ELECTRIC VEHICLE CHARGER

Model: UEVC1L SERIES

NOTE：UEVC1L:MAYBE FOLLOWED BY 16 OR 32 OR 40 OR 48; FOLLOWED BY 10-; MAYBE FOLLOWED BY R;MAYBEFOLLOWED BY L ;MAYBE FOLLOWED BY 4, MAYBE FOLLOWED BY W.

TABLE OF CONTENTS

SAFETY INSTRUCTIONS

Important note: Please read this booklet before installing and switching on this appliance. The manufacturer assumes no responsibility for incorrect installation and usage as described in this booklet. Keep the instruction book for future reference. All the information in the manual is valid for the charging station model in this manual.
This instruction book details the install guidance for the charger. If you're unsure which model you have, please check the rating label on the charger.
The unit is designed for installations inside or outside, with the Innovative safety systems we have built into the charger ensuring its safe usage. This guidance provides information to assist when installing the unit. The charger must be professionally installed by a qualified electrician according to local and national regulations applicable at the time of installation and used in accordance with the manufacturer's instructions.

WARNING:

● This unit must be grounded (Earthed).
● This unit is only to be installed by a qualified electrician in accordance with local building and electrical codes and standards.
● This unit is designed to connect a electrical supply voltage of AC208~240V 50/60Hz.
● The charger must be installed on a secure solid surface that can support the weight of the charger. Failure to install on a secure surface or not in accordance with electrical regulations could lead to death, personal injury, or property damage.
● This appliance is designed to be used by adults, do not allow children to play with the appliance or let them hang over the charger.
● Do not put fingers into the connector.
● This unit is not suitable for use in dangerous places where there is high amounts of dust, dangerous gas or in an explosive and flammable environment.
● In order to ensure the electrical safety of the unit, the product body shell must be fixed to the correct position with fasteners that come with the product and the seals used to ensure the IP rating is maintained.
● Do not use this unit other than its intended purpose.
● Do not use if the connector or cable is damaged.
● Disconnect the charging from the vehicle prior to driving off.
● To prevent electrical shock, do not plug-in or un-plug with wet hands .
● Do not use a power washer to clean or wash the charger.
● It is recommended not to use in a location that can be reached by rain, suggest increase rain protection measures.
● Do not install in areas of high-risk chance of impact by vehicles or a high risk of trip hazard.

This device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt
RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference
to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that
to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

MPE Requirements
To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.
To ensure compliance, operations at closer than this distance is not recommended.

USER INSTRUCTIONS

GROUNDING INSTRUCTIONS

This product must be connected to a grounded, metal, permanent wiring system, or an equipmentgrounding conductor must be run with the circuit conductors and connected to the equipment groundingterminal or lead on the product.

Important: Under no circumstances will compliance with the information in this manual relieve the user of his/her responsibility to comply with all applicable codes or safety standards.

PARAMETERS SHEET

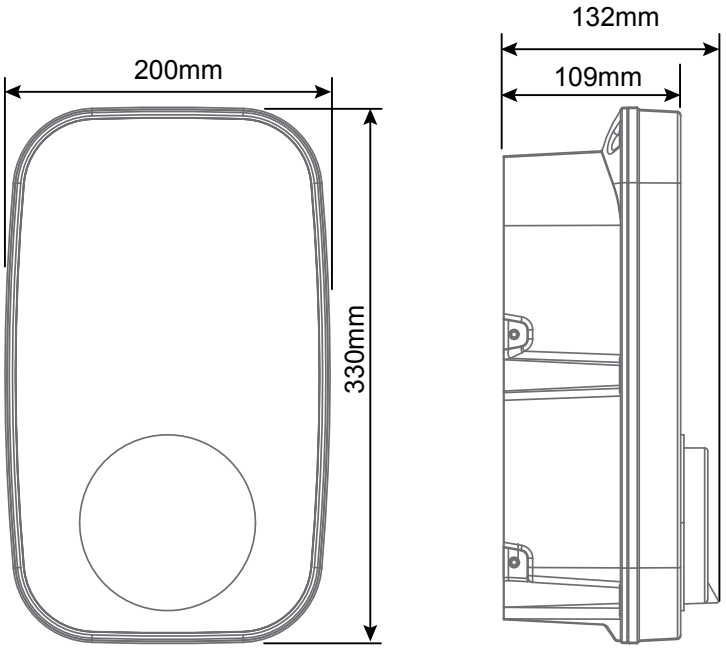
Item \ Model / Datasheet		UEVC1L SERIES
Input	Power Supply	L1+L2+PE
	Rated Voltage	AC208～240V
	Rated Current	48A (40A, 32A, 16A adjustable)
Output	Output Voltage	AC208～240V
	Maximum Current	48A (40A, 32A, 16A adjustable)
	Rated Power	11.5kW(MAX)
User interface	Charger Connector	Cable +Type1 Connector
	Material	ABS +PC
	Colour	Black + gray
	Indicator Light	Three colour LED
Safety	Ingress Protection	TYPE 3
	PCB Protection	Over current protection
		Residual current protection
		Ground protection
		Over/Under voltage protection
		Over temperature
	Standard	UL2231-1, UL2231-2, UL2594, UL991, UL1998
Power consumption	Standby Power Consumption	<10W
Enviroment	Installation	Wall mounted
	Work Temperature	-30℃~50℃
	Work Humidity	3%~95%
	Work Altitude	<2000m

USER INSTRUCTIONS

PRODUCT DESCRIPTION

1. Front cover
2. Working status indicator
3. Function button
4. Charger holder
5. Connector and cable

PRODUCT DIMENSIONS



USER INSTRUCTIONS

INDICATOR LIGHT

Light Display Status	Product Status
Blue, green and red flashing alternately	Product power-on self-check
Blue light glowing	Standby
Blue light flashing	Connection confirmation
Green light glowing	Charging
Green light flashing	Turn off charging from APP or OCPP
Red light glowing	Over temperature
Red light flashing one fast, one slow	Emergency stop

BUTTON FUNCTIONS

Function button operation instructions

Function	Operation	Status indicators	Remark
Emergency stop	During normal charging, press once	Red light flashing one fast, one slow	Disconnect from the car
Mode toggle	On standby state: 1.Under APP control mode,press 5 times continuously to enter plug and charge mode; 2.Under plug and charge mode,press 5 times continuously to switch the randomized delay off or on; Note:plug and charge mode :automatically starts charging after the connectionis confirmed.	Beep twice	If you want to cancel the manual mode click schedule in the APP
WIFI reset	On standby statue, press and hold for more than 10 seconds to reset the WiFi.	Beep twice	The charger will need to be re added to the APP

Power management instruction

Product with power management function can self-regulate the output current to keep the total household electricity load not exceeding the total household current.
Note: If the current values of the two live wires monitored by the two-phase power are not equal, the product will calculate the minimum output current by itself, and the two output lines will be executed according to this minimum output current;
After the product is connected to WIFI, set the total allowable current value of the household through the APP. For detailed settings, please refer to “Order input”.

USER INSTRUCTIONS

Telecommunication

This product complies with the OCPP1.6J service protocol. After you set the IP and ID by the APP and the network cable is connected to the Ethernet socket, the product will automatically connect to the server to enable backstage control. To set the IP and ID, please refer go to the settings in the APP.

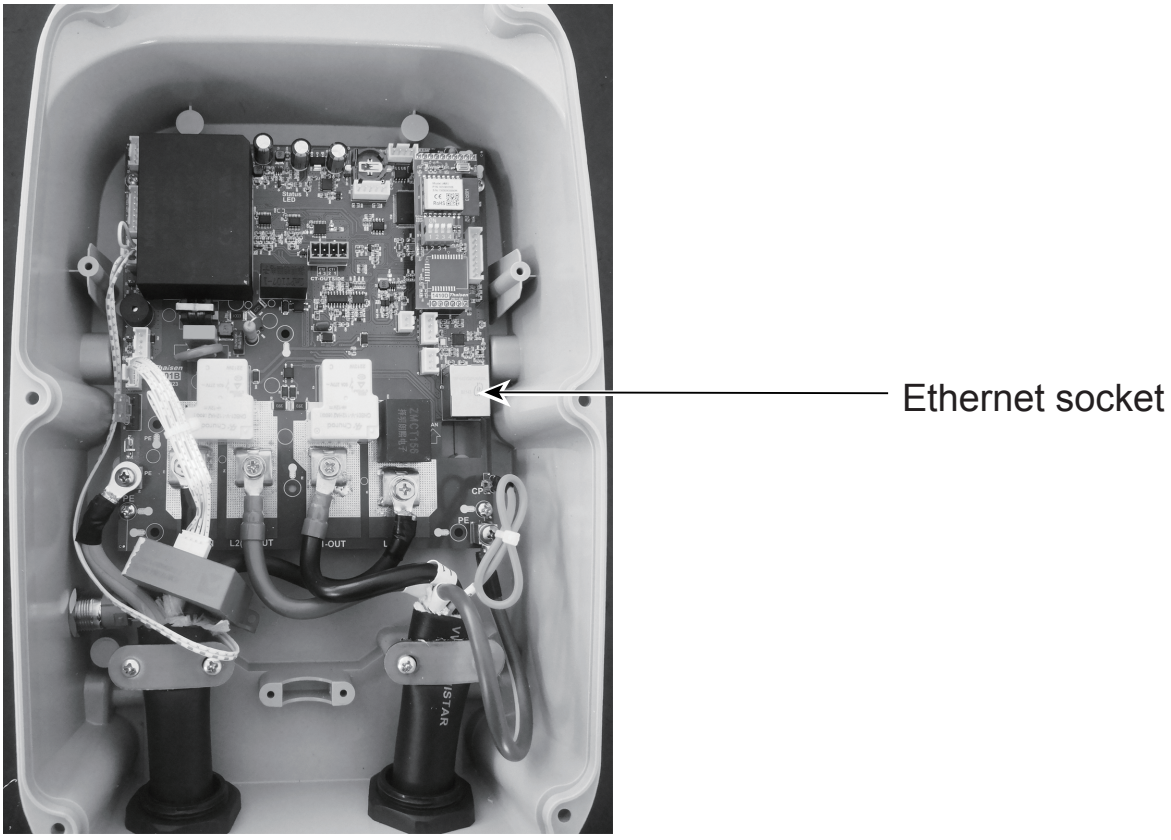
NOTE: Instructions for OCPP control setup in commercial / workplaces where a IT security system exists by a firewall

When connecting the charger to be used through OCPP the dip switch must be set and the Ethernet cable connected to the RJ45 socket**. For OCPP use in workplace environment where a firewall exists then the following will need to be performed by the workplace IT department for the charger to able to be used through OCPP.**

In order for the device to send and receive heart beats the firewall will require the MAC address to be allowed in and out of the corporate firewall. The MAC address can be found on the sticker (rating label) on the bottom of the charger.

If any security features are enabled then the device will require being added to the bypass / whitelist groups. For instance if the firewall has content filtering, DPI-SSL, intrusion prevention then the device will require being white listed through these also.

If you want to do this using IP address, then it will require the IP to be static/reserved.

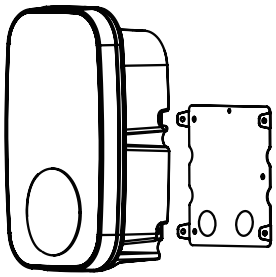


INSTALLATION INSTRUCTIONS

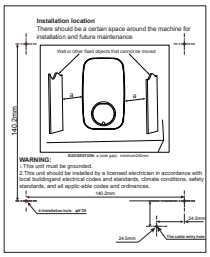
UNPACKING

1.Scratch or remove the sealing tape and take out the unit.
2.Follow the **ATTACHMENT** to check all items and to see if there are any omissions.
3.Check the unit is correct and whether it matches with order model.
4.Check whether the unit has defects or is damaged due to defectiveness or transportation.
5.Make sure all packaging is disposed of responsibly and in accordance with the current regulations in your region.

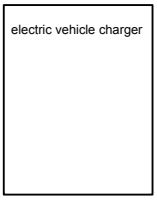
ATTACHMENT



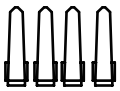
1 x EV Charger & 1 x Fixing bracket *



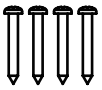
1 x Installation template



1 x Manual



4 x Wall Plugs
M6x30

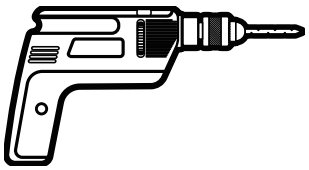


4 x Screw
ST4.2x32

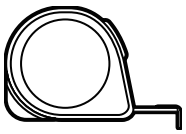
* NOTE: It is integrated from factory, and separated when installed.

INSTALLATION INSTRUCTIONS

TOOLS/MATERIALS REQUIRED (NOT INCLUDE)

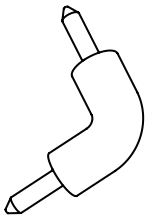


Electric drill

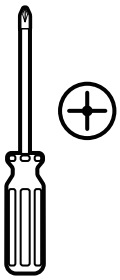


Measuring tape

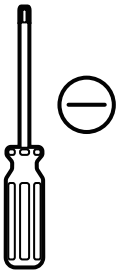
Safety gloves



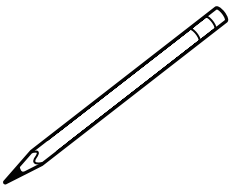
Electric elbow tool



Phillips screwdriver



Slotted screwdriver



Pencil

BEFORE INSTALLATION

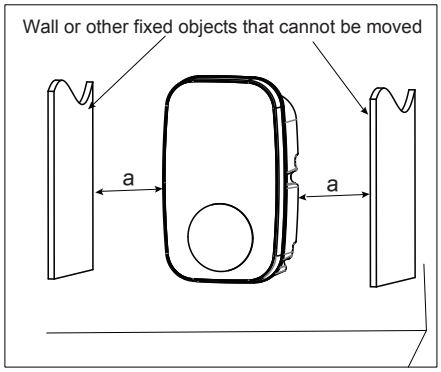
1. Installer or end user must read and understand all the content covered in this manual before installing or using this unit.
2. Choose a suitable installation location according to the installation conditions stated in the warning.
3. Make sure that the installation location complies with current laws and regulations.
4. Confirm that there is a suitable input voltage power supply at the installation site (consistent with the nominal power supply of the product).
5. Make sure the supplied fixings are suitable for the mounting location. If not suitable, alternatives must be obtained locally before proceeding with the installation.

INSTALLATION LOCATION

There should be a certain space around the unit for installation and future maintenance.

SUGGESTION:
a (side gap): minimum 250mm.

*A charging cable holder position needs to be reserved.

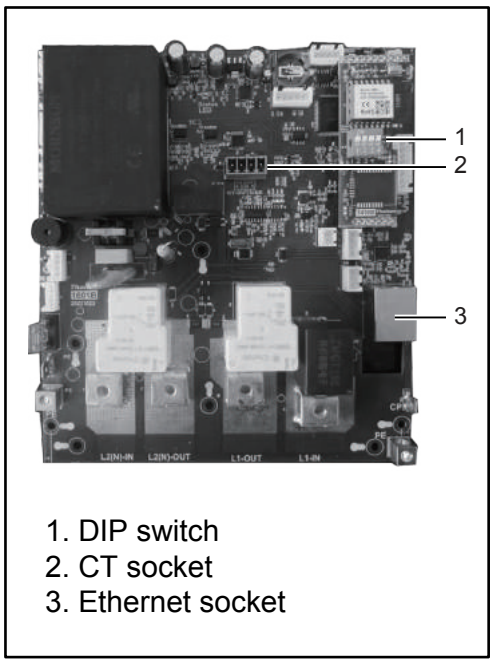


INSTALLATION INSTRUCTIONS

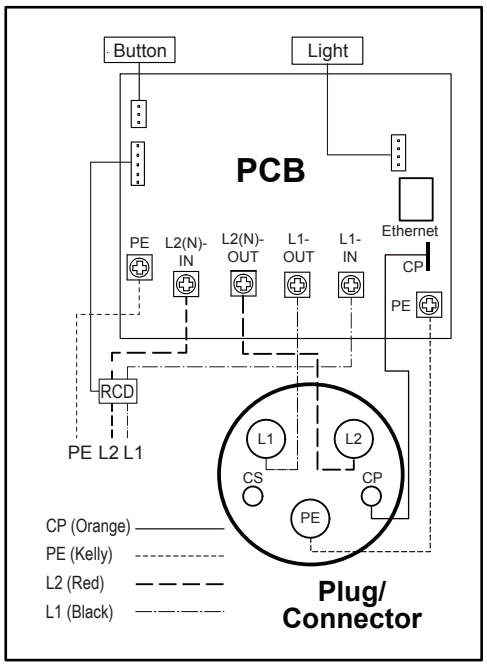
WARNING

▲ Make sure that the power source is turned off before installing the unit.
▲ Manufacturers and distributors are not responsible for any loss or related responsibilities caused by any incorrect installation.
▲ The installer shall be responsible for the loss and damage of the product, system or property caused by improper installation.

CONNECT ELECTRICAL WIRING



1. DIP switch
2. CT socket
3. Ethernet socket



Note: The charger must be electrically protected by installing externally a Miniature Circuit Breaker (MCB) and a Residual Current Circuit Breaker(RCCB).
MCB: Maximum value according to the maximum output current of the load point.
Reference SET THE DIP SWITCH.
RCCB: According to local regulations, Type A or Type B.

INSTALLATION INSTRUCTIONS

INSTALLATION

1. Take the unit and remove the 4 screws on its fixing bracket (The unit is integrated with the fixing bracket and needs to be disassembled first). Keep the screws and fixing bracket for subsequent use.

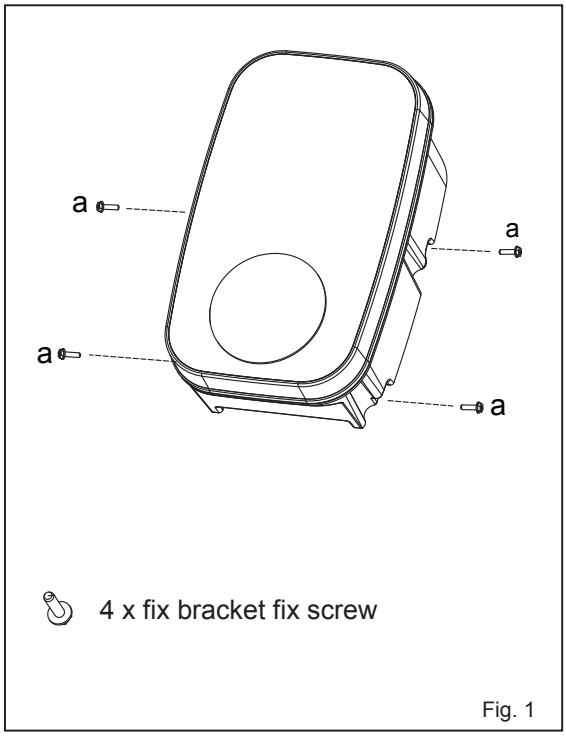
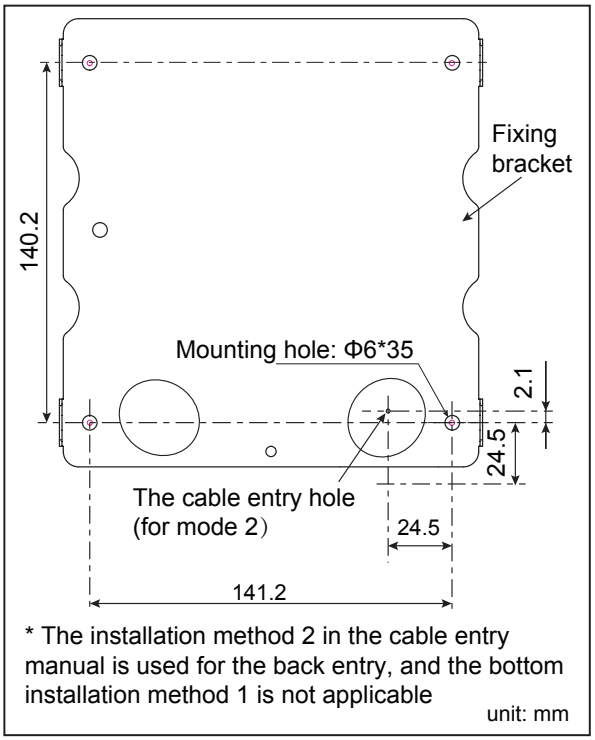


Fig. 1



4. Fixing bracket installation hole inner - insert wall plugs, and use attachement screws(ST4.2*32) fixing fixed bracket to the mounting surface and ensure the screws are fastened well.
Note: If the screws are not fastened well, the fixing bracket may become loose and may interfere with the installation of the housing.

*** NOTE:** Product installation details with OCPP1.6J service agreement. Refer to “Network Connection guide”.
**** NOTE:** Product installation details with power management. Refer to “Power management function installation guide”.

INSTALLATION INSTRUCTIONS

Network Connection guide

1. Drill holes according to Fig. 1*.
2. Use the accessory sealing rubber to fix the network cable.
3. One hole of the sealing rubber be cut open with knife, insert the network cable into the sealing rubber, then insert them into the housing, as Fig. 2*; Reserve enough length of the network cable to ensure that it can be well connected with the Ethernet socket;

NOTE: During installation， if the network cable line and the plug is separate,you don't have to cut the sealing rubber.

Warning: Seal the opening on the back to achieve the unit's IP rating.sealing is very important. This involves the safety of the product and must be paid attention.

4. Network cable plug is docked to Ethernet socket.

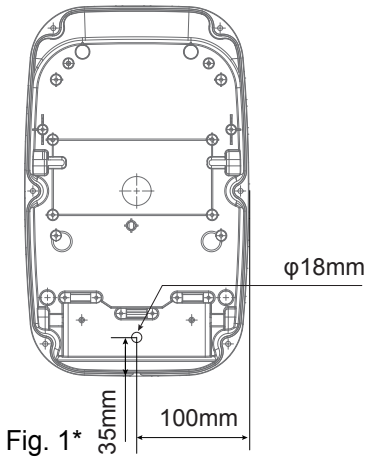


Fig. 1*

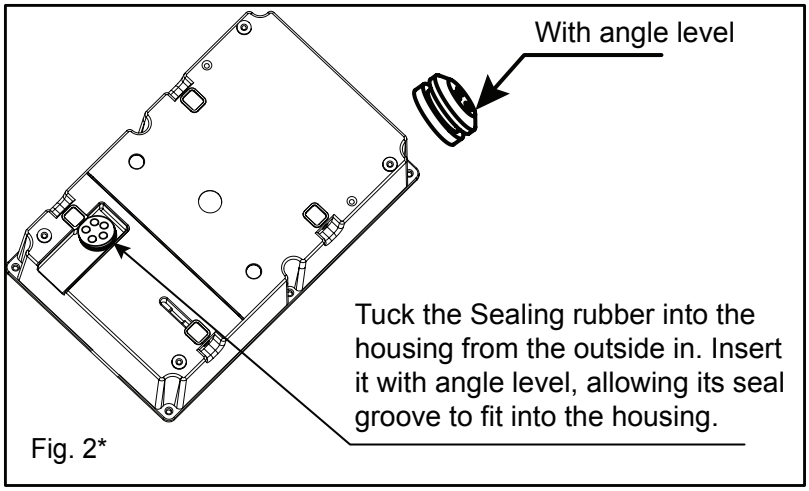


Fig. 2*

INSTALLATION INSTRUCTIONS

Power management function installation guide

1. Drill holes according to Fig. 1**.
2. Use the accessory sealing rubber to fix the CT wire.
3. Insert the sealing part into the housing body, as Fig. 2*, thread the CT wire into the sealing part, one hole corresponds to one CT wire, after the CT cable is inserted, reserve enough length to connect to the CT socket;
4. Crimp the CT wire to the CT wire terminal and then insert it into the CT socket, as following Fig. 2**
5. Open the CT and fixed it to the main incoming line.

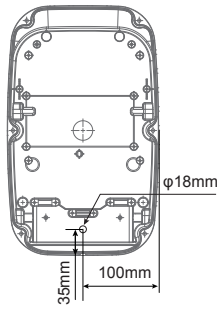
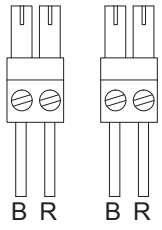
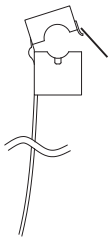


Fig. 1**

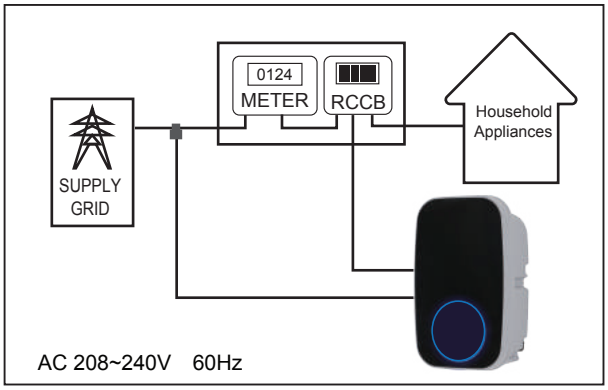


B - Black R - Red


CT opening and closing after the insertion of the line, the CT is firmly fixed.

Cable crimp to terminal plug

Fig. 2**

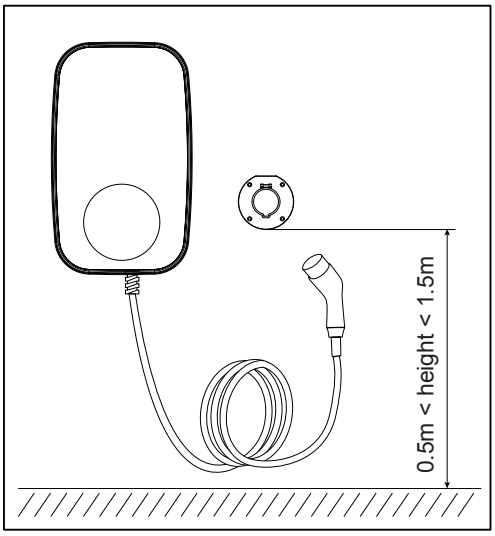


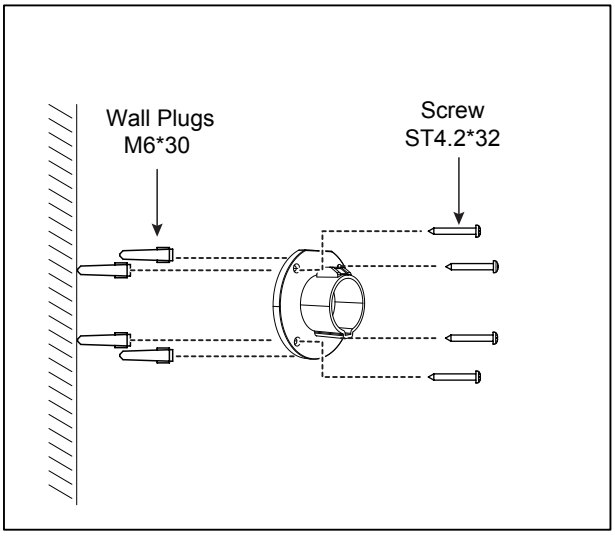
NOTE:
If there is a need to extend the CT cable, **twisted-pair cable like CAT5 must be used**. DO NOT use mains cable, bell wire or speaker cable.
It is important to use only twisted-pair cable to maintain signal integrity. Up to four CT cables can be extended using the separate twisted pairs in a CAT5 Ethernet cable. The cable can be extended up to 40m.
• **Remember to a separated twisted pair for each CT.**
• When joining CT wires make sure that the ends of the wires are twisted tightly together and joined using crimps, screw terminals or solder.
• Avoid using lever clamp type terminals as these do not provide a reliable connection at very low currents.

INSTALLATION INSTRUCTIONS

INSTALLATION OF THE CABLE HOLDER

1. Take out the charger holder.
2. Find a suitable location near the EV charger box, which must be more than 0.5m above the bottom surface and not higher than 1.5m.
3. Align the charger holder in position and mark the four mounting holes.
4. Drill the 4 holes as the marks at dia 6mm, 35mm deep.
5. Insert the wall expansion plug.
6. Screw the charger holder to the wall.
7. Installation is complete.





INSTALLATION INSTRUCTIONS

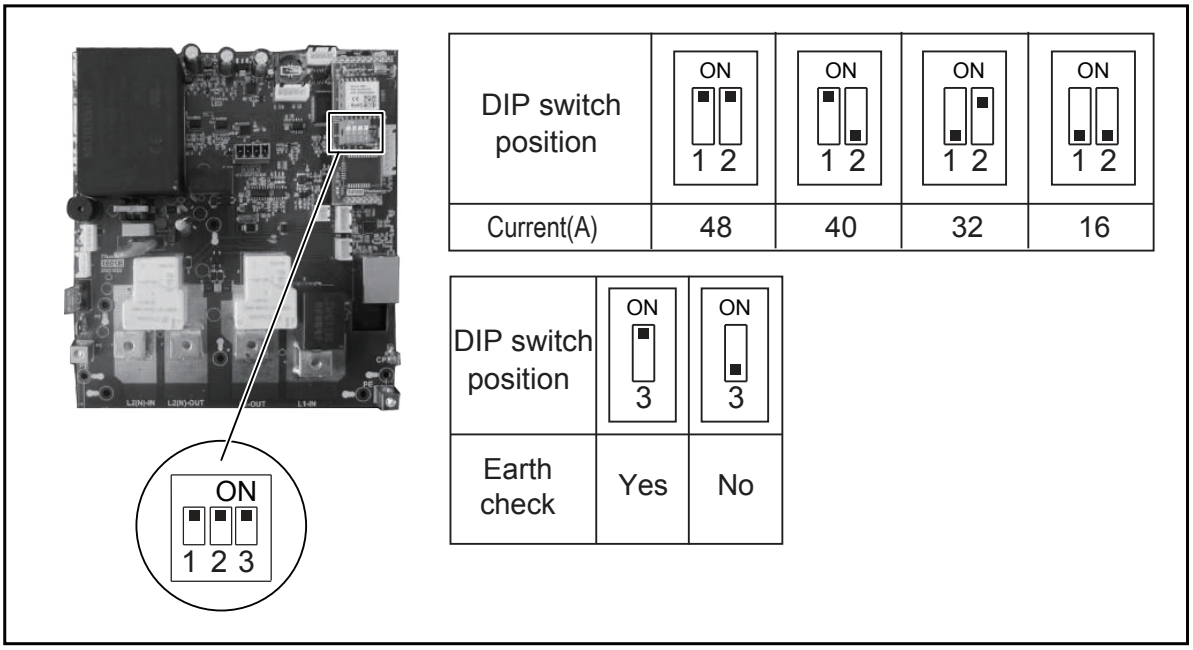
SET THE DIP SWITCH

You need to set the corresponding position of the current DIP switch according to the min. wire size shown in the chart and the rated current of the Circuit breaker (factory setting 48A). refer to the steps below.

Caution 1: The following operations must be powered off.
Caution 2: Incorrect setting DIP may cause hazards such as overheating or fire of the incoming wire.

1. Locate the position of the two-position DIP switch on the power supply board, like picture.
2. Setting the switch to the desired position:

WARNING: Electrical Power Switches must only be set by a qualified electrical installer. Incorrect setting may lead to equipment damage and personal injury. The current rating must not exceed the supply rating.



DIP switch position	ON 1 2	ON 1 2	ON 1 2	ON 1 2
Current(A)	48	40	32	16

DIP switch position	ON 3	ON 3
Earth check	Yes	No

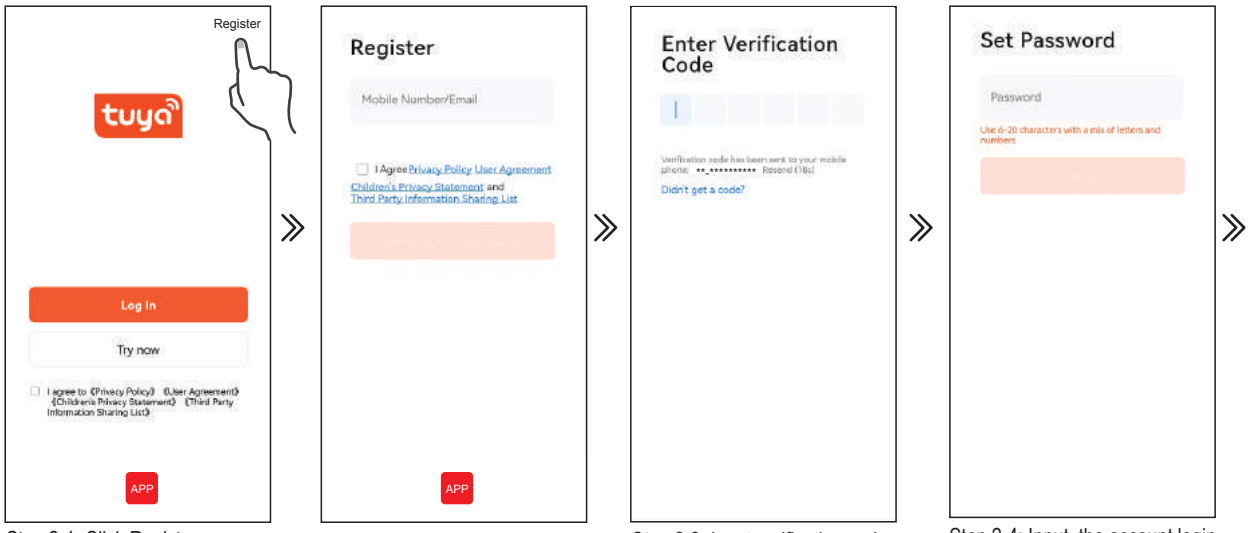
INSPECTION

1. Check that this unit must be grounded (Earthed).
2. Make sure you are satisfied that the installation is complete and is in a safe condition.
3.Switch ON the power, which it will cycle the red, blue and green lights to self-check and then enter the corresponding light indication. The unit and test in accordance with the current Electrical Wiring Regulations.
NOTE: Make sure this product has been installed in compliance with the current Electrical Wiring Regulations.

APP INSTRUCTION

REGISTER

Step 1. Application platform download Tuya app .



Step 2-1: Click Register

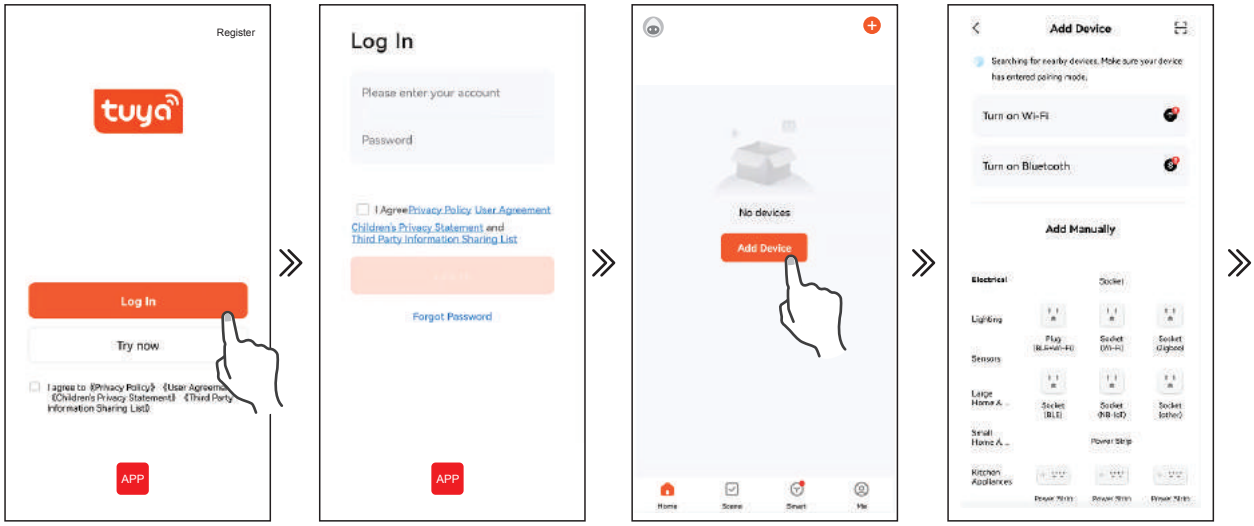
Step 2-2: Check the app agreement, enter the registered mobile phone number and click to get the verification code

Step 2-3: Input verification code.

Step 2-4: Input the account login password and click done to complete the registration.

Step 2. Open the tuya app register an account to log in or log in directly through the relevant app bound by tuya.
Note: You can register your account through your mobile phone number or email. The following takes mobile phone number registration as an example to describe the steps in detail:

ADD DEVICE



Step 3-1: Click log in

Step 3-2: Check the app agreement, enter the registered account and password, and click log in.

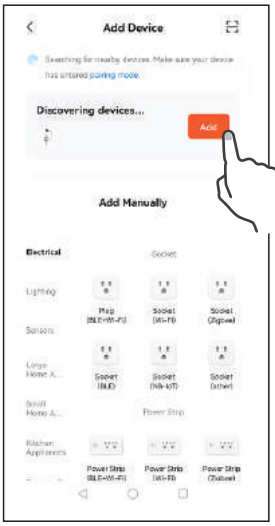
Step 4: Add device.

Step 5: Network and bluetooth not turned on.

Step 3. Check the app agreement, click log in, input the newly registered account and password to log in to the tuya app, and complete the app log in.
Step 4. Reset wifi(refer to the function button instruction for the wifi reset operation guide),Click “Add Device” to add the charger device that needs to be connected.
Note: Make sure the connector un-plug before add the device.
Step 5. After turning on wifi , bluetooth and geolocation, the tuya app automatically searches for connectable devices.
Note 1: When connecting the device,the mobile phone must be close to the charger.

APP INSTRUCTION

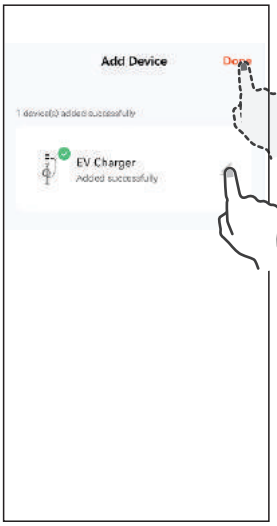
2.The charger needs to be connected to WiFi. If the WiFi signal is weak or absent, the charger will not receive the signal or delay the connection. Therefore it is recommended to add an enhancement device for WiFi receiving signal near the charger. Note: To check if your WiFi can reach the charger and have a good signal check your smart device or smart phone whilst standing close to the charger with the WiFi tuned on if the signal can be seen above 2 bars then it is ok if not a WiFi booster or repeater needs to be added. Note: The ethernet port is not for the smart App it is only for OCPP use.



Step 6-1: Click Add.

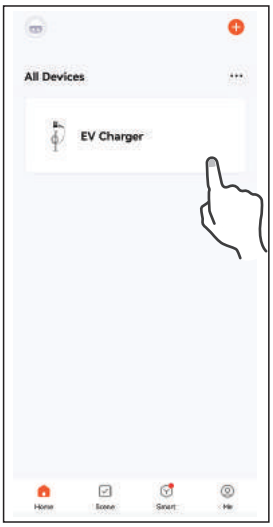
Step 6-2: Enter wifi name and password, then click the next

Step 6-3: Loading

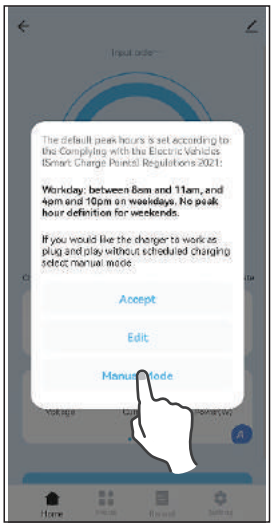


Step 7

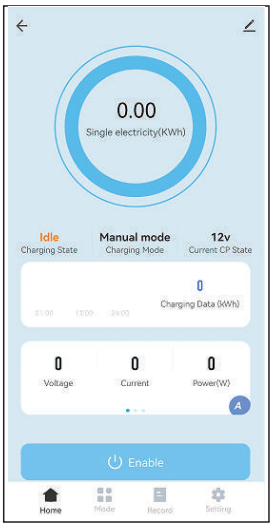
Step 6. After clicking ADD, enter the wifi and wifi password, wait for the device to connect to the network.
Step 7. If you need define a new device name, click“ ” if not need, click “done” to confirm the connection is successful.



Step 8: Click the corresponding device.



Step 10-1: Default selection interface

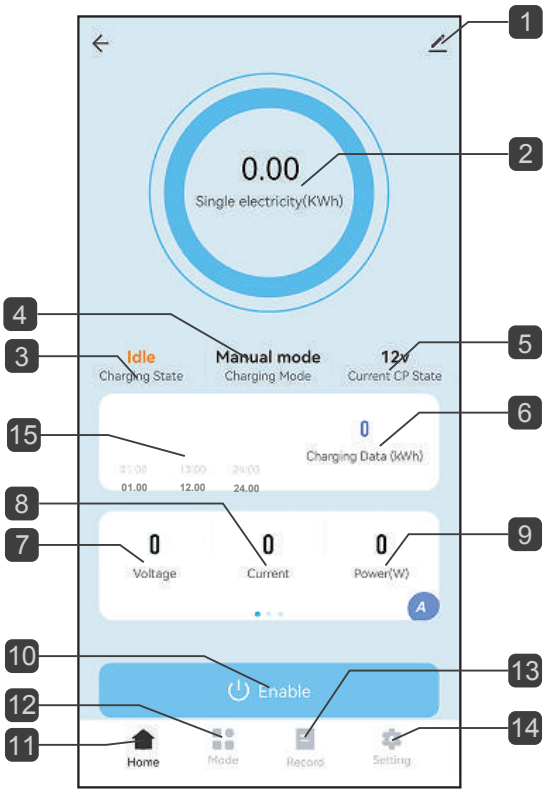


Step10-2:Device control interface

Step 8. Click the relevant device icon to enter the device control interface.
Step 9. The first connection will appear the default selection interface, you can select the default mode, edit the charging time or select the manual mode.
Step 10. Click manual mode.
Step 11. After connecting to the car, then charging without any operation.

APP INSTRUCTION

OPERATE INTRODUCTION



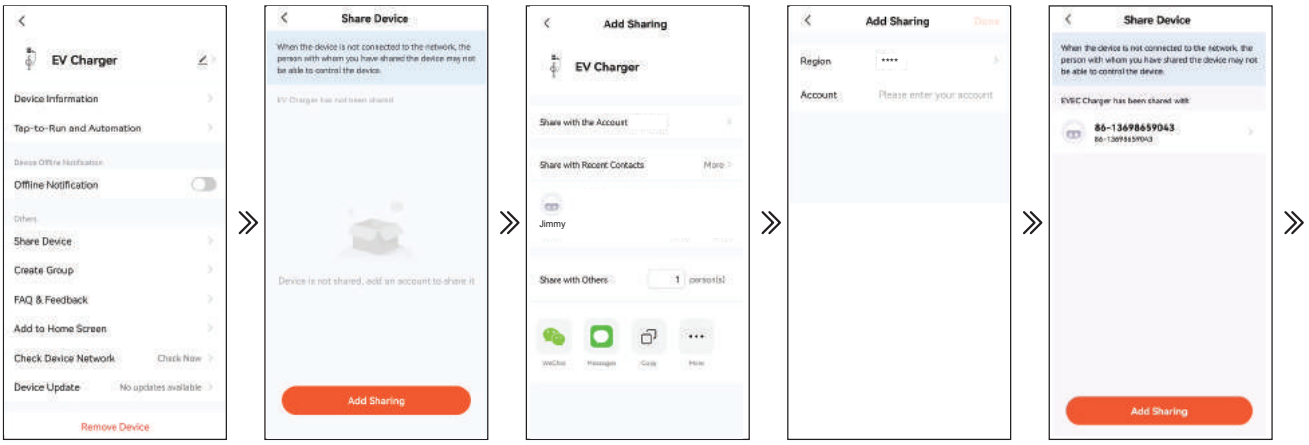
INTERFACE INTRODUCTION

1. Edit
2. Single charging energy consumption
3. Charging state
4. Charging mode
5. CP state
6. Cumulative charging energy consumption
7. Charging voltage
8. Charging current
9. Charging power
10. On/off
11. HOME
12. Charging mode
13. Record
14. Setting
15. Energy consumption record

APP INSTRUCTION

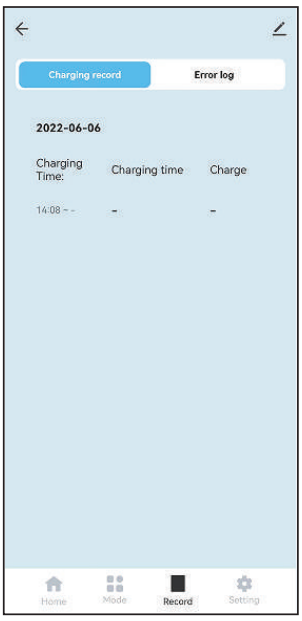
1 Edit

(1). You can set the charger name by clicking "✎"
(2). Offline Notification: When the charger is powered off, it will prompt the device to be offline on the home screen.
(3). Share Device: You can share the APP with others by share device. Shared users only have the using right and cannot share the APP again.
Refer to the following steps:



Step1: click"Share Device". Step2: click"Add Sharing". Step3: click"share with the account EVEC". Step4: Input EVEC accunt at account. Step5: Done.

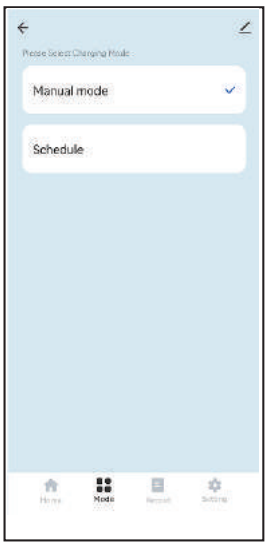
(4). Software Update: When their is a software update available a message will appear on the APP screen to confirm the update.
(5). Remove Device
1. Disconnect： Disconnect device connection.
2. Disconnect and wipe data： Disconnect device connection and wipe “Charging record” and “Error Log”data .



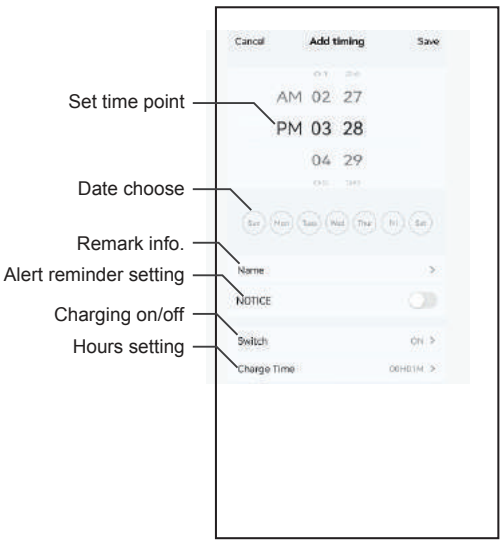
APP INSTRUCTION

13 Charging mode

(1).manual mode:control charger by Enable and Turn off charger on APP.
(2).Schedule: Timed charging.
NOTE 1: When you choose the set time point to turn on the charging , you must adjust the hours setting, otherwise the default charging time is only 1 minute;
2: When you choose the set time point to turn off the charging, there is no hours setting;
3: When you choose the date choose, this time of each week will default to on or off charging.



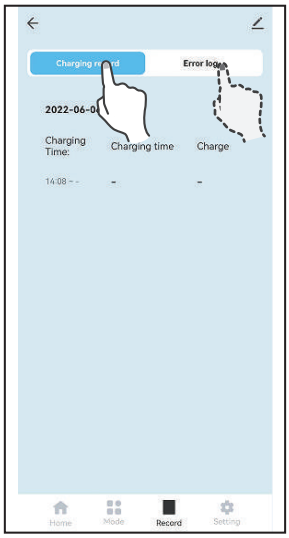
Charging mode



Charging mode

14 Record

You can view “Charging record” and “Power” on this interface.
NOTE:Only the information that is turned on or off through the APP will be recorded in the charging record. When the charging is turned on by the function button, there is no charging record.



Record

APP INSTRUCTION

15 Setting

((1). Order input: Input order tab.
you can set power management from this tab. To use this function a CT clamp is required. To set maximum current:
1. Click Input order tab to enter command input field.
2. Input "home value", this value is the limited protection value of household entry current, the setting range is 0-99, and the factory default setting is 99A (the system will automatically optimize the current value when the actual value is 5A less than the value set); the setting value is recommended to be set according to the rated current value of the total household current.
(2). Set Current tab(A): You can set max charging current, max charging current not more than the current of DIP switch setting.
NOTE：1. After the APP is connected at the first time, the current value displayed here is not the set current value, it is a current setting form.
2. It will take effect only after clicking to enter to set any current value, and the current value adjustment range is 6-48A;
3. If the current value has never been set here, the value displayed here is invalid
(3). Temperature Monitor: can check device interior temperature value.

Input order	Function
HOME value	Set household entry current
RESET	Clear all charging data

NOTE: If the order is inputed incorrectly, the device will still beep twice, but the order will not be executed;
The wrong order that was inputed cannot be corrected, until you disconnect device from the APP and wipe the data and connect it again.

URL

CHARGER ID

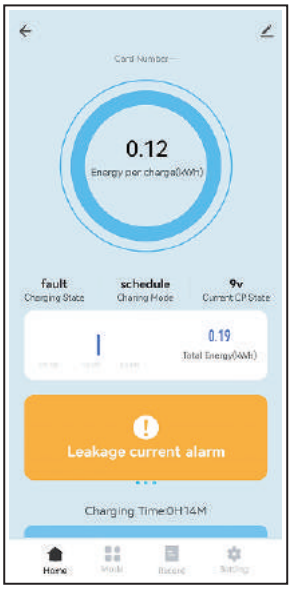
Setting

(4).IP Address: Change the address of the OCPP back-office server；
(5).ID： The product name in the OCPP back-office server.
NOTE:1.make sure the ID is only.
2. After the ID is replaced, it can be concluded that the ID replacement is complete only when the Device number is consistent with the replaced ID;
If the Device number does not change after changing the ID, you can exit the APP and then power off and restart the EV charger.
3.After the IP or ID is replaced, it must be powered off and restarted to take effect.

APP INSTRUCTION

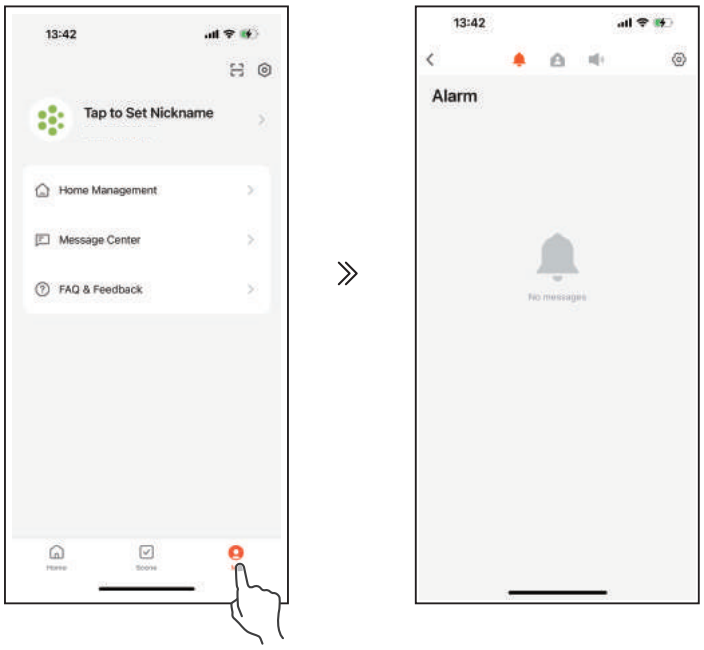
FAULT INTERFACE

If device has fault, you can view the cause of the failure in the center of the main interface of the APP.



ALARM

If their is unauthorized attempted access off the charger the charger software detects this tampering and this is reported via the APP.



MAINTENANCE

The charger enclosure does NOT need to be opened for routine maintenance tasks.

1. Regularly clean the external surfaces of the equipment with a damp cloth
In order to avoid damaging the surface smoothness, do not clean the internal parts with soluble substances and alcohol.
2. Regularly inspect the exterior of the equipment for visual damage, if damage affects safety, isolate the equipment and prevent its use until appropriate repairs have been completed.
3. Once a year, the charger and switchgear (if installed) should be electrically inspected by an appropriately qualified electrician in accordance with the current legislation for the installation location. A record of the tests and results must be kept.

TROUBLESHOOTING

Red light flashing	One fast, two slow	CP fault
	Two fast, one slow	Over current
	Three fast, one slow	Leakage current fault
	Three fast, two slow	Under voltage fault
	Four fast, one slow	Over voltage fault
	Six fast, two slow	Adhesion fault
	Seven fast, one slow	Earth fault
	Red light glowing	Over temperature

READ AND SAVE THESE INSTRUCTIONS
Installer: Leave this manual with the homeowner

Product Disposal
In accordance with European Directive 2002/96/EC on waste electrical and electronic equipment and its implementation in national law, used electrical devices must be collected separately and recycled in an environmentally responsible manner.
Ensure you return your used device to your dealer or obtain information regarding a local, authorised collection and disposal system. Failure to comply with this EU Directive may result in a negative impact on the environment.