

Star Charge
Installation & Commissioning of Aurora 7/11kW

Agenda

- Installation Workflow
- Commissioning Workflow



Installation Workflow

Tools required



Percussion drill

Bit type:
Ø8.0mm



Electric screwdriver

Screw Bit type:
PH2 & T30



Measuring tape



Marking pen



Hammer



Knife



Wire crimpers



Adjustable
wrench

Installation Workflow

Tap expansion bolts into the wall



Use the positioning board (included in the charger package) to mark the mounting hole on the wall

Drill four holes in the wall with

- diameter of 8mm
- depth of 62mm

Tap the expansion bolts into the hole.
(The expansion bolts are not included in the charger package and need to be prepared by user)

Installation Workflow

Install mounting bracket



Fix the mounting bracket to the lower screw holes



Insert screws into the upper screw holes (expose 7mm of the screw head.)



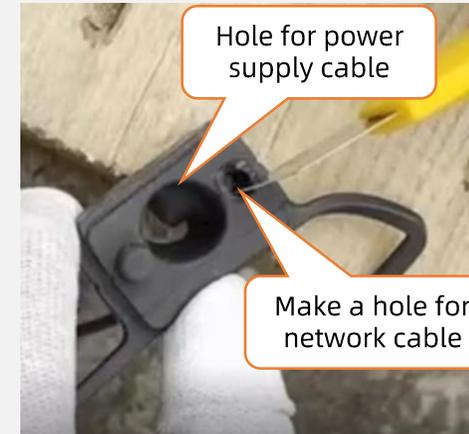
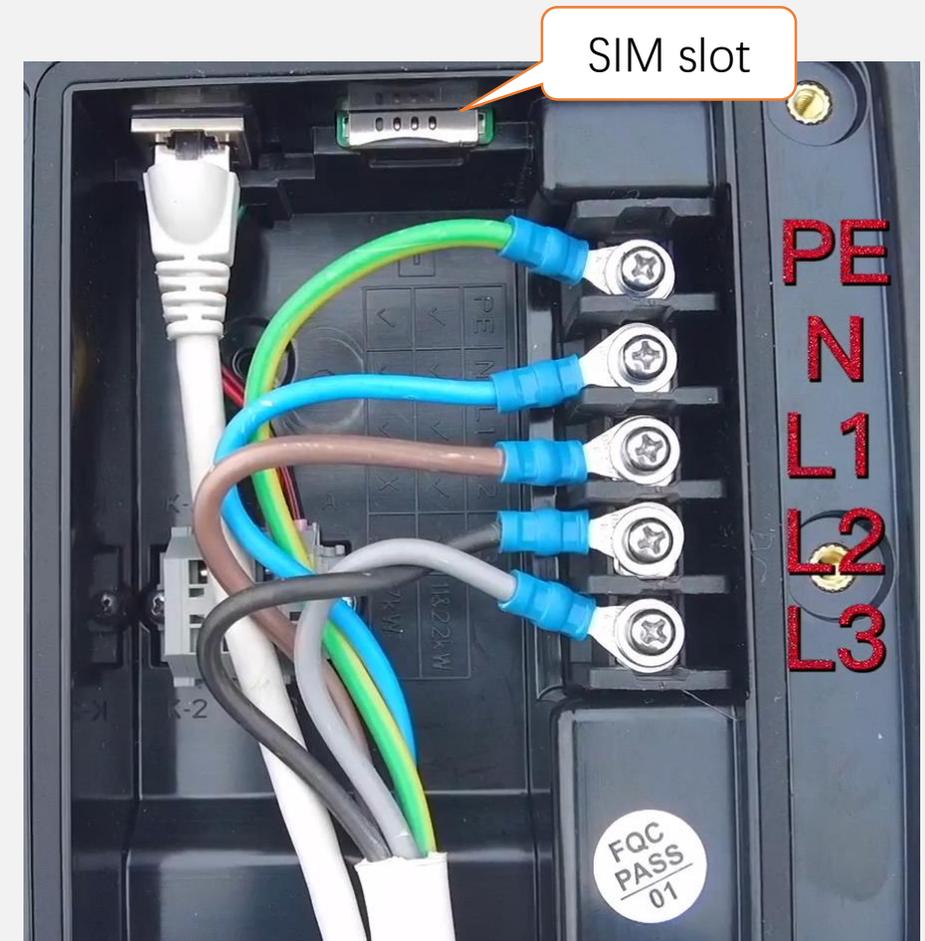
Installation Workflow

Connect input power supply cable
Connect network cable (optional)
Insert sim card (optional)

Connect the power supply cable to charger. Please pay attention to the cable sequence (PE,N,L1,L2&L3) .The screw locking torque is 1.2 ~ 1.4 nm

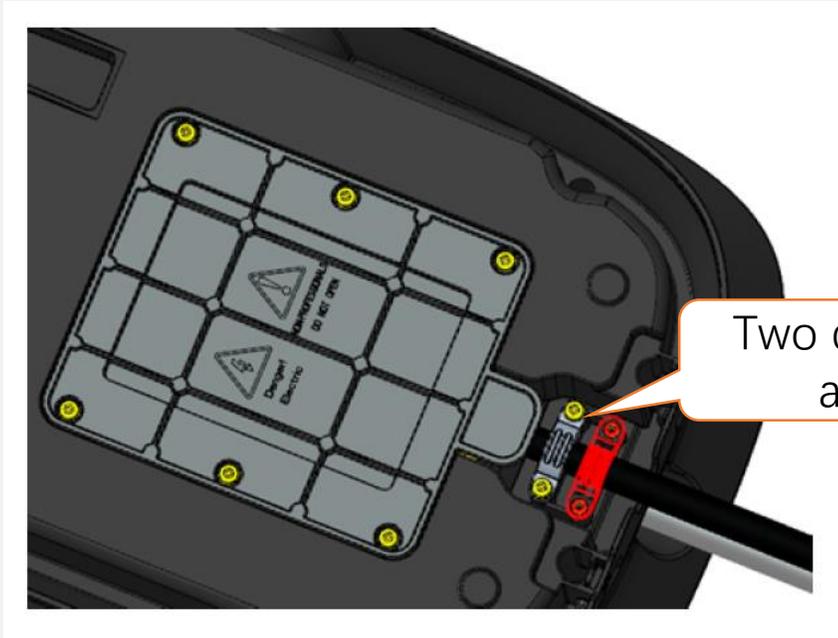
If SIM card is used for internet connection, insert the SIM card in the sim card slot.

If network cable is used for internet connection, connect the Ethernet cable to the corresponding socket. To thread the network cable into charger, you need to cut the rubber bulge and make an additional hole for network cable.



Installation Workflow

Install the back cover and crimp the cables



Two crimping ferrule are available for use

For the commissioning the technician needs to connect the charger with laptop via network cable to configure some charger parameters. So, before you install the back cover, you can first follow commissioning steps to finish the software configuration.

Use six M4*12 screws to install the back cover two M4*12 screws to tighten the crimping ferrule. Note: there are two positions for the crimping ferrule, depending on the thickness of the input cable (upper one for thin cable, lower one for thick cable)

Installation Workflow

Mounting charger on the wall



Hang Aurora on two upper screws



Press charger down to fix the screw in the slot



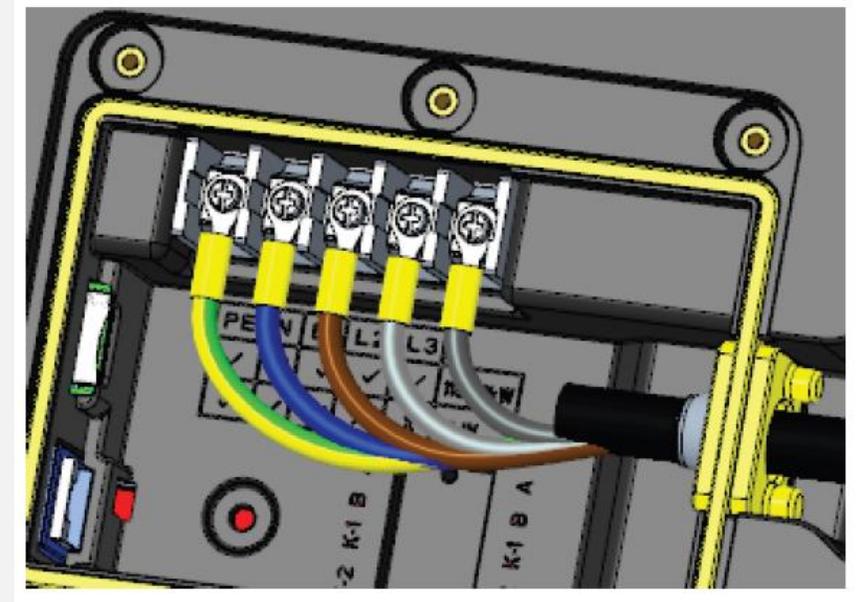
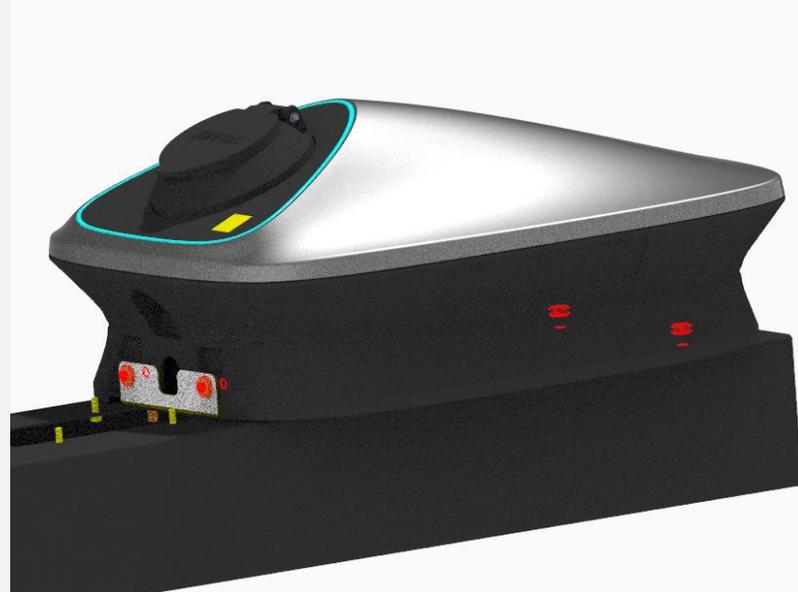
Fix the mounting bracket with charger

Installation Workflow

Mounting charger on pole (optional)

Beside mounting on wall, Aurora can be also installed on a pole.

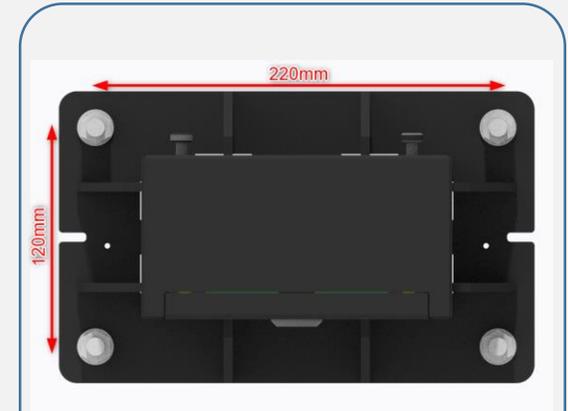
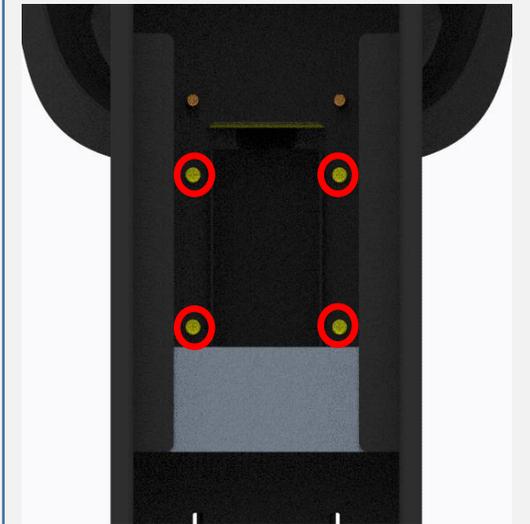
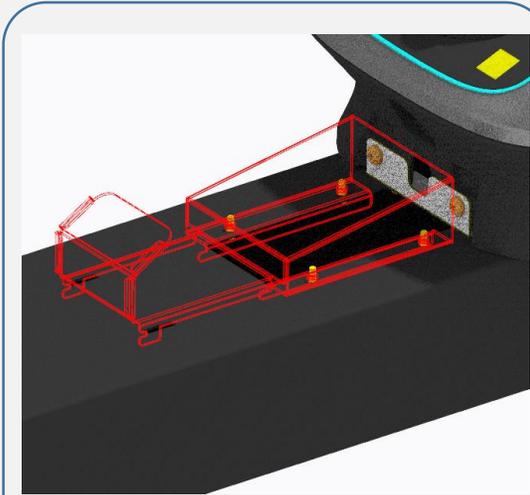
1. Lay the column on the ground.
2. Thread the power supply cable through the hole at bottom into pole.
3. Connect the power supply cable to the charger.
4. Mount charger to the pole.



Installation Workflow

Mounting charger on pole (optional)

5. Mount the cable hook and install the back cover
6. Fix pole on the ground with 4 expansion bolts (bolts are not included in pole package)



Commissioning Workflow

Tools required

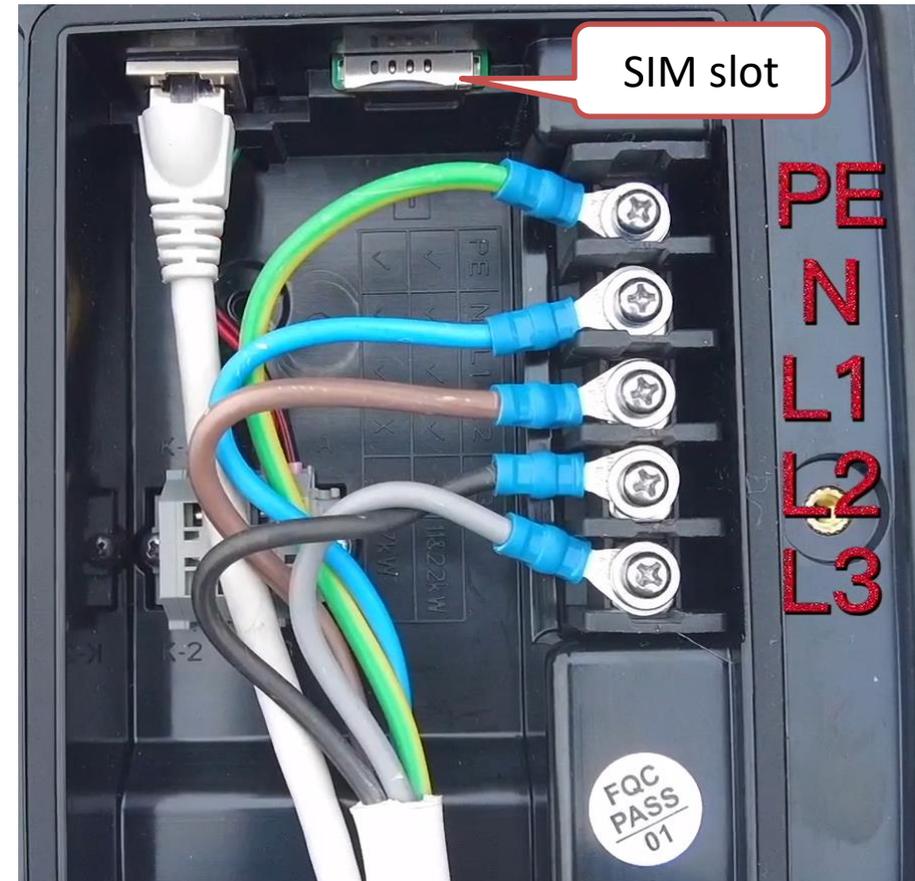
No	Description	Picture
1	Laptop	
2	Ethernet Cable	
3	Adapter	
4	Screw drivers	

Commissioning Workflow

Preparation

To configure the software parameter, please connect Aurora with a laptop via network cable.

If SIM card is used for internet connection, please insert the SIM card in the SIM slot

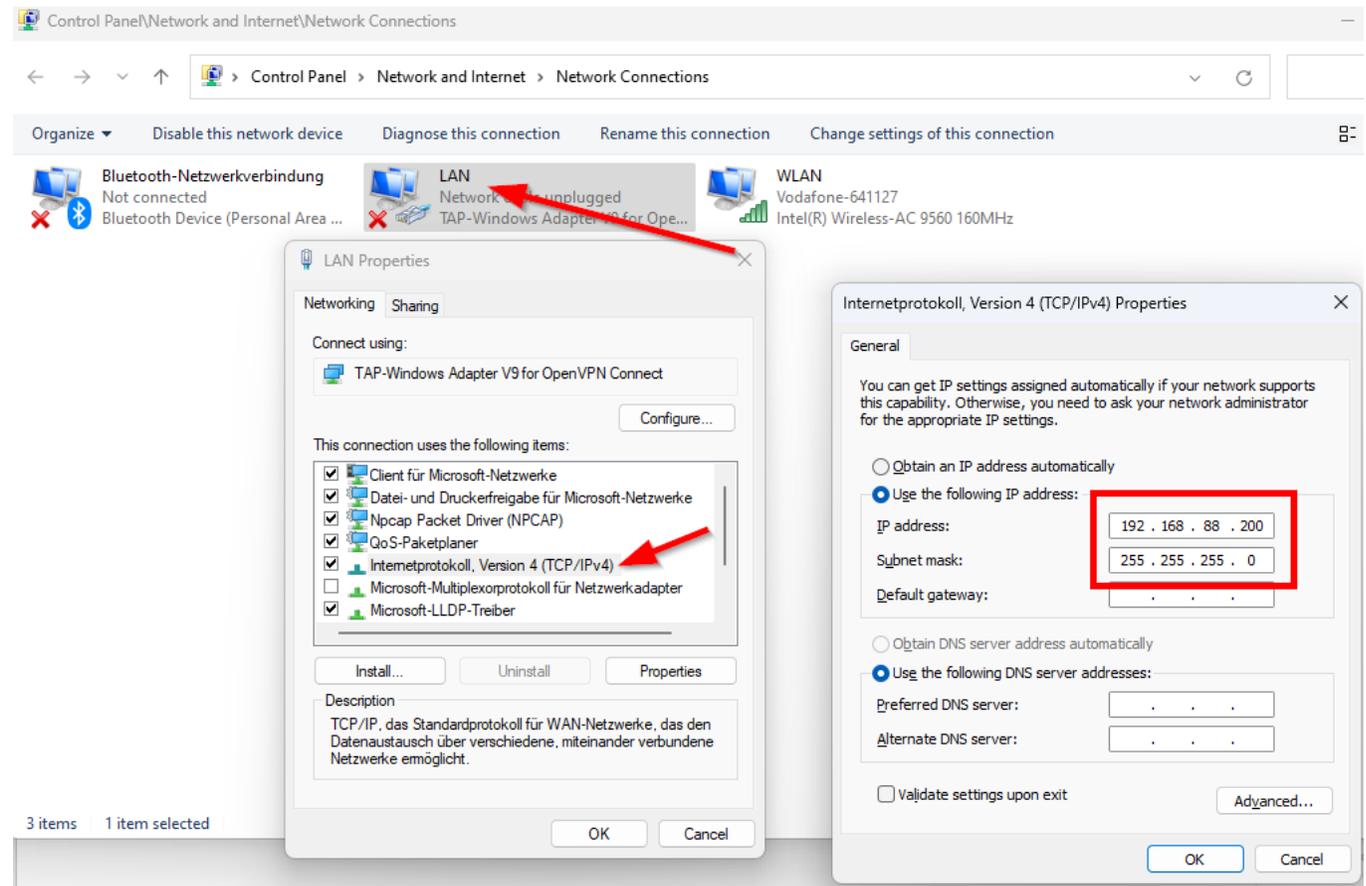


Commissioning Workflow

Preparation

To access the web panel, you need to first configure the IP address of your laptop:

- In Windows → Control Panel\Network and Internet\Network Connections
- Select the adaptor you are using and set the IP address to 192.168.88.200 and subnet mask to 255.255.255.0 as below:



The screenshot shows the Windows Control Panel window for Network Connections. The LAN connection is selected, and the LAN Properties dialog box is open. The 'Networking' tab is active, and the 'Internetprotokoll, Version 4 (TCP/IPv4)' item is selected. The 'Internetprotokoll, Version 4 (TCP/IPv4) Properties' dialog box is also open, showing the 'General' tab. The IP address is set to 192.168.88.200 and the Subnet mask is set to 255.255.255.0. Red arrows point to the LAN connection and the selected TCP/IPv4 item in the LAN Properties dialog.

Control Panel\Network and Internet\Network Connections

Control Panel > Network and Internet > Network Connections

Organize ▾ Disable this network device Diagnose this connection Rename this connection Change settings of this connection

Bluetooth-Netzwerkverbindung Not connected Bluetooth Device (Personal Area ...)

LAN Network Connections unplugged TAP-Windows Adapter V9 for OpenVPN Connect

WLAN Vodafone-641127 Intel(R) Wireless-AC 9560 160MHz

LAN Properties

Networking Sharing

Connect using:

TAP-Windows Adapter V9 for OpenVPN Connect

Configure...

This connection uses the following items:

- Client für Microsoft-Netzwerke
- Datei- und Druckerfreigabe für Microsoft-Netzwerke
- Npcap Packet Driver (NPCAP)
- QoS-Paketplaner
- Internetprotokoll, Version 4 (TCP/IPv4)
- Microsoft-Multiplexorprotokoll für Netzwerkadapter
- Microsoft-LLDP-Treiber

Install... Uninstall Properties

Description

TCP/IP, das Standardprotokoll für WAN-Netzwerke, das den Datenaustausch über verschiedene, miteinander verbundene Netzwerke ermöglicht.

Internetprotokoll, Version 4 (TCP/IPv4) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

Obtain an IP address automatically

Use the following IP address:

IP address: 192 . 168 . 88 . 200

Subnet mask: 255 . 255 . 255 . 0

Default gateway: . . .

Obtain DNS server address automatically

Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

Validate settings upon exit

Advanced...

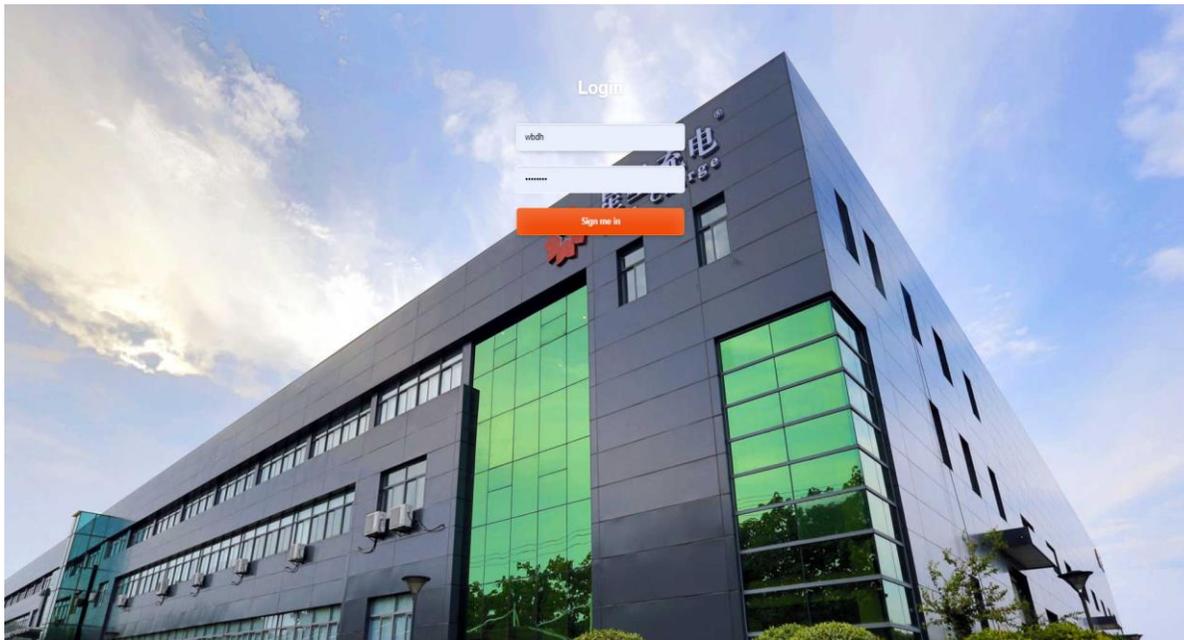
OK Cancel

3 items 1 item selected

Commissioning Workflow

Log into web panel

- Open a browser (Chrome or Edge)
- Enter IP address 192.168.88.206
- User account
 - Username : xxcd
 - Password : 28912891

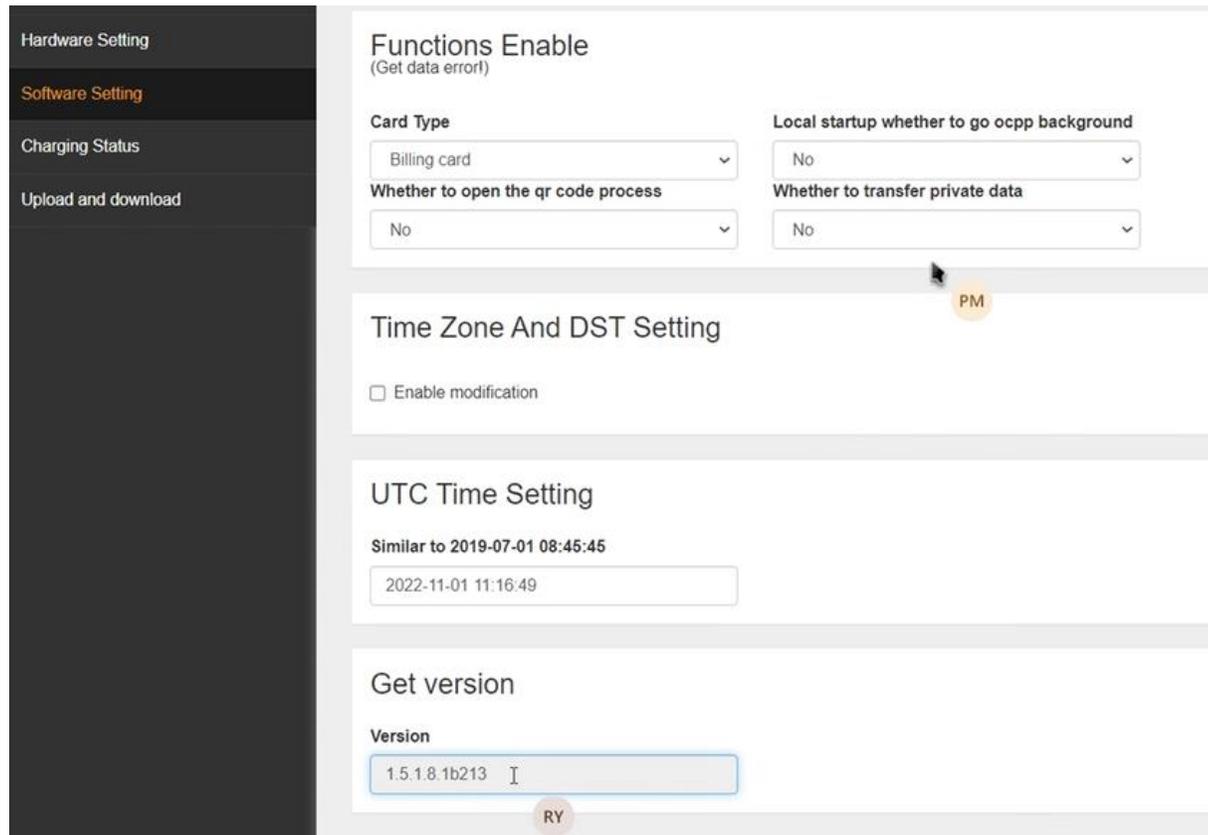


Commissioning Workflow

Check and update firmware

Before the parameter configuration, first you need to check the firmware version in the charger. If the charger is produced long time ago, the firmware inside could be outdate and needs to be update to avoid known software issues.

Click “Software setting ” and check the version in “Get version ”



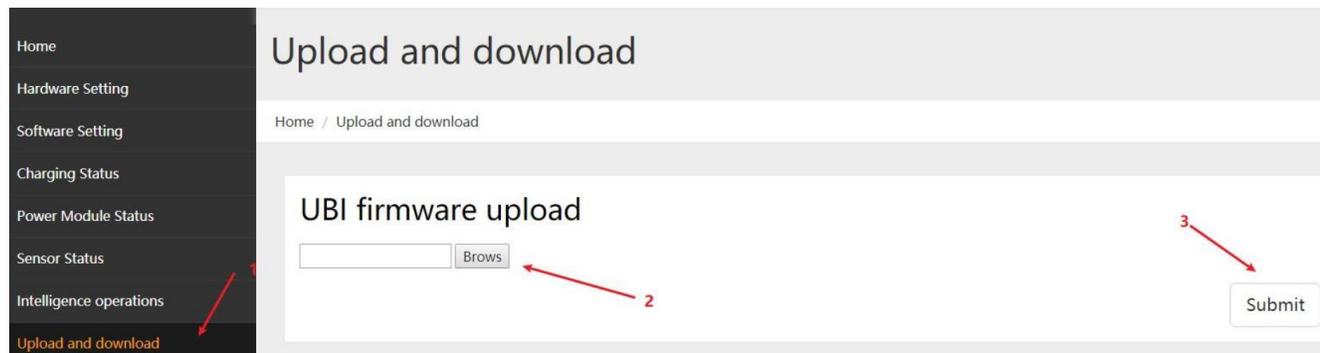
The screenshot displays the 'Software Setting' interface. The left sidebar includes 'Hardware Setting', 'Software Setting' (highlighted), 'Charging Status', and 'Upload and download'. The main content area is divided into several sections:

- Functions Enable** (Get data error!):
 - Card Type: Billing card
 - Local startup whether to go ocpp background: No
 - Whether to open the qr code process: No
 - Whether to transfer private data: No
- Time Zone And DST Setting**:
 - Enable modification:
- UTC Time Setting**:
 - Similar to 2019-07-01 08:45:45
 - 2022-11-01 11:16:49
- Get version**:
 - Version: 1.5.1.8.1b213

Commissioning Workflow

Check and update firmware

If the firmware version is not the newest version (StarCharge engineer will inform you the release info), please click “Upload and download “ → UBI firmware update. Then upload the firmware file provided by StarCharge.



> This PC > Work (D:) > Firmware > Aurora > 1.1.2.1.6b107_C_001-20230202 >

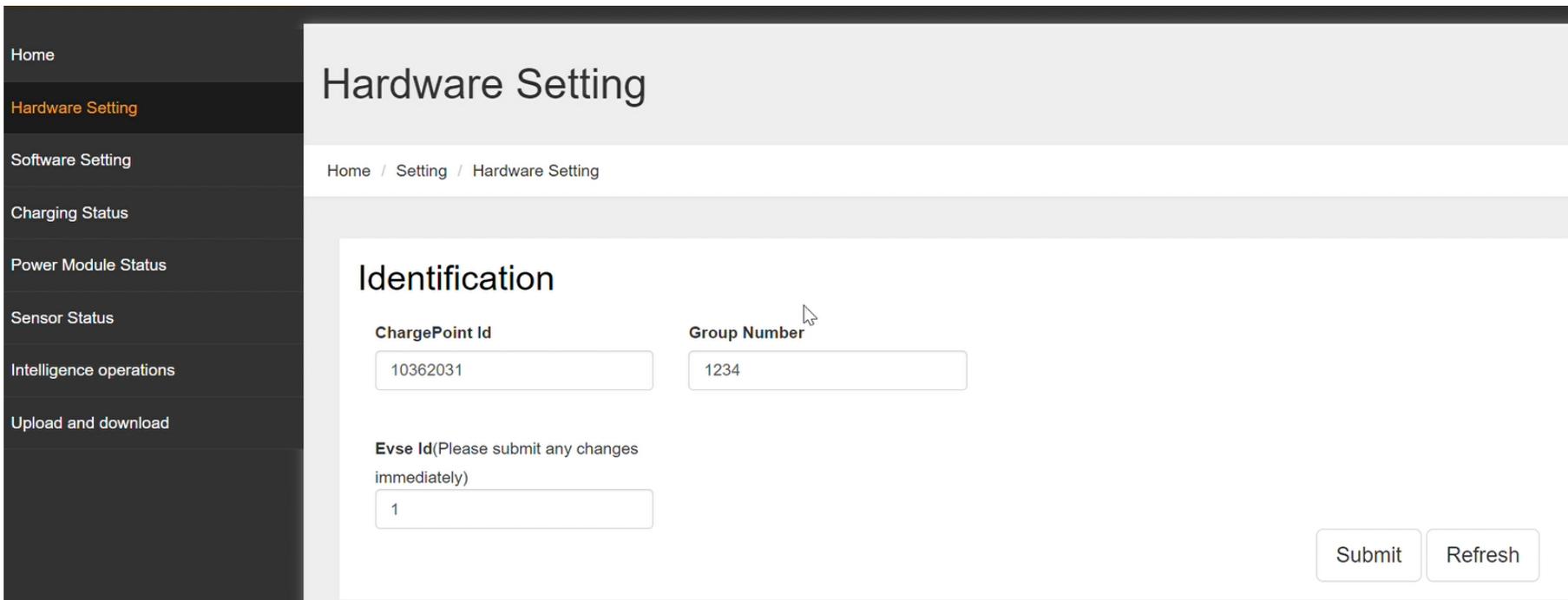
Name	Date modified	Type	Size
ChangeLog.txt	3/20/2023 6:12 PM	Textdokument	1 KB
V1.1.2.1.6b107_C_001.zip	3/20/2023 6:12 PM	Compressed (zipp...	13,543 KB

Upload this file

Commissioning Workflow

Configure the hardware setting

- Click “Hardware Setting”
- ChargePoint Id: if the charger needs to be connected to a backend platform, please enter here the charger ID.
- Others is default setting



The screenshot displays the 'Hardware Setting' page. On the left is a dark sidebar with navigation links: Home, Hardware Setting (highlighted), Software Setting, Charging Status, Power Module Status, Sensor Status, Intelligence operations, and Upload and download. The main content area has a header 'Hardware Setting' and a breadcrumb 'Home / Setting / Hardware Setting'. Below this is the 'Identification' section with three input fields: 'ChargePoint Id' (containing '10362031'), 'Group Number' (containing '1234'), and 'Evse Id(Please submit any changes immediately)' (containing '1'). At the bottom right are 'Submit' and 'Refresh' buttons.

Commissioning Workflow



Configure the hardware setting

- AC Current: if you want to limit the output power of Aurora, you can reduce the value.
 - For Aurora 7kW, the max value is 3200 (each power phase 32A)
 - For Aurora 11kW, the max value is 1600 (each power phase 16A)

AC Current

EVSE 1

Conn 1

Max Current(0.01A)

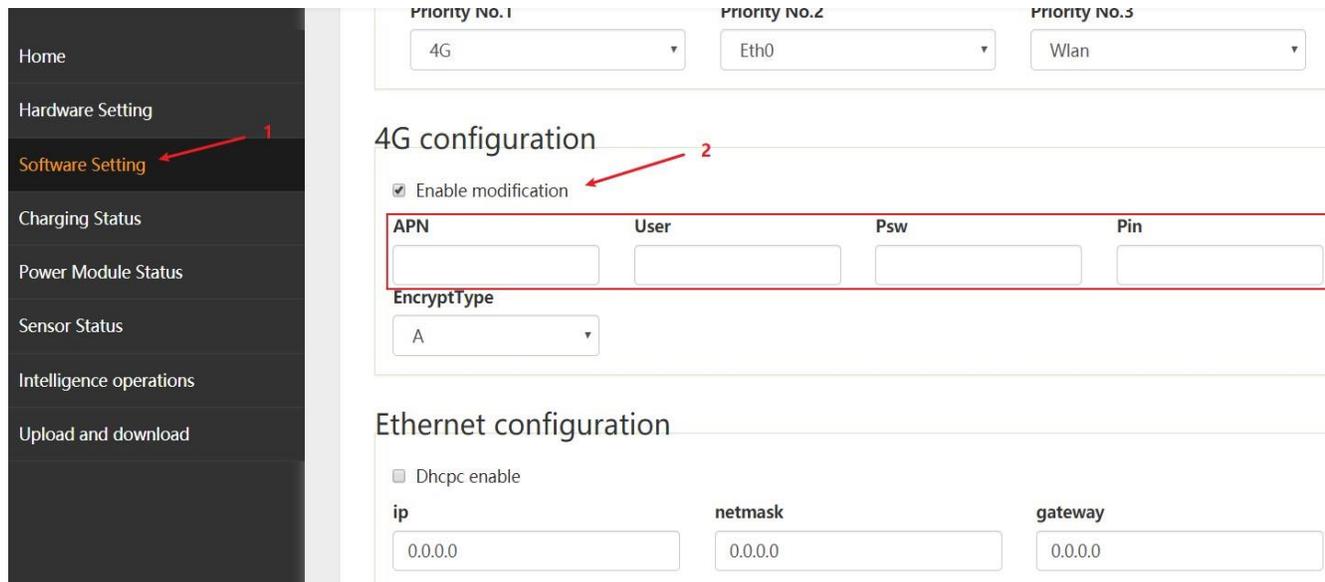
Submit Refresh

The image shows a screenshot of a web-based configuration interface. It has a hierarchical structure with labels: "AC Current" at the top, followed by "EVSE 1", and then "Conn 1". Below "Conn 1", there is a label "Max Current(0.01A)" and a text input field containing the value "3200". At the bottom right of the interface, there are two buttons labeled "Submit" and "Refresh".

Commissioning Workflow

Configure the software setting

- Click “Software Setting”
- 4G configuration: If SIM is used for internet connection, please enter the APN, USER, PSW and PIN of the SIM card.
- Beside 4G, Aurora also support Ethernet and WIFI for the internet connection. In this page, you can find corresponding settings.

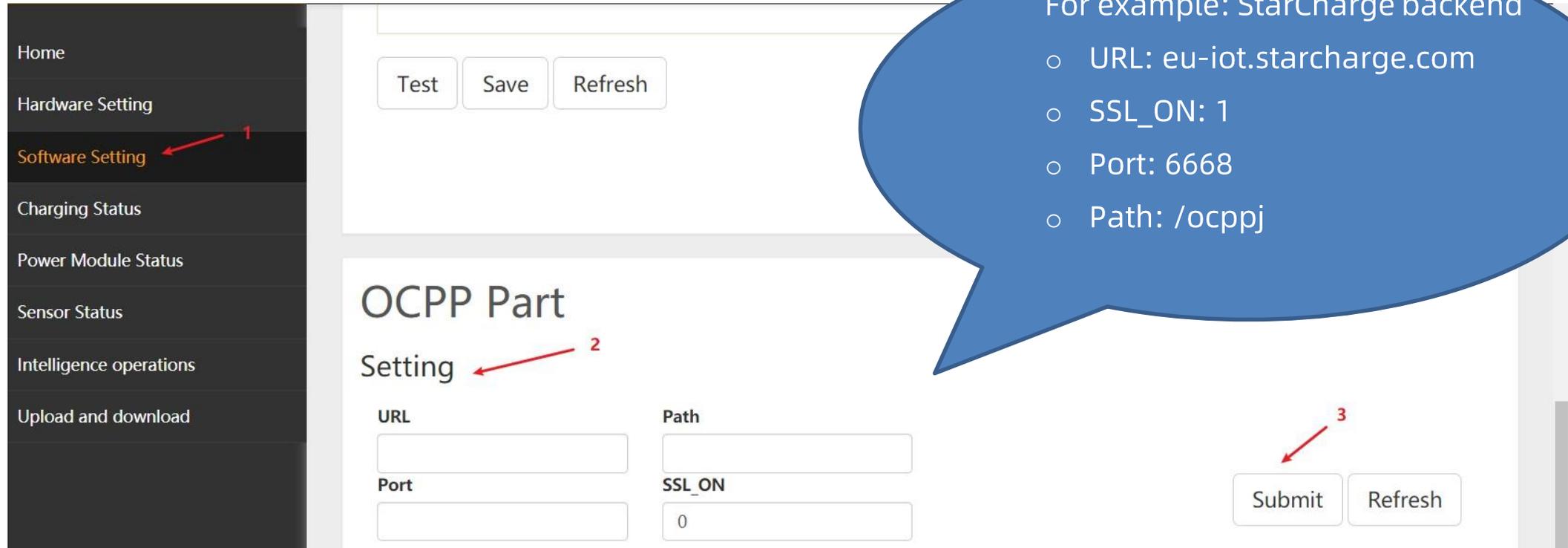


The screenshot displays a web-based configuration interface. On the left is a dark sidebar menu with the following items: Home, Hardware Setting, Software Setting (highlighted in orange with a red arrow labeled '1'), Charging Status, Power Module Status, Sensor Status, Intelligence operations, and Upload and download. The main content area is divided into sections. At the top, there are three dropdown menus for 'Priority No.1' (4G), 'Priority No.2' (Eth0), and 'Priority No.3' (Wlan). Below this is the '4G configuration' section, which includes a checked 'Enable modification' checkbox (with a red arrow labeled '2'), a red-bordered box containing four input fields for 'APN', 'User', 'Psw', and 'Pin', and an 'EncryptType' dropdown menu set to 'A'. The 'Ethernet configuration' section below it features a 'Dhcpc enable' checkbox (unchecked) and three input fields for 'ip', 'netmask', and 'gateway', all containing the value '0.0.0.0'.

Commissioning Workflow

Configure the software setting

- OCPP: If the charger needs to be connected to a backend platform, please enter the URL of the backend platform.



The screenshot shows a web interface for configuring OCPP settings. On the left is a dark sidebar with navigation options: Home, Hardware Setting, Software Setting (highlighted with a red arrow and '1'), Charging Status, Power Module Status, Sensor Status, Intelligence operations, and Upload and download. The main content area has a top section with 'Test', 'Save', and 'Refresh' buttons. Below this is the 'OCPP Part Setting' section, with 'Setting' highlighted by a red arrow and '2'. It contains four input fields: 'URL', 'Path', 'Port', and 'SSL_ON'. The 'SSL_ON' field has the value '0'. At the bottom right, there are 'Submit' and 'Refresh' buttons, with 'Submit' highlighted by a red arrow and '3'. A large blue speech bubble on the right contains the following text:

For example: StarCharge backend

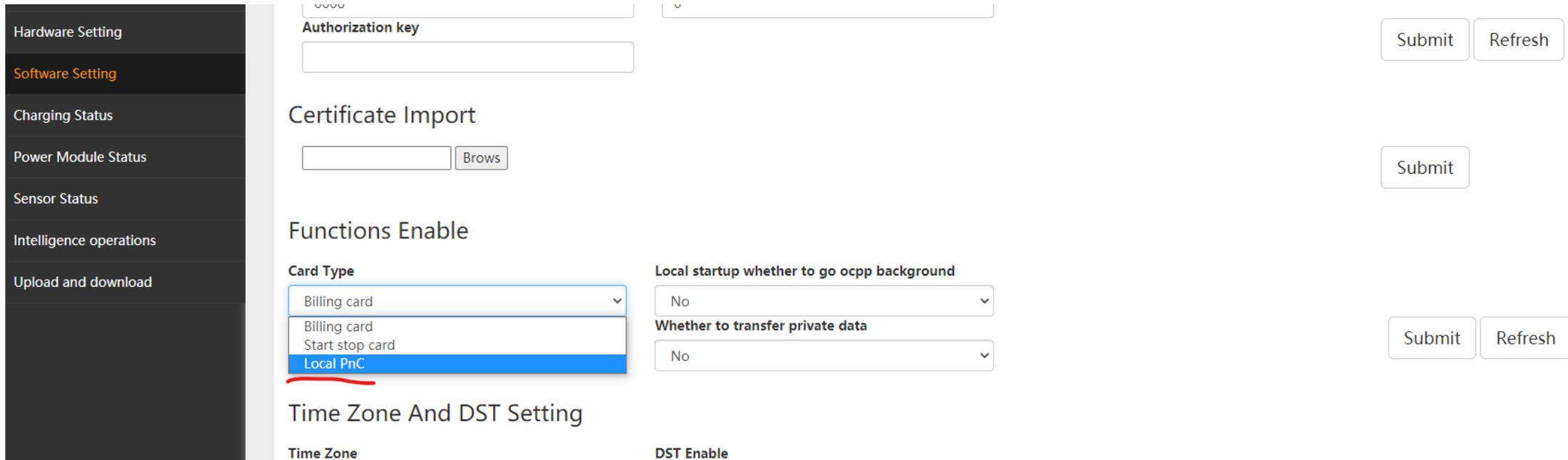
- URL: eu-iot.starcharge.com
- SSL_ON: 1
- Port: 6668
- Path: /ocppj

Commissioning Workflow

Configure the software setting

Select the card type:

- Billing card: Use authenticated IC card to start charging session card. The IC card must be whitelisted in backend platform and EVSE must always connect to the backend. This is for backend.
- Start stop card: Use the IC cards from charger accessories to start charging session. No authentication.
- Local PnC: Once plug in the charger connector, the charging session automatically begins without any authentication.



The screenshot shows a web-based configuration interface for a charging station. On the left is a dark sidebar with menu items: Hardware Setting, Software Setting (highlighted in orange), Charging Status, Power Module Status, Sensor Status, Intelligence operations, and Upload and download. The main content area is divided into several sections:

- Authorization key:** A text input field with a "Submit" button to its right.
- Certificate Import:** A text input field with a "Brows" button to its right and a "Submit" button further to the right.
- Functions Enable:**
 - Card Type:** A dropdown menu with "Billing card" selected. The options are "Billing card", "Start stop card", and "Local PnC" (underlined in red).
 - Local startup whether to go ocpp background:** A dropdown menu with "No" selected.
 - Whether to transfer private data:** A dropdown menu with "No" selected.
- Time Zone And DST Setting:**
 - Time Zone:** A text input field.
 - DST Enable:** A text input field.

At the bottom right of the main content area, there are "Submit" and "Refresh" buttons.

Commissioning Workflow

Check the connection status

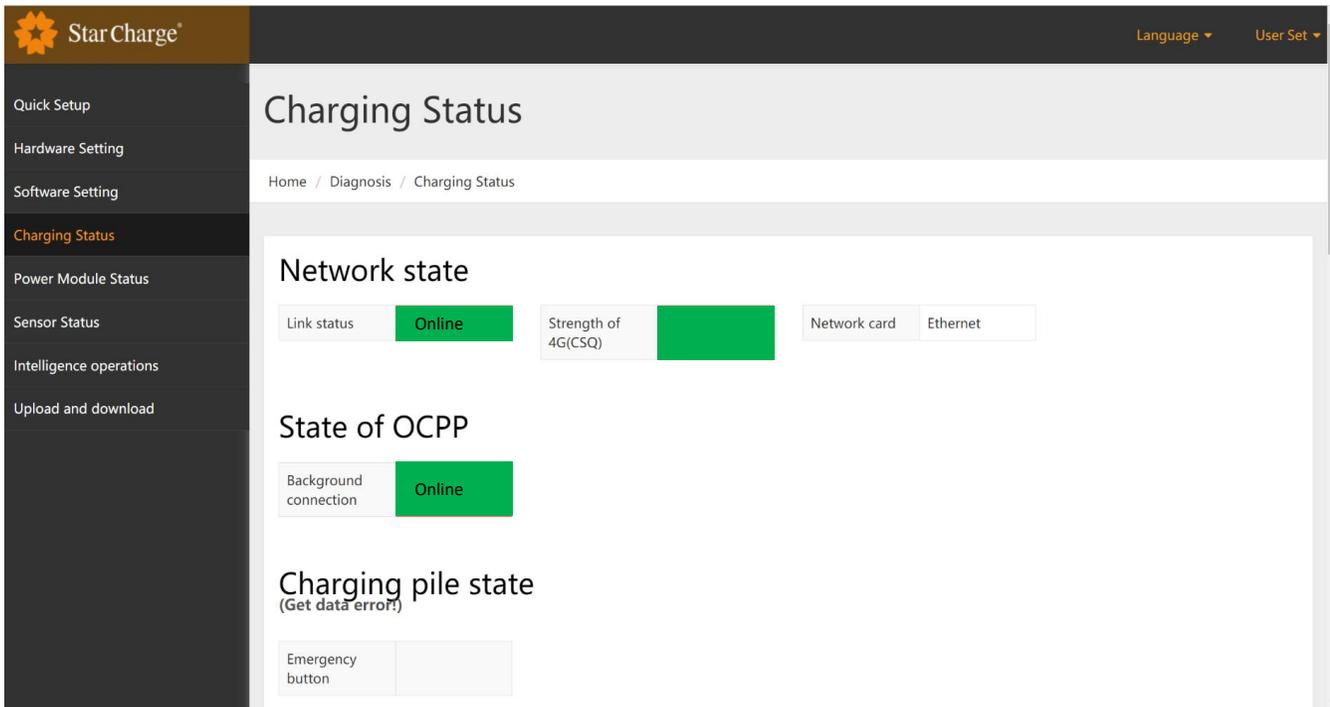
Click “Charging Status” , observe the connection status.

Link status: internet connection

Strength of 4G: LTE signal quality

Network card: which connection method is used, 4G, Ethernet or Wifi

Background connection: connection with the backend platform



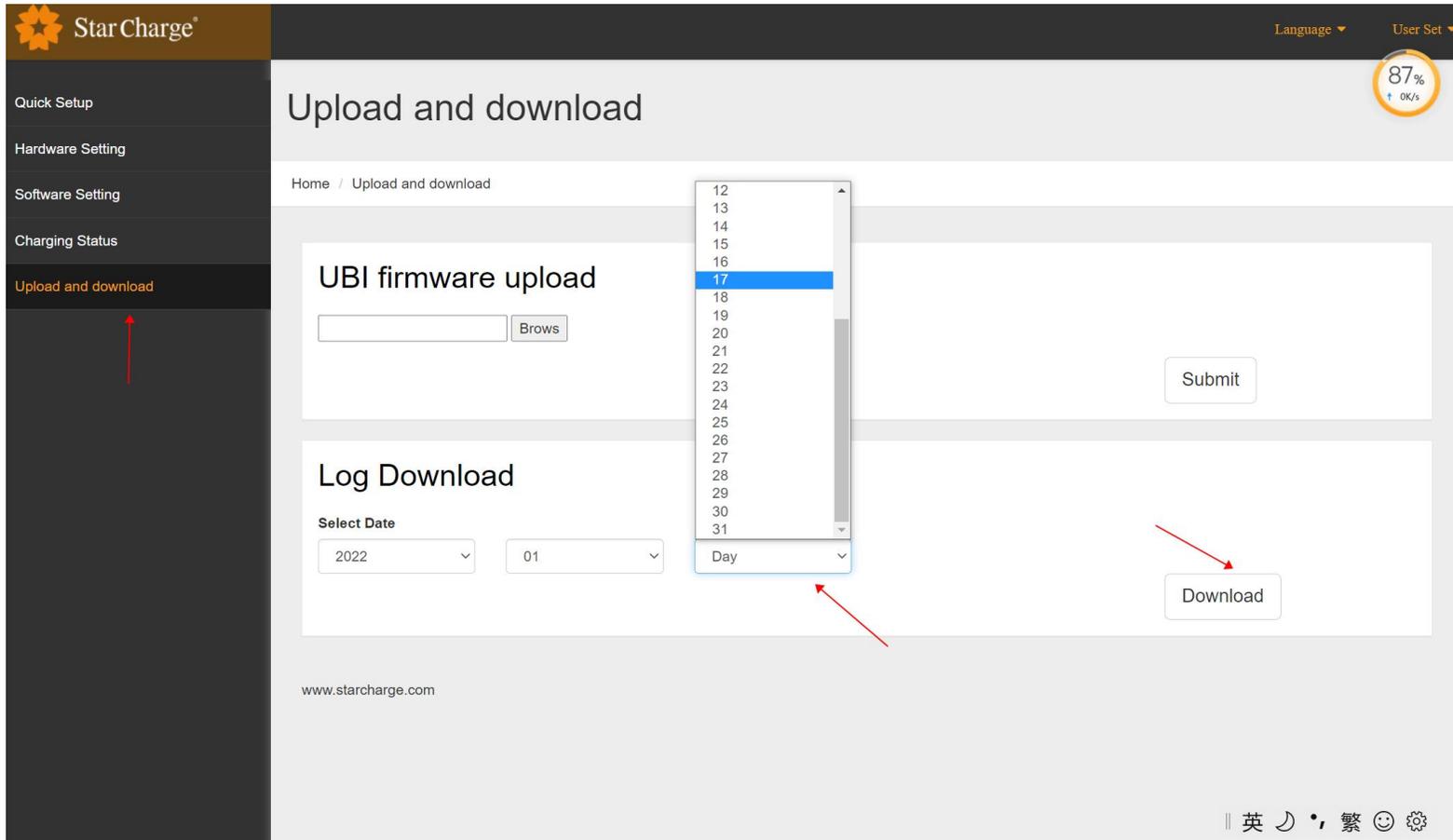
The screenshot displays the Star Charge web interface. The top navigation bar includes the Star Charge logo, a language dropdown, and a user set dropdown. The left sidebar lists various settings: Quick Setup, Hardware Setting, Software Setting, Charging Status (highlighted), Power Module Status, Sensor Status, Intelligence operations, and Upload and download. The main content area is titled "Charging Status" and shows the following information:

- Network state**
 - Link status: Online
 - Strength of 4G(CSQ): [Green bar]
 - Network card: Ethernet
- State of OCPP**
 - Background connection: Online
- Charging pile state**
(Get data error!)
 - Emergency button: [Grey bar]

Download Log file

If any charger issue happens, please provide log file to service.europe@starcharge.com

You can download log in “Upload and download” → “Log Download” → select date and download .



The screenshot displays the Star Charge web interface. The top navigation bar includes the Star Charge logo, a language dropdown, and a user set dropdown. A circular progress indicator shows 87% with a 0K/s rate. The main content area is titled 'Upload and download' and contains two sections: 'UBI firmware upload' and 'Log Download'. The 'Log Download' section has a 'Select Date' dropdown set to '2022' and a day dropdown set to '01'. A date selection menu is open, showing a list of numbers from 12 to 31, with '17' highlighted. A red arrow points to the 'Download' button in the 'Log Download' section. The footer shows the website URL 'www.starcharge.com' and language options: '|| 英 月 日 繁 日 英'.

Thank U

