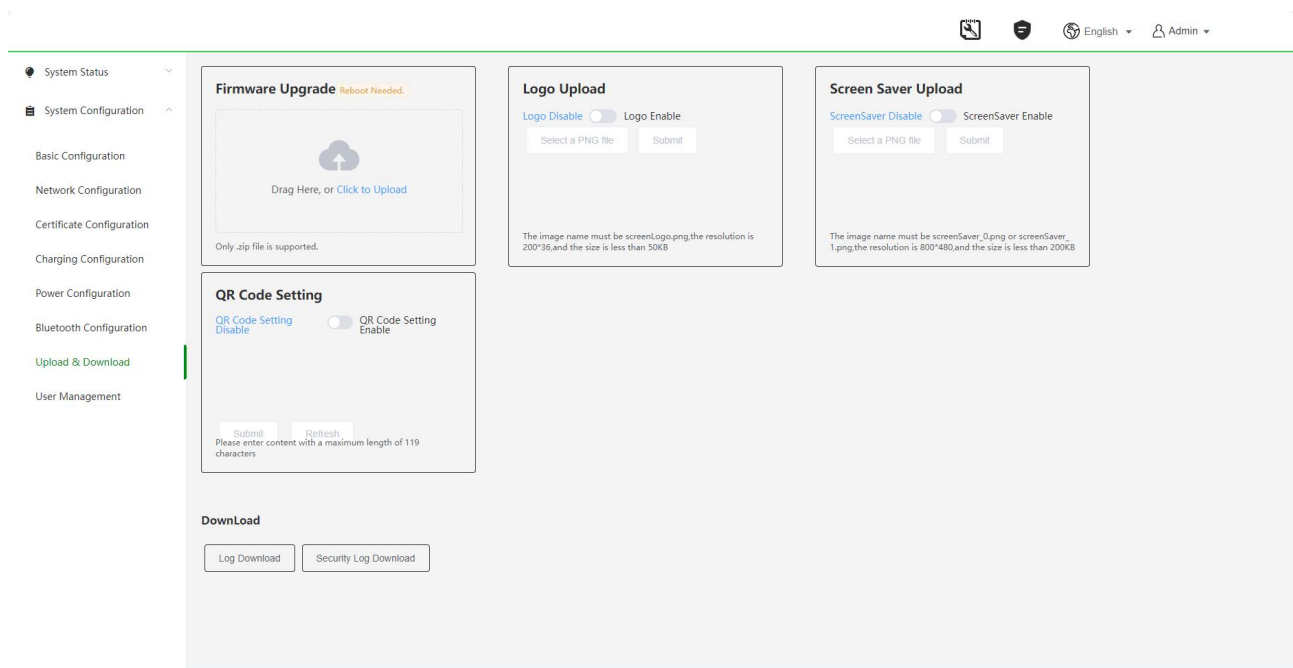
5.4.2 Firmware update



Notice: Firmware update is not a necessary step during commissioning. Contact with Star Charge engineer for more details.

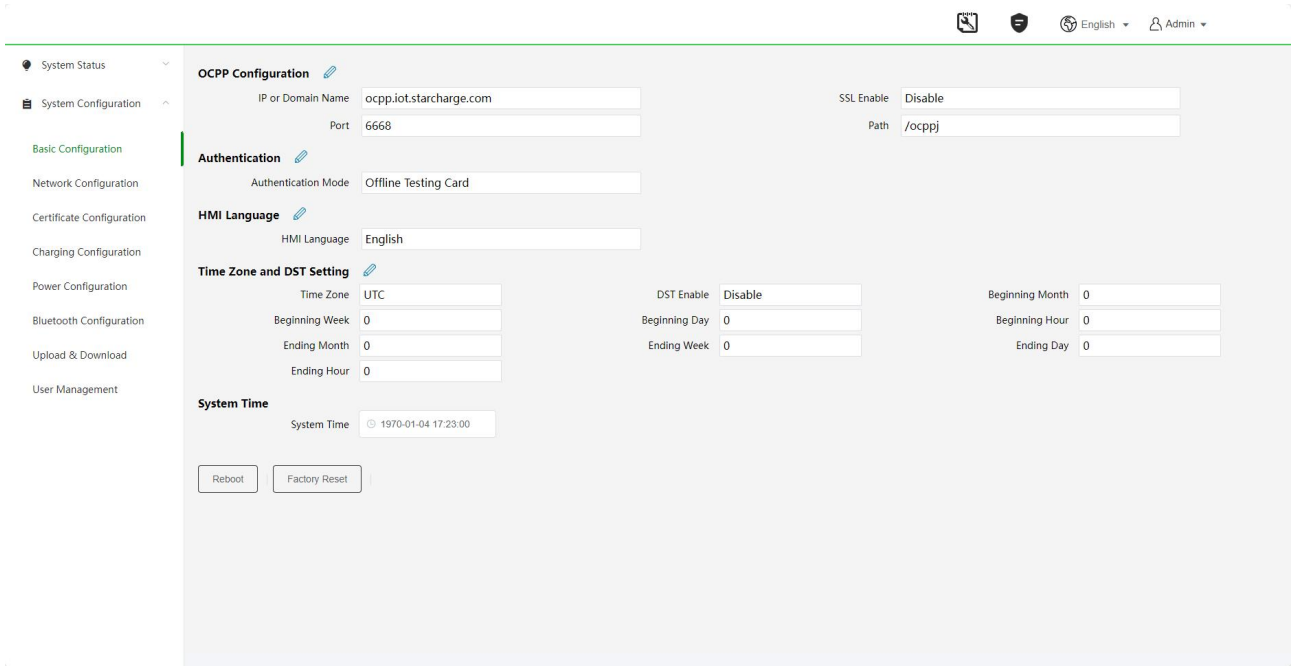
Firmware Update:

Click “System Configuration” – “Upload & Download” – “Firmware Upgrade” – “Click to Upload” – “firmware.zip” – “Open”.



The screenshot displays the Star Charge web interface. On the left is a sidebar menu with options: System Status, System Configuration (expanded), Basic Configuration, Network Configuration, Certificate Configuration, Charging Configuration, Power Configuration, Bluetooth Configuration, Upload & Download (highlighted), and User Management. The main content area is titled 'Firmware Upgrade' with a 'Reboot Needed' status. It features a large upload area with a cloud icon and the text 'Drag Here, or Click to Upload'. Below this, it states 'Only .zip file is supported.' To the right of the main area are two panels: 'Logo Upload' and 'Screen Saver Upload'. The 'Logo Upload' panel has a toggle for 'Logo Enable' and a 'Submit' button. The 'Screen Saver Upload' panel has a toggle for 'ScreenSaver Enable' and a 'Submit' button. Below these panels is a 'QR Code Setting' section with a toggle for 'QR Code Setting Enable' and a 'Submit' button. At the bottom, there is a 'Download' section with buttons for 'Log Download' and 'Security Log Download'.

5.4.3 Web-Basic configuration



OCPP Configuration:

Note: In case of OCPP backend connection is required, configure this part.

- (1) IP or Domain Name: Enter IP address or domain name of the backend.
- (2) SSL_Enable: “Enable” when the backend uses TLS for access, otherwise the value is “Disable”.
- (3) Port: Enter port number of backend.
- (4) Path: Enter the path after IP.
- (5) Authorization key: If the backend doesn’t use basic authorization, just leave it blank. (No need to fill in most cases).
- (6) Customer number: This page displays the factory default customer number for the charging station, which can be modified, but it is generally sufficient to keep the factory mode settings.
- (7) Tick to delete OCPP historical transaction data: clean OCPP database.
- (8) Click “Save” after configuration.

System Status
System Configuration
Basic Configuration
Network Configuration
Certificate Configuration
Charging Configuration
Power Configuration
Bluetooth Configuration
Upload & Download
User Management

OCPP Configuration

IP or Domain Name:
Port:
SSL Enable: ☐
Path:

Authentication

Authentication Mode:

HMI Language

HMI Language:

Time Zone and DST Setting

Time Zone:
DST Enable:
Beginning Week:
Beginning Day:
Ending Month:
Ending Week:
Ending Hour:

System Time

System Time:

Reboot
Factory Reset

Authentication

Authentication Mode:

Online Card Authentication(Support APPRFID,Credit,Card)
Offline Testing Card
Offline Plug and Play

Cancel
Save

HMI Language:

- (1) Change default language according to requirement.
- (2) Click “Save” after configuration.

System Status
System Configuration
Basic Configuration
Network Configuration
Certificate Configuration
Charging Configuration
Power Configuration
Bluetooth Configuration
Upload & Download
User Management

OCPP Configuration

IP or Domain Name:
Port:
SSL Enable: ☐
Path:

Authentication

Authentication Mode:

HMI Language

HMI Language:

Time Zone and DST Setting

Time Zone:
DST Enable:
Beginning Week:
Beginning Day:
Ending Month:
Ending Week:
Ending Hour:

System Time

System Time:

Reboot
Factory Reset

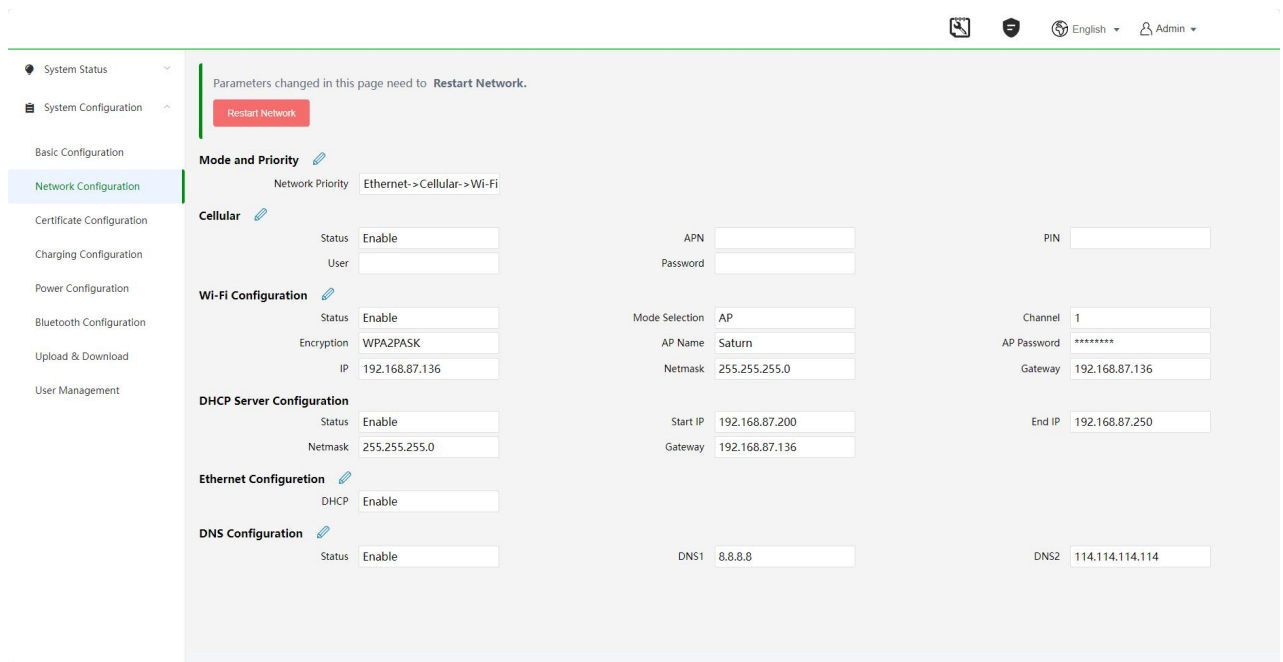
HMI Language

HMI Language:

English
Deutsch
Français
Español
Italiano
Norsk
svenska

Cancel
Save

5.4.4 Web-Network configuration



Parameters changed in this page need to **Restart Network**.

Restart Network

Mode and Priority 

Network Priority

Cellular 

Status

User

APN

Password

PIN

Wi-Fi Configuration 

Status

Encryption

IP

Mode Selection

AP Name

Netmask

Channel

AP Password

Gateway

DHCP Server Configuration

Status

Netmask

Start IP

Gateway

End IP

Ethernet Configuration 

DHCP

DNS Configuration 

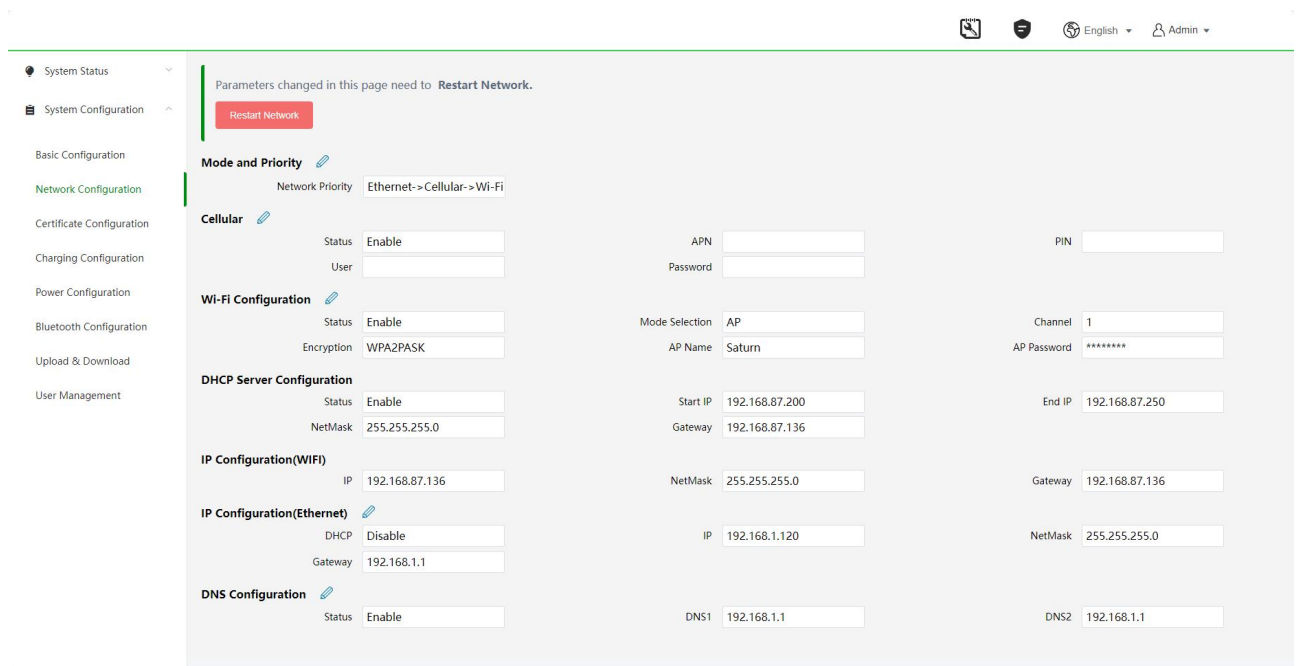
Status

DNS1

DNS2

Restart Network:

Click “Restart Network” after you change the configuration every time.



Parameters changed in this page need to **Restart Network**.

Restart Network

Mode and Priority 

Network Priority

Cellular 

Status

User

APN

Password

PIN

Wi-Fi Configuration 

Status

Encryption

IP

Mode Selection

AP Name

NetMask

Channel

AP Password

Gateway

DHCP Server Configuration

Status

NetMask

Start IP

Gateway

End IP

IP Configuration(WiFi)

IP

NetMask

Gateway

IP Configuration(Ethernet) 

DHCP

Gateway

IP

NetMask

DNS Configuration 

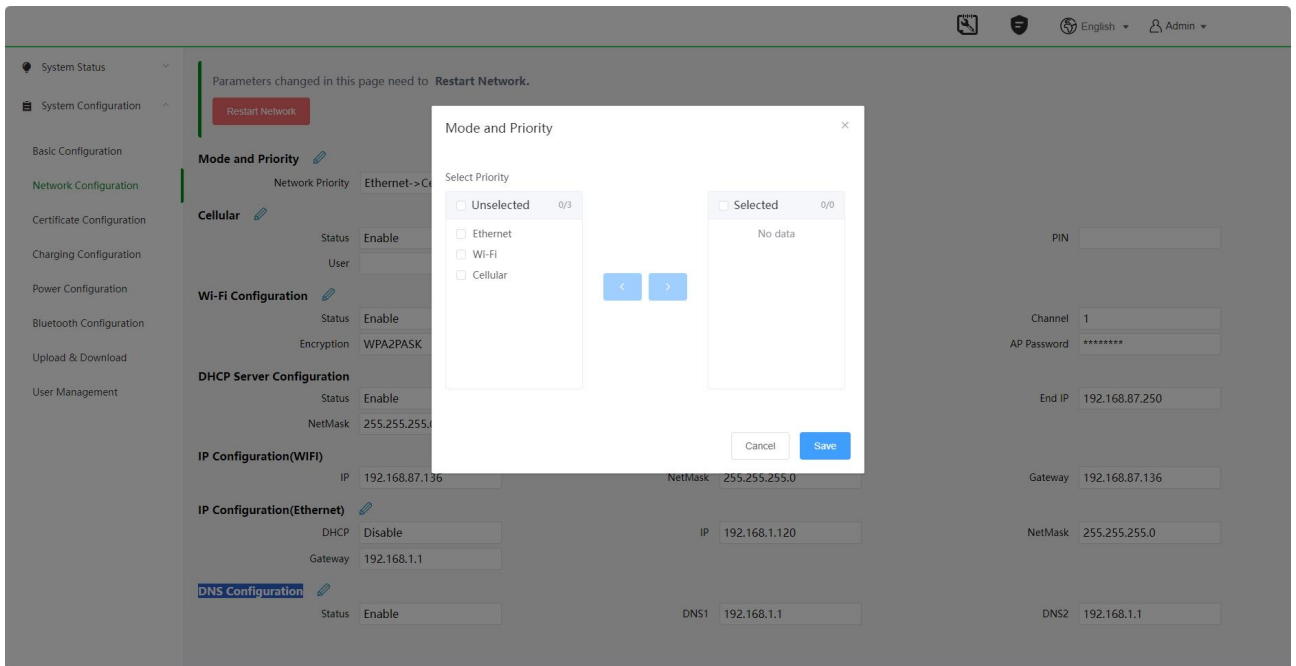
Status

DNS1

DNS2

Mode and Priority:

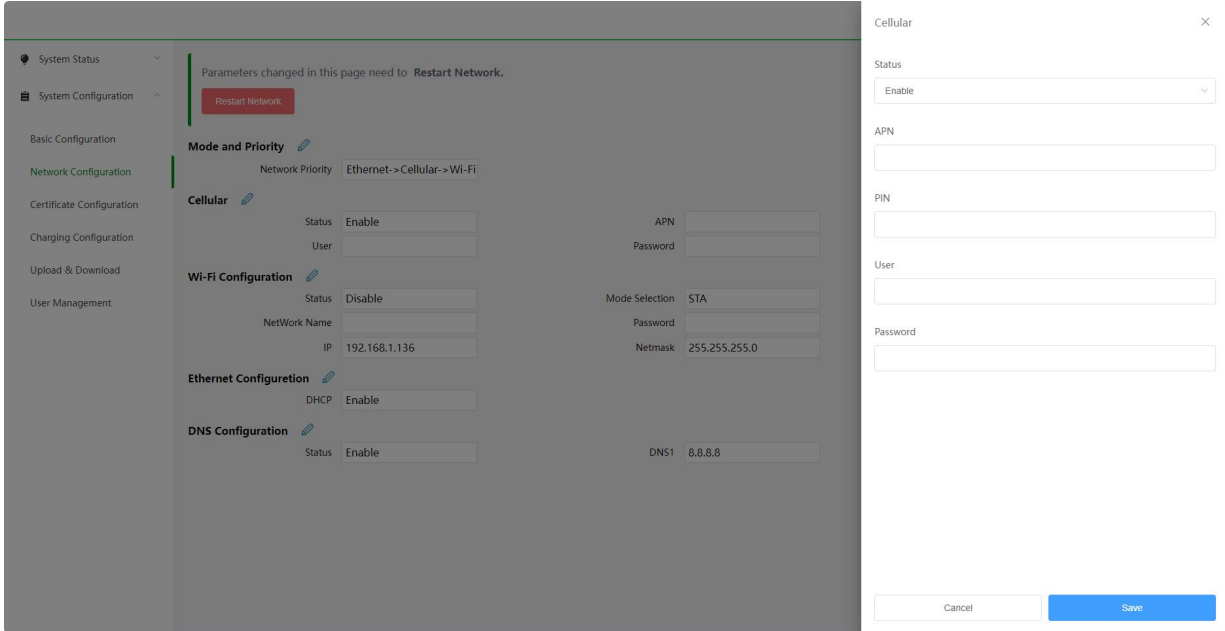
- (1) Change the network priority according to the requirements.
- (2) Click “Save” after configuration.



Cellular:

Note: In case of connecting with network via SIM card, configure this part.

- (1) Set APN, Pin, User, Password if necessary. Such value should be provided by SIM card operator.
- (2) Click “Save” after configuration.



Wi-Fi Configuration:

Note: In case of connecting with network via WIFI, configure this part.

- (1) “Mode selection” choose “STA”.
- (2) Fill in “Encryption”, “NetWork Name”, “Password”.
- (3) Enable “DHCP”.
- (4) Click “Save” after configuration.

System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

Parameters changed in this page need to **Restart Network**.

Restart Network

Mode and Priority

Network Priority Ethernet->Cellular->Wi-Fi

Cellular

Status Enable

User

APN

Password

Wi-Fi Configuration

Status Enable

Encryption WPA2PASK

Mode Selection AP

AP Name Satum

DHCP Server Configuration

Status Enable

NetMask 255.255.255.0

Start IP 192.168.87.200

Gateway 192.168.87.136

IP Configuration(WIFI)

IP 192.168.87.136

NetMask 255.255.255.0

IP Configuration(Ethernet)

DHCP Disable

Gateway 192.168.1.1

IP 192.168.1.120

DNS Configuration

Status Enable

DNS1 192.168.1.1

Wi-Fi Configuration

Status Enable

Mode Selection STA

Encryption WPA2PASK

NetWork Name Satum

Password

DHCP Disable

IP 192.168.87.136

NetMask 255.255.255.0

Gateway

Ethernet Configuration:

Note: In case of connecting with network via LAN cable, configure this part.

- (1) Enable “DHCP” to get IP address automatically or disable “DHCP” to set IP address manually.
- (2) Click “Save” after configuration.

System Status
System Configuration
Basic Configuration
Network Configuration
Certificate Configuration
Charging Configuration
Power Configuration
Debug Assistant
Upload & Download
User Management

Parameters changed in this page need to **Restart Network**.

Restart Network

Mode and Priority

Network Priority Cellular->Ethernet->Wi-Fi

Cellular

Status Enable

User

APN

Password

Wi-Fi Configuration

Status Disable

Mode selection STA

NetWork Name

Password

IP Configuration(WIFI)

DHCP Disable

IP 192.168.66.136

Gateway

IP Configuration(Ethernet)

DHCP Enable

DNS Configuration

Status Disable

DNS1

IP Configuration

Network Mode Ethernet

DHCP Enable

Cancel

Save

System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

Parameters changed in this page need to **Restart Network**.

Restart Network

Mode and Priority

Network Priority Ethernet->Cellular->Wi-Fi

Cellular

Status Enable

User

APN

Password

Wi-Fi Configuration

Status Enable

Encryption WPA2PASK

IP 192.168.87.136

Mode Selection AP

AP Name Saturn

Netmask 255.255.255.0

DHCP Server Configuration

Status Enable

Netmask 255.255.255.0

Start IP 192.168.87.200

Gateway 192.168.87.136

Ethernet Configuration

DHCP Disable

IP 192.168.1.136

Gateway 192.168.1.1

DNS Configuration

Status Enable

DNS1 8.8.8.8

IP Configuration

Network Mode Ethernet

DHCP Disable

IP 192.168.1.136

Netmask 255.255.255.0

Gateway 192.168.1.1

Cancel

Save

DNS Configuration:

Note: In case DNS configuration is necessary, configure this part.

- (1) Configure the DNS.
- (2) Click “Save” after configuration.

System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

Parameters changed in this page need to Restart Network.

Restart Network

Mode and Priority

Network Priority Ethernet->Cellular->Wi-Fi

Cellular

Status Enable

User

APN

Password

Wi-Fi Configuration

Status Enable

Encryption WPA2PAK

IP 192.168.87.136

Mode Selection AP

AP Name Saturn

Netmask 255.255.255.0

DHCP Server Configuration

Status Enable

Netmask 255.255.255.0

Start IP 192.168.87.200

Gateway 192.168.87.136

Ethernet Configuration

DHCP Enable

DNS Configuration

Status Enable

DNS1 8.8.8.8

DNS Configuration

Status Enable

DNS1 8.8.8.8

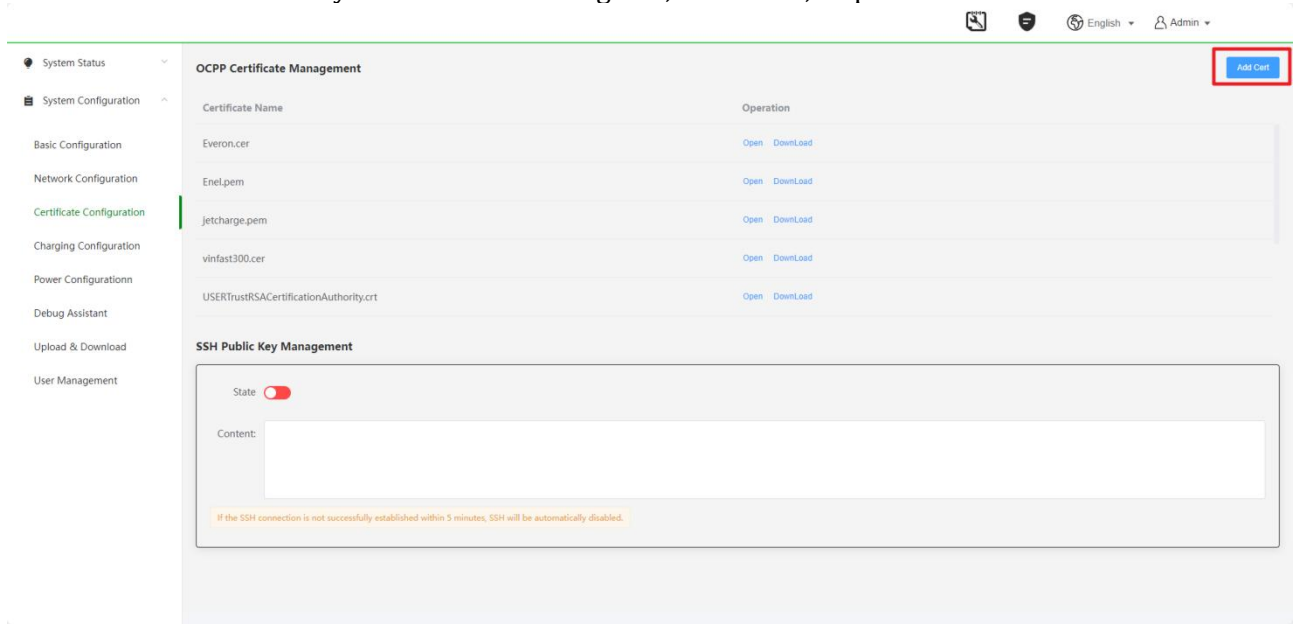
DNS2 114.114.114.114

Cancel

Save

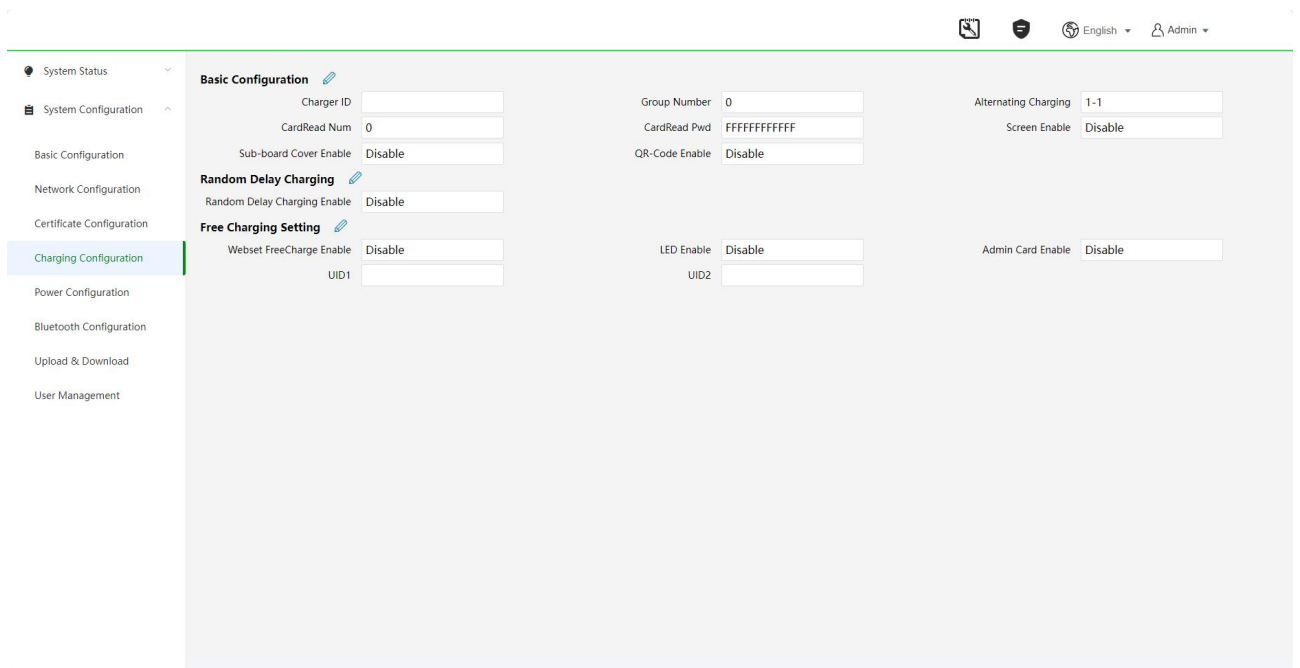
5.4.5 Web-Certificate configuration

Upload CA certificate offered by backend when using TLS; otherwise, skip it.



The screenshot shows the 'OCPP Certificate Management' section of the Star Charge web interface. The left sidebar contains a menu with 'Certificate Configuration' highlighted. The main content area has a table with columns 'Certificate Name' and 'Operation'. The table lists several certificates: Everon.cer, Enel.pem, Jetcharge.pem, vinfast300.cer, and USERTrustRSACertificationAuthority.crt. Each row has 'Open' and 'Download' links. A red box highlights an 'Add Cert' button in the top right corner. Below the table is the 'SSH Public Key Management' section, which includes a 'State' toggle (currently on) and a 'Content' text area. A warning message at the bottom states: 'If the SSH connection is not successfully established within 5 minutes, SSH will be automatically disabled.'

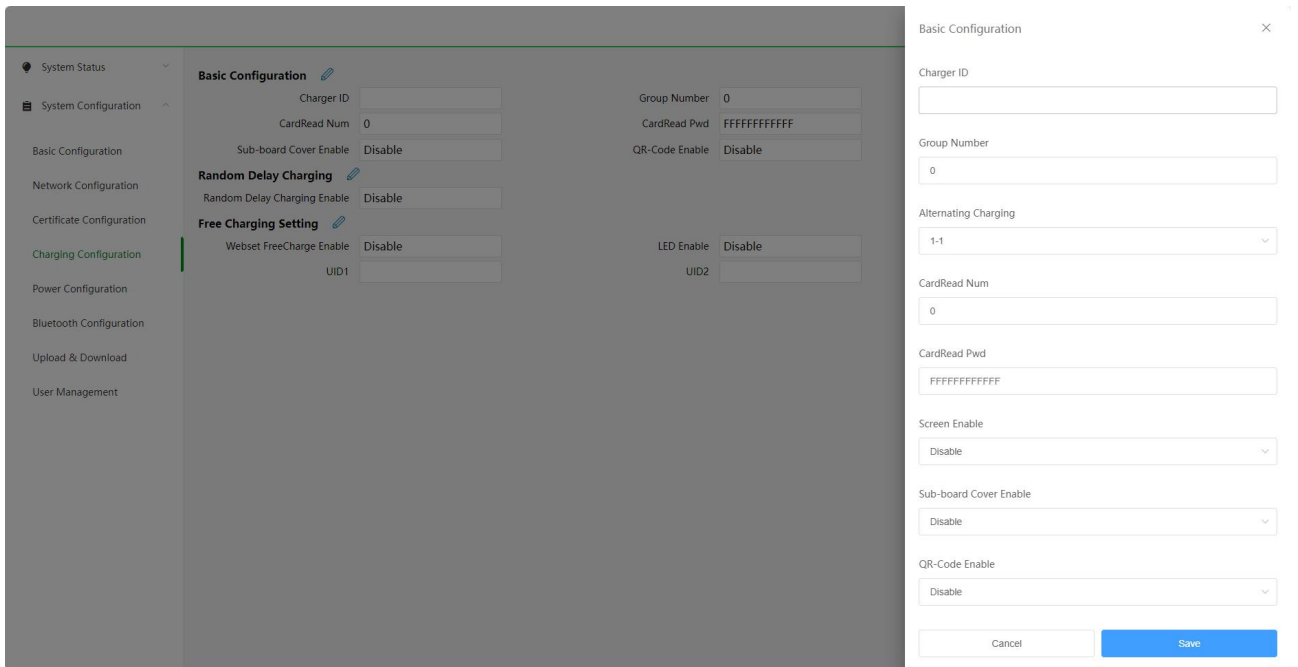
5.4.6 Web-Charging configuration



The screenshot shows the 'Charging Configuration' section of the Star Charge web interface. The left sidebar has 'Charging Configuration' highlighted. The main content area is divided into three columns of settings. The first column, 'Basic Configuration', includes fields for 'Charger ID', 'CardRead Num' (set to 0), and a 'Sub-board Cover Enable' toggle (set to 'Disable'). The second column, 'Random Delay Charging', includes a 'Random Delay Charging Enable' toggle (set to 'Disable'). The third column, 'Free Charging Setting', includes a 'Webset FreeCharge Enable' toggle (set to 'Disable') and two 'UID' fields (UID1 and UID2). The right side of the interface contains settings for 'Group Number' (0), 'CardRead Pwd' (FFFFFFFF), 'QR-Code Enable' (Disable), 'Alternating Charging' (1-1), 'Screen Enable' (Disable), 'LED Enable' (Disable), and 'Admin Card Enable' (Disable).

Basic Configuration:

- (1) Enter Charger ID. Please get the CPID from backend supplier.
- (2) Group Number (if no, default is 1234).
- (3) Alternating Charging: 1-1 (means could use both charging cables at the same time).
- (4) Keep others as default value.
- (5) Click "Save" after configuration.

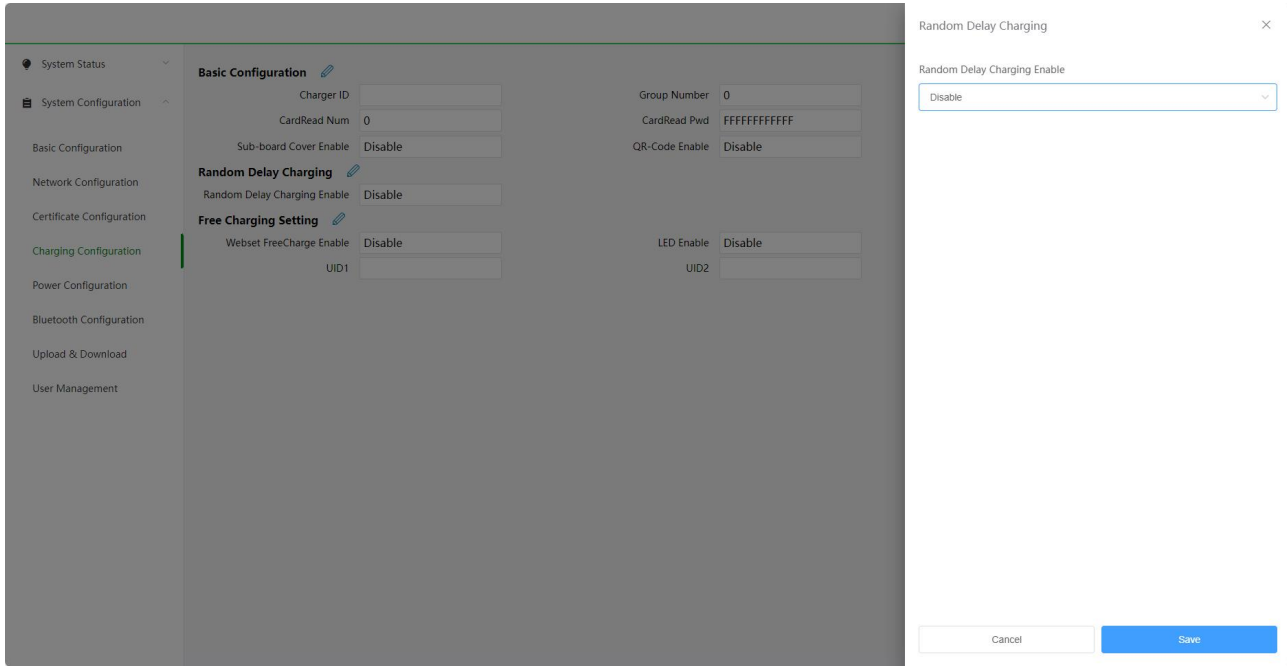


The screenshot displays the 'Basic Configuration' interface. On the left is a sidebar menu with options: System Status, System Configuration, Basic Configuration, Network Configuration, Certificate Configuration, Charging Configuration (highlighted), Power Configuration, Bluetooth Configuration, Upload & Download, and User Management. The main area shows the 'Basic Configuration' settings. It includes fields for Charger ID, Group Number, CardRead Num, CardRead Pwd, QR-Code Enable, Sub-board Cover Enable, Random Delay Charging, Random Delay Charging Enable, Free Charging Setting, Webset FreeCharge Enable, LED Enable, and UID1/UID2. A modal window titled 'Basic Configuration' is open on the right, showing the same fields in a simplified layout with 'Cancel' and 'Save' buttons at the bottom.

Field	Value
Charger ID	
Group Number	0
CardRead Num	0
CardRead Pwd	FFFFFFFFFFFF
QR-Code Enable	Disable
Sub-board Cover Enable	Disable
Random Delay Charging	Disable
Random Delay Charging Enable	Disable
Free Charging Setting	Disable
Webset FreeCharge Enable	Disable
LED Enable	Disable
UID1	
UID2	

Random Delay Charging:

- (1) Random Delay Charging Enable: Default value is disable.
- (2) Random Delay Charging Range: EVSE would start charging after a random time within the value configured here. (1~1800s)
- (3) Click “Save” after configuration.

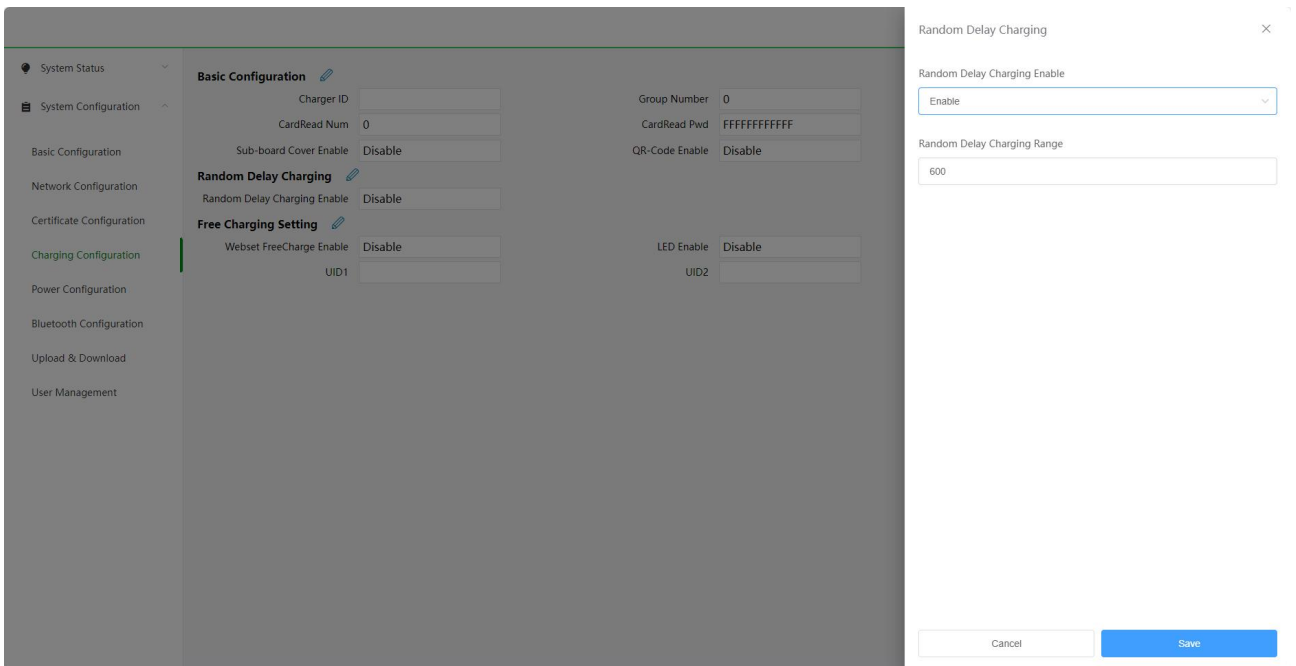


The screenshot shows the 'System Configuration' page with the 'Charging Configuration' tab selected. The 'Random Delay Charging' section is highlighted. The 'Random Delay Charging Enable' dropdown is set to 'Disable'. The 'Random Delay Charging Range' is not visible in this view.

Configuration Item	Value
Charger ID	
CardRead Num	0
Sub-board Cover Enable	Disable
Random Delay Charging Enable	Disable
Free Charging Setting	
Webset FreeCharge Enable	Disable
UID1	
Group Number	0
CardRead Pwd	FFFFFFFFFFFF
QR-Code Enable	Disable
LED Enable	Disable
UID2	

Random Delay Charging Enable: Disable

Cancel Save



The screenshot shows the 'System Configuration' page with the 'Charging Configuration' tab selected. The 'Random Delay Charging' section is highlighted. The 'Random Delay Charging Enable' dropdown is set to 'Enable' and the 'Random Delay Charging Range' is set to 600.

Configuration Item	Value
Charger ID	
CardRead Num	0
Sub-board Cover Enable	Disable
Random Delay Charging Enable	Enable
Free Charging Setting	
Webset FreeCharge Enable	Disable
UID1	
Group Number	0
CardRead Pwd	FFFFFFFFFFFF
QR-Code Enable	Disable
LED Enable	Disable
UID2	

Random Delay Charging Enable: Enable

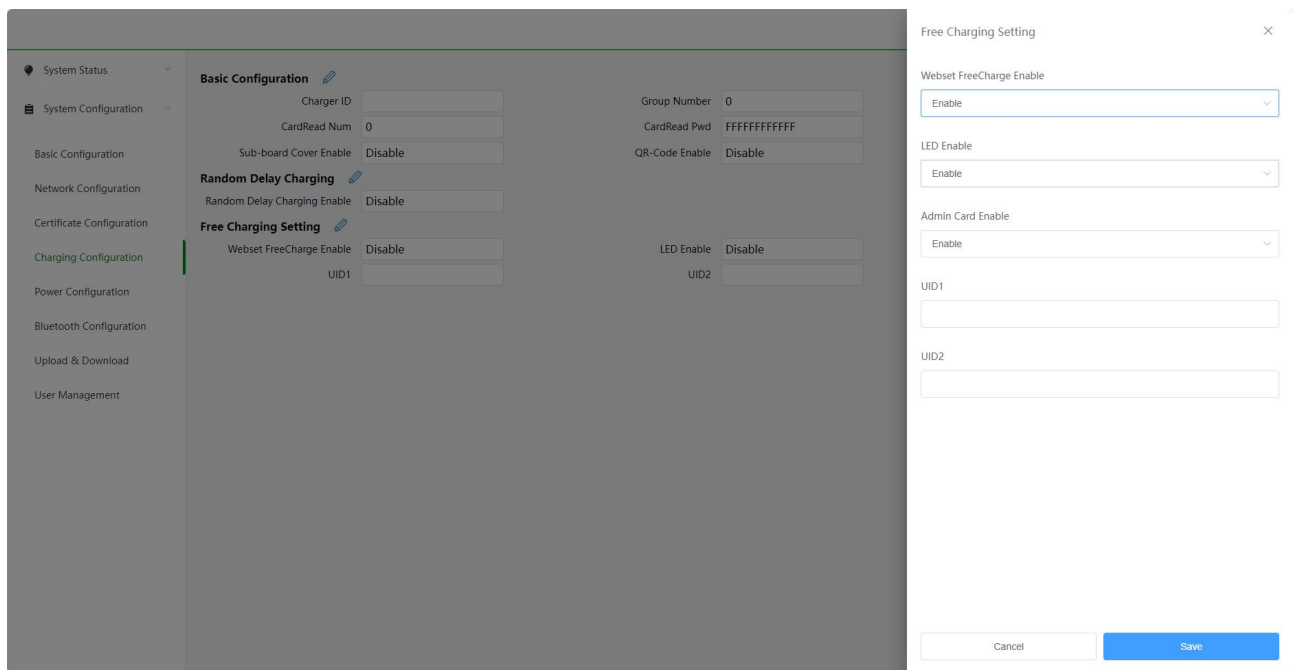
Random Delay Charging Range: 600

Cancel Save

Free Charging Setting:

Enable the function that change the authentication method from “Online Card Authentication (Support APP、RFID、Credit、Card)” to “Offline Plug and Play” with the RFID cards registered here.

- (1) Webset FreeCharge Enable: Enable or disable the function.
- (2) LED Enable: Enable that LED color would be changed if this function is enabled
- (3) Admin Card Enable: Enable or disable the RFID cards below.
- (4) UID1/UID2: The UID of the RFID cards wanted to be registered.
- (5) Click “Save” after configuration.



The screenshot displays the 'Free Charging Setting' configuration page in the Star Charge web interface. The page is divided into a main configuration area and a right-hand summary panel.

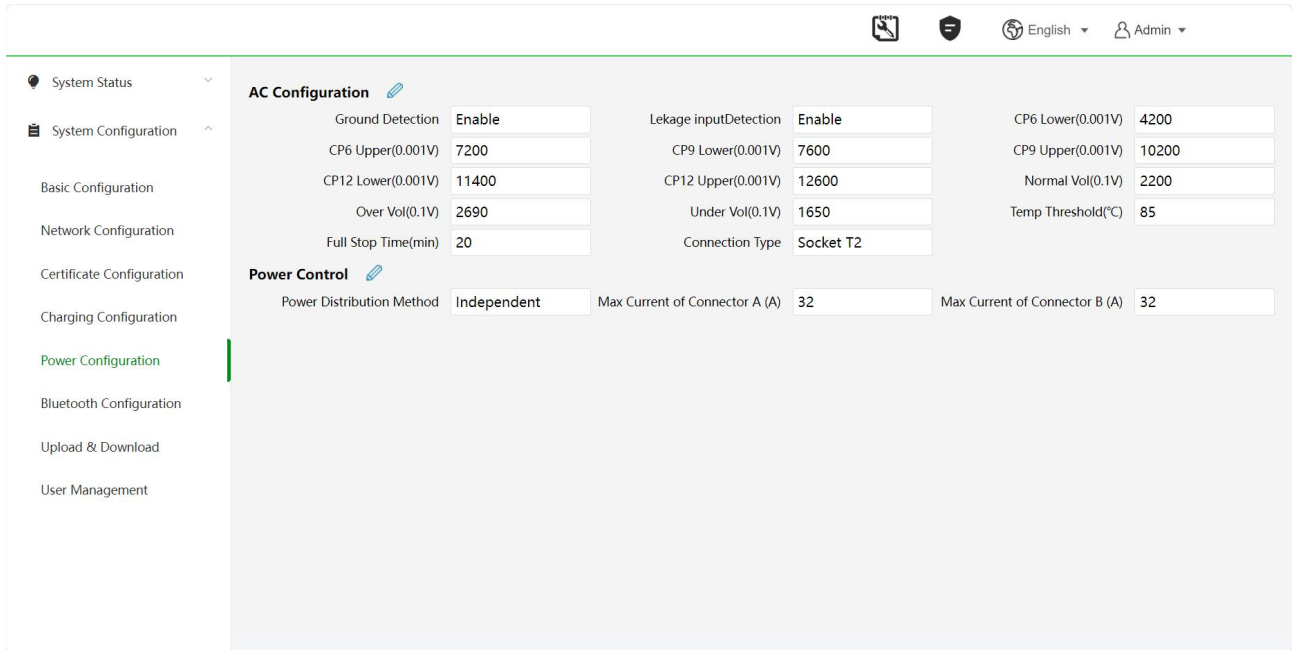
Main Configuration Area:

- Basic Configuration:**
 - Charger ID: [Text Input]
 - CardRead Num: 0
 - Sub-board Cover Enable: Disable
- Random Delay Charging:**
 - Random Delay Charging Enable: Disable
- Free Charging Setting:**
 - Webset FreeCharge Enable: Disable
 - UID1: [Text Input]
 - UID2: [Text Input]

Right-hand Summary Panel:

- Free Charging Setting** (Title)
- Webset FreeCharge Enable: Enable (Dropdown)
- LED Enable: Enable (Dropdown)
- Admin Card Enable: Enable (Dropdown)
- UID1: [Text Input]
- UID2: [Text Input]
- Buttons: Cancel, Save

5.4.7 Web- Power configuration



The screenshot shows the 'Power Configuration' page in the Star Charge web interface. The sidebar on the left contains the following menu items: System Status, System Configuration (expanded), Basic Configuration, Network Configuration, Certificate Configuration, Charging Configuration, Power Configuration (highlighted), Bluetooth Configuration, Upload & Download, and User Management. The main content area is divided into two sections: 'AC Configuration' and 'Power Control'. The 'AC Configuration' section includes settings for Ground Detection (Enable), Leakage inputDetection (Enable), Full Stop Time(min) (20), and Connection Type (Socket T2). The 'Power Control' section includes settings for Power Distribution Method (Independent), Max Current of Connector A (A) (32), and Max Current of Connector B (A) (32). The 'System Configuration' section is expanded, showing various voltage and temperature thresholds.

AC Configuration	
Ground Detection	Enable
CP6 Upper(0.001V)	7200
CP12 Lower(0.001V)	11400
Over Vol(0.1V)	2690
Full Stop Time(min)	20
Leakage inputDetection	Enable
CP9 Lower(0.001V)	7600
CP12 Upper(0.001V)	12600
Under Vol(0.1V)	1650
Connection Type	Socket T2

Power Control	
Power Distribution Method	Independent
Max Current of Connector A (A)	32
Max Current of Connector B (A)	32

AC Configuration:

- (1) Grounding Detection: Enable or disable the grounding detection.
- (2) Leakage Detection: Enable or disable the leakage detection.
- (3) Full Stop Time (min): The waiting period before a charging session is stopped.
- (4) Connection Type: Select according to the actual situation.
- (5) Keep others as default values.
- (6) Click "Save" after configuration.

System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

AC Configuration

Ground Detection	Enable	Lekage inputDetection	Enable
CP6 Upper(0.001V)	7200	CP9 Lower(0.001V)	7600
CP12 Lower(0.001V)	11400	CP12 Upper(0.001V)	12600
Over Vol(0.1V)	2690	Under Vol(0.1V)	1650
Full Stop Time(min)	20	Connection Type	Socket T2

Power Control

Power Distribution Method	Independent	Max Current of Connector A (A)	32
---------------------------	-------------	--------------------------------	----

AC Configuration

Ground Detection

Enable

Lekage Detection

Enable

CP6 Lower(0.001V)

4200

CP6 Upper(0.001V)

7200

CP9 Lower(0.001V)

7600

CP9 Upper(0.001V)

10200

CP12 Lower(0.001V)

System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

AC Configuration

Ground Detection	Enable	Lekage inputDetection	Enable
CP6 Upper(0.001V)	7200	CP9 Lower(0.001V)	7600
CP12 Lower(0.001V)	11400	CP12 Upper(0.001V)	12600
Over Vol(0.1V)	2690	Under Vol(0.1V)	1650
Full Stop Time(min)	20	Connection Type	Socket T2

Power Control

Power Distribution Method	Independent	Max Current of Connector A (A)	32
---------------------------	-------------	--------------------------------	----

AC Configuration

Normal Vol(0.1V)

2200

Over Vol(0.1V)

2690

Under Vol(0.1V)

1650

Temp Threshold(°C)

85

Cable

Socket T2

Socket T2S

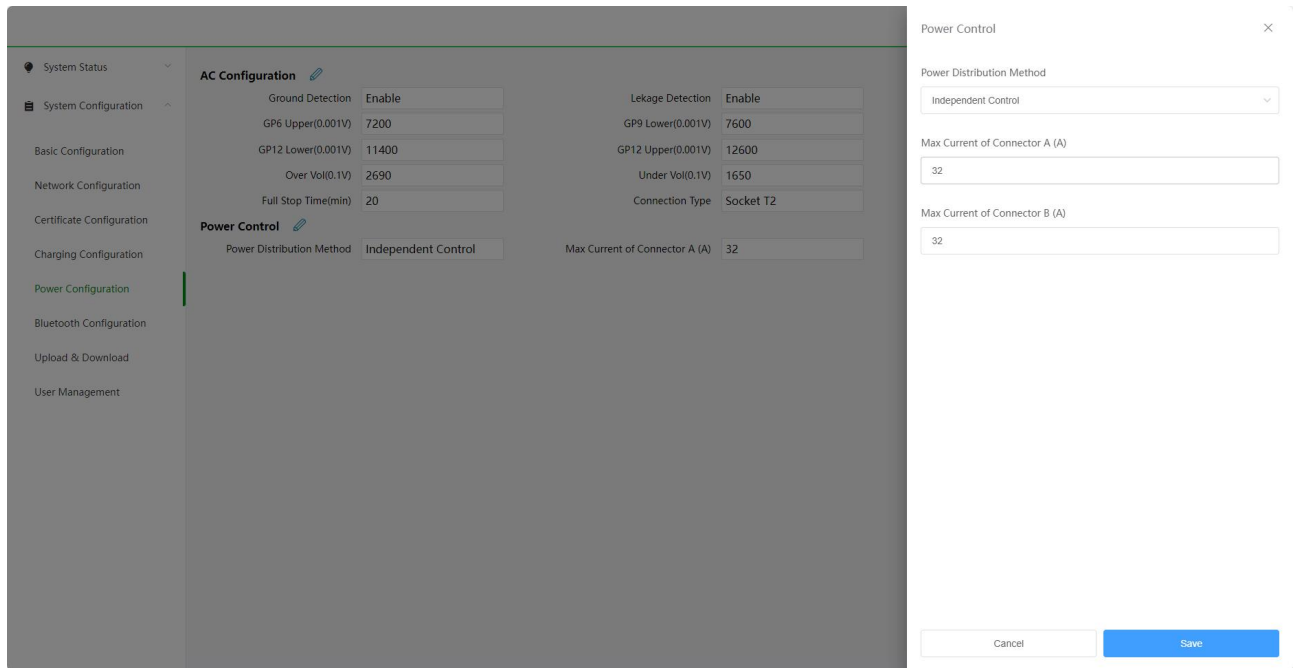
Socket T2

Cancel

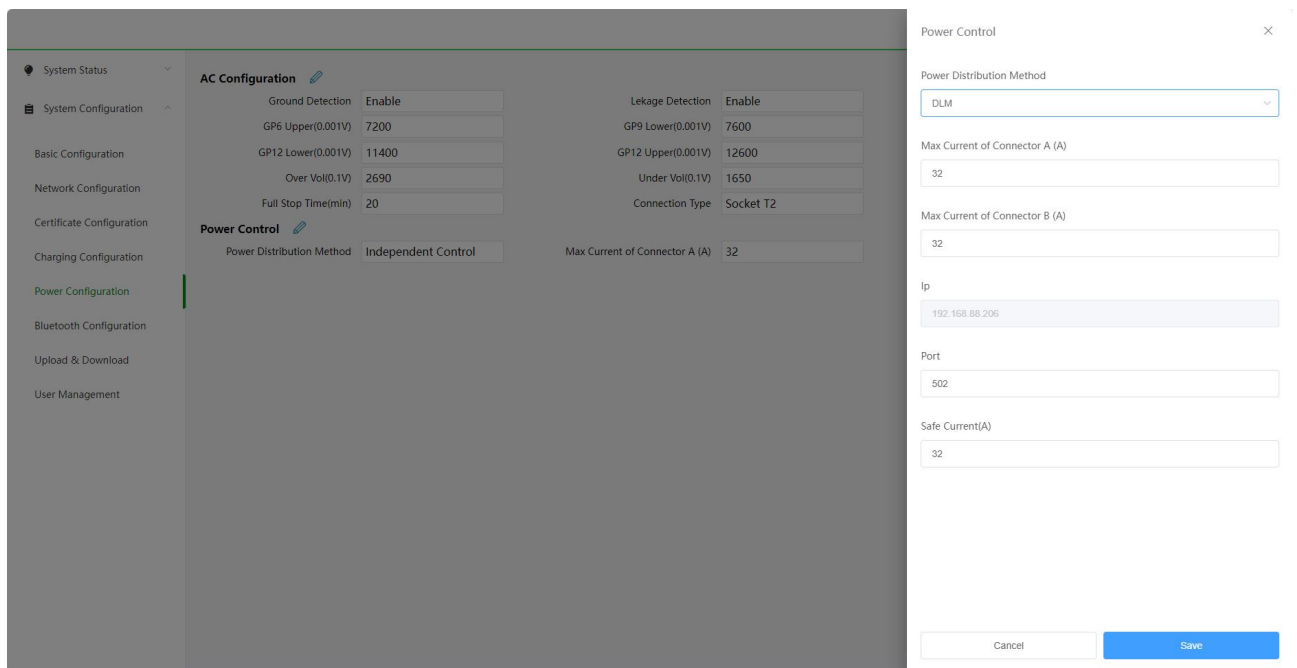
Save

Power Control:

- (1) Select power distribution method according to the actual situation.
- (2) Click “Save” after configuration.



The screenshot shows the 'Power Control' configuration window. On the left is a sidebar with navigation options: System Status, System Configuration, Basic Configuration, Network Configuration, Certificate Configuration, Charging Configuration, Power Configuration (selected), Bluetooth Configuration, Upload & Download, and User Management. The main area is divided into two sections: 'AC Configuration' and 'Power Control'. The 'AC Configuration' section includes settings for Ground Detection (Enable), GP6 Upper(0.001V) (7200), GP12 Lower(0.001V) (11400), Over Vol(0.1V) (2690), Full Stop Time(min) (20), Leakage Detection (Enable), GP9 Lower(0.001V) (7600), GP12 Upper(0.001V) (12600), Under Vol(0.1V) (1650), and Connection Type (Socket T2). The 'Power Control' section shows the Power Distribution Method set to 'Independent Control' and the Max Current of Connector A (A) set to 32. On the right, a detailed view of the 'Power Control' settings is shown, including the Power Distribution Method dropdown (set to 'Independent Control'), Max Current of Connector A (A) (32), and Max Current of Connector B (A) (32). At the bottom right are 'Cancel' and 'Save' buttons.



This screenshot shows the 'Power Control' configuration window with the 'Power Control' section expanded. It includes the same 'AC Configuration' settings as the previous screenshot. The 'Power Control' section now shows the Power Distribution Method set to 'Independent Control' and the Max Current of Connector A (A) set to 32. On the right, a detailed view of the 'Power Control' settings is shown, including the Power Distribution Method dropdown (set to 'DLM'), Max Current of Connector A (A) (32), Max Current of Connector B (A) (32), Ip (192.168.88.206), Port (502), and Safe Current(A) (32). At the bottom right are 'Cancel' and 'Save' buttons.

System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

AC Configuration

Ground Detection	Enable	Lekage Detection	Enable
GP6 Upper(0.001V)	7200	GP9 Lower(0.001V)	7600
GP12 Lower(0.001V)	11400	GP12 Upper(0.001V)	12600
Over Vol(0.1V)	2690	Under Vol(0.1V)	1650
Full Stop Time(min)	20	Connection Type	Socket T2

Power Control

Power Distribution Method	Independent Control	Max Current of Connector A (A)	32
---------------------------	---------------------	--------------------------------	----

Power Control

Power Distribution Method

ECC

Max Current of Connector A (A)

32

Max Current of Connector B (A)

32

Ip

192.168.88.206

Offline Current(A)

64

Secure Mode

Disable

Cancel

Save

System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

AC Configuration

Ground Detection	Enable	Lekage inputDetection	Enable
CP6 Upper(0.001V)	7200	CP9 Lower(0.001V)	7600
CP12 Lower(0.001V)	11400	CP12 Upper(0.001V)	12600
Over Vol(0.1V)	2690	Under Vol(0.1V)	1650
Full Stop Time(min)	20	Connection Type	Socket T2

Power Control

Power Distribution Method	Independent	Max Current of Connector A (A)	32
---------------------------	-------------	--------------------------------	----

Power Control

Power Distribution Method

Load Balance

Max Current of Connector A (A)

32

Max Current of Connector B (A)

32

Max Current of Charger (A)

64

Strategy

First PrioriFty

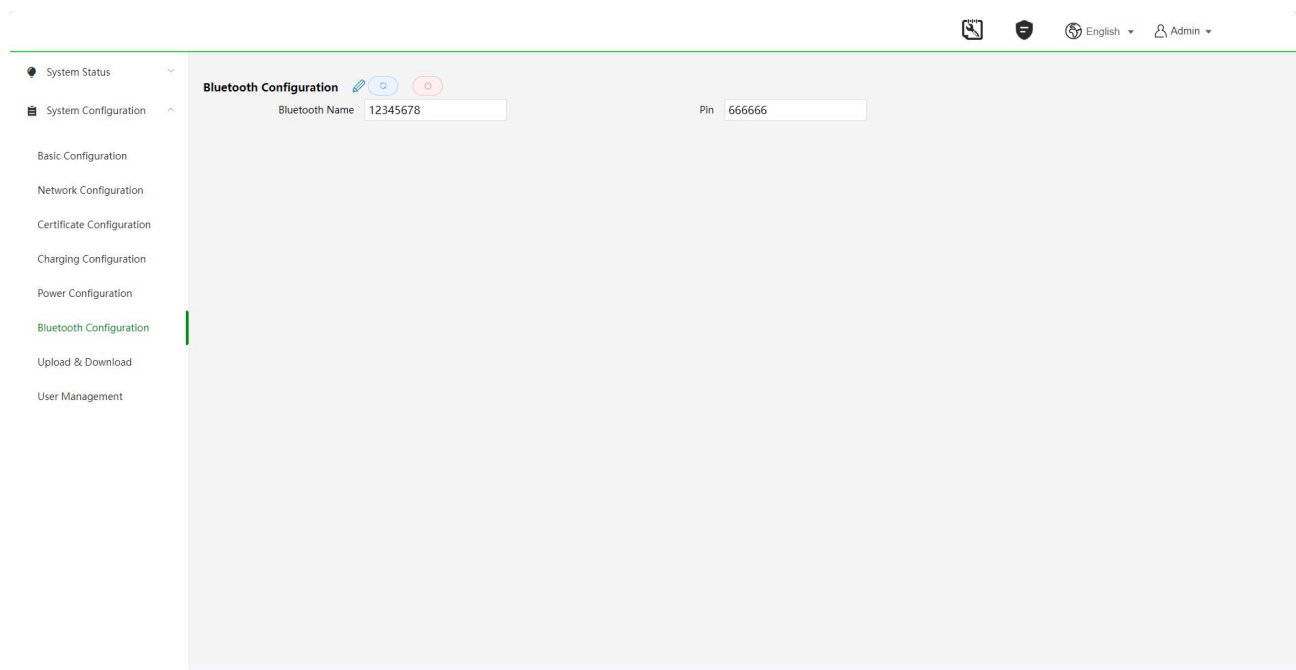
First PrioriFty

Equal Distribution

Cancel

Save

5.4.8 Web-Bluetooth configuration



System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

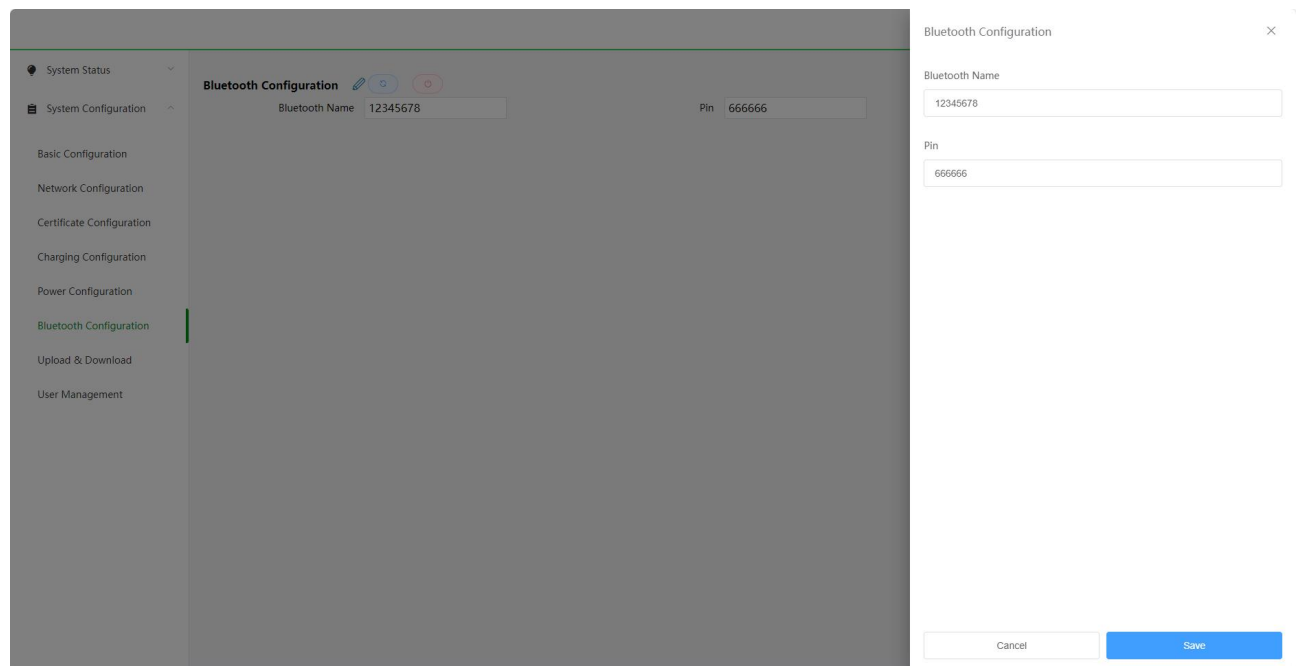
User Management

Bluetooth Configuration

Bluetooth Name: 12345678

Pin: 666666

Configure the Name and Pin code for the Bluetooth connection. Reboot after the configuration.



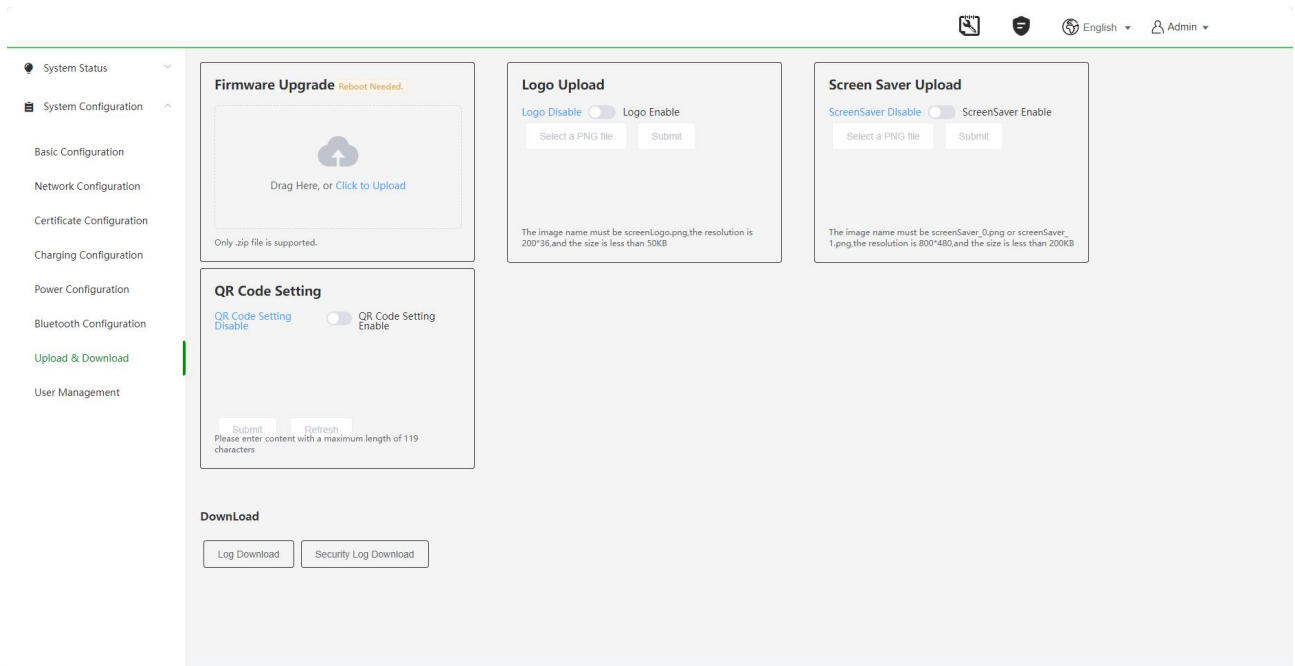
Bluetooth Configuration

Bluetooth Name: 12345678

Pin: 666666

Cancel Save

5.4.9 Web-Upload & download



System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

Firmware Upgrade Reboot Needed.

Drag Here, or [Click to Upload](#)

Only .zip file is supported.

Logo Upload

[Logo Disable](#) ☐ [Logo Enable](#)

[Select a PNG file](#) [Submit](#)

The image name must be screenLogo.png,the resolution is 200*36,and the size is less than 50KB

Screen Saver Upload

[ScreenSaver Disable](#) ☐ [ScreenSaver Enable](#)

[Select a PNG file](#) [Submit](#)

The image name must be screenSaver_0.png or screenSaver_1.png,the resolution is 800*480,and the size is less than 200KB

QR Code Setting

[QR Code Setting Disable](#) ☐ [QR Code Setting Enable](#)

[Submit](#) [Refresh](#)

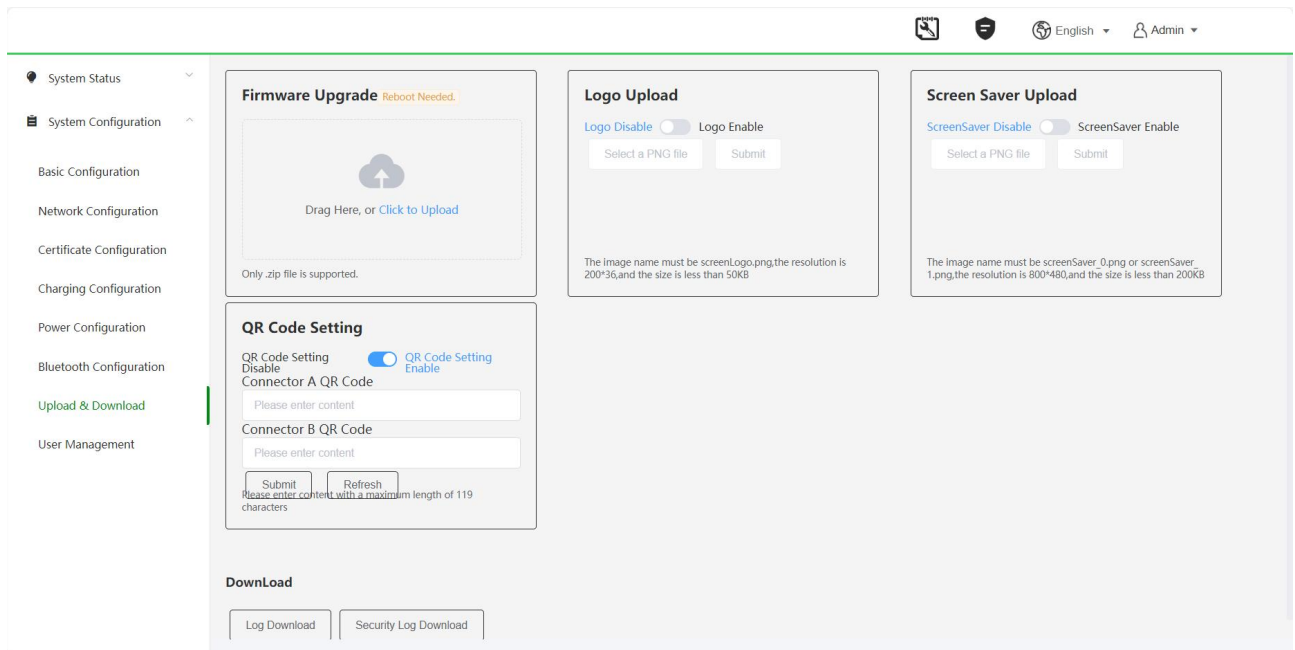
Please enter content with a maximum length of 119 characters

Download

[Log Download](#) [Security Log Download](#)

(1) Upload logo, screen saver or configure the QR codes for the charger.

(2) Click “Submit” after configuration.



System Status

System Configuration

Basic Configuration

Network Configuration

Certificate Configuration

Charging Configuration

Power Configuration

Bluetooth Configuration

Upload & Download

User Management

Firmware Upgrade Reboot Needed.

Drag Here, or [Click to Upload](#)

Only .zip file is supported.

Logo Upload

[Logo Disable](#) ☐ [Logo Enable](#)

[Select a PNG file](#) [Submit](#)

The image name must be screenLogo.png,the resolution is 200*36,and the size is less than 50KB

Screen Saver Upload

[ScreenSaver Disable](#) ☐ [ScreenSaver Enable](#)

[Select a PNG file](#) [Submit](#)

The image name must be screenSaver_0.png or screenSaver_1.png,the resolution is 800*480,and the size is less than 200KB

QR Code Setting

[QR Code Setting Disable](#) ☒ [QR Code Setting Enable](#)

Connector A QR Code

Please enter content

Connector B QR Code

Please enter content

[Submit](#) [Refresh](#)

Please enter content with a maximum length of 119 characters

Download

[Log Download](#) [Security Log Download](#)

5.4.10 Other notes

(1) **Initial user name & password:** User name: Admin; Password:1234

Note: After logging in for the first time, you will be forced to change your password.

(2) **Maximum number of login errors: 6**

Note: Once the limit is exceeded, your account will be locked for 1,800 seconds.

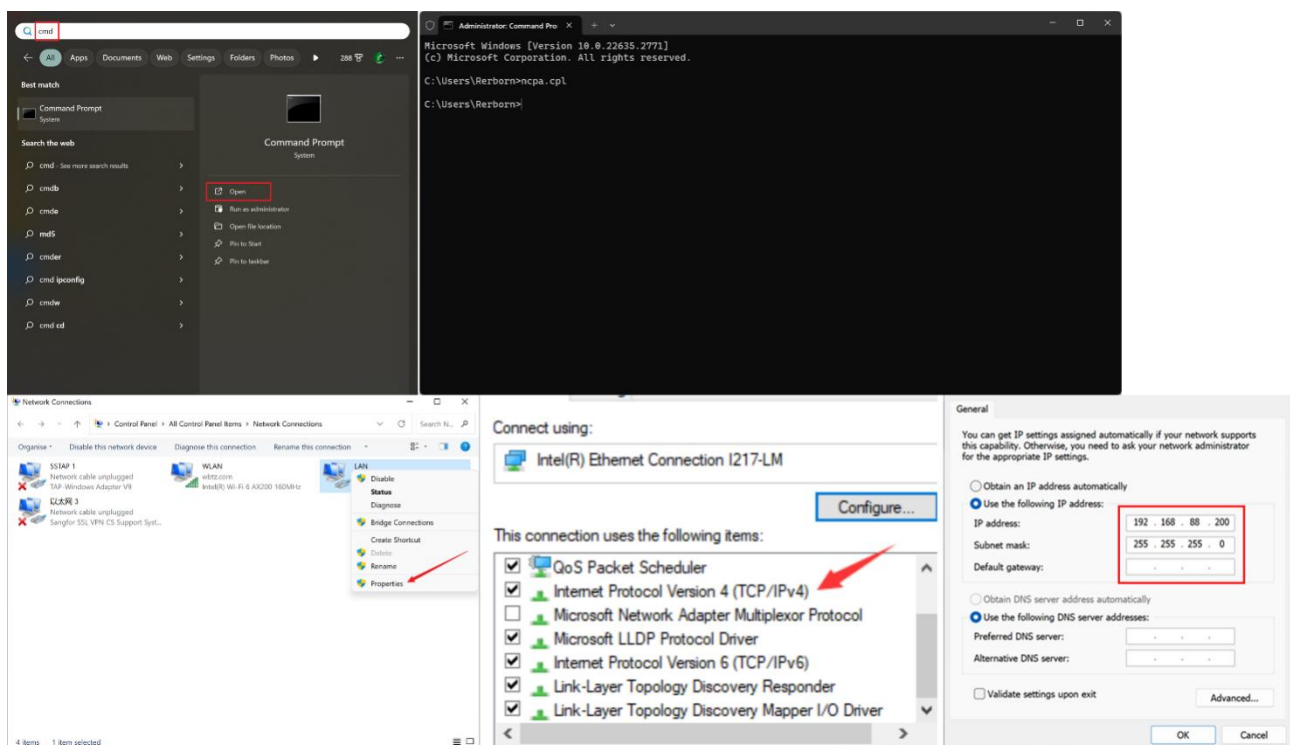
(3) **Forget the password**

If you forget your password and can't login, you can restore it to the original password (1234) by pressing the trip switch inside the charging station 5 times within 5 seconds.

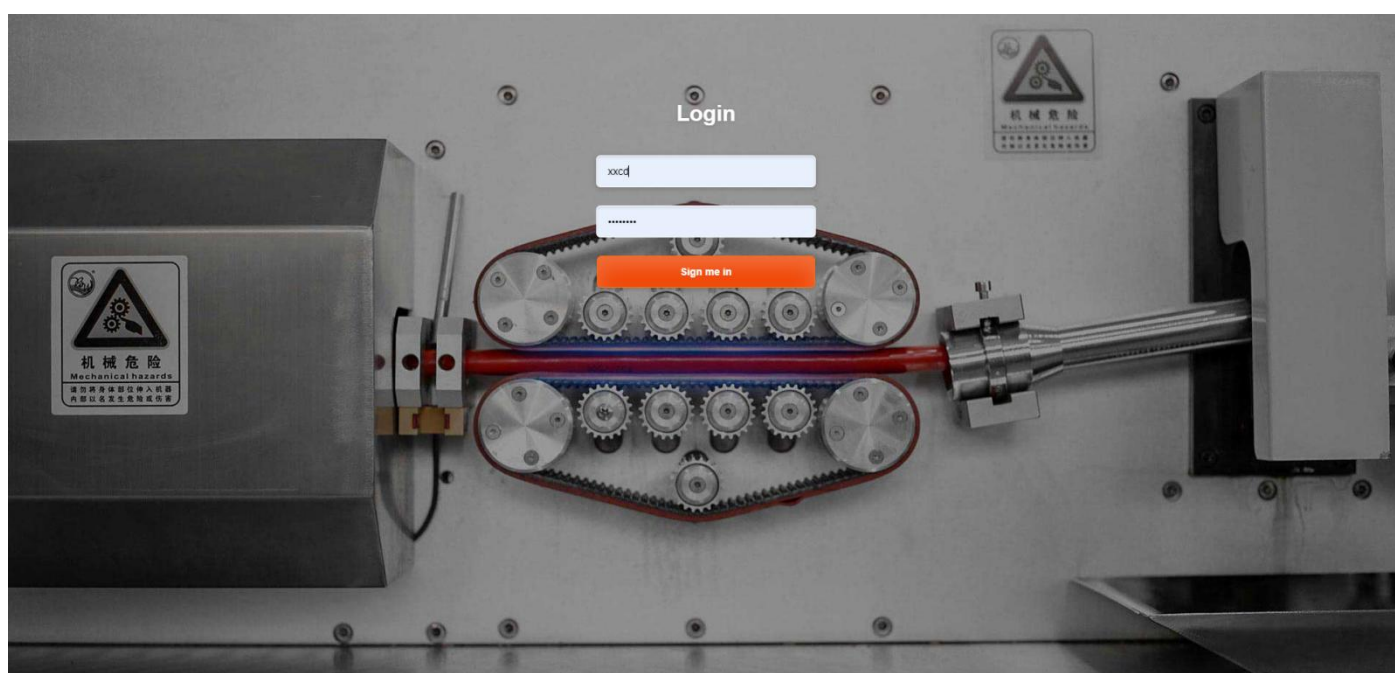
5.5 Web configuration V1.0 of connecting network cable

5.5.1 Connection

(1) Connect the charger to the laptop by a LAN cable. Configure the IP address of laptop as shown below.



(2) Open the browser and input 192.168.88.206, log in with username (xxcd) and password (28912891)




Star Charge
Language ▾
User Set ▾

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

Quick Setup

Home / Quick Setup

ChargePoint Id

Submit Refresh

OCPP Setting

IP or Domain Name

ocpp.lot.starcharge.com

SSL Enable

disable ▾

Port

6668

Path

/ocppj

Authorization key

Customer number

3 ▾

Submit Refresh

Certificate Import

Browser

Submit

4G configuration

☐ Enable modification

Submit Refresh

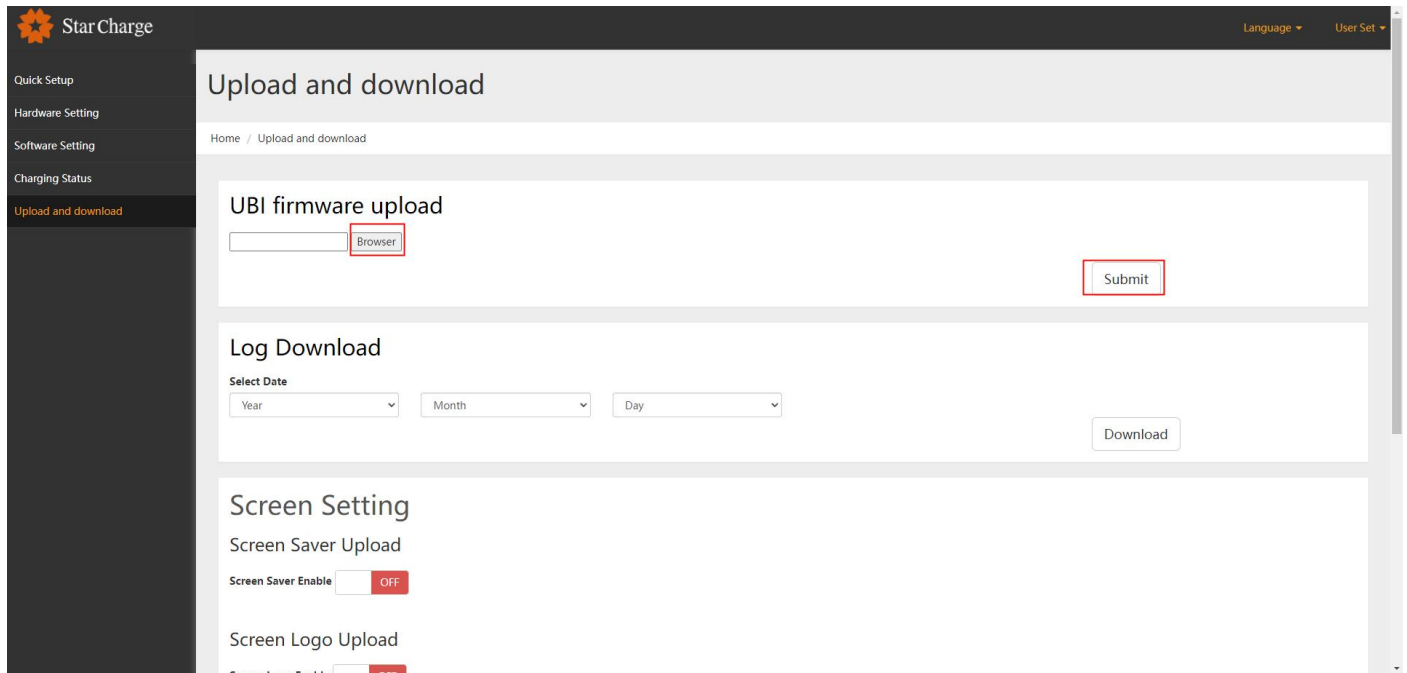
5.5.2 Firmware update



Notice: Firmware update is not a necessary step during commissioning. Contact with Star Charge engineer for more details.

Firmware Update:

Click “Upload and download” – “UBI firmware upload” – “Browser” – “firmware.zip” – “Submit”.



Star Charge

Language User Set

Quick Setup

Hardware Setting

Software Setting

Charging Status

Upload and download

Upload and download

Home / Upload and download

UBI firmware upload

Browser Submit

Log Download

Select Date

Year Month Day

Download

Screen Setting

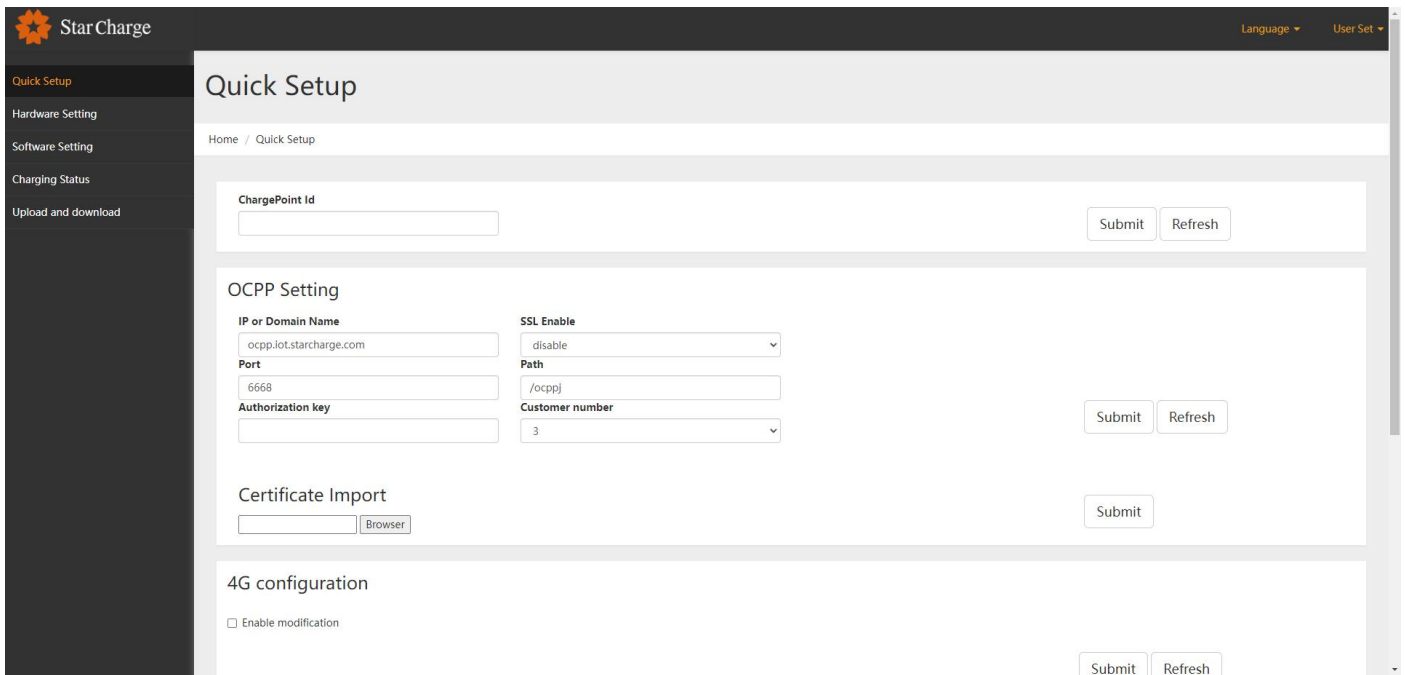
Screen Saver Upload

Screen Saver Enable ☐ OFF

Screen Logo Upload

Screen Logo Enable ☐ OFF

5.5.3 Quick setup



Charge Point Id:

- (1) Enter ChargerPoint Id. Please get the CPID from backend supplier.
- (2) Click “Submit” after configuration.

OCPP Setting:

Note: In case of OCPP backend connection is required, configure this part.

- (1) IP or Domain Name: Enter IP address or domain name of the backend.
- (2) SSL Enable: “Enable” when the backend uses TLS for access, otherwise the value is “Disable”.
- (3) Port: Enter port number of backend.
- (4) Path: Enter the path after IP.
- (5) Authorization key: If the backend doesn’t use basic authorization, just leave it blank. (No need to fill in most cases).
- (6) Customer number: This page displays the factory default customer number for the charging station, which can be modified, but it is generally sufficient to keep the factory mode settings.
- (7) Click “Submit” after configuration.

Certificate Import:

Upload CA certificate offered by backend when using TLS; otherwise skip it.

 Star Charge

Language
User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

Quick Setup

Home / Quick Setup

ChargePoint Id

OCPP Setting

IP or Domain Name

Port

Authorization key

SSL Enable

disable

Path

Customer number

3

Certificate Import

4G configuration

☒ Enable modification

APN

User

Psw

Pin

4G configuration:

Note: In case of connecting with network via SIM card, configure this part.

- (1) Set APN, Pin, User, and Password if necessary. Such value should be provided by SIM card operator.
- (2) Click "Submit" after configuration.

 Star Charge

Language
User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

disable

Port

Path

Authorization key

Customer number

3

Certificate Import

4G configuration

☒ Enable modification

APN

User

Psw

Pin

EncryptType

A

Get version

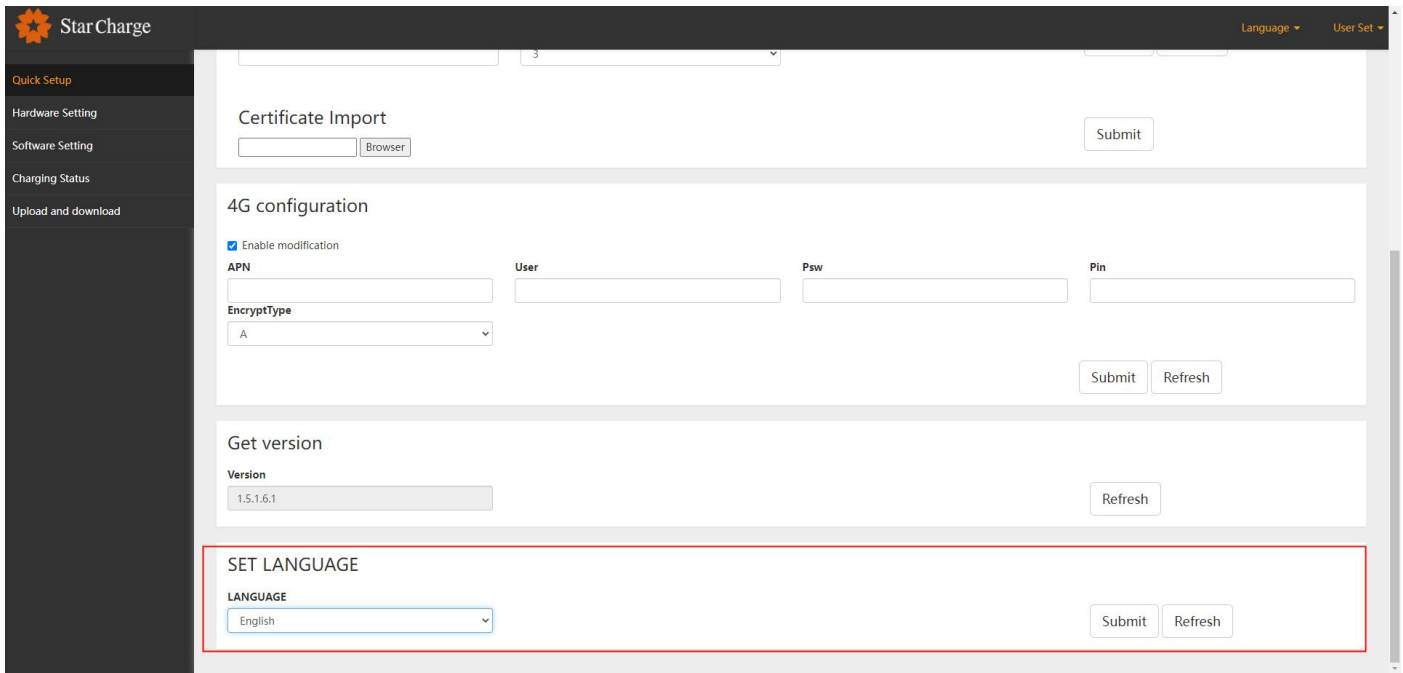
Version

1.5.1.6.1

SET LANGUAGE

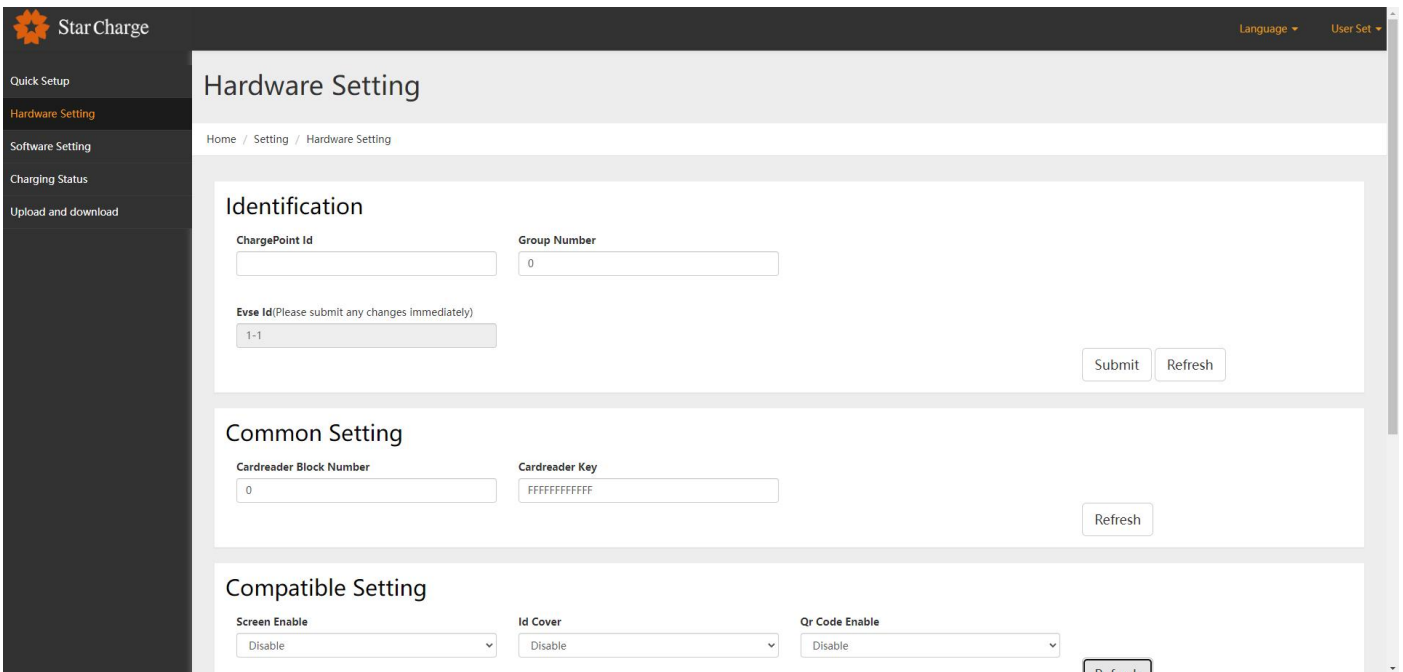
Language:

- (1) Change default language according to requirement.
- (2) Click “Submit” after configuration.



The screenshot shows the Star Charge web interface. On the left is a sidebar with navigation links: Quick Setup, Hardware Setting, Software Setting, Charging Status, and Upload and download. The main content area has a top bar with 'Language' and 'User Set' dropdowns. Below this are sections for 'Certificate Import', '4G configuration', 'Get version', and 'SET LANGUAGE'. The 'SET LANGUAGE' section is highlighted with a red border. It contains a 'LANGUAGE' dropdown menu with 'English' selected, and 'Submit' and 'Refresh' buttons.

5.5.4 Hardware setting

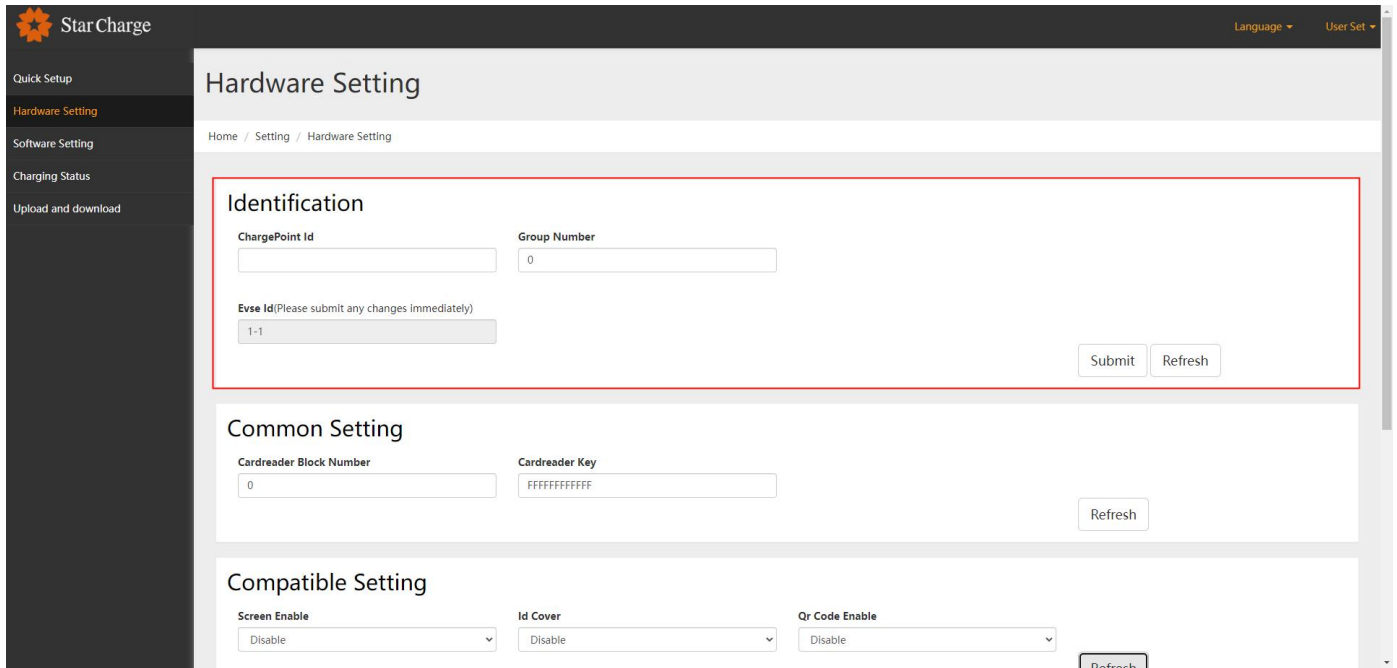


The screenshot shows the 'Hardware Setting' page in the Star Charge web interface. The sidebar on the left has 'Hardware Setting' highlighted. The main content area has a breadcrumb trail: Home / Setting / Hardware Setting. Below this are three sections: 'Identification', 'Common Setting', and 'Compatible Setting'. The 'Identification' section has input fields for 'ChargePoint Id' and 'Group Number' (with a default value of 0), and a 'Evse Id' dropdown menu (with a default value of 1-1). The 'Common Setting' section has input fields for 'Cardreader Block Number' (with a default value of 0) and 'Cardreader Key' (with a default value of FFFFFFFF). The 'Compatible Setting' section has three dropdown menus: 'Screen Enable' (with a default value of Disable), 'Id Cover' (with a default value of Disable), and 'Qr Code Enable' (with a default value of Disable). Each section has 'Submit' and 'Refresh' buttons.

Identification:

- (1) Enter ChargerPoint Id. Please get the CPID from backend supplier.
- (2) Group Number (if no, default is 1234).

- (3) Evse Id: 1-1 (means could use both charging cables at the same time).
- (4) Click “Submit” after configuration.



Star Charge

Language User Set

Quick Setup

Hardware Setting

Software Setting

Charging Status

Upload and download

Hardware Setting

Home / Setting / Hardware Setting

Identification

ChargePoint Id

Group Number

0

Evse Id(Please submit any changes immediately)

1-1

Submit Refresh

Common Setting

Cardreader Block Number

0

Cardreader Key

FFFFFFFF

Refresh

Compatible Setting

Screen Enable

Disable

Id Cover

Disable

Qr Code Enable

Disable

Default

AC Configuration:

- (1) Ground Detection: Enable or disable the grounding detection.
- (2) Leakage Detection: Enable or disable the leakage detection.
- (3) Full Stop Time (min): The waiting period before a charging session is stopped.
- (4) Connection Type: Select according to the actual situation.
- (5) Keep others as default values.
- (6) Click “Submit” after configuration.

Quick Setup

Hardware Setting

Software Setting

Charging Status

Upload and download

Compatible Setting

Screen Enable

Disable ▼

Id Cover

Disable ▼

Qr Code Enable

Disable ▼

Submit

Refresh

AC Configuration

☒ Enable modification

Ground Detection

Enable ▼

CP6 Lower(0.001V)

4200

CP9 Lower(0.001V)

7600

CP12 Lower(0.001V)

11400

Normal Vol(0.1V)

2200

Under Vol(0.1V)

1650

Full Stop Time(min)

20

Leakage Detection

Enable ▼

CP6 Upper(0.001V)

7200

CP9 Upper(0.001V)

10200

CP12 Upper(0.001V)

12600

Over Vol(0.1V)

2690

Temp Threshold(°C)

85

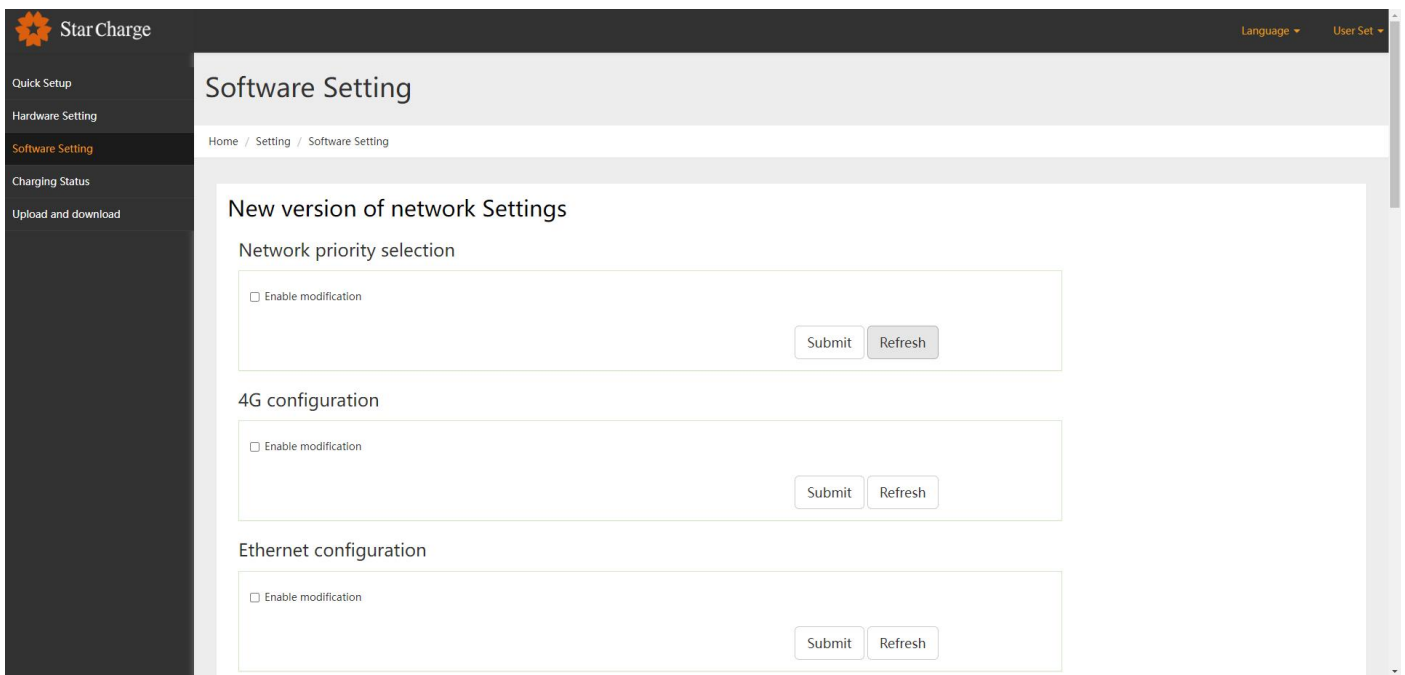
Connection Type

Socket T2
Cable
Socket T2
Socket T2S

Submit

Refresh

5.5.5 Hardware setting



Star Charge

Language User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

Software Setting

Home / Setting / Software Setting

New version of network Settings

Network priority selection

☐ Enable modification

Submit Refresh

4G configuration

☐ Enable modification

Submit Refresh

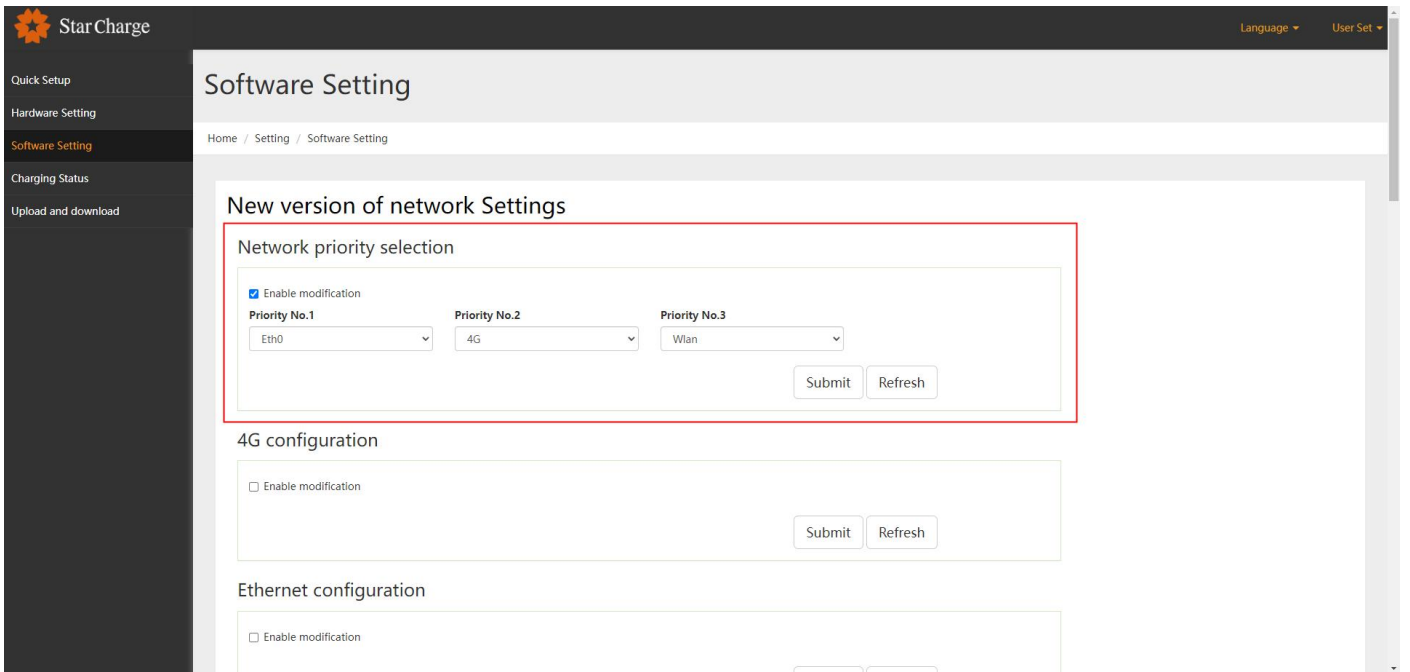
Ethernet configuration

☐ Enable modification

Submit Refresh

Network priority selection:

- (1) Change the network priority according to the requirements.
- (2) Click “Submit” after configuration.



Star Charge

Language User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

Software Setting

Home / Setting / Software Setting

New version of network Settings

Network priority selection

☒ Enable modification

Priority No.1 Priority No.2 Priority No.3

Eth0 4G Wlan

Submit Refresh

4G configuration

☐ Enable modification

Submit Refresh

Ethernet configuration

☐ Enable modification

4G Configuration:

Note: In case of connecting with network via SIM card, configure this part.

- (1) Set APN, Pin, User, and Password if necessary. Such value should be provided by SIM card operator.
- (2) Click “Submit” after configuration.

 Star Charge

Language
User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

☒ Enable modification
Priority No.1: Eth0
Priority No.2: 4G
Priority No.3: Wlan
Submit Refresh

4G configuration
☒ Enable modification
APN:
User:
Psw:
Pin:
EncryptType: A
Submit Refresh

Ethernet configuration
☐ Enable modification
Submit Refresh

DNS configuration
☐ Enable modification
Submit Refresh

Ethernet Configuration:

Note: In case of connecting with network via LAN cable, configure this part.

- (1) Enable “DHCP” to get IP address automatically or disable “DHCP” to set IP address manually.
- (2) Click “Submit” after configuration.

 Star Charge

Language
User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

4G configuration
☒ Enable modification
APN:
User:
Psw:
Pin:
EncryptType: A
Submit Refresh

Ethernet configuration
☒ Enable modification
☐ DHCP enable
ip:
netmask:
gateway:
Submit Refresh

DNS configuration
☐ Enable modification
Submit Refresh

 Star Charge

Language
User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

4G configuration

☒ Enable modification

APN
User
Psw
Pin

EncryptType
A

Submit Refresh

Ethernet configuration

☒ Enable modification
☒ DHCP enable

Submit Refresh

DNS configuration

☐ Enable modification

Submit Refresh

Wifi configuration

DNS Configuration:

Note: In case DNS configuration is necessary, configure this part.

- (1) Configure the DNS.
- (2) Click "Submit" after configuration.

 Star Charge

Language
User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

☒ Enable modification
☒ DHCP enable

Submit Refresh

DNS configuration

☒ Enable modification

DNS1
DNS2
8.8.8.8
114.114.114.114

Submit Refresh

Wifi configuration

☐ Enable modification

Submit Refresh

DHCPD configuration

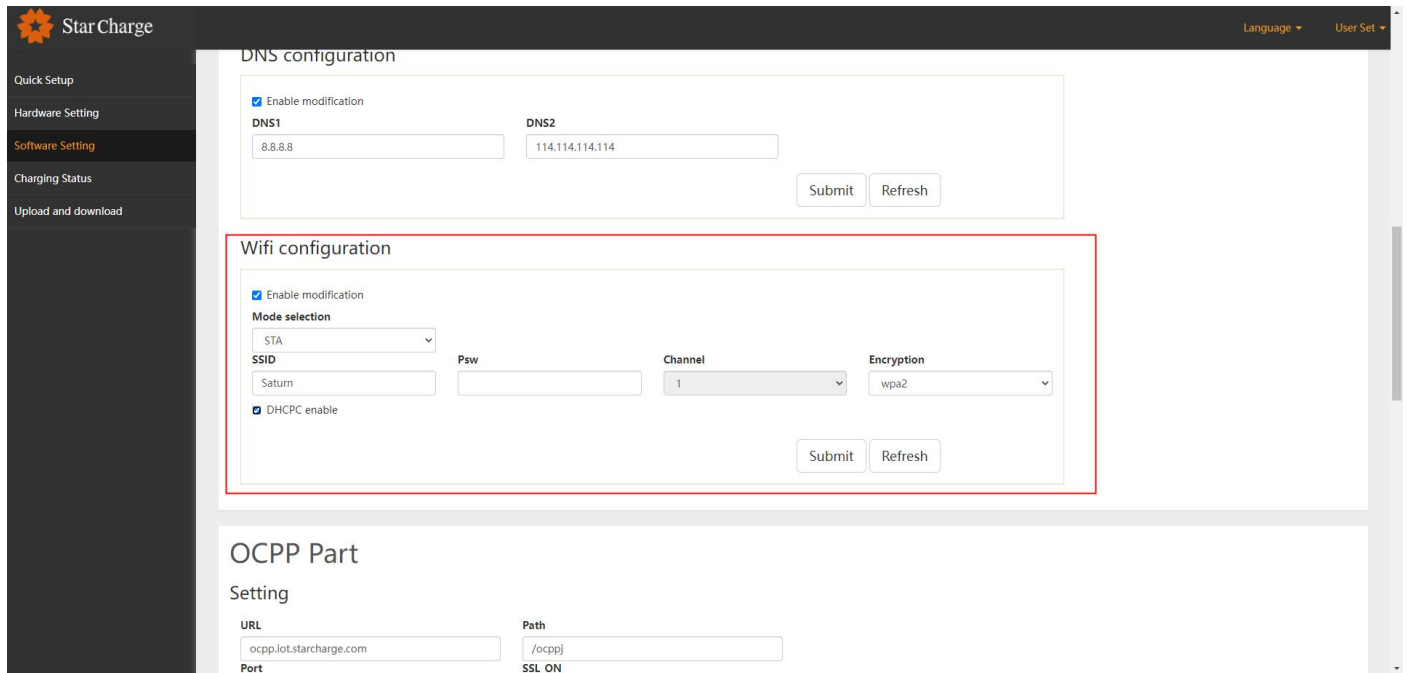
☐ Dhcpd enable

Submit Refresh

Wi-Fi Configuration:

Note: In case of connecting with network via WIFI, configure this part.

- (1) "Mode selection" choose "STA".
- (2) Fill in "Encryption", "SSID", "Psw".
- (3) Enable "DHCP".
- (4) Click "Submit" after configuration.



The screenshot shows the Star Charge web interface. On the left is a dark sidebar with navigation links: Quick Setup, Hardware Setting, Software Setting (highlighted), Charging Status, and Upload and download. The main content area has a top bar with 'Star Charge' and 'Language' and 'User Set' dropdowns. Below this, there are three configuration sections:

- DNS configuration:** Includes a checkbox for 'Enable modification' (checked), input fields for 'DNS1' (8.8.8.8) and 'DNS2' (114.114.114.114), and 'Submit' and 'Refresh' buttons.
- Wifi configuration:** This section is highlighted with a red border. It includes a checkbox for 'Enable modification' (checked), a 'Mode selection' dropdown menu set to 'STA', input fields for 'SSID' (Saturn) and 'Psw', a 'Channel' dropdown menu set to '1', an 'Encryption' dropdown menu set to 'wpa2', a checkbox for 'DHCP enable' (checked), and 'Submit' and 'Refresh' buttons.
- OCPP Part:** Includes a 'Setting' section with input fields for 'URL' (ocpp.iot.starcharge.com), 'Port', 'Path' (/ocppj), and 'SSL_ON'.

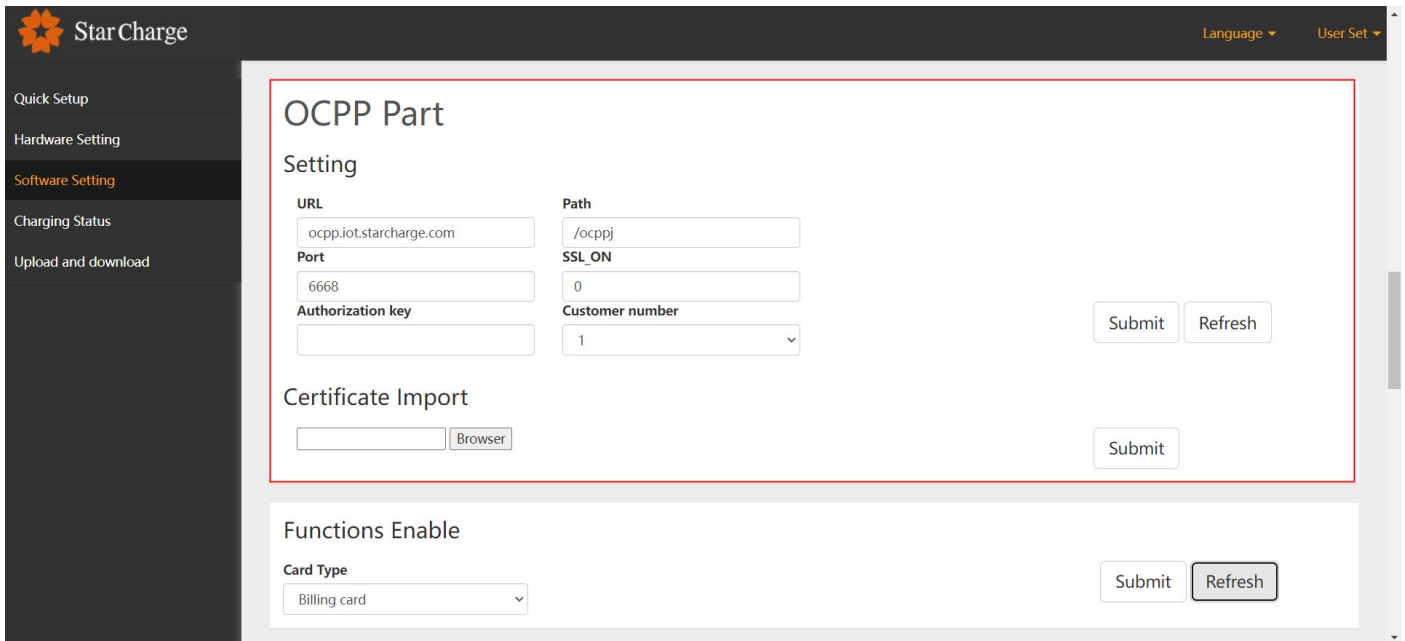
OCPP Setting:

Note: In case of OCPP backend connection is required, configure this part.

- (1) IP or Domain Name: Enter IP address or domain name of the backend.
- (2) SSL_Enable: “Enable” when the backend uses TLS for access, otherwise the value is “Disable”.
- (3) Port: Enter port number of backend.
- (4) Path: Enter the path after IP.
- (5) Authorization key: If the backend doesn’t use basic authorization, just leave it blank. (No need to fill in most cases).
- (6) Customer number: This page displays the factory default customer number for the charging station, which can be modified, but it is generally sufficient to keep the factory mode settings.
- (7) Click “Submit” after configuration.

Certificate Import:

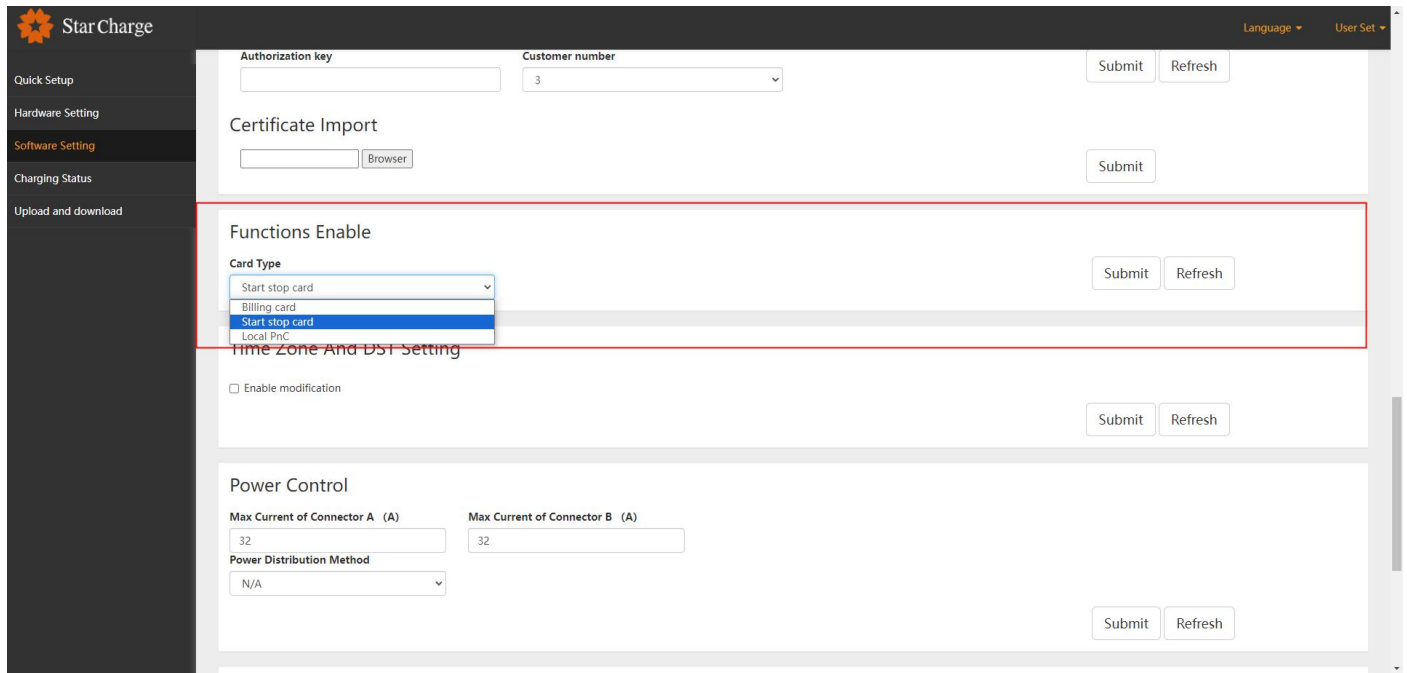
Upload CA certificate offered by backend when using TLS; otherwise skip it.



The screenshot shows the Star Charge web interface. On the left is a dark sidebar with navigation links: Quick Setup, Hardware Setting, Software Setting (highlighted in orange), Charging Status, and Upload and download. The main content area is titled 'OCPP Part' and contains two sections. The 'Setting' section has a grid of input fields: URL (ocpp.iot.starcharge.com), Path (/ocppj), Port (6668), SSL_ON (0), Authorization key (empty), and Customer number (1). There are 'Submit' and 'Refresh' buttons to the right. The 'Certificate Import' section has a file upload field with a 'Browse' button and a 'Submit' button. Below this is the 'Functions Enable' section with a 'Card Type' dropdown set to 'Billing card' and 'Submit' and 'Refresh' buttons. The top right of the interface shows 'Language' and 'User Set' dropdowns.

Functions Enable:

- (1) “Billing Card”: Authentication card, the UID of RFID card must be authenticated by backend before using, and EVSE must connect to the OCPP backend.
- (2) “Start Stop Card”: Local start-stop card, the EVSE can work by tapping the RFID card without backend connection.
- (3) “Local PnC”: plug in and charge.
- (4) Click “Submit” after configuration.



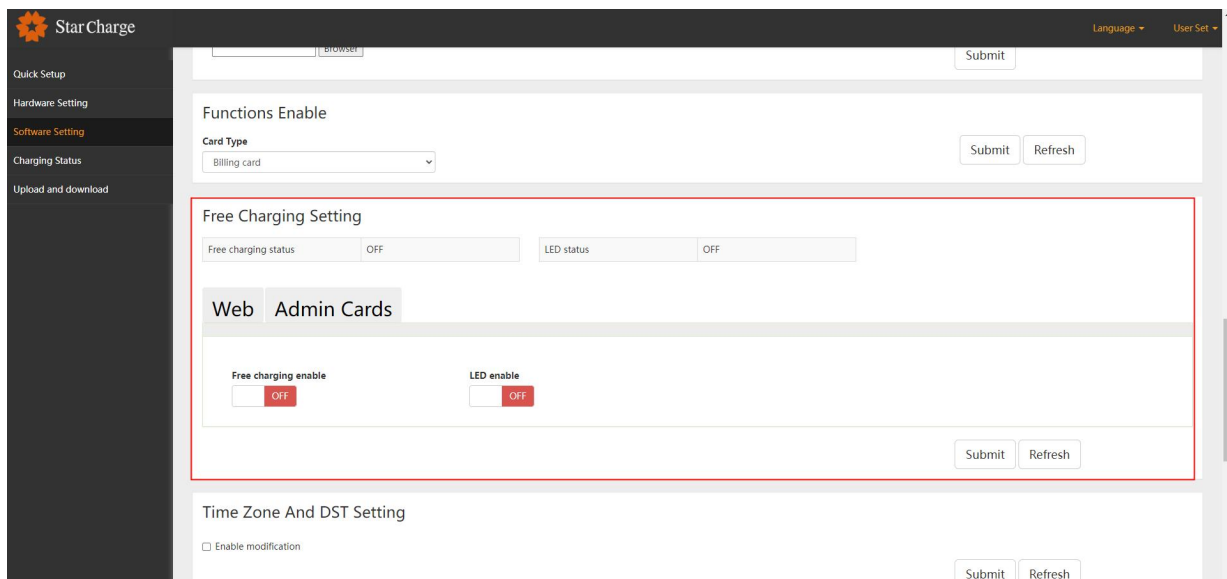
The screenshot displays the Star Charge web interface. On the left is a dark sidebar with navigation links: Quick Setup, Hardware Setting, Software Setting (highlighted), Charging Status, and Upload and download. The main content area has a top header with 'Star Charge' logo, 'Language' dropdown, and 'User Set' dropdown. Below the header, there are several configuration sections:

- Authorization key**: A text input field.
- Customer number**: A dropdown menu showing '3'.
- Submit** and **Refresh** buttons.
- Certificate Import**: A text input field and a **Browse** button.
- Submit** button.
- Functions Enable** (highlighted with a red box):
 - Card Type**: A dropdown menu with options: 'Start stop card', 'Billing card', 'Start stop card' (highlighted in blue), and 'Local PnC'.
 - Submit** and **Refresh** buttons.
- Time Zone And DST Setting**:
 - ☐ Enable modification
 - Submit** and **Refresh** buttons.
- Power Control**:
 - Max Current of Connector A (A)**: A text input field with '32'.
 - Max Current of Connector B (A)**: A text input field with '32'.
 - Power Distribution Method**: A dropdown menu showing 'N/A'.
 - Submit** and **Refresh** buttons.

Free Charging Setting:

Enable the function that change the authentication method from “Online Card Authentication (Support APP, RFID, Credit, and Card)” to “Offline Plug and Play” with the RFID cards registered here.

- (1) Free Charging Enable: Enable or disable the function.
- (2) LED Enable: Enable that LED color would be changed if this function is enabled
- (3) Admin Card Enable: Enable or disable the RFID cards below.
- (4) UID1/UID2: The UID of the RFID cards wanted to be registered.
- (5) Click “Submit” after configuration.



Star Charge

Language User Set

Quick Setup

Hardware Setting

Software Setting

Charging Status

Upload and download

Functions Enable

Card Type

Billing card

Submit Refresh

Free Charging Setting

Free charging status OFF LED status OFF

Web Admin Cards

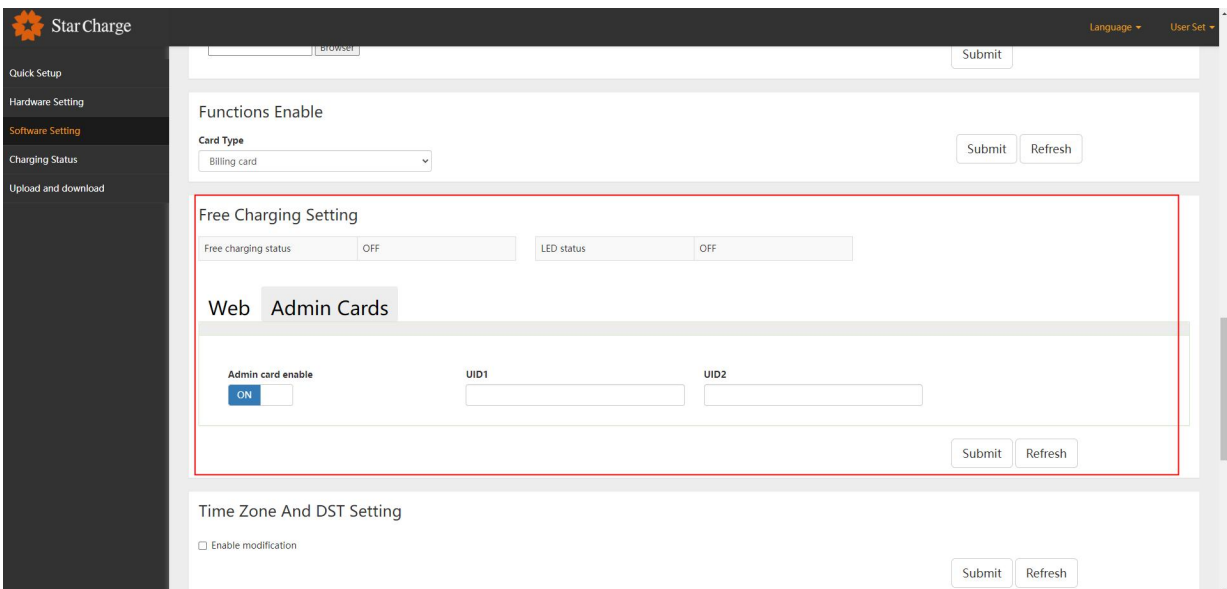
Free charging enable OFF LED enable OFF

Submit Refresh

Time Zone And DST Setting

Enable modification

Submit Refresh



Star Charge

Language User Set

Quick Setup

Hardware Setting

Software Setting

Charging Status

Upload and download

Functions Enable

Card Type

Billing card

Submit Refresh

Free Charging Setting

Free charging status OFF LED status OFF

Web Admin Cards

Admin card enable ON UID1 UID2

Submit Refresh

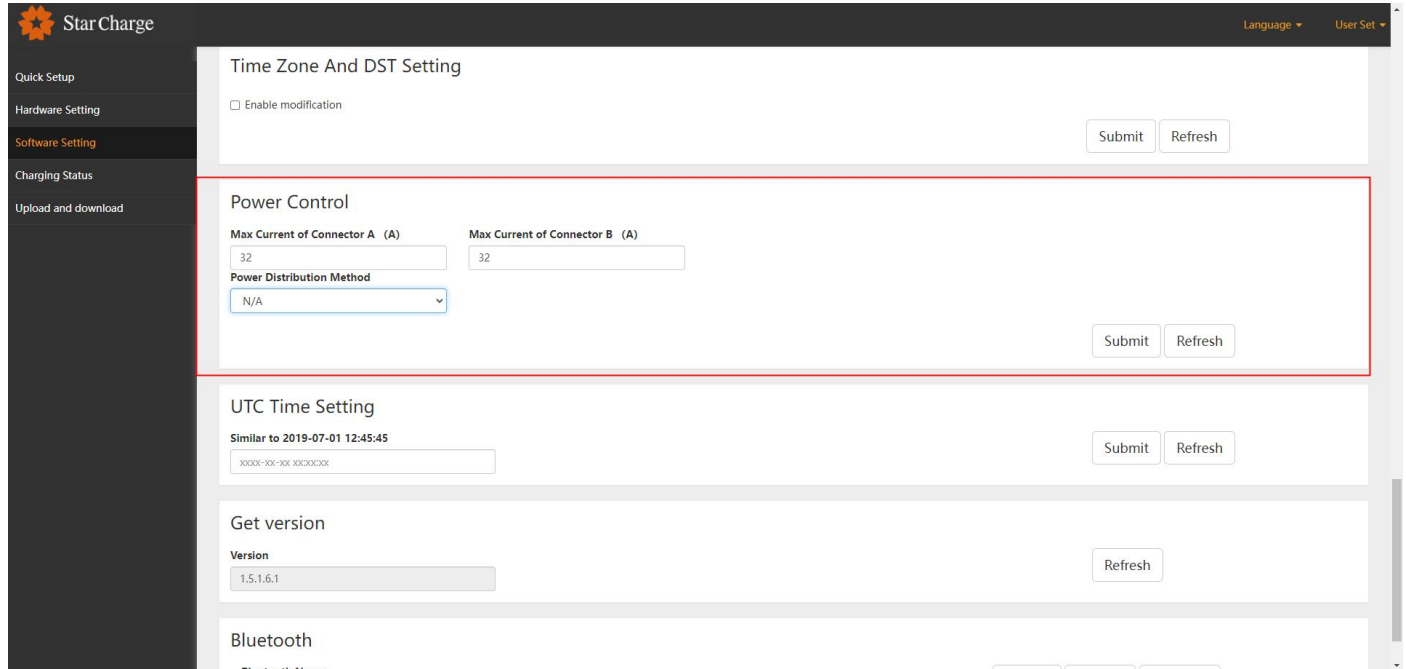
Time Zone And DST Setting

Enable modification

Submit Refresh

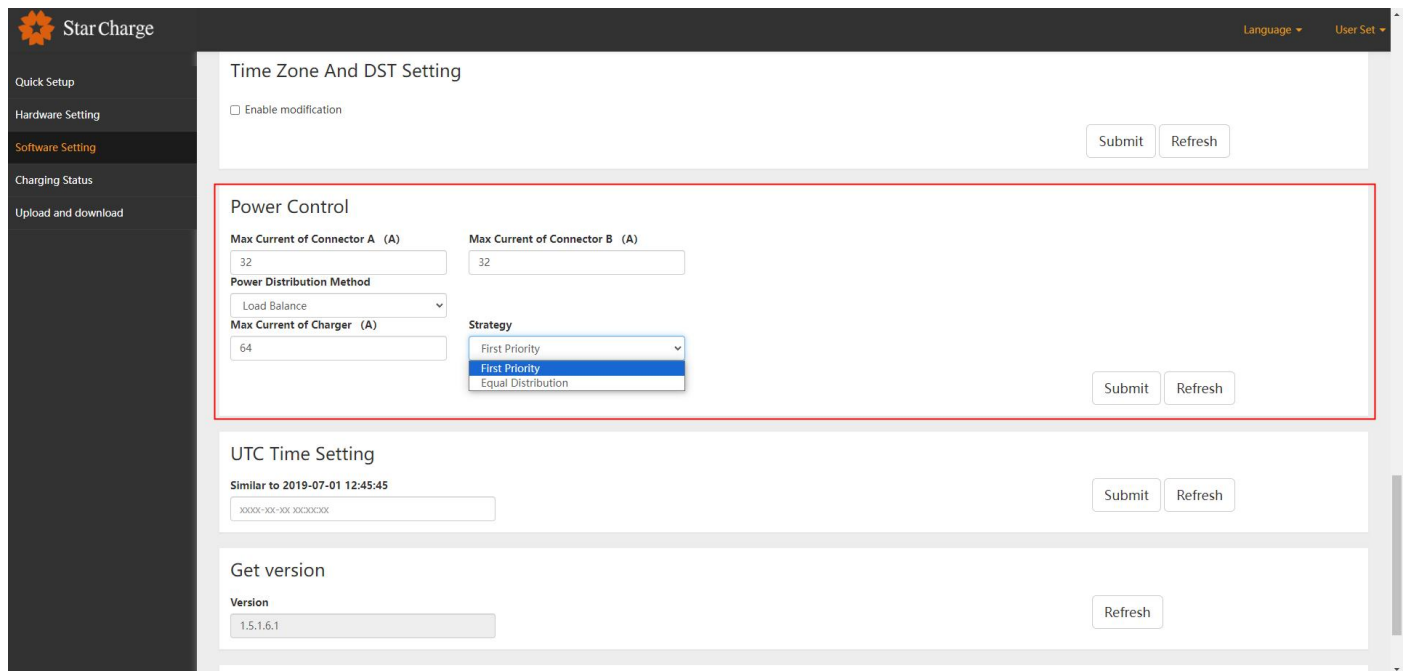
Power Control:

- (1) Select power distribution method according to the actual situation.
- (2) Click “Submit” after configuration.



The screenshot shows the Star Charge software settings interface. The left sidebar contains navigation links: Quick Setup, Hardware Setting, Software Setting (highlighted), Charging Status, and Upload and download. The main content area is divided into several sections:

- Time Zone And DST Setting:** Includes a checkbox for "Enable modification" and "Submit" and "Refresh" buttons.
- Power Control:** This section is highlighted with a red border. It contains:
 - Two input fields for "Max Current of Connector A (A)" and "Max Current of Connector B (A)", both set to 32.
 - A "Power Distribution Method" dropdown menu currently set to "N/A".
 - "Submit" and "Refresh" buttons.
- UTC Time Setting:** Displays "Similar to 2019-07-01 12:45:45" and a timestamp input field. Includes "Submit" and "Refresh" buttons.
- Get version:** Shows the current version as "1.5.1.6.1" and a "Refresh" button.
- Bluetooth:** Partially visible at the bottom.



This screenshot shows the same Star Charge software settings interface, but with the "Power Control" section expanded to show additional options:

- The "Power Distribution Method" dropdown is now set to "Load Balance".
- A new "Max Current of Charger (A)" input field is added, set to 64.
- A "Strategy" dropdown menu is added, with options: "First Priority" (selected), "First Priority", and "Equal Distribution".
- The "Submit" and "Refresh" buttons remain at the bottom of the section.

 Star Charge
 Language User Set

Quick Setup
 Hardware Setting
Software Setting
 Charging Status
 Upload and download

Time Zone And DST Setting

☐ Enable modification

Submit Refresh

Power Control

Max Current of Connector A (A)

32

Max Current of Connector B (A)

32

Power Distribution Method

DLM

ip

192.168.88.206

port

502

offline current (A)

32

Submit Refresh

UTC Time Setting

Similar to 2019-07-01 12:45:45

XXXX-XX-XX XX:XX:XX

Submit Refresh

Get version

Version

1.5.1.6.1

Refresh

 Star Charge
 Language User Set

Quick Setup
 Hardware Setting
Software Setting
 Charging Status
 Upload and download

Time Zone And DST Setting

☐ Enable modification

Submit Refresh

Power Control

Max Current of Connector A (A)

32

Max Current of Connector B (A)

32

Power Distribution Method

ECC

ip

192.168.88.206

Offline Current (A)

64

Submit Refresh

UTC Time Setting

Similar to 2019-07-01 12:45:45

XXXX-XX-XX XX:XX:XX

Submit Refresh

Get version

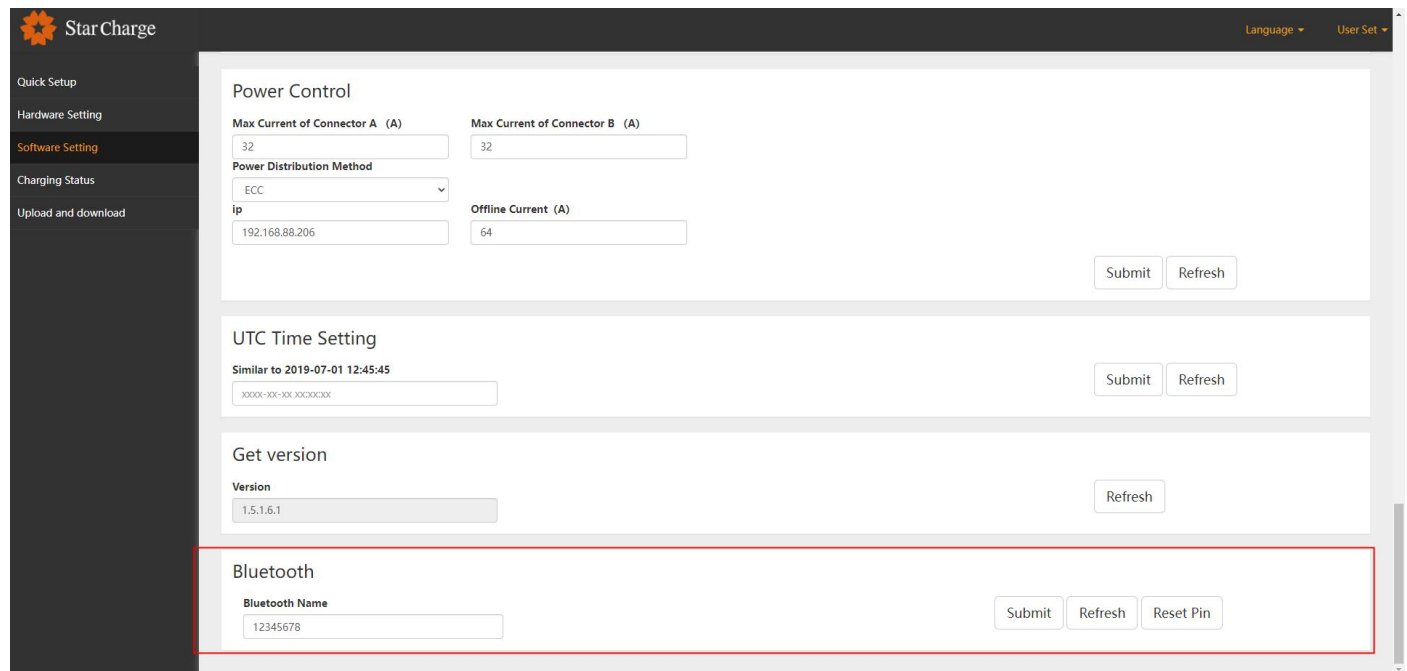
Version

1.5.1.6.1

Refresh

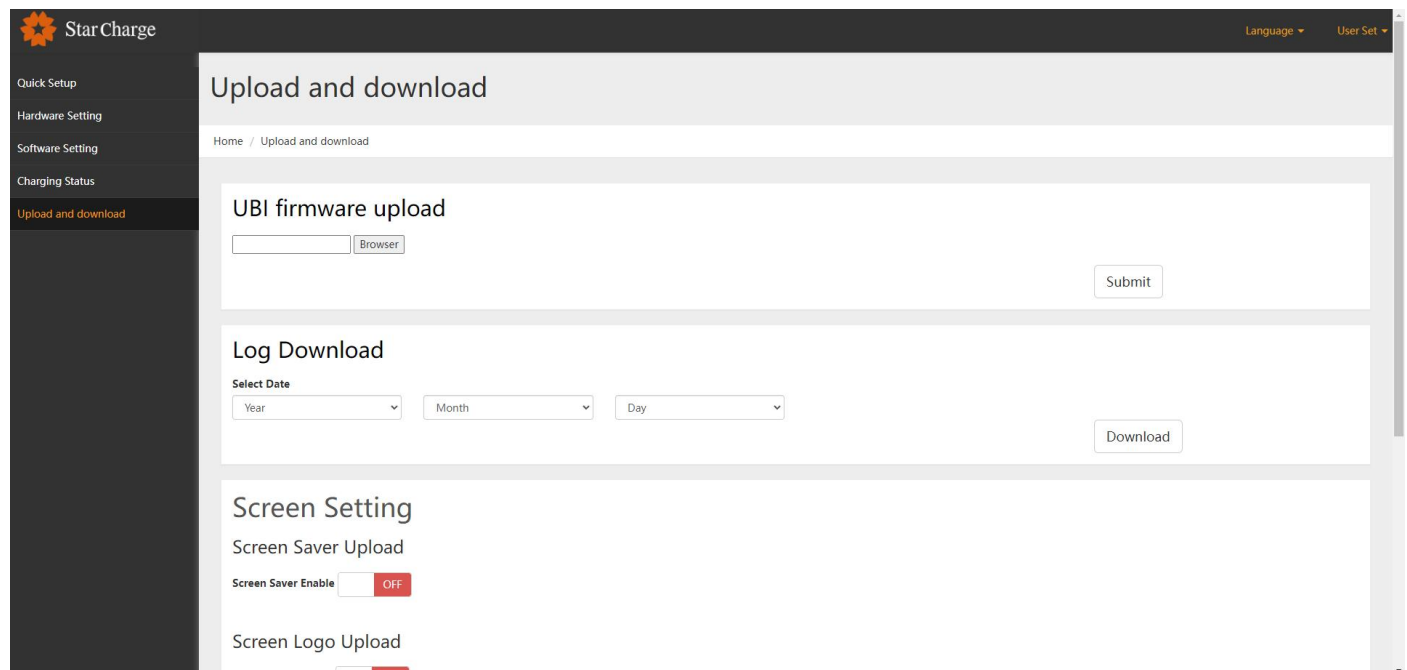
Bluetooth:

Configure the Bluetooth Name for the Bluetooth connection. Reboot after the configuration.



The screenshot shows the Star Charge web interface with the Bluetooth configuration section highlighted by a red border. The interface includes a sidebar with navigation options: Quick Setup, Hardware Setting, Software Setting (selected), Charging Status, and Upload and download. The main content area has a top bar with 'Language' and 'User Set' dropdowns. Below this, there are several configuration sections: 'Power Control' with input fields for 'Max Current of Connector A (A)' (32), 'Max Current of Connector B (A)' (32), 'Power Distribution Method' (ECC), and 'ip' (192.168.88.206); 'UTC Time Setting' with a date/time input field showing 'Similar to 2019-07-01 12:45:45'; 'Get version' with a 'Version' input field showing '1.5.1.6.1'; and the highlighted 'Bluetooth' section with a 'Bluetooth Name' input field containing '12345678'. Each section has 'Submit' and 'Refresh' buttons, and the Bluetooth section also has a 'Reset Pin' button.

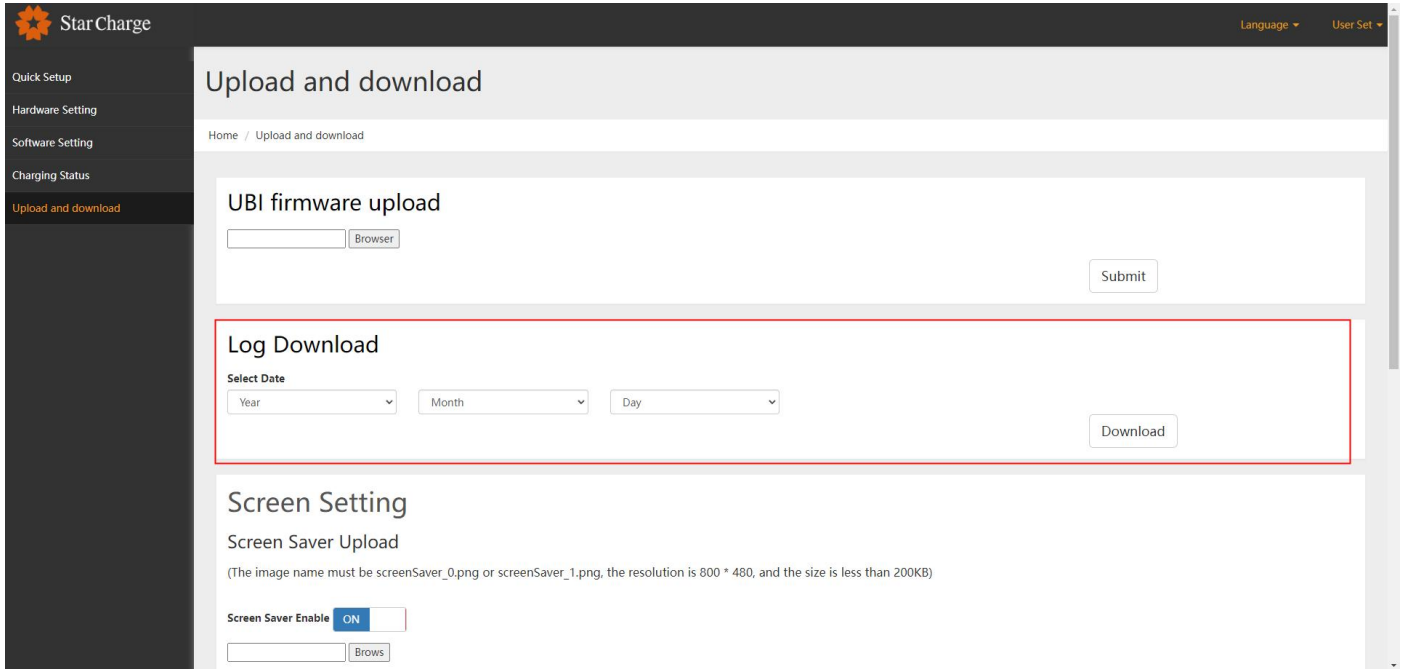
5.5.6 Upload and download



The screenshot shows the Star Charge web interface with the 'Upload and download' section selected in the sidebar. The main content area has a top bar with 'Language' and 'User Set' dropdowns. Below this, there are three sections: 'UBI firmware upload' with a file input field and a 'Browser' button; 'Log Download' with 'Select Date' dropdowns for 'Year', 'Month', and 'Day'; and 'Screen Setting' with 'Screen Saver Upload' and 'Screen Logo Upload' sections, each featuring a 'Screen Saver Enable' checkbox (currently 'OFF') and a 'Screen Logo Enable' checkbox (currently 'OFF'). Each section has a 'Submit' or 'Download' button.

Log Download:

- (1) Select date.
- (2) Click “Download” after selected to download the log.



Star Charge

Language User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

Upload and download

Home / Upload and download

UBI firmware upload

Log Download

Select Date

Year Month Day

Screen Setting

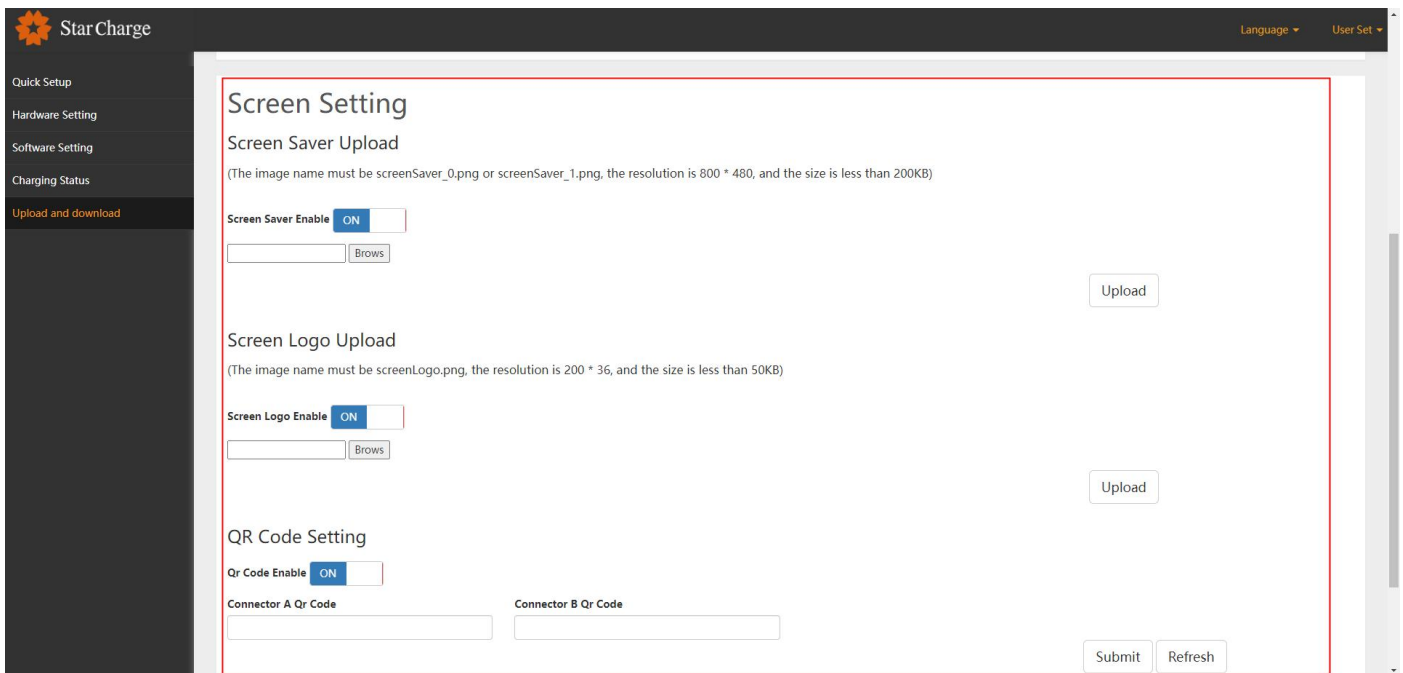
Screen Saver Upload

(The image name must be screenSaver_0.png or screenSaver_1.png, the resolution is 800 * 480, and the size is less than 200KB)

Screen Saver Enable ☒

Screen Setting:

- (1) Upload logo, screen saver or configure the QR codes for the charger.
- (2) Click “Submit” after configuration.



Star Charge

Language User Set

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

Screen Setting

Screen Saver Upload

(The image name must be screenSaver_0.png or screenSaver_1.png, the resolution is 800 * 480, and the size is less than 200KB)

Screen Saver Enable ☒

Screen Logo Upload

(The image name must be screenLogo.png, the resolution is 200 * 36, and the size is less than 50KB)

Screen Logo Enable ☒

QR Code Setting

Qr Code Enable ☒

Connector A Qr Code

Connector B Qr Code

Reboot:

Click “Reboot” to restart the software.

 Star Charge Language ▾ User Set ▾

Quick Setup
Hardware Setting
Software Setting
Charging Status
Upload and download

Screen Saver Enable ☒

Screen Logo Upload

(The image name must be screenLogo.png, the resolution is 200 * 36, and the size is less than 50KB)

Screen Logo Enable ☒

QR Code Setting

Qr Code Enable ☒

Connector A Qr Code

Connector B Qr Code

Reboot

5.6 Customer Training

Following charger commissioning, the engineer should provide basic user training on the charger's key features. This training can be delivered in document form or through a practical on-site explanation. The training content should cover safety knowledge, basic charging procedures, and other relevant topics. Refer to Appendix 1, "Customer Training Record Sheet," for further details.

5.7 Appendix

Appendix 1 Customer Training Record Sheet

Customer Training Record Sheet

Customer:

Product		Trainer	
Training method		Training Date	
Training Department			
Training Content			
Training Purpose			
Outline of Training handout	1. Basic charging operation procedure ☐ 2. Common sense of safety and emergency ☐ 3. Troubleshooting process ☐		
Trainee Signature			
Customer feedback			
Customer :	Project manager :		

Appendix 2 Commissioning Report

Commissioning Report

Date:

Commissioning Engineer:

Charging Station:

Address:

1 Details of the Charger

ID	Specification	Installation	Charging cable length	Firmware version	Backend

2 Appearance Inspection

Object	Content	Conclusion	Remark
Insulation Resistance	The insulation resistance of power cable meets the requirements.	☐ Pass ☐ Fail	
Surface	The surface is clean. The charging cable is not broken. The door could be closed and open. The Charger is not tilted.	☐ Pass ☐ Fail	
Sign	No missing safety warning mark and the nameplate is clear.	☐ Pass ☐ Fail	
Requirements	The Charger meets the requirements. The accessories are complete.	☐ Pass ☐ Fail	
Others	The fire-proof material is in place.	☐ Pass ☐ Fail	

3 Check the Internal Circuit (When using a multimeter to test the following items, ensure that the device is powered off.)

Object	Content	Conclusion	Remark
Input L1 and L2	Open Circuit	☐ Pass ☐ Fail	
Input L1 and L3	Open Circuit	☐ Pass ☐ Fail	
Input L2 and L3	Open Circuit	☐ Pass ☐ Fail	
Input L1 and N	Open Circuit	☐ Pass ☐ Fail	
Input L2 and N	Open Circuit	☐ Pass ☐ Fail	
Input L3 and N	Open Circuit	☐ Pass ☐ Fail	
Input L1 and PE	Open Circuit	☐ Pass ☐ Fail	
Input L2 and PE	Open Circuit	☐ Pass ☐ Fail	
Input L3 and PE	Open Circuit	☐ Pass ☐ Fail	
N and PE	Open Circuit	☐ Pass ☐ Fail	
Input and Output PE	Closed Circuit	☐ Pass ☐ Fail	

4 Working Environment

Object	Content	Conclusion	Remark
Temperature	-25°C ~ +45°C	☐ Pass ☐ Fail	
Humidity	5% ~ 95% RH	☐ Pass ☐ Fail	
Elevation	≤ 2000m	☐ Pass ☐ Fail	

5 Voltage check Before Power on

Object	Content	Conclusion	Remark
Input voltage of the main breaker	400V (±10%)	☐ Pass ☐ Fail	

6 Voltage check After Power on

Object	Content	Conclusion	Remark
Input voltage of the main breaker	400V (±10%)	☐ Pass ☐ Fail	

7 Charging Testing

Object	Content	Conclusion	Remark
Charging via APP	Start and stop charging via APP	☐ Pass ☐ Fail	
Charging via swiping the RFID card	Start and stop charging via swiping the RFID card	☐ Pass ☐ Fail	

8 Hardware Function

Object	Content	Conclusion	Remark
Meter	The meter could calculate during the charging process.	☐ Pass ☐ Fail	
Charging Cable	The surface of charging cable is normal. Plug in and out smoothly.	☒ Pass ☐ Fail	

Conclusion	Remark
☐ Pass ☐ Fail	

Commissioning Engineer:

Customer:

6 Maintenance

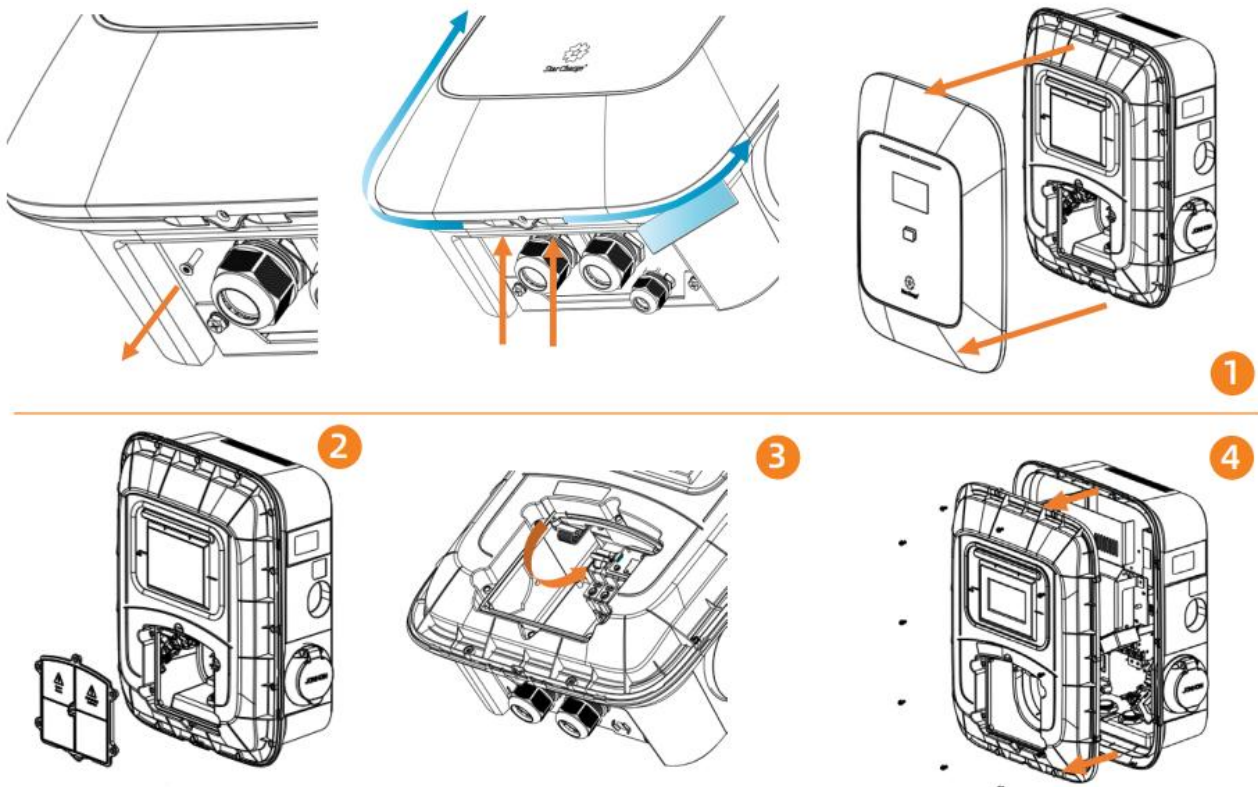
6.1 Engineer qualifications

Installers/Maintenance engineers must receive safety training and pass a competency assessment before working on the charger. They are responsible for operating and maintaining the charger in accordance with safety and usage instructions. Additionally, engineers are responsible for:

- Safe operation of the charging station
- Enhancing the station's safety system
- Conducting regular safety inspections
- Monitoring and reporting the station's safety status

6.2 Method of removing the cover

Please make sure to perform the following operations when the power is off.



- (1) Unscrew the M4 hexagon socket countersunk head screw at the bottom. Place your fingers at the place marked orange and lift up in order to unlock the cover. Insert an IC card in the gap to lift up the cover slightly from up to down.
- (2) Remove the six screws and open the wiring compartment cover.
- (3) Unplug the adapter cable in the picture.
- (4) Remove the ten screws.

6.3 Preventive maintenance

The recommended maintenance schedule is provided in the table below. Local regulations may require adjustments to the maintenance cycle. In such cases, always comply with applicable laws.

Object	Maintenance cycle	Working hours	Remark
Appearance inspection	Yearly	5min/unit	
Internal inspection		10min/unit	
Functional inspection		15min/unit	
Cleaning		20min/unit	

6.3.1 Appearance check



Note: The inspection items, frequency, and working hours listed below are for reference only. Overseas regions can adjust these based on local regulations and actual site conditions.

Requirements: Input power is off

Working hours: 5 min/site

Frequency: Every year

Check Item	Content and specification	Method	Conclusion	Remark
Appearance Inspection	The charger is intact and complete.	Visually	☐ Pass ☐ Fail	
	All components of the equipment are free from stains, scratches, deformations	Visually	☐ Pass ☐ Fail	
	Name plate and other signages including safety warning signs are accurate, clear, and complete	Visually	☐ Pass ☐ Fail	
	The charging cable/socket is complete without damage.	Visually	☐ Pass ☐ Fail	
	No water or dust in the charging connector.	Visually	☐ Pass ☐ Fail	
	The insulation cap of the charging connector is complete.	Visually	☐ Pass ☐ Fail	

6.3.2 Internal check

Requirements: Input power is off

Working hours: 10min/unit

Frequency: Every year

Check Item	Content and specification	Method	Conclusion	Remark
Internal Inspection	Ensure the wiring connection and its screws on MCB	Visually/ Manual	☐ Pass ☐ Fail	
	L1 connections at the AC input and output terminal are tight.		☐ Pass ☐ Fail	
	L2 connection		☐ Pass ☐ Fail	
	L3 connection		☐ Pass ☐ Fail	
	N connection		☐ Pass ☐ Fail	
	PE connection		☐ Pass ☐ Fail	

Note: If any screw or connection is found loose, a screwdriver must be used to tighten it.

6.3.3 Function check

Requirements: The charger is on

Working hours: 15min/unit

Frequency: Every year

Check Item	Content and specification	Method	Conclusion	Remark
Functional Inspection	During standby, LED indicator is functional with color codes.	Visually	☐ Pass ☐ Fail	
	Measure the voltage between L1/L2/L3 and N; N and PE; L1/L2/L3 and PE in the switch box.	Visually/ Measurement	☐ Pass ☐ Fail	
	During charging, LED indicator is functional with color codes.	Visually	☐ Pass ☐ Fail	
	During charging, the App status appears to be working consistent with the charger.	Visually	☐ Pass ☐ Fail	

6.3.4 Cleaning

Requirements: Input power is off

Working hours: 20min/unit

Frequency: Every year

It is recommended that the housing of charger is regularly cleaned with a wet cloth. In addition, there should be no plants growing on or around the charger.

- Do not clean the product with a high-pressure water pipe.
- Do not clean the product with corrosive cleansers.
- Do not clean the inside of the product.

7 Troubleshooting

7.1 LED indicator does not light up

Phenomenon	Solutions
The LED is not on	- Confirm that the parent circuit breaker has been turned off. - Make sure that the input power cable is intact and has been properly and securely connected to the charger. - Check whether the power voltage on the grid side is within the operating range 400V ($\pm 10\%$) of charger with a voltage tester. - Turn off the charger by shutting off the parent circuit breaker, and restart the charger. It takes about 2~5 minutes to restart the charger.

7.2 Failure to start charging process

Phenomenon	Reasons	Solutions
Failure to start charging process	Failure to plug the connector properly	Unplug and re-plug the charging connector again and confirm that the connector connection has succeeded.
	Failure to execute charging process correctly	Refer to section 4.3 Charging process in the user manual.
	The connector may be stained or damaged in the locking area	Clean or replace the connector.

7.3 Failure to start charging by scanning QR code

Phenomenon	Reasons	Solutions
Failure to scan QR code	The charger is still in starting process.	Wait for about 2~5 minutes until the charger starts.
	There is a problem or bug in the charging APP.	Restart the App and force the App to stop running, ensuring the App is not running in the background.
	4G or Wi-Fi connection failure	Re-connect the 4G or Wi-Fi with a better signal.

7.4 Failure to swipe RFID card

Phenomenon	Reasons	Solutions
Failure to swipe FRID card	The charger is still in starting process	Wait for about 2~5 minutes until the charger starts.
	The RFID card account is not activated	Please contact your dealer or service provider to activate the RFID card account.

7.5 EV is not fully charged or charging time increases

Phenomenon	Reasons	Solutions
EV is not fully charged or time increases	High temperature of the EV or Charger	Visually check whether the connectors are stained, worn or damaged.
	Power is limited due to external control devices (power supply device)	Please contact the charging station operator.

7.6 Red indicator or failure indication

Phenomenon	Reasons	Solutions
Red Indicator or Failure indication	Failure	Turn off the charger by shutting off the parent circuit breaker and restart the charger in about 20s. It takes about 2~5 minutes to restart the charger.
	Under-voltage ($\leq 165\text{Vac}$) or over-voltage ($\geq 269\text{Vac}$)	Check the power voltage on the grid side with a voltage tester.
	The grounding of device is loose, damaged or removed	Measure whether the grounding resistance of charger exceeds the standard (the grounding resistance is generally within 100 Ohms) with a tester (e.g. multimeter)

Note: If the problems still exist, please contact your dealer or service provider.

7.7 Appendix

Appendix 3 Error codes

Code	Description	Solution
100206	Ground fault	• Check if PE is correctly connected. • Check the voltage value of L1-PE/L2-PE/L3-PE/N-PE.
200206	Over voltage	• Cut off the power and use a multimeter to check the voltage value of the switchboard. • Contact the local grid for help.
200208	Under voltage	• Use a multimeter to check the voltage value after starting the EVSE. • Check if L/N is installed correctly.
100213	Over current fault	Contact the service department.
100102	Over temperature	• After starting the EVSE, check whether the fan is running normally. • Check whether the ambient temperature exceeds 45 degrees. • Contact the service department.
10020F	Meter communication fault	• Try to restart the EVSE power supply. • Check whether the RS 485 meter communication normal.
100005	Card reader communication fault	• Try to restart EVSE power supply . • Check whether the 232 card reader communication normal.

100215	Electric leakage protection	• Press the RCCB test button to confirm whether it is working properly. • Contact the service department.
100208	Relay fault	• Try to restart the EVSE power supply. • Contact the service department.
100210	Communication fault with bottom plate	• Try to restart the EVSE power supply. • Contact the service department.
100009	TF card exception	Contact the service department.
100205	Electronic lock fault	• Check whether the electronic lock voltage is normal. • Contact the service department.
100217	CP detection fault	Check whether the CP-PE voltage of the socket/connector meets DC12V.
100218	Connected cable is not supported.	Contact the service department.
100007	LED status light does not light up	• Try to restart the EVSE power supply. • Contact the service department.
100008	The screen does not light up	• Try to restart the EVSE power supply. • Contact the service department.
10020C	Door open	Please close the operation cover

Appendix 4 Stop codes

Code	Description	Solution
2	Meter communication fault	- Try to restart the EVSE power supply. - Check whether the RS 485 meter communication is normal.
4	Ground fault	- Check if the PE is correctly connected. - Check the voltage value of L1-PE/L2-PE/L3-PE/N-PE.
7	Over temperature	- After starting the EVSE, check whether the fan is running normally. - Check whether the ambient temperature exceeds 45 degrees. - Contact the service department.
8	Leakage fault	- Press the RCCB test button to confirm that it is working properly. - Contact the service department.
9	Meter fault	- Try to restart the EVSE power supply. - Contact the service department.
10	Door open	Please close the operation cover
11	Connected cable is not supported	Change the connected cable
18	No effective current / full stop	Code for the end of the normal charging process.
20	Disconnect	- Make sure that the socket and connector are connected correctly. - Contact the service department.
21	Swiping card to stop	Code for the normal charging process.
23	Remote stop	Code for the normal charging process.
28	Output overcurrent	Contact the service department.
31	Input overvoltage	- Cut off the power and use a multimeter to check the voltage value of switchboard. - Contact the local grid for help.

32	Input undervoltage	• Use a multimeter to check the voltage value after starting the EVSE. • Check if L/N is installed correctly.
36	Connection fault (EV side)	Change the car and test it, it may be a problem with the car.
62	Relay/Contactor adhesion	• Try to restart the EVSE power supply. • Contact the service department.
72	Relay/Contactor can't close	Contact the service department.
73	Electrical lock can't close	• Check whether the voltage of the electronic lock is normal. • Contact the service department.
74	LED communication fault	Check the wiring of lamp board

For the newest version of the document, please feel free to check www.starcharge.com

Many thanks for your attention.



Customer service

Preparation:

If you have any questions or problems, please contact the company responsible for performing the electrical installation.

Before contacting Customer Service:

Check the troubleshooting measures in the Troubleshooting section of this manual.



Star Charge

