

LINCHR

USER MANUAL



H-SERIES

SMART EV CHARGE POINT

Contents

- 1, Revision records..... 1
- 2. Forward..... 3
- 3. Warranty 5
- 4. Instructions for use 6
- 5. Technical parametes 7
- 6. Installation10
- 7. Introduction to operation area22
- 8. Introduction to mobile APP23
- 9. OCPP connection52
- 10. Charge56
- 11. Power supply management (external meter or CT)58
- 12. Load constraints59
- 13.Upgrade of the system71

1. Revision records

Rev.	Date	Modified content	Proposed by
V1.0	2022/04	Filing for the first time	LINCHR R&D Department
V1.1	2022/05	"Load Constraints" and "Pedestal Installation" are added	LINCHR R&D Department

2. Forward

This manual introduces the H Series European Standard AC the charger and related products, and gives the detailed description of the installation and use process.

Safety warning:

Please read this manual carefully before installing and using the charger!

Safety warning:

All installations must be operated by professionals!

2.1. General

2.1.1. About this manual

- This manual must be provided to all personnel responsible for the installation and use of the charger;
- The installation and commissioning of the charger must be operated by professionals or other qualified personnel undergoing training, and the laws and regulations related to safety must be strictly observed;
- The manufacturer of the charger is not responsible for all damage caused by violation of regulations or failure to operate according to the requirements of this manual;
- Due to product iteration, the charger manufacturer has the right to upgrade the product when necessary;
- All rights reserved. This manual shall not be copied without the written authorization of LINCHR.

2.1.2 About safety

This product adopts the most advanced technology and complies with safety and health regulations.

In case of violation of regulations or failure to follow the requirements of this manual, there may be the following risks:

- Cause harm to the life or body of users or third parties;
- Cause harm to product and other major assets of operators;
- The product is damaged and there is a risk that it cannot be used.

Please strictly follow the following guidelines when operating:

- Before any maintenance operation on the charger, the input power supply must be disconnected;
- Please use appropriate tools and take special measures to ensure that the input power supply has no voltage;

- Before the charger is connected to the power supply, please ensure that the ground wire is connected reliably;
- Power input cables, sockets and all accessories required for installation must meet the current laws and regulations;
- Please install short-circuit protection device at the power supply input end of the charger;
- Cable adapter, conversion terminal or power cord extension line shall not be used for the power cord of the charger;
- Before charging, the electric vehicle and the charger shall be reliably connected through the charging plug line;
- It is strictly forbidden to move, modify or connect the charger without using protection devices, safety or monitoring equipment;
- It is strictly forbidden to reconfigure or modify product;
- Product can only run under permitted conditions.

2.1.3 About maintenance

- Do not open the charger;
- Do not touch circuit boards and electronic components;
- If the charger is damaged, do not install and use it;
- The charger can only be repaired by professionals;
- The charger can be cleaned with neutral cleaner (cleaner suitable for plastic parts).

3. Warranty

The warranty period of the charger shall be stipulated by the official sales of LINCHR.

Prerequisites for coverage of product warranty:

Follow the instructions in the manual to ensure that the product will have no fault and will be safe for use.

The following conditions are not covered by the warranty:

- Failure to comply with the installation requirements and use conditions of the charger;
- Operation and installation without the permission of the manufacturer;
- The capacity of components is not in accordance with the capacity specified by the manufacturer;
- Neglect correct operation flows, carry out incorrect operation, etc.;
- Defects caused by materials provided by the user itself;
- Improper use;
- Incorrect modification and repair;
- Disasters, impact of foreign body and force majeure, etc.

The manufacturer is not responsible for damage caused by third party's actions, including atmospheric discharge, overvoltage and chemical effects.

The warranty does not cover the replacement of wearing parts.

4. Instructions for use

The charger is an electrical equipment for charging the energy storage battery of battery electric vehicles (BEV).

Charging plugs and sockets meet the requirements of IEC 62196 (AC charging, mode 3).

The charger is suitable for indoor and outdoor use.

If the product is faulty or damaged, please contact the technician and inform the manufacturer.

The charger must be installed on the wall or matched pedestal, and the installation must be reliable and stable. It is not allowed to operate the charger in a loose state (not installed reliably), which does not meet the use requirements!

Do not disassemble, tamper with or deactivate the safety device!

No technical changes shall be made to the product without the permission of the manufacturer! In addition, if the operation is illegal, no warranty and claim are allowed!

The product can only be operated under the conditions specified in the manual!

Product installation and use, must be conducted by professional or trained personnel in accordance with the installation and use requirements!


The users must:

Read and understand this manual!

All safety instructions have been read and understood!

The professionals (Electrical Engineer/Technical Specialist), are only allowed to carry out installation, initial operation, inspection and configuration, and the professionals must have read and understood this manual!

5. Technical parameters

Product information				
				
Model	LCHS07C	LCHS07B	LCHS11C LCHS22C	LCHS11B LCHS22B
Power	1.4-7kW	1.4-7kW	3.5-11kW(LCHS11C) 3.5-22kW(LCHS22C)	3.5-11kW(LCHS11B) 3.5-22kW(LCHS22B)
Charging mode	MODE 3 CASE C (Charging plug line version)	MODE 3 CASE B (Charging plug base version)	MODE 3 CASE C (Charging plug line version)	MODE 3 CASE B (Charging plug base version)
Standard of charging plug line	Type 2	--	Type 2	--
Standard of charging plug base	--	Type 2	--	Type 2
Dimensions (width × height × thickness)	260×260×100 mm	260×260×110 mm	260×260×100 mm	260×260×110 mm
Weight	<4kg	<3kg	<4kg (LCHS11C) <5kg(LCHS22C)	<3kg (LCHS11B) <3kg(LCHS11B)
Material of shell	PC+ASA (UL94-V0)	PC+ASA (UL94-V0)	PC+ASA (UL94-V0)	PC+ASA (UL94-V0)
Heat dissipation way	Naturally cool	Naturally cool	Naturally cool	Naturally cool
Installation way	Wall-mounted type/pedestal type	Wall-mounted type/pedestal type	Wall-mounted type/pedestal type	Wall-mounted type/pedestal type
Electrical parameters				
Rated voltage	230 V ±15%	230 V±15%	400V ±15% (three-phase) 230V ±15% (single-phase)	400V±15% (three-phase) 230 V±15% (single-phase)
Frequency of power supply	50/60Hz±1%	50/60Hz±1%	50/60Hz±1%	50/60Hz±1%

Grid system	TN/TT/IT(1P+N+PE or 2P+PE)	TN/TT/IT(1P+N+PE or 2P+PE)	TN/TT/IT(3P+N+PE or 3P+PE) (three-phase) TN/TT/IT(1P+N+PE or 2P+PE) (single-phase)	TN/TT/IT(3P+N+PE or 3P+PE) (three-phase) TN/TT/IT(1P+N+PE or 2P+PE) (single-phase)
Efficiency	>99%	>99%	>99%	>99%
Electric leakage protection	DC electric leakage (6mA) AC electric leakage (30mA)	DC electric leakage (6mA) AC electric leakage (30mA)	DC electric leakage (6mA) AC electric leakage (30mA)	DC electric leakage (6mA) AC electric leakage (30mA)
Charging start way	Start through APP Swipe card to start OCPP start	Start through APP Swipe card to start OCPP start	Start through APP Swipe card to start OCPP start	Start through APP Swipe card to start OCPP start
Status display	LED strip display (red/green/blue) APP display	LED strip display (red/green/blue) APP display	LED strip display (red/green/blue) APP display	LED strip display (red/green/blue) APP display
Electric energy metering	Metering chip ($\pm 1\%$)	Metering chip ($\pm 1\%$)	Metering chip ($\pm 1\%$)	Metering chip ($\pm 1\%$)
Communication	WiFi Net port 4G Bluetooth RS485 CAN	WiFi Net port 4G Bluetooth RS485 CAN	WiFi Net port 4G Bluetooth RS485 CAN	WiFi Net port 4G Bluetooth RS485 CAN
OCPP	OCPP1.6J	OCPP1.6J	OCPP1.6J	OCPP1.6J
Upgrade	Local APP upgrade Remote OCPP upgrade	Local APP upgrade Remote OCPP upgrade	Local APP upgrade Remote OCPP upgrade	Local APP upgrade Remote OCPP upgrade
Records	Charging record Fault record	Charging record Fault record	Charging record Fault record	Charging record Fault record

Protection function	Overcurrent protection (external MCB)	Overcurrent protection (external MCB)	Overcurrent protection (external MCB)	Overcurrent protection (external MCB)
	Overvoltage protection	Overvoltage protection	Overvoltage protection	Overvoltage protection
	Undervoltage protection	Undervoltage protection	Undervoltage protection	Undervoltage protection
	Relay overtemperature protection	Relay overtemperature protection	Relay overtemperature protection	Relay overtemperature protection
	Over-temperature protection of charging plug base	Over-temperature protection of charging plug base	Over-temperature protection of charging plug base	Over-temperature protection of charging plug base
	Over-temperature protection of incoming terminal	Over-temperature protection of incoming terminal	Over-temperature protection of incoming terminal	Over-temperature protection of incoming terminal
	CP protection	CP protection	CP protection	CP protection
	Relay adhesion protection	Relay adhesion protection	Relay adhesion protection	Relay adhesion protection
	Open-phase protection	Open-phase protection	Open-phase protection	Open-phase protection
	Electric leakage protection	Electric leakage protection	Electric leakage protection	Electric leakage protection
Ground protection	Ground protection	Ground protection	Ground protection	
Protection grade	IP65	IP55	IP65	IP55
Ambient temperature	-25 °C ~ +50 °C	-25°C ~ +50°C	-25 °C ~ +50 °C	-25°C ~ +50°C
Humidity	≤95%RH	≤95%RH	≤95%RH	≤95%RH
Certification				
standards	IEC 61851-1: 2017 (RED WiFi 2.4GHz----RF: EN 300 328 RF-EMC: EN 301 489-1&-17 Health (MPE): EN 62311) (RED RFID 13.56MHz----RF: EN 300 330 RF-EMC: EN 301 489-1&-3 Health (MPE): EN 62311)			
CE certification	CE (Rheinland)/UKCA (Rheinland)			
RoHS/REACH certification	RoHS/REACH (Rheinland)			

6. Installation

The following content describes the installation process of the charger.

It must be carried out by professionals!

6.1. Installation conditions and environmental requirements

The charger can be used outdoors. The charger must operate in the environment required by the manual, otherwise the life of the charger will be affected. The installation and operation of the charger must meet the following conditions:

- The ambient temperature of use must be $-25\text{ °C} \sim 50\text{ °C}$;
- Humidity $\leq 95\%$ RH;
- The installation position shall not have strong vibration or mechanical impact;
- The charger must be kept away from explosives or dangerous goods, conductive media and harmful gas;
- The charger must be clean, free from mildew, away from wet dust, flammable and explosive gas and liquid, away from heat sources and corrosive environment;
- The installation altitude of the charger is ≤ 2000 meters.

6.2. Accessories for installation

The following accessories are required for the charger installation:

- User's manual (1 copy, see the charger accessory bag);
- Expansion screws (4 sets of CASE B and 7 sets of CASE C, see the charger accessory bag), which are used to fix the charger on the wall and the charging plug line hanging device;
- Positioning cardboard (1, in the charger packing box) for positioning the wall surface mounting hole;
- Back pegboard (1, fixed on the back of the charger when shipping), it is fixed on the wall for installing the charger;
- Charging plug line hanging device (1, in the charger packing box), used for CASE C to wind charging plug line.

6.3. Install short-circuit protection device

There is overcurrent protection detection assembly inside the charger. However, a short circuit protection device must be installed at the front end of the charger power supply incoming line, for example, an air switch must be installed at the front end of the charger power supply incoming line.

Do not use the charger if short circuit protection device is not installed.

The rated current of short circuit protection device is about 1.2 times of the maximum current of the charger.

If the charger is running at full load, it is recommended that the rated current of short circuit protection device shall be 40A.

Class B or Class C air switch must be installed at the front end of the charger power supply incoming line. If you have any questions about the selection of air switch, you can contact the manufacturer directly!

6.4. Install residual current protection device

According to IEC61851-1 standard, the charger must include electric leakage protection function. When AC electric leakage (AC electric leakage signal $\geq 30\text{mA}$) or DC electric leakage (DC leakage signal $\geq 6\text{ mA}$) occurs during charging, power supply for charging must be disconnected.

Type B electric leakage detection device of the charger is built in the charger.

The selection and installation of electric leakage detection device must be carried out by professionals!

6.5. Overvoltage protection

The overvoltage level of the charger meets Class III overvoltage protection.

6.6. Install the power incoming line

The cross-sectional area of the power supply incoming line connected to the charger must be in the range of 6-10 mm².

Power incoming line must be selected by professional installers, please refer to national safety regulations and the latest electrical installation technology!

6.7. Power supply system

Both of single-phase or three-phase chargers support the following power supply systems:

- TN-S;
- TN-C;
- TN-C-S;
- TT;
- IT (only support single-phase charger)


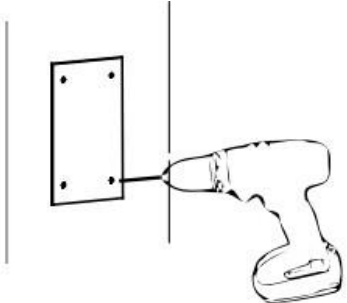
For single-phase charger, in the power supply system with neutral line, the voltage between phase line and neutral line cannot be higher than the rated voltage (240VAC); in a power supply system without neutral wire, the voltage between phase lines cannot be higher than the rated voltage (240VAC).

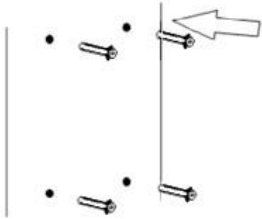

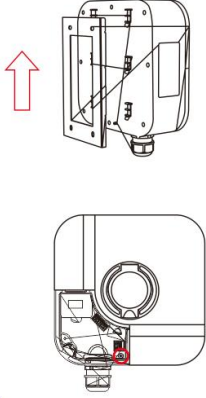
For the three-phase charger, in the power supply system with neutral line, the voltage between the phase line and the neutral line shall not be higher than the rated voltage (240VAC).

6.8. Install the charger on the wall

The following are the steps for installing the charger on the wall (taking CASE C as an example):

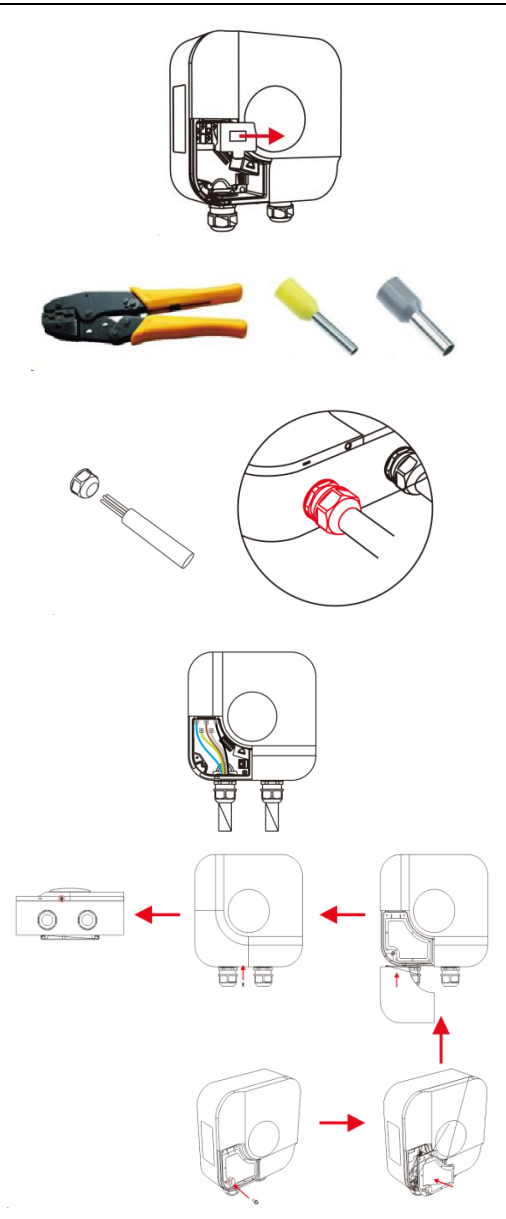
No.	Description	Picture
1	<p>The charger and its accessories are as follows:</p> <ul style="list-style-type: none"> • Charger (1); • Manual (1); • Expansion screws (7 sets); • Positioning cardboard (1 piece); 	
2	<p>Remove back pegboard:</p> <p>Remove one screw fixing the exterior trim cover plate and remove the exterior trim cover;</p> <p>Remove one screw fixing the sealing cover and remove the sealing cover;</p> <p>Remove a screw fixing the back pegboard, slide the back pegboard down to remove it from the back of the whole machine;</p>	

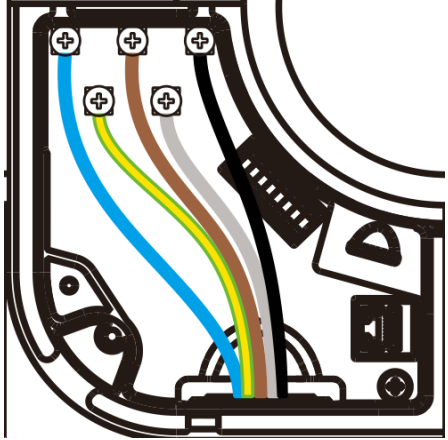
<p>3</p>	<p>Tools to be prepared:</p> <ul style="list-style-type: none"> • Percussion drill; • ϕ 6*150mm percussive bit; 	
<p>4</p>	<p>Punch holes for wall mounting:</p> <p>The positioning cardboard is attached closely to the wall, and the recommended height is: the distance from the center of the positioning cardboard to the ground is 1300mm;</p> <p>Check whether the positioning cardboard is horizontally aligned with the wall surface;</p> <p>Whole charger: Through the four holes on the whole charger positioning cardboard, mark the punching position on the wall surface;</p> <p>Charging plug line hanging device: Through the three holes on the charging plug line hanging device positioning cardboard, mark the punching position on the wall surface;</p>	

<p>5</p>	<p>Install expansion pipe: Whole charger: insert four expansion pipes into four wall surface mounting holes and press them into place by hand. If they are not in place after pressing by hand, please use tools (hammers, etc.) to make the expansion pipes into place; Charging plug line hanging</p>	
<p>6</p>	<p>Fix the back pegboard: Fix the back pegboard: Fix the back pegboard on the wall with 4 expansion screws, fix it reliably;</p>	
<p>7</p>	<p>Fix the charger: Slide the charger down from top to bottom, fix it on the back pegboard; Install 1 screw for fixing the back pegboard.</p>	
<p>8</p>	<p>Fix the charging plug line hanging device: When fixing the charging plug</p>	

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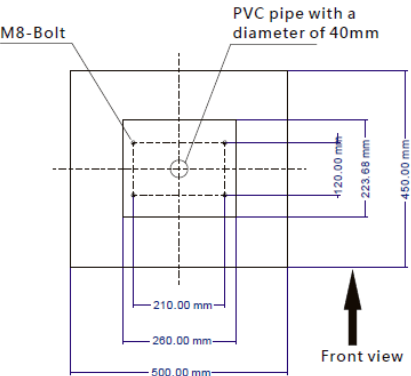
Power cord wiring:
Remove the power protection cover;
Measure the length of the power cord, strip the power cord, and conduct crimping between the top end of the stripped cable and the tube-shaped terminal, if it is 6mm² cable, it is recommended to use a 6012 tube-shaped terminal;
Remove the waterproof lock nut and fastening ring, and the power cord passes through the waterproof lock nut and fastening ring;
Connect the power cord according to the marks on the sealing cover;
Install the power supply protection cover;
Install the sealing cover, and fix it reliably with one screw;
Install the exterior trim cover, and fix it reliably with one screw;
Installation of the charger is completed!

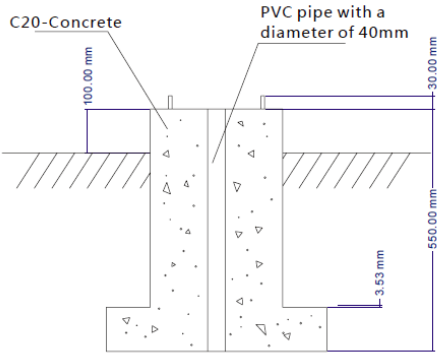
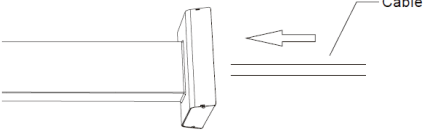
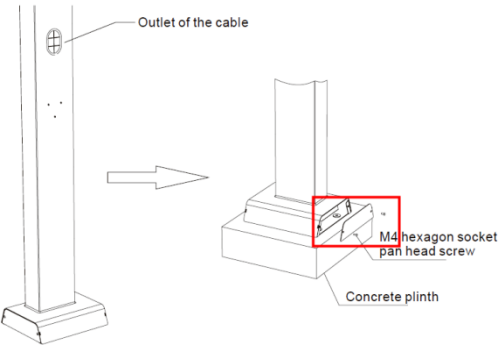


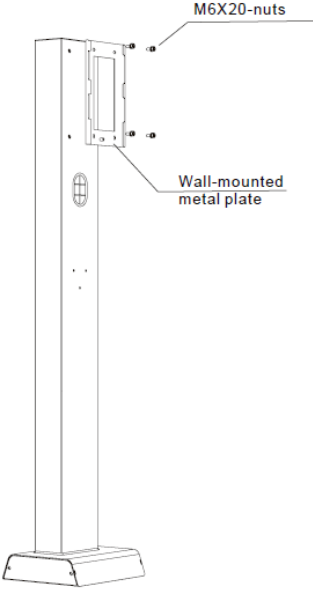
<p>10</p>	<p>Ensure that the power supply incoming line is not connected to the power supply!</p> <p>It should be noted that the power supply incoming line must be fixed tightly with waterproof shrink to avoid pulling by external force;</p> <p>Definition of supply power incoming lines (from left to right):</p>	
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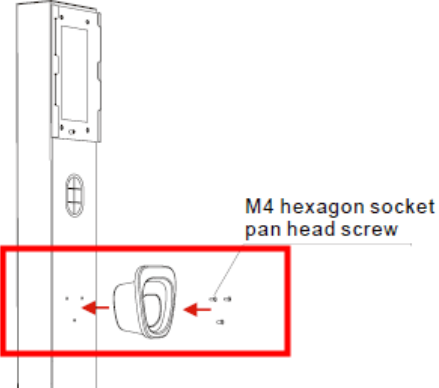
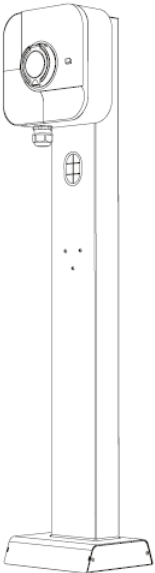
6.9. Installation of the charger on pedestal

If the customer decides not to install the charger on the wall, while install it on the pedestal (it shall be a special pedestal provided by the supplier), please follow the following steps. Please note that when installing on pedestal, the installer needs to provide matching screws and other accessories according to different installation sites (take CASE C as an example).

No.	Description	Picture
<p>1</p>	<p>Install the pedestal on a stable and solid concrete platform. If there is no suitable installation platform, you can pour a special installation platform.</p> <p>The installation platform must be equipped with M8 expansion bolts and PVC conduit with a diameter of 40mm (wiring for power supply inlet) should be embedded under the base.</p> <p>The installation platform must be level, stable and safe, avoid</p>	

<p>2</p>	<p>The depth of M8 expansion bolts embedding into the installation platform should not be less than 80mm, and the exposed length of expansion bolts is recommended to be 15 ~ 30mm.</p> <p>The length of the power supply incoming line passing through the PVC conduit on the ground cannot be less than 1300mm, so that make it</p>	 <p>A cross-sectional diagram of the pedestal base. It shows a concrete base with a PVC pipe (40mm diameter) passing through it. The concrete has a height of 100.00 mm. The PVC pipe is 30.00 mm high. The total height of the concrete base is 550.00 mm. A dimension of 3.53 mm is shown at the bottom right.</p>
<p>3</p>	<p>Tilt the pedestal and make power supply incoming line pass through the bottom until the incoming line is seen at the cable outlet in the middle</p>	 <p>A diagram showing a cable being inserted into the bottom of the pedestal. The cable is shown as two parallel lines, and an arrow points to the cable outlet in the middle of the pedestal.</p>
<p>4</p>	<p>Pull out the power supply incoming line from the cable outlet in the middle of the pedestal, remove the left and right side plates of the pedestal base (red column in the right figure), then vertically pass through M8 expansion bolts on the installation platform, and fix the pedestal with M8 screws and flat pad.</p>	 <p>A diagram showing the pedestal being fixed to the concrete plinth. The pedestal is shown on the left, and the concrete plinth is shown on the right. An arrow points from the pedestal to the plinth. The plinth is shown with a red box highlighting the M4 hexagon socket pan head screw. The cable outlet is labeled "Outlet of the cable".</p>

<p>5</p>	<p>Remove the back pegboard on the back of the charger;</p> <p>Continue to remove the four M6 × 20 screws of the pedestal suspension plate;</p> <p>Align the back pegboard with the four screw holes of the pedestal hanging plate, and fix the back pegboard on the pedestal with four M6 × 20 screws.</p>	 <p>The diagram shows a tall, narrow pedestal with a base. At the top, there is a rectangular suspension plate. Four screws are shown passing through the suspension plate into the pedestal. Two labels with leader lines point to the top of the pedestal: 'M6X20-nuts' points to the top edge, and 'Wall-mounted metal plate' points to the suspension plate area.</p>
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<p>6</p>	<p>Fix the charging plug line hanging device:</p> <p>Fix the charging plug line hanging device on the pedestal (red column) with three M4 × 8 screws, and fix it reliably.</p>	 <p>M4 hexagon socket pan head screw</p>
<p>7</p>	<p>Install the charger on the back pegboard (slide the charger down from top to bottom and insert the back pegboard completely), and fix the charger and the back pegboard with screws to ensure reliable installation of the charger.</p> <p>Up to 2 the charger can be installed in one pedestal.</p>	

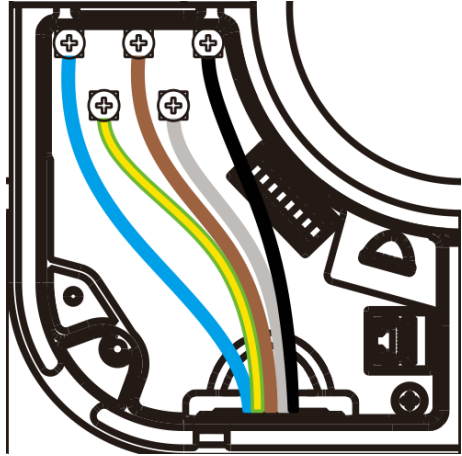
<p>Wiring of power cord:</p> <p>Remove the power supply protection cover;</p> <p>Measure the length of the power cord, strip the power cord, and conduct crimping between the top end of the stripped cable and the tube-shaped terminal, if it is 6mm² cable, it is recommended to use a 6012 tube-shaped terminal;</p> <p>Remove the waterproof lock nut and fastening ring, and the power cord passes through the waterproof lock nut and fastening ring;</p> <p>8 Connect the power cord according to the marks on the sealing cover;</p> <p>Install the power supply protection cover;</p> <p>Install the sealing cover, and fix it reliably with one screw;</p> <p>Install the exterior trim cover, and fix it reliably with one screw;</p> <p>Installation of the charger is completed!</p>	
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Ensure that the power supply incoming line is not connected to the power supply!

It should be noted that the power supply incoming line must be fixed tightly with waterproof shrink to avoid pulling by external force;

Definition of supply power incoming lines (from left to right):

- 9 N: Blue
- PE: Chartreuse
- L1: Brown
- L3: Grey
- L2: Black



7. Introduction to operation area

After installation of the charger is completed, the electric vehicle can be charged. The operation area and display of the charger will be described below.

7.1. Display panel

There are display areas on the front of the charger: Area 1 and Area 2.



The display functions of each area are as follows:

Display	Type	Description of functions
Area 1	RFID card swiping area	<ul style="list-style-type: none"> Used for swiping RFID card, starting and stopping charging.
Area 2	LED indicator	<ul style="list-style-type: none"> LED indicator ring displays the charger status with different colors.

7.2. LED indicator (Area 2)

LED indicator ring	Flashing mode	Status
White	Not flash	The charger is electrified for self-inspection, and the charger is connected to the power supply;
Green	Slowly flash	Standby mode, the charger completes the self-inspection;
Blue	Fast flash	Insert the charging plug or stop charging

Blue	Slowly flash	Charging mode, the charger is conducting the charging;
Red		Detection and alarm for internal protection of the charger

7.2. Card swiping area (Area 1)

This area is RFID card working area, RFID card is used to start and stop charging. To perform RFID card swiping, the user needs to place the RFID card within the scope of the card statistics device.

8. Introduction to mobile APP

The charger has six communication interfaces for connection to the outside:

- WiFi interface: used to connect OCPP platform;
- Network interface: used to connect OCPP platform, or to realize the networking among multiple chargers through switchboard;
- 4G interface: used to connect OCPP platform;
- Bluetooth interface: used to connect mobile APP;;
- RS485 bus interface: Used to connect external electricity meter or CT, realize load constraint function;
- CAN bus interface: Used for ex-factory tooling test.

8.1. Overview of the APP

LINCHR APP is a user APP developed by LINCHR, it is used with the charger. It interacts with the charger by Bluetooth communication. With the human-machine interaction interface, it can remotely control the operation of the charger and monitor the charger parameters without contact.

APP has good usability and reliability, and ensures the security and reliability of information.

8.2. Running environment

The APP can run on the mobile phone powered by Android 8.0 and ios 11.0 and above.

8.3. APP installation

Android mobile phones downloads and installs the APP through major domestic application markets (Huawei application market, Xiaomi application market, OPPO application market, VIVO application market, Samsung application market, etc.).

Android overseas phones can download and install the APP through Google Play.

IOS phones can download and install the APP by searching LINCHR in the APP store.

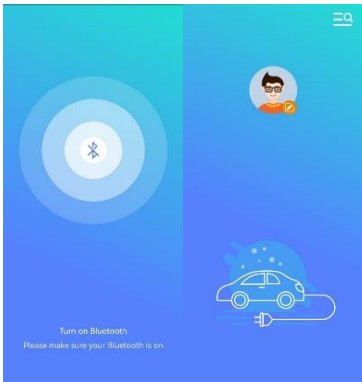
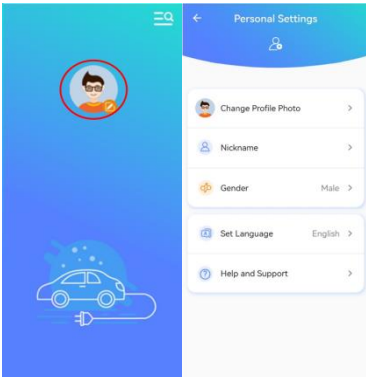
8.4. Functions of APP

- Use BLE to interact with the charger;
- The charging function of the charger can be started/stopped;
- You can view the charger parameter information and charging parameters;
- You can view charging records and fault records;

- The charger system settings can be configured;
- The charger online mode can be configured;
- The charger operation modes can be modified;
- Load constraint function can be configured;
- RF card parameters can be configured;
- The charger can be upgraded remotely;
- You can set reservation charging function of the charger.

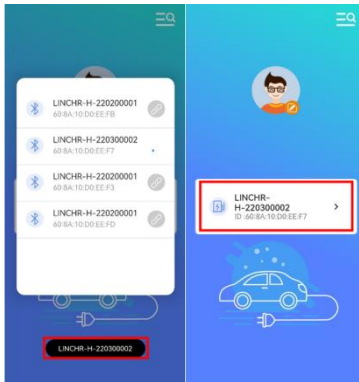
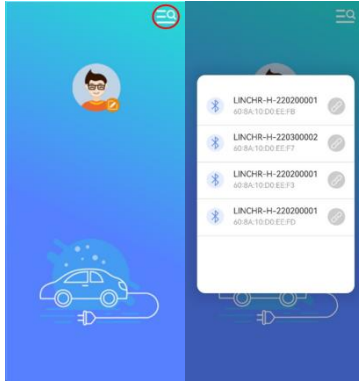
8.5. Detailed introduction to APP:

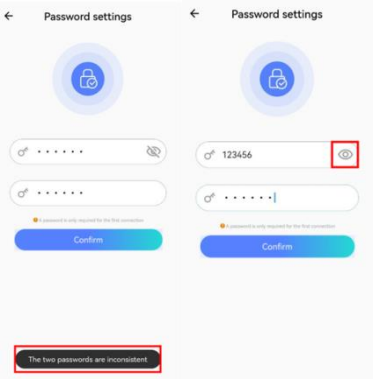
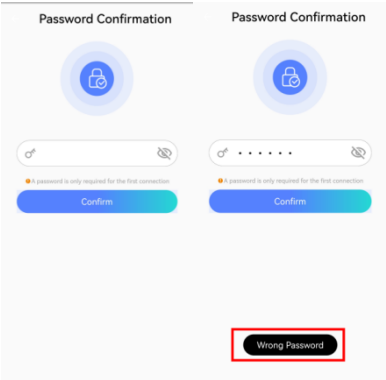
8.5.1. User interface

Steps	Description	Picture
1	<p>After the installation, the user clicks on the mobile APP icon to enter the APP homepage;</p> <p>Left figure: Bluetooth is not turned on;</p> <p>Right figure: Turn on Bluetooth and enter the homepage of APP.</p>	
2	<p>User configuration:</p> <p>Click the User Configuration button (red circle) in the main interface of the APP to enter the personalized configuration interface of the APP, and set the avatar (currently, users only can select avatar from the avatars built in the APP), nickname, gender and</p>	

3

Connect the charger:
Click the button (red circle) which is in the upper right corner of main interface of the APP, it will display the name of the charger within the current Bluetooth range. Select one charger and click the Connect button to connect the charger, the name of the currently connected the charger will be displayed in the middle of the main interface of APP. At this time, click the name of the charger to enter the operation interface of the charger.

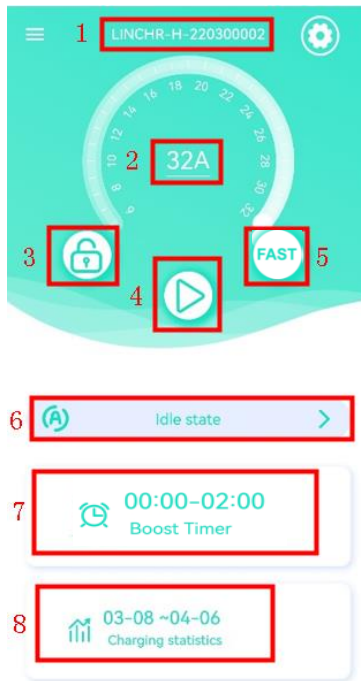


<p>4</p>	<p>Settings of password: When you use the APP for the first time or the charger parameters are reset, the password of the charger needs to be configured. When setting the password, you need to input the same password twice before it can be set successfully. The current password is limited to 6 characters including ASCII characters a-z, A-Z, 0-9. If the password settings twice are different, the user will be prompted to configure the</p>	
<p>5</p>	<p>When exiting the APP and logging in again, you need to input the password configured then you can enter the charger operation interface. If the password is incorrectly, it will prompt that the password is wrong (the red column in the right second figure). ⚠️ Note: APP can only</p>	

Main interface of the charger display:

After the password is set or input successfully, it will enter the main interface of the charger display, in which:

1. Name of current charger;
2. Maximum charging current;
3. Locking state of electronic lock (CASE B);
4. Start-stop button of the charger;
5. Boost (acceleration) (click this button under ECO/ECO+mode, the charger will switch to FAST mode for charging, and click it again to return to the original state);
6. Charging information display (charging voltage,

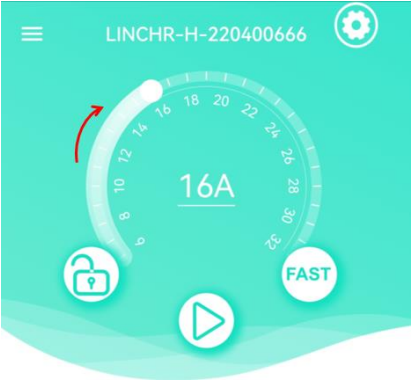



Status of the charger:

1. Standby;
2. The charging plug is inserted;
3. Charging is starting...;
4. Charging is in progress;
5. Pause charging;
6. Charging is completed;
7. Failure;
8. Alarm;
9. Fault and alarm (fault and alarm statuses are displayed at the same time).

7



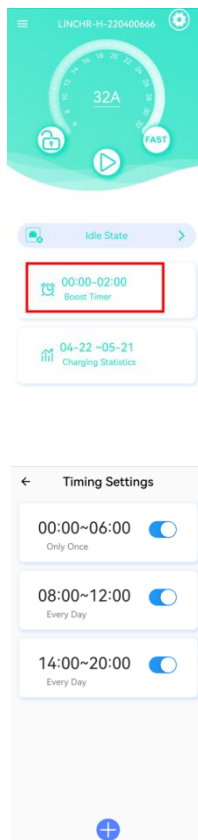
<p>8</p>	<p>Setting of maximum charging current :</p> <p>In the main interface of the charger display, the maximum charging current of the charger can be set by sliding the toggle device. Turn it clockwise, the current will increase and turn it counterclockwise, the current will decrease, and the adjustment accuracy is 1A.</p> <p>For example, as shown in the</p>	
<p>9</p>	<p>Locking of the charger:</p> <p>The charger can be set to "State Locking". When the charger is locked under non-charging state, the charger cannot start charging;</p> <p>When the charger is locked during charging, the charger cannot start the next charging after finishing this charging.</p> <p>Click the Lock/Unlock button</p>	

10

Boost timer:
Click on the "Boost timer" icon (red circle) to enter the timing charging list

When the timing charging of the charger is not set, the timing charging list is empty. You can click the "+" sign on the interface to add timing charging information, and set the timing charging period as "Every Day" or "Only Once", the timing start time needs to be larger than the timing end time, and you can set up to four timing charging lists (the 2nd figure in the right).

If the time of configured timing charging list is repeated with the existing timing charging list, it will prompt



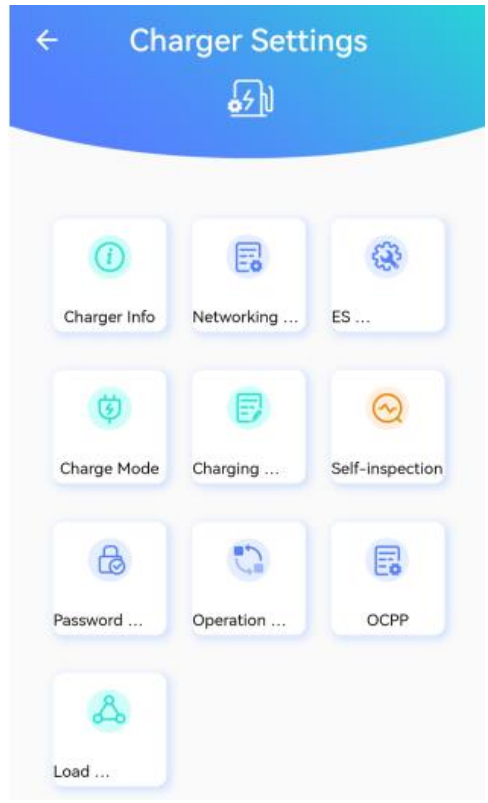
11

Statistics of charge:
Click on the charge statistics on the main interface of APP to view the charge of the charger in every day of the latest month and every month of the latest year.



12

The setting interface of the charger:
Click the Setting button on the main interface (red circle in the right figure) to enter the setting interface of the charger, in the interface, you can read and configure the functions of the charger. It includes the charger information reading, the charger network configuration, electrical system configuration, charging mode configuration, charging record reading, fault self-diagnosis, password reset, operation mode configuration, OCPP configuration and load constraint setting. Click on the configuration items to read and configure each function of the charger.





Charger Info

The charger information:

Click the "Charger Information" button to read the information of current charger, including the charger veneer SN(serial number), the charger SN(serial number), software version, and the IEMI number, ICCID number and IMSI number of SIM card.

13





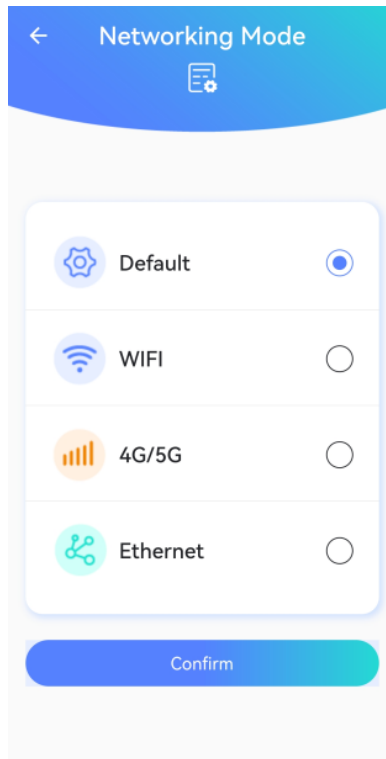
Networking Mode




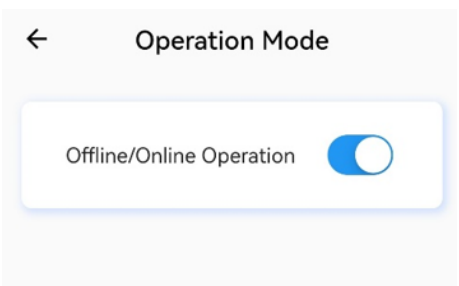
Network configuration:

Click the Network Configuration button to select four networking access modes: default networking, WIFI networking, 4G networking and Ethernet. The default networking order is Ethernet > WIFI > 4G. When configuring the default networking mode, the WIFI user name, password, Ethernet IP, subnet mask and gateway must be configured, then the default networking mode can be used.

If you choose WIFI for networking, you need to configure your user name and

14



<p>15</p>	 <h3>ES Configuration</h3> <p>Configuration of power supply system :</p> <p>Click the Power Supply System Configuration button to configure the charger power supply system, and TN/IT/TT can be selected.</p>	 <p>The screenshot shows the 'ES Configuration' screen with a blue header and a gear icon. Below the header are three rounded rectangular buttons: 'TN System' (highlighted in blue), 'IT System', and 'TT System'.</p>
<p>16</p>	 <h3>Operation Mode</h3> <p>Operation mode configuration:</p> <p>Click the Operation Mode Configuration button to switch the operation mode of the charger when the charger is idle (no charging plug is inserted);</p> <p>It is divided into online mode (connecting platform for operation) and offline mode (local offline operation).</p> <p>Online mode: the charger is connected to the platform, and</p>	 <p>The screenshot shows the 'Operation Mode' screen with a light gray background and a blue header. Below the header is a white rounded rectangular box containing the text 'Offline/Online Operation' and a blue toggle switch that is currently turned on.</p>

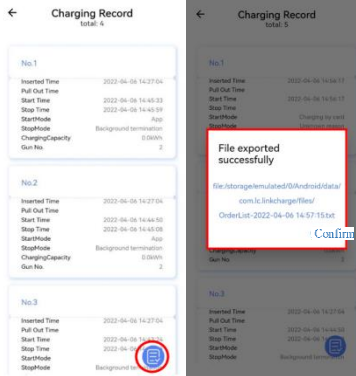



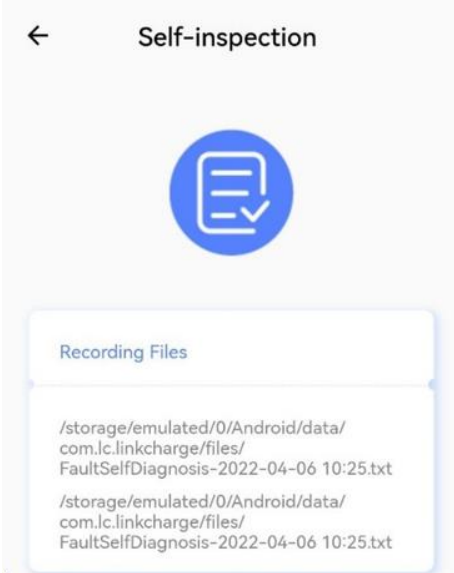

Charging Record


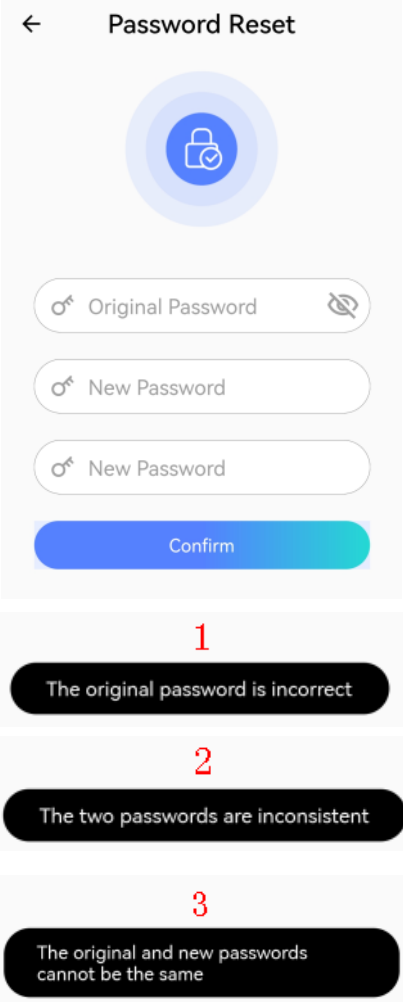
Charging record inquiry:


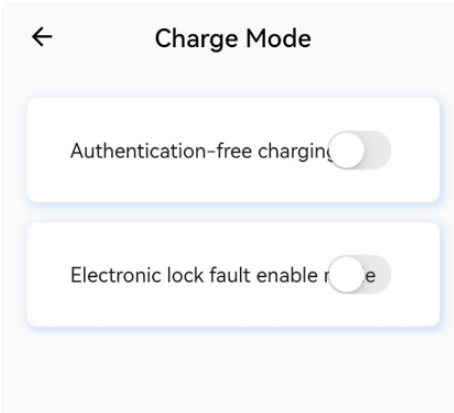


Click the Charging Record Inquiry button to view the charging record of the current charger. If it has never used for charging, the inquiry interface will be displayed as empty, otherwise the charging record will be displayed in the APP according to the current charging number and maximum charging number of the charger. Click the Export

17



<p>18</p>	 <p>Self-inspection</p> <p>Fault self-diagnosis: Click the Fault Self-diagnosis button to export a charger diagnosis report file and it will be stored in the mobile phone. The function is only used for manufacturers to analyze fault states!</p>	 <p>← Self-inspection</p> <p></p> <p>Recording Files</p> <p>/storage/emulated/0/Android/data/com.lc.linkcharge/files/FaultSelfDiagnosis-2022-04-06 10:25.txt</p> <p>/storage/emulated/0/Android/data/com.lc.linkcharge/files/FaultSelfDiagnosis-2022-04-06 10:25.txt</p>
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19	 <p>Password Reset</p> <p>User password modification: Click the User Password Modification button to modify the user's password. The prompt for password modification failure is as follows:</p> <ol style="list-style-type: none">1. If the original password is input incorrectly, it will prompt that the password setting failed;2. If the new password input twice is inconsistent, it will prompt that two new password is inconsistent;3. If the new and old passwords input are same, it will prompt that the new and old passwords are same.	 <p>The screenshot shows a mobile application interface for password reset. At the top, there is a back arrow and the title "Password Reset". Below the title is a large blue circular icon containing a white padlock with a checkmark. Underneath are three input fields: "Original Password" with a toggle for visibility, "New Password", and another "New Password" field. A blue "Confirm" button is at the bottom. Below the input fields are three error messages in black rounded rectangles, each preceded by a red number:</p> <ol style="list-style-type: none">1 The original password is incorrect2 The two passwords are inconsistent3 The original and new passwords cannot be the same
----	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<p>20</p>	 <p>Charge Mode</p> <p>Charging configuration: Click the Charge Configuration button to configure the charging mode of the charger, including authentication-free charging and electronic lock fault shield function. Authentication-free charging function can only be used in offline mode, and the vehicle will be charged immediately after the charging plug is inserted. If after the charger is switched to online mode, authentication-free charging</p>	
<p>21</p>	 <p>OCPP</p> <p>OCPP settings: Click the OCPP Setting button to configure the OCPP server address and CPID number for the charger. The server address must be used to log in the OCPP server under online</p>	

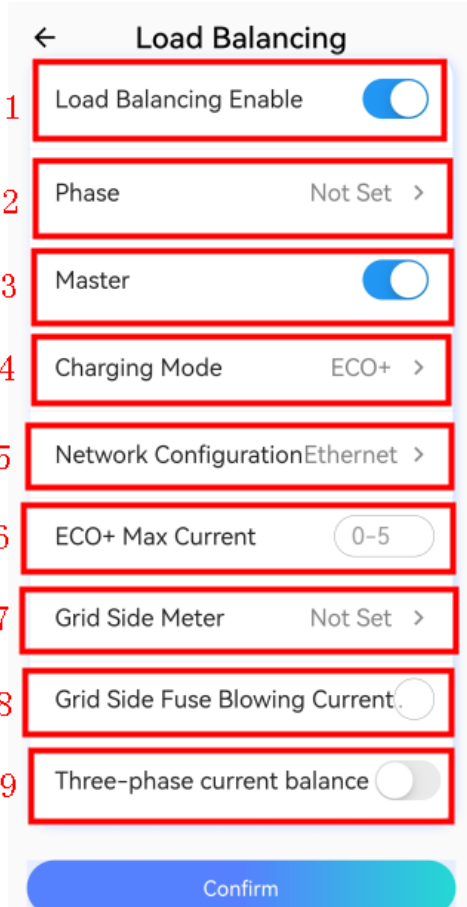


Load Balancing

Load constraint configuration:
Click the Load Constraint Configuration button, you can select:

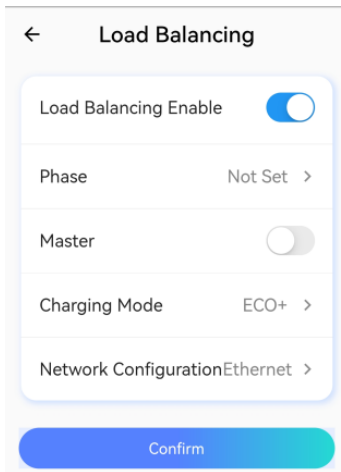
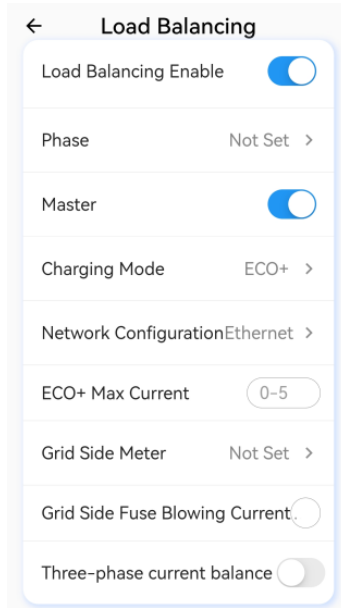
1. Whether the load constraint function is enabled;
2. Configure the phase position of single-phase charger in power supply system;
3. Configure the master-slave mode of the charger;
4. Configure the charging mode;
5. Configure the charger networking mode (WiFi and Ethernet);
6. Configure the usable grid current under ECO+mode, and the setting range is 0-5A;
7. Selection of main charger electricity meter or CT, and configuration of electricity meter or CT address;
8. Maximum incoming current;

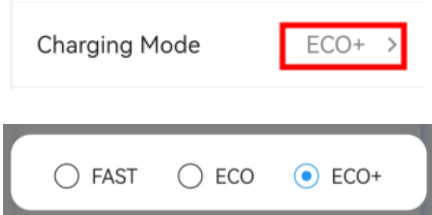
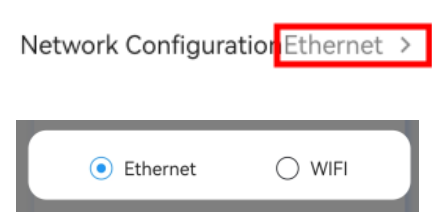
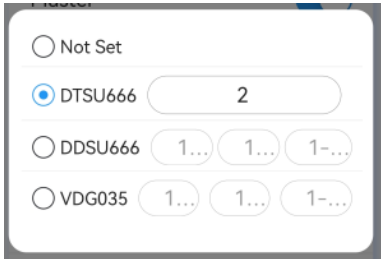
22



23

In the Load Constraint Setting, the interface of main charger is shown in the upper figure in the right, and the interface of the slave charger is shown in the lower figure.



24	In the Load Constraint Setting, for the charging mode configuration, click the red column in the right picture to select "Fast", "ECO" and "ECO +" modes.	
25	In the Load Constraint Setting, the charger networking mode can be configured. Click the red column in the right picture to conduct the load constraint network configuration, and	
26	In the Load Constraint Setting, click the red column in the right picture, you can make the selection: connect the main charger to the electricity meter or CT through RS485, and configure the address of the electricity meter or CT, and the address of the electricity meter is 2 by default.	

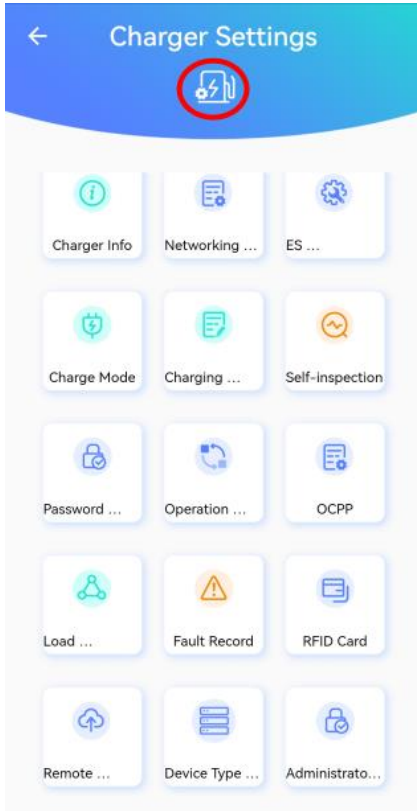
8.5.2. Administrator operation interface

Steps	Description	Picture
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Enter the administrator interface:

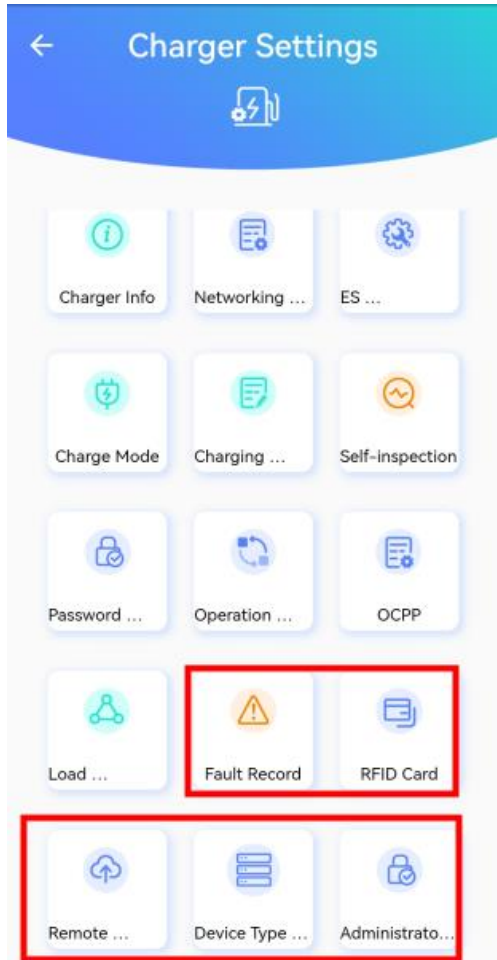
In the Charger Setting, some items can only be used under the administrator mode. After clicking the charger icon in the setting interface for 5 times (red column in the right figure), enter the administrator interface, and the default password is 123456. After inputting the correct administrator password, you can enter administrator mode and can read and configure the items which require administrator permission.

1



2

Administrator interface
Administrator configuration items include common items (they have been introduced in the part of user operation interface) and fault record reading, RF card configuration, remote upgrade, device type configuration, administrator password modification.





Fault Record

View the charging fault records:

Under the administrator mode, click the Charging Fault Record button to read the fault record of the current charger. Similar to the charging record, you can read the fault record according to the quantity and total number of fault records stored in the current charger, and click the Export button in the lower right corner to export the fault record file in Excel format.

3



Fault Record

total: 1

▲ No.1

Fault Start Time	2022-04-06 14:26:12
Fault End Time	
Fault Description	CP voltage abnormal



L

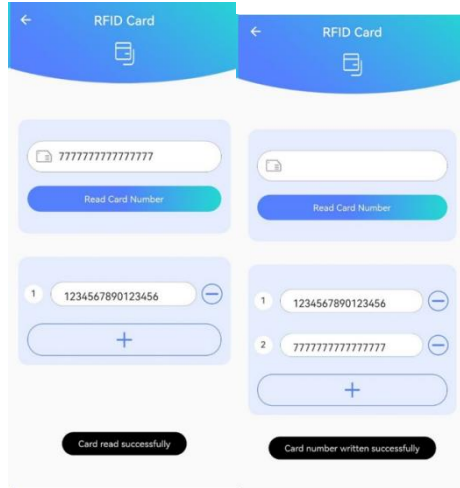


RFID Card

RFID card configuration:

Under administrator mode, click the RFID Card Configuration button, and the APP can read the white list of card numbers stored in the current charger; the card number of the physical charging card can also be read; after clicking the Read Card Number button, the RFID card shall be clung to the card swiping area (AREA1) of the charger, and the card number of the current charging card can be

4



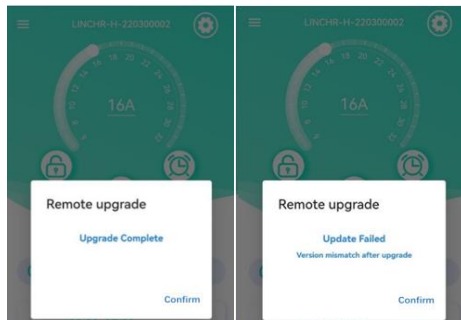
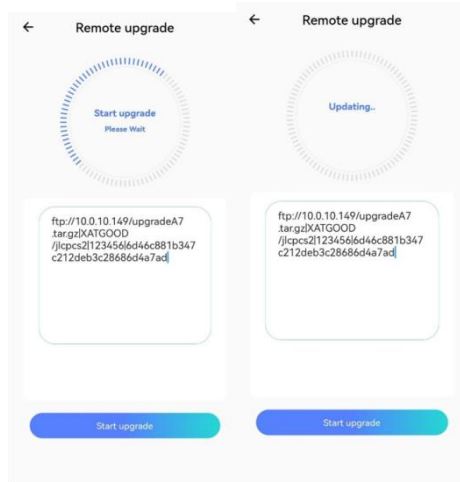


Remote Upgrade

Remote upgrade:
Under administrator mode, copy the upgrade to the input column, click the Remote Upgrade button, and the APP can remotely upgrade the charger software.

First, connect the charger to the network (if Ethernet or 4G cannot be used, you can turn on the hotspot of the mobile phone and provide it for the charger), and then send the "URL" of the upgrade pack to the charger (FTP/HTTP/HTTPS are temporarily supported). After the upgrade pack is downloaded, it will prompt that the upgrade request is

5





Device Type Settings

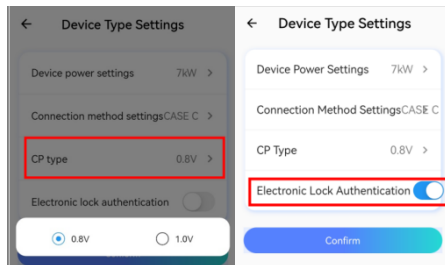
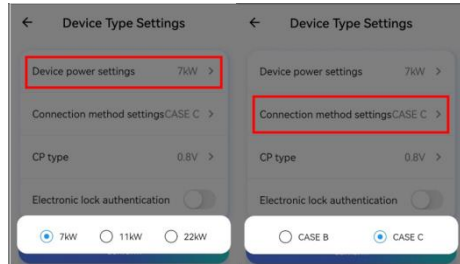
Configuration of equipment type:

Under administrator mode, click the Equipment Type Configuration button to set the equipment type of the charger.


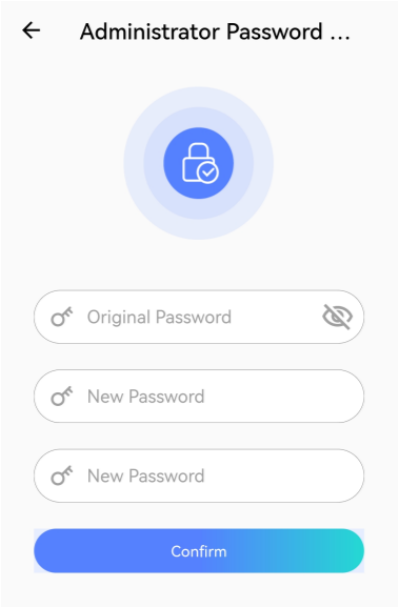
The charger power can be configured to 7KW (single phase) and 11KW/22KW (three phases).

For connection mode, you can choose CASE B (charging plug base version) and CASE C (charging plug line version);

Abnormal range of CP: 0.8 V and 1.0 V; electronic lock authentication enabling (under the case B connection



6

<p>7</p>	<p style="text-align: center;"></p> <p>Administrator Password Reset</p> <p>Administrator password modification:</p> <p>Under the administrator mode, click the Administrator Password Modification button to change the administrator password;</p> <p>Similar to the modification of the user password, the previous administrator password (default is 123456) and the new administrator</p>	
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9. OCPP connection

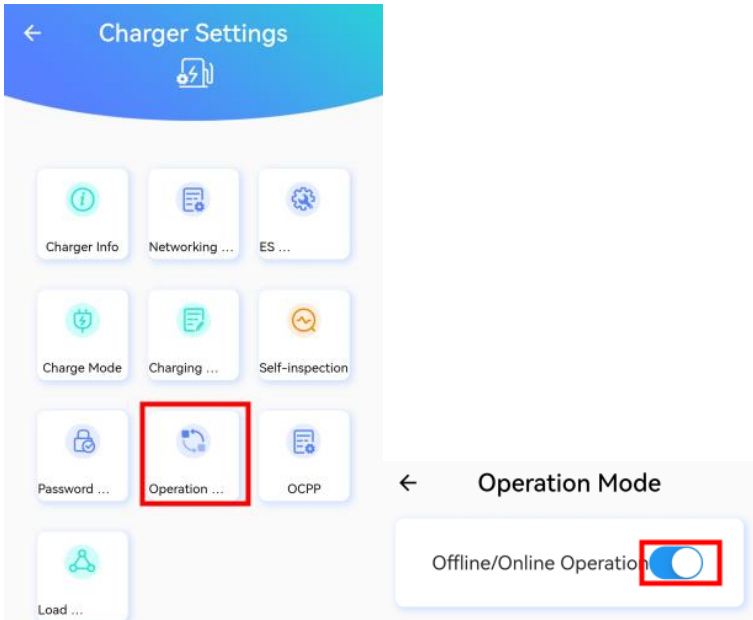
The charger is connected to OCPP server, which provides a network-based management solution for the charger and charging process.

Through OCPP software platform, the charging process of the charger can be remotely controlled and order management can be carried out (such as charging authorization, report, etc.) .

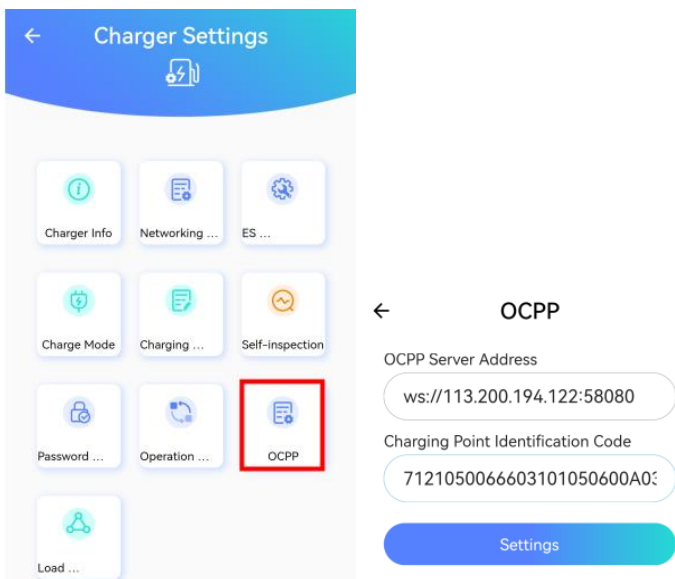
The charger only supports OCPP1.6J protocol!

9.1. Connection steps of OCPP

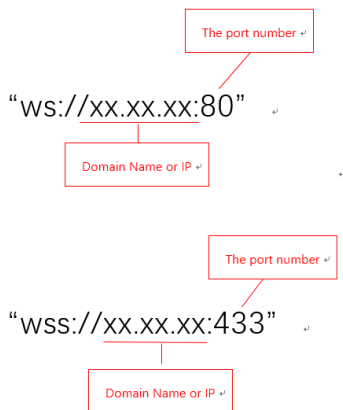
9.1.1 Connect the APP, in the setting interface, open the Operation Mode Setting, and set the operation mode to "OPEN" status, as shown in the following figure;



9.1.2. In the setting interface, open OCPP settings, to set OCPP server address and CPID, as shown in the following figure;



The OCPP server address format is as follows:



The example is as follows:

OCPP server address: ws://13.200.14.12:58080

CPID: 7121050066603101050600A03

For example, CPID is the SN (serial number) of charging equipment, it is for reference only!

Different platforms have different CPID values. When connecting specific platforms, you shall obtain the corresponding CPID value from the platform!

9.1.3. Ensure that the charger can connect network.

9.2. OCPP1.6J supports the following functions:

Operations Initiated by Central System				
SN	ITEM	realized	restrictions	
1	Cancel Reservation	✓		
2	Change Availability	✓		
3	Change Configuration	✓	☑	Refer to Limit Configuration Key List
4	Clear Cache	✗		
5	Clear Charging Profile	✓		
6	Data Transfer	✓	☑	Agreements need to be made with specific OCPP Server
7	Get Composite Schedule	✓	☑	Retrun 24 hours Schedule
8	Get Configuration	✓		
9	Get Diagnostics	✓	☑	Agreements need to be made with specific OCPP Server
10	Get Local List Version	✓		
11	Remote Start Transaction	✓		
12	Remote Stop Transaction	✓		
13	Reserve Now	✓		
14	Reset	✓		
15	Send Local List	✓		
16	Set Charging Profile	✓	☑	Not support recurrencyKind with Weekly
17	Trigger Message	✓		
18	Unlock Connector	✓		
19	Update Firmware	✓		

Operations Initiated by Charge Point

<i>SN</i>	<i>ITEM</i>	realized	restrictions	note
1	<i>Authorize</i>	<input checked="" type="checkbox"/>		
2	<i>Boot Notification</i>	<input checked="" type="checkbox"/>		
3	<i>Data Transfer</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Agreements need to be made with specific OCPP Server
4	<i>Diagnostics Status Notification</i>	<input checked="" type="checkbox"/>		
5	<i>Firmware Status Notification</i>	<input checked="" type="checkbox"/>		
6	<i>Heartbeat</i>	<input checked="" type="checkbox"/>		
7	<i>Meter Values</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Energy.Active.Import.Register, Current.Import, Voltage
8	<i>Start Transaction</i>	<input checked="" type="checkbox"/>		
9	<i>Status Notification</i>	<input checked="" type="checkbox"/>		
10	<i>Stop Transaction</i>	<input checked="" type="checkbox"/>		

Limit Configuration Key List

<i>SN</i>	<i>Key</i>	<i>Default Value</i>
1	<i>StopTransactionOnEVSideDisconnect</i>	<i>TRUE</i>
2	<i>AuthorizationCacheEnabled</i>	<i>FALSE</i>
3	<i>ConnectionTimeOut</i>	<i>0</i>
4	<i>MinimumStatusDuration</i>	<i>0</i>
5	<i>BlinkRepeat</i>	<i>0</i>
6	<i>LightIntensity</i>	<i>100</i>
7	<i>MaxEnergyOnInvalidId</i>	<i>0</i>
8	<i>ResetRetries</i>	<i>1</i>
9	<i>MeterValuesSampledData</i>	<i>Voltage,Current.Import, Energy.Active.Import.Register</i>
10	<i>MeterValuesAlignedData</i>	<i>Voltage,Current.Import, Energy.Active.Import.Register</i>
11	<i>StopTxnAlignedData</i>	<i>Energy.Active.Import.Register</i>
12	<i>StopTxnSampledData</i>	<i>Energy.Active.Import.Register</i>
13	<i>ConnectorPhaseRotation</i>	<i>Unknown</i>

10. Charging

Before the charger starts charging, it is necessary to ensure that the charger is reliably connected with the charging plug head of the electric vehicle!

In CASE B charging mode (the charger has charging plug base), connect one end of the double-headed European Standard charging plug line to the charger and the other end to the electric vehicle.

In CASE C electric mode (the charger has charging plug line), connect the charging plug line of the charger to electric vehicle.

Warning: In CASE B charging mode (the charger has charging plug base), the charging plug base end of the charger is equipped with electronic lock, and the charging plug head connected to the charger is automatically locked by the electronic lock during charging. At this time, please do not pull out the charging plug forcibly!

10.1. Starting/stop of charging through APP

Please refer to 8.5 for APP connection and interface introduction!

You can start or stop charging directly through the "Start and Stop" button (red column below) of the user's main interface on APP!



Start charging



Stop charging

10.2. Starting/stop of charging through RFID card

When the charger is reliably connected with the charging plug head of the electric vehicle, place the RFID in the card swiping area of the charger (AREA1), and it shall be close to the card swiping area as far as possible. When the buzzer generates the "Di" sound, the LED lamp of the charger changes from the "blue lamp always on" to the "blue lamp flashing", and the charger starts charging the electric vehicle.

If you need to stop charging, please place RFID close to the card swiping area again (as close as possible to the card swiping area), and the buzzer generates the "Di" sound, and the charging is finished. At this time, you can unplug the charging plug.

Warning: When swiping the card to start charging, if the buzzer generates the "Di" sound twice (the interval is about 0.5s), it means that the RFID card is not authorized!


10.3. Starting/stop of charging through platform


The platform starts and stops the charging of charger according to OCPP1.6J standard flows. Before the platform issues the starting command, please ensure that the car is reliably connected with the charger by charging plug line!

10.4. Reserve charging

"Reserve charging" can be set in the mobile APP. When the reserved charging time starts, the charger automatically starts charging, and the charging current is the maximum current under load constraint adjustment. The red column time period in the following figure is the reserved charging time period.

 Idle State 

 00:00-02:00
Boost Timer

 04-22 ~05-21
Charging Statistics

11. Power management of power supply (with external electricity meter or CT)

The charger can be connected to the electricity meter or CT through an external port (RS485) to reasonably distribute the power supply.

The charger has an external port, which can be connected to an external smart electricity meter (optional). The charger can identify the available power of the grid power supply, this means that the charger can adjust the charging power in real time according to the remaining power of other loads (load constraints, see Chapter 12).

Example for description (single phase):

If the power provided by the power grid is 3.7 kW, the charger can conduct charging with the charging power of 3.7 kW (current 16A). At this time, if other loads in the same power grid use 2kW power, the charger automatically adjusts the charging power according to the power management strategy, and the charging power that the charger can use is $3.7-2=1.7$ (kW). At this time, the charger charges the electric vehicle with the power of 1.7 kW.

Note: Under the same power grid, the electricity consumption authority of household load is higher than that of the charger!

12. Load constraints

12.1. Brief introduction to the functions

12.1.1. Protect the safety of household electricity use and prevent excessive charging power from causing protection of household front air switch and power failure;

12.1.2. Detect three-phases imbalance to prevent excessive load of power grid due to too large power of one phase;

12.1.3. Household electricity use has priority.

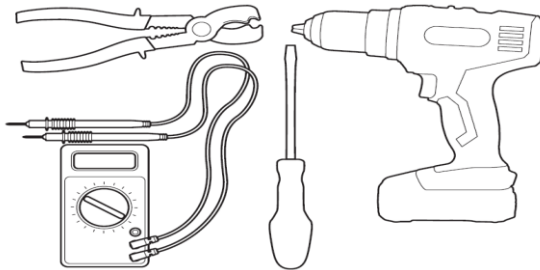
12.2. Wiring

12.2.1. Tools

Screwdriver: Electric or manual (straight screwdriver and Phillips screwdriver);

Multimeter;

Cable stripper.



12.2.2. Connect the devices

The charger;

Kilowatt-hour meter or current transformer;

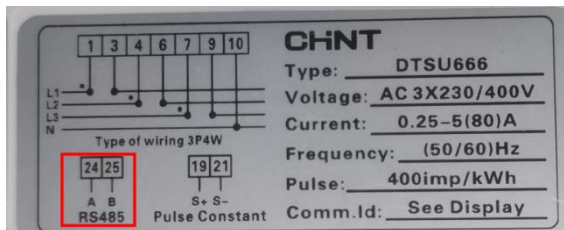
Router;

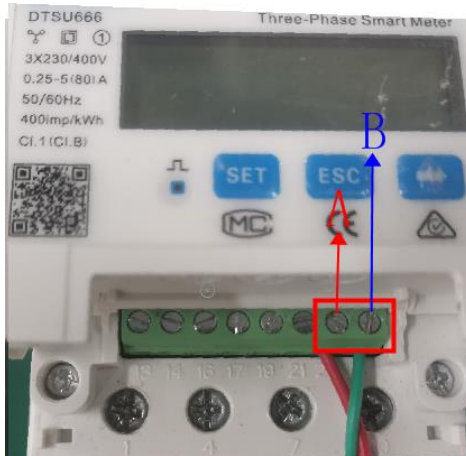
Network cable.



12.2.3. Electricity meter signal wiring

Three-phase electricity meter signal wiring: Three-phase electricity meter and the charger are connected by RS485 communication lines, and RS485 signal wiring of three-phase electricity meter is shown in the following figure:

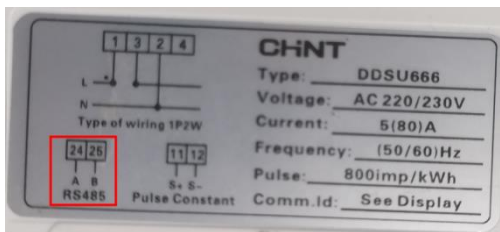


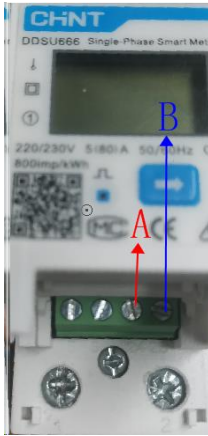


The electricity meter signal port "24" is RS485 signal A (red arrow in above figure);

The electricity meter signal port "25" is RS485 signal B (blue arrow in above figure).

Single-phase electricity meter signal wiring: Single-phase meter and the charger are connected by RS485 communication lines, and RS485 signal wiring of single-phase meter is shown in the following figure:





The electricity meter signal port "24" is RS485 signal A (red arrow in above figure);

The electricity meter signal port "25" is RS485 signal B (blue arrow in above figure).

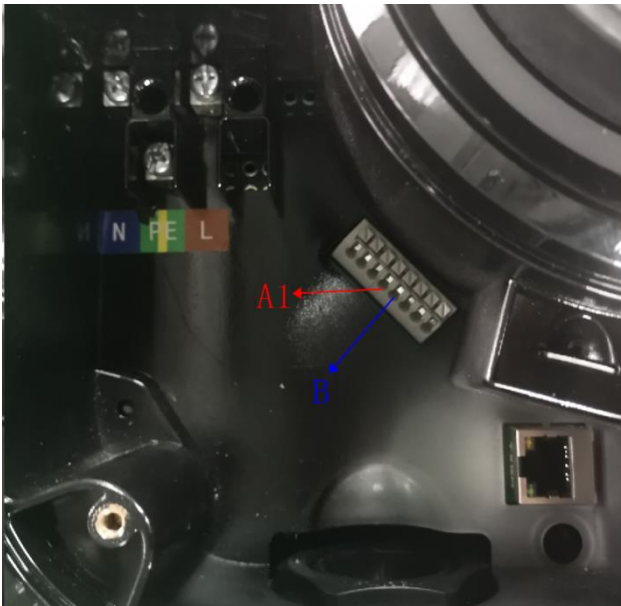
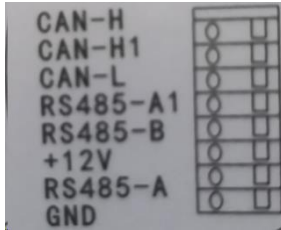
12.2.4 The current transformer signal wiring is shown in the following figure:

Wire color	code	function	remarks
green	B	communication line (RS485B)	
yellow	A	communication line (RS485A)	
black	G	working power-ground	0V
red	+	working power-positive	12V DC



12.2.5. The charger signal wiring

The charger and electric electricity meter signal wiring: the charger and electricity meter are connected by RS485 communication line, and the charger RS485 signal wiring is shown in the following figure:



The charger signal port "4" is RS485 signal A1 (red arrow in above figure);

The charger signal port "5" is RS485 signal B (blue arrow in above figure);

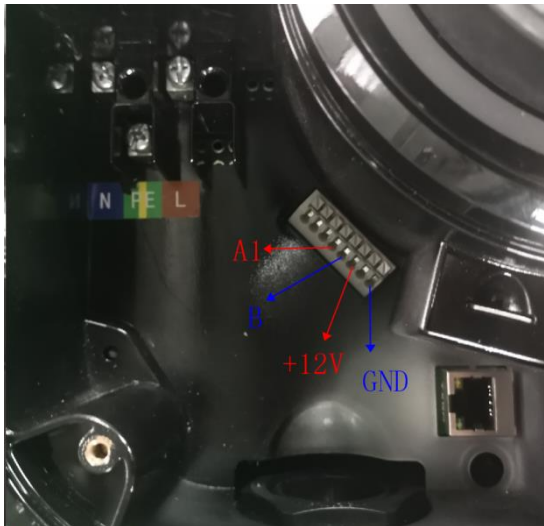
The charger signal RS485 signal A1 is added with 120Ω terminal resistance!

The wiring between the electricity meter and the charger is as follows:

The charger signal port "4" (RS485 signal A1) is connected with the electricity meter signal port "24" (RS485 signal A);

The charger signal port "5" (RS485 signal B) is connected with the electricity meter signal port "25" (RS485 signal B);

Connection between the charger and current transformer: the charger and current transformer are connected by RS485 communication line, the charger provides 12V power supply to current transformer, and the charger signal line is shown in the following figure:



The charger signal port "4" is RS485 signal A1 (red arrow in above figure);

The charger signal port "5" is RS485 signal B (blue arrow in above figure);

The charger signal RS485 signal A1 is added with 120Ω terminal resistance!

The charger signal port "6" is +12V;

The charger signal port "8" is GND;

The wiring between current transformer and the charger is as follows:

The charger signal port "4" (RS485 signal A1) is connected with the "yellow" cable of current transformer;

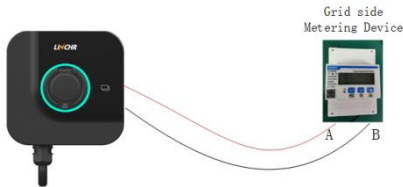
The charger signal port "5" (RS485 signal B) is connected with the "green" cable of current transformer;

The charger signal port "6" (+ 12V) is connected with the "red" cable of current transformer;

The charger signal port "8" (GND) is connected with the "blue" cable of current transformer;

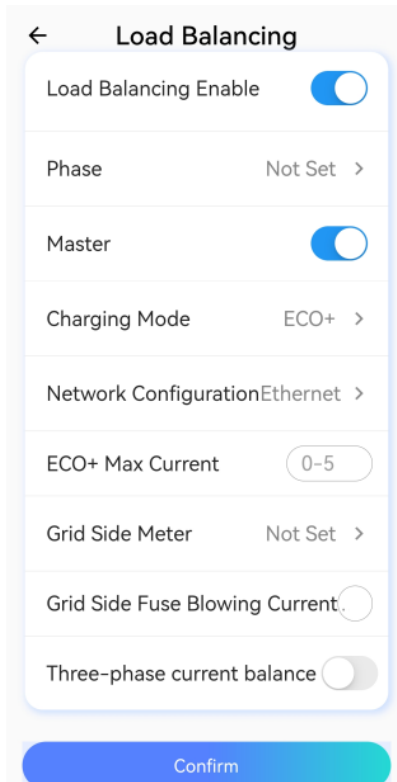
If the grid system is single-phase, it can be connected with single-phase electricity meter or one current transformer. If the grid system is three-phase, it can be connected with smart electricity meter or three current transformers

Examples of wiring between three-phase electricity meter and the charger are as follows:



12.3. Load constraint configuration

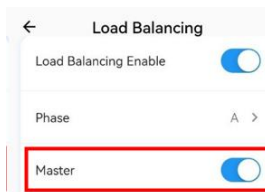
Connect APP, enter administrator mode, open "Load Constraint Configuration", select Load Constraint function, and set phase, the master and solar working mode. Make sure that the settings are consistent with the actual connection, otherwise the load constraint may not work normally.



Description of load constraint configuration

Master:

Enable the master, set the master-slave mode of the charger. The charger connected with intelligent metering equipment is the master, and the charger which is not connected with intelligent metering equipment is the slave. Configure information of the master as shown in the following figure, and configure the following information according to the actual master-slave situation of the charger.



Phases:

Configure the phases of the power grid system where the single-phase charger is located. If it is connected to Phase A of the power grid, configure this parameter as A.

Solar working mode:

According to the actual usage scenario, configure the charging mode, three charging modes can be configured: FAST, ECO and ECO + mode.

FAST: Quickly charge with the maximum charging power without exceeding the maximum current set by the user.

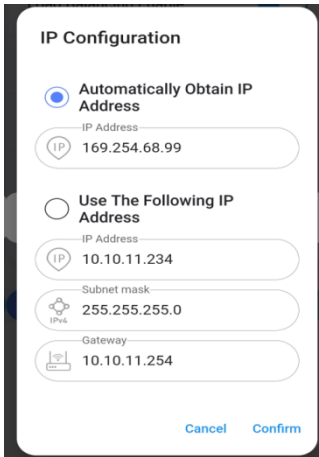
ECO mode: It is a continuous charging mode. When solar energy is sufficient, consume the solar energy as much as possible, and when solar energy is insufficient, it charges the vehicle according to the minimum charging current.

ECO + mode: Green and economic mode. When solar energy is sufficient, consume solar energy as much as possible, and when solar energy is insufficient, the allowed maximum consumption of non-solar current is a fixed value, when the consumption exceeds the value, charging is suspended.

ECO +current: under ECO+mode, maximum non-solar current allowed for consumption.

Network settings: Configure the network parameters of load constraints, including WiFi and Ethernet (two chargers are connected through WiFi or Ethernet);

Ethernet: Users can choose fixed IP or dynamically allocate IP addresses;



IP Configuration

Automatically Obtain IP Address

IP Address
169.254.68.99

Use The Following IP Address

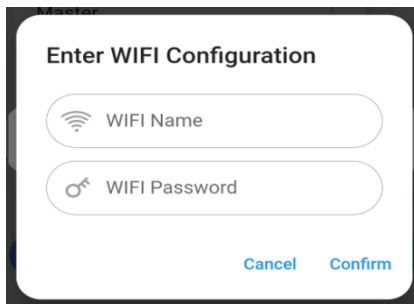
IP Address
10.10.11.234

Subnet mask
255.255.255.0

Gateway
10.10.11.254

Cancel Confirm

WiFi: Input the correct WiFi name and WiFi password;



Enter WIFI Configuration

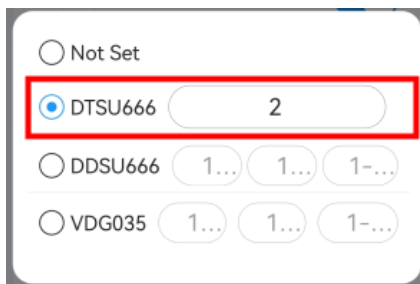
WIFI Name

WIFI Password

Cancel Confirm

Note: Ensure that the device load constraint network configuration is the same for all devices, otherwise communication may fail and the load constraint will not work normally.

Power grid side metering device: Configure the address of power grid side intelligent metering device(address is in red column), and the address of electricity meter is 2 by default.



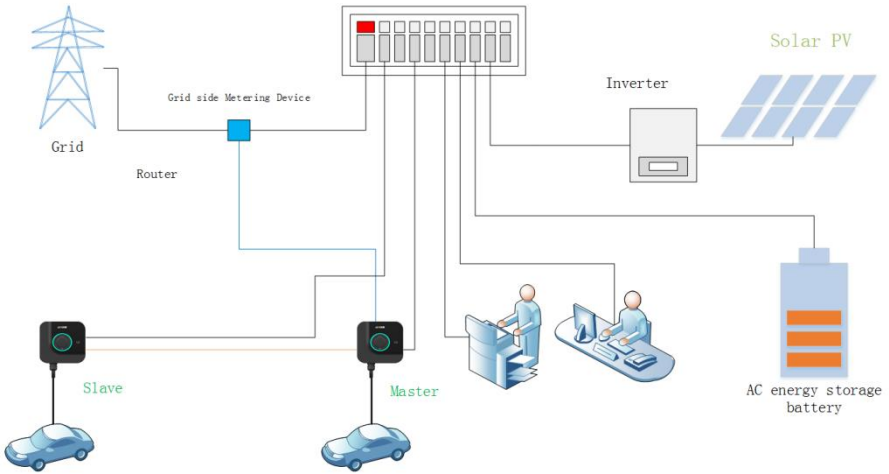
Maximum current that can be set by user: the maximum allowable current of the current system

Three-phase current imbalance: After opening, adjust the three phase currents to make them balance when conditions permit, make the imbalance rate is less than 15%.

12.4. Networking of chargers

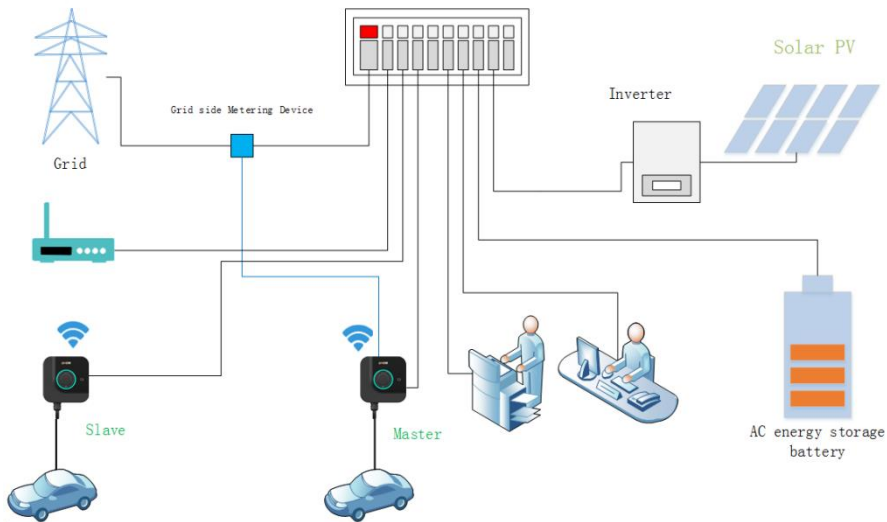
12.4.1. Networking of 2 chargers (network cable for connection)

When conduct networking of 2 chargers using network cables, you need to turn on the load constraint function on APP for both of them, Set the master charger and slave charger modes (1 master and 1 slave), and in the load constraint interface, set the "Networking Mode Configuration" as Ethernet. Two chargers need to be set with different IP addresses in the same network segment, and then connect the two chargers directly with a network cable, and wait for 3min. If the APP interface does not prompt the networking failure, it means that networking of the 2 chargers is successfully.



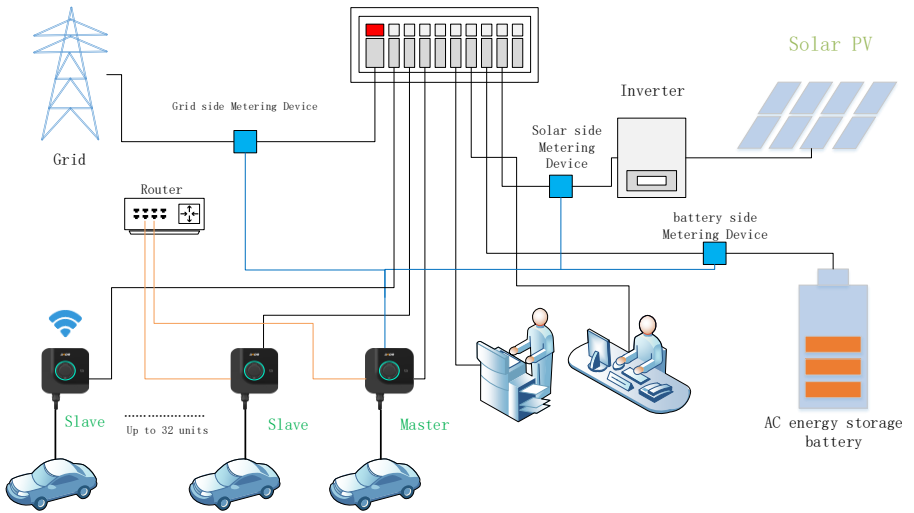
12.4.2 Networking of 2 chargers (WiFi for connection)

When conduct networking of 2 chargers through WiFi (routers must be equipped), turn on the load constraint function on the APP for both of them, set the master charger and slave charger modes (1 master and 1 slave), and in the load constraint interface, set the "Networking Mode Configuration" as WiFi. In the APP load constraint interface, input the same WiFi name and WiFi password for the 2 chargers, and wait for 3min. If the APP interface does not prompt the networking failure, it means that networking of the 2 chargers is successfully.



12.4.3. Networking of multiple chargers

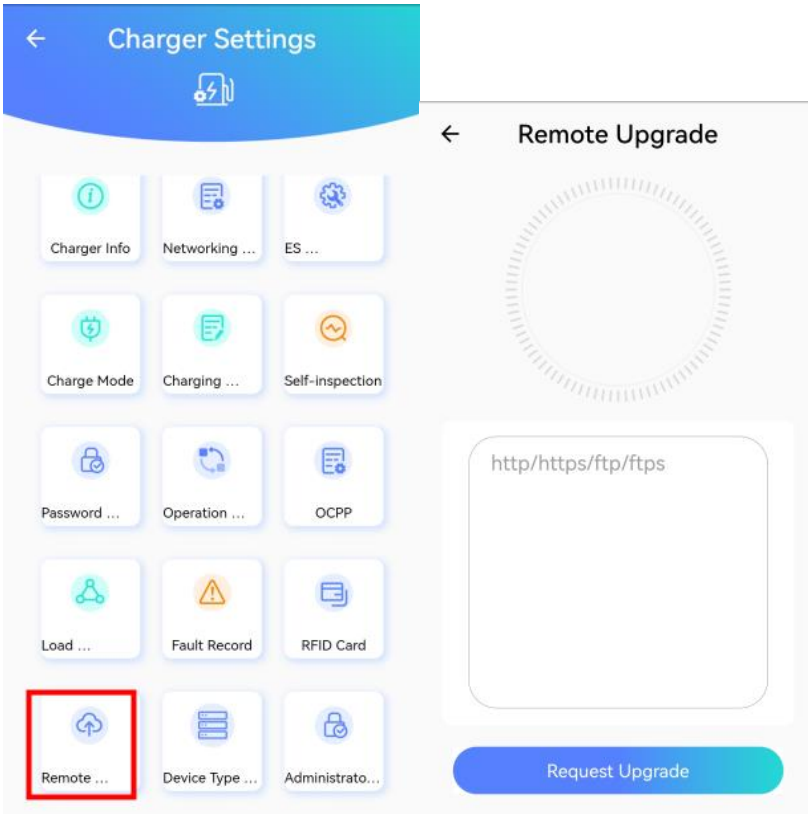
When conduct networking of multiple chargers through WiFi or using network cable (router must be equipped, and in case of networking with network cable, it can also be equipped with switchboard). Turn on the load constraint function on APP for all of the chargers, set master charger and slave charger modes (1 master and multiple slaves), and in the load constraint interface, set "Networking Mode Configuration", both of WiFi or Ethernet are allowed. When setting WiFi, WiFi name and WiFi password must be the same. When setting Ethernet, ensure that in the same network segment, there are different IP addresses, and wait for 3min. If the APP interface does not prompt networking failure, it means that networking of the chargers is successfully.



13. Upgrade of the system

12.1. Local APP upgrade

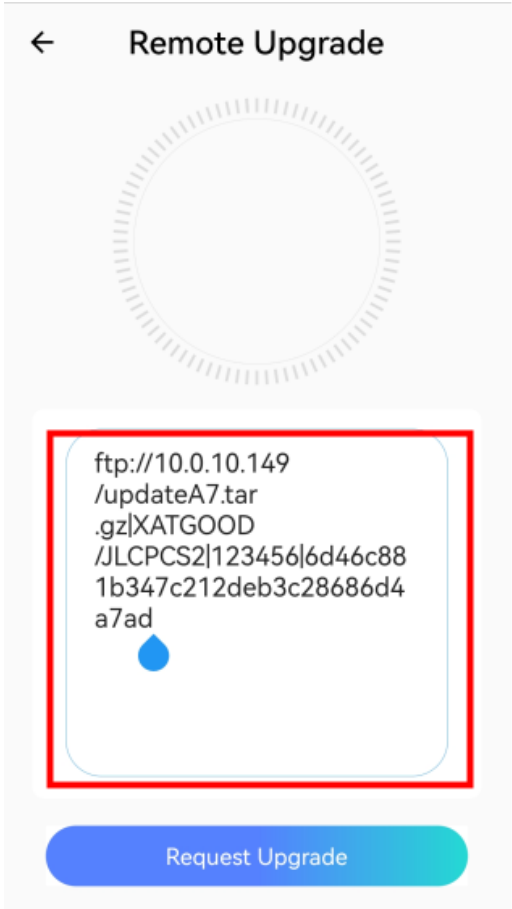
12.1.1 Connect the charger to the network through Ethernet (WiFi or 4G), open the mobile APP, and under the administrator mode, enter the system upgrade interface, as shown in the following figure:



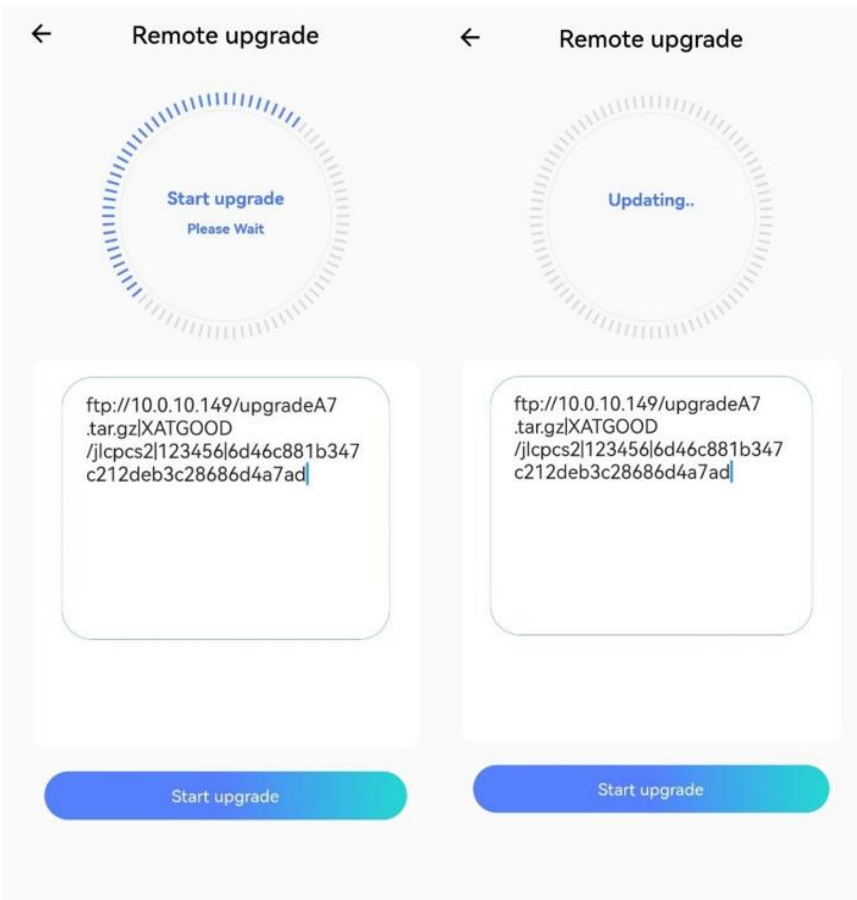
12.1.2 Copy the "URL" link of the upgrade pack to the upgrade column, for example, copy the following upgrade link to the upgrade column:

<ftp://10.0.10.149/updateA7.tar.gz|XATGOOD|JLCPCS2|123456|6d46c881b347c212deb3c28686d4a7ad>

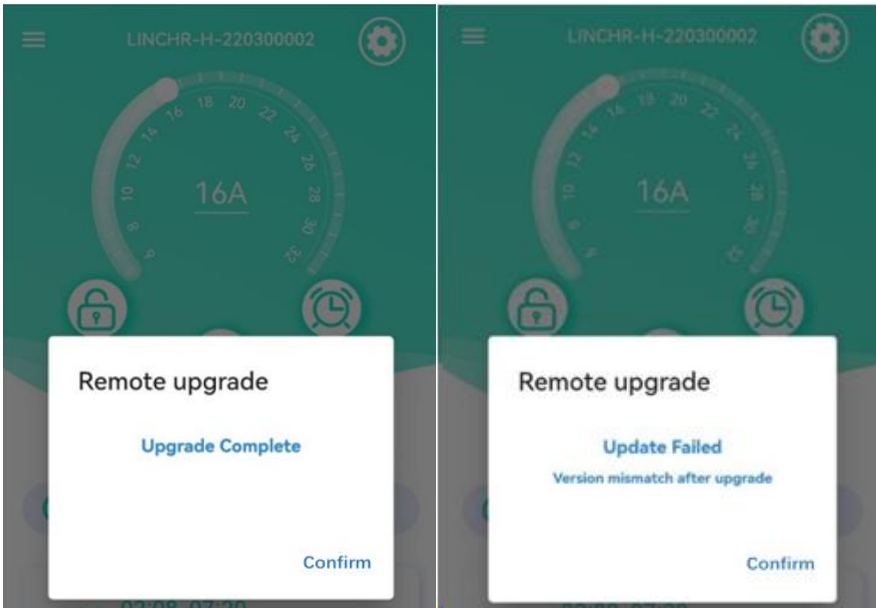
The interface is as follows (the red column is the upgrade column);



12.1.3 Click "Request Upgrade" to request the upgrade, and after the request is completed, click "Start Upgrade", it will start the upgrade, as shown in the figure below:



12.1.4 The interface of successful or failed upgrade is shown in the figure below:



Open the mobile APP and enter the system upgrade interface under administrator mode, as shown in the following figure:

Then send the "URL" of the upgrade pack to the charger (FTP/HTTP/HTTPS are temporarily supported). After the download of the upgrade pack is completed, it will be prompted that the upgrade request is successful and it starts the upgrade; if the download fails or the URL is wrong, it will be prompted that the request failed. After the charger upgrade is completed and restarted, the upgrade result will be fed back.

12.2 Remote OCPP upgrade

12.2.1 Connect the charger to OCPP platform through Ethernet (WiFi or 4G);

12.2.2 Push the "URL" of the upgrade file pack to the OCPP platform, and OCPP will issue the upgrade pack to the charger, the upgrade is completed.

Importer: xxx

Address: xxx

Company Name :

Xi'an TELD LINCHR New Energy Technology Co., Ltd.

Company Address:

Room 101 , Unit A , No.6 Building, Digital economy industrial park, PuFeng Road, Xi'an Hi- tech Industries Development Zone, Xi'an City, Shaanxi Province, People's Republic of China

