

# **ELECTRIC VEHICLE CHARGER**



Model: EDP01 EDP02

Apple



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

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## **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 EVEC car charger PED01 / PED02. If you're unsure which model you have, please check the rating label on the charger.

The EVEC car charger is designed for installations indoor or outdoor, 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.

The EVEC car charger is designed to be connected to an electrical installation that already complies with BS7671 standard as a minimum. The unit should be connected to one dedicated AC supply only and the supply must be adequately rated for the additional load required for EV charging.

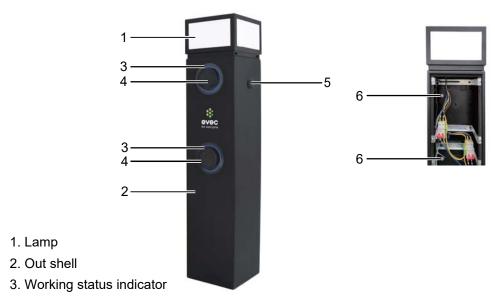
- This unit must be grounded (Earthed).
- This unit is only to be installed by a qualified electrician in accordance with local building and electrical codes and standards.
- This unit is designed to connect a electrical supply voltage of AC220V~240V 50/60Hz for PED01 / AC380V~415V 50/60Hz for PED02.
- Do not put fingers into the socket.
- 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.
- Do not use this unit other than its intended purpose.
- Do not use if the socket 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.

**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.

## **TECHNICAL DATA**

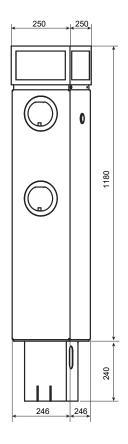
Model Item Datasheet		PED01	PED02	
nem -	Power Supply	1P+N+PE	3P+N+PE	
Input	Rated Voltage	AC220 ~ 240V 50/60Hz	AC380 ~ 415V 50/60Hz	
	Rated current	2 × Max 32A (6-32A adjustable)		
	Output Voltage	AC220 ~ 240V 50/60Hz	AC380 ~ 415V 50/60Hz	
Output	Maximum Current	2 × Max 32A (6-32A adjustable)		
	Rated Power	2 × 7.4KW	2 × 22KW	
User interface	Charger socket or connector	Type 2		
	Material	Metal powder spraying		
	Colour	Black		
	Indicator light	Three colour LED		
Safety	Ingress Protection	IP54		
	PCB protection	Over curren The max 32A-Re	t protection commended 36A	
		Residual current protection (AC Type A 30mA, DC6mA)		
		Earth check		
		Over/Under voltage protection		
		Over temperature		
		PEN fault protection		
	Certification	CE, UKCA		
	Certification Standard	EN 61851,EN 62196		
Power consumption	Standby power consumption	<10W		
	Work Temperature	-25°C~50°C		
Enviroment	Work Humidity	3%~95%		
	Work Altitude	<2000m		

## **PRODUCT DESCRIPTION**



- 4. Socket
- 5. 4G antenna
- 6. Function button

## **PRODUCT DIMENSIONS**



### **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	

### PEN FAULT PROTECTION

The Protective Earth and Neutral (PEN) conductor refers to part of the electricity supply cable to the property. If this conductor is damaged there is a chance that the chassis of the electric vehicle becoming become "live" and cause an electric shock. BS7671:2018 Amendment 1:2020 part 722.411.4.1 requires that extra protection is provided to prevent an electric shock – either by fitting an earth electrode or through a device which detects the fault and disconnects the supply.

The EVEC charger has RCD2 protection and will disconnect the output if it detects a problem with the PEN conductor or detects that there may be any electric current flowing through the chassis of the EV. This PEN fault protection means that there is no need to install an earth electrode with the unit.

If the unit detects a problem with the PEN conductor then the red light will start flashing two fast, two slow.

### **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	Un-plug the connector
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 connection is confirmed. Randomized delay: the unit operates with a delay of up to 600 seconds at each time.	Beep twice	If you want to cancel plug and charge mode, click schedule by APP on standby state.
WIFI reset	On standby statue, press and hold for more than 10 seconds to reset the WiFi, then re-add the device for pairing connection on the EVEC App	Beep twice	1

### **SOCKET LOCK**

The EV cable will be locked when the connector plugged into the EV car;

The EV cable will be unlocked when the conncetor unplugged from the EV car or power off the charger;

### **TELECOMMUNICATION**

This product complies with the OCPP1.6J service protocol. After you set the IP/URL and ID by the APP and install the internet traffic card (SIM card) on the 4G router, the product will automatically connect to the server to enable backstage control. To set the IP/URL and ID, please refer go to the settings in the APP.

### Install the mobile data card on the 4G router

#### 4G / 3G SIM card installation:

The sizes of SIM cards that can be used by routers are as follows:

- 1. The size of the Micro SIM card is 15 × 12mm, which can be directly inserted into the router card slot.
- 2. The size of the Nano SIM card is 12mm × 9mm, which can be used with a 12 × 15mm ferrule.

#### Installation and removal of SIM card:

Insert the 12 × 15mm SIM card into the card slot according to the indicated direction, and the card slot will lock the SIM card. If you want to remove the card, press the card again, and the card will automatically eject from the card slot.

#### WI-FI connection:

After the mobile data card is installed, connect the power to the charger, and the indicator light will be lit, the status of the indicator is as follows:

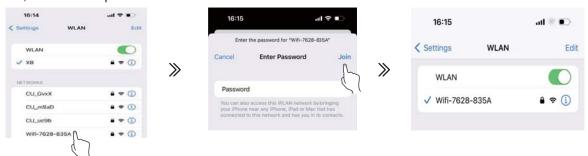
### The LED status description

Name	State	Description
	Often bright	After often on, indicating that the power supply is normal.
System lamp (S YS)	Slow flash	After about 10 seconds, it is changed from constant bright to slow flash, indicating that the system is running normally
	Quick flashing	After pressing for 5 seconds, the reset button will flash. The system will restart later on.
	Often bright	Connection success
LINK pilot lamp	Quick flashing	Normal connection
	Extinct	connectionless
The LAN 1 / LAN 2	Often bright	The RJ 45 port is already connected
lamp is used	Extinct	The RJ45 port is not connected

When the Lan light signal and the LINK signal light are normal, the charger WI-FI and the 4G router WI-FI signal are paired and connected.

### Step 1: Make a WI-FI connection. (Via smartphone)

Detect the wireless network connection of the wireless router, and then click the Connect button to establish the connection, the wireless password is: 12345678.



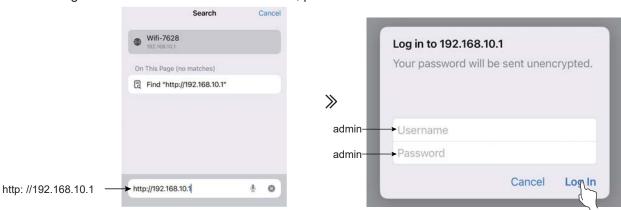
### Step 2: Landing on the router

Next log in the Router Web Settings page.

Enter "http: //192.168.10.1" in the Web browser address bar, and enter the Log In in the pop-up log in authentication box.

Record the user name and password.

Please first log in with the default user name: admin, password: admin.



### Step 3: Go to the router Web Settings page

1. After a successful log in, enter the Web Settings page, and then you can set up and manage the router. Please first log in with the default user name: admin, password: admin.



#### **Click Password**

Input "admin" and new password, and click Log in. Password changed successfully.

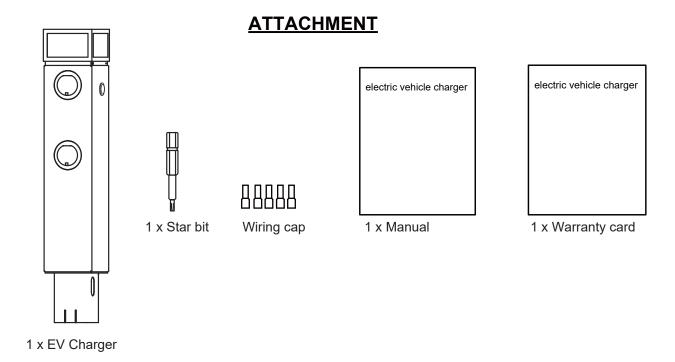




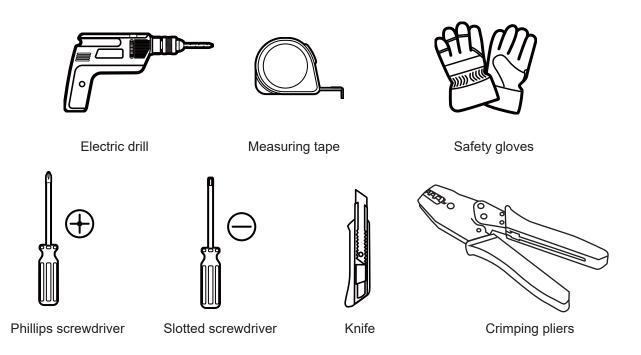
**NOTE:**After the wireless network name is changed, the phone WiFi needs to be reconnected to this router WiFi. According APP INSTRUCTIIN to connecting the charger to APP, and then conduct subsequent manipulation.

## **UNPACKING**

- 1. Take the charger out of the box.
- 2.Follow the ATTACHMENT on page 10 to check all items and to see if there are any missing.
- 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.



## **TOOLS/MATERIALS REQUIRED (NOT INCLUDED)**



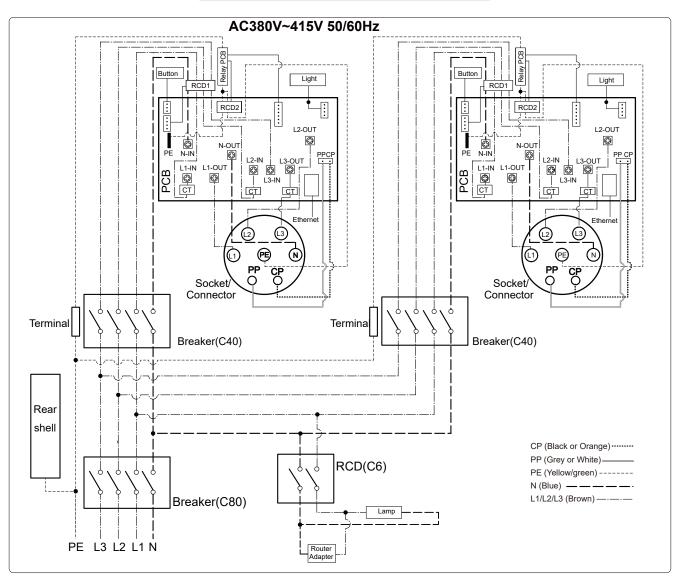
### **BEFORE INSTALLATION**

- 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 to install.
- 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.

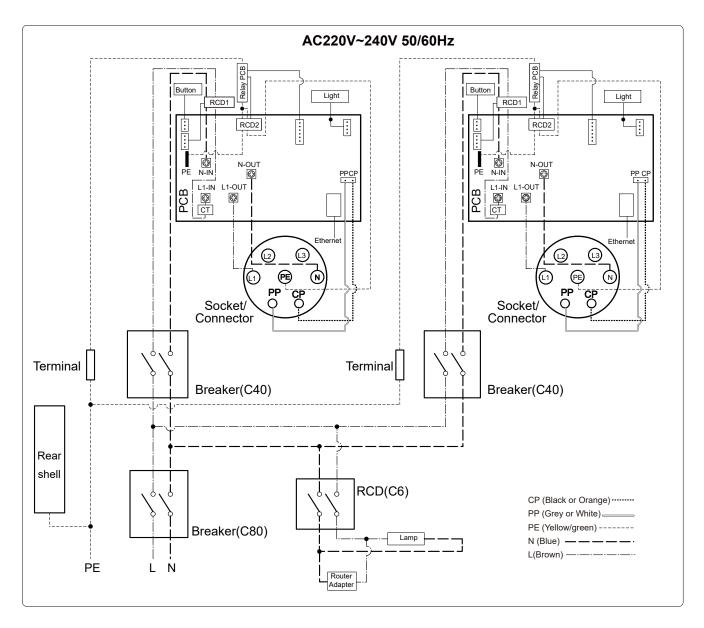
### **WARNING**

- ▲ 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 not be responsible for the loss and damage of the product, system or property caused by improper installation.
- ▲ This product should be installed in a place where there is no water accumulation.

### **CONNECT ELECTRICAL WIRING**



## **CONNECT ELECTRICAL WIRING**



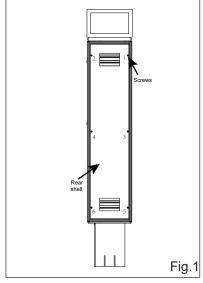
**Note:** The charger must be electrically protected by installing externally a Miniature Circuit Breaker (MCB) and any other protection devices according to the wiring regulations at the time.

### **INSTALLATION**

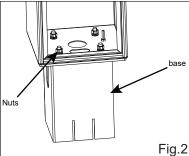
1.Remove and retain the six screws from the rear shell by Star bit supplied with accessories;

### NOTE:

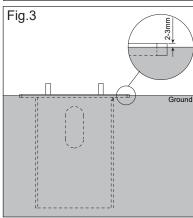
- 1. The electric drill shall be used, and the product shall not be scratched during the process.
- 2.The PE of the rear shell is connected to the front shell. Be careful not to damage the PE connection point and PE when removing the rear shell.



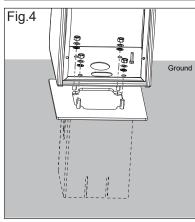
2. Remove and retain the four nuts from the base.



3.Install the base at the selected position, embed the base into the ground, and ensure that the top of the base is 2-3mm higher than the ground, Concrete into place, with the electrical service cable fed up through the middle of the base.

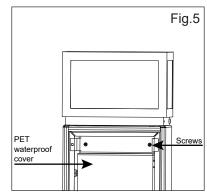


4.See the right figure for fixing(Fig.4)



5. Connect the incoming lines N and L to the C80 circuit breaker according to the wiring diagram, Crimp ring terminal of  $\Phi 6$  to PE, then Connect it to the grounding bolt at the bottom of the main body.

Note:For easy installation,remove and retain the two fixing screws of the PET waterproof cover.Replace the nut after wiring.



6. Turn on the three breakers and RCD behind the interior.

#### NOTE:

Breaker(C80) controls the power supply of the whole product;

The two breakers (C40) can respectively control the power on and off of the two charging points;

The RCD controls the power on and off of the lamp.

7. Use the remaining 6 screws to install the removed rear shell.

### **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.

### **REGISTER**

Step 1. Application platform download EVEC APP.

You can download it through the QR code on the front cover page of this manual , or google store or APP store.

Step 2. Open the EVEC APP, register an account to log in.

**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:



Step 2-1: Click Sign up



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.

### **ADD DEVICE**

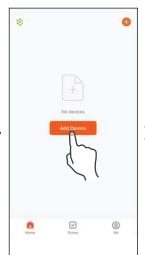
Step 3. Click log in on the App, input the newly registered account and password to log in to the EVEC APP.



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 4.** Press the function button on the charger for 10s(beep 2 times) to reset the 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.

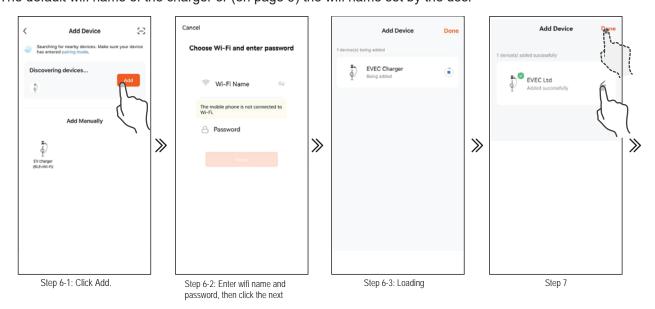
Note: Make sure the charging lead is not plugged into a car before adding the device.

Step 5. After turning on wifi , bluetooth and geolocation, the EVEC APP automatically searches for the charger.

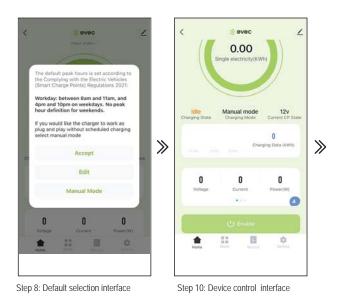
Note: 1. When connecting the charger, the mobile phone must be close vicinity to the charger.

NOTE2: The charger needs to be connected to WiFi.

The Wi-Fi name is the charger's 4G router Wi-Fi name(page 9:Change the wireless network name). The default wifi name of the charger or (on page 9) the wifi name set by the user



**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 add a new device name, click "\_\_\_\_" if not, click "done" to confirm the connection is successful.

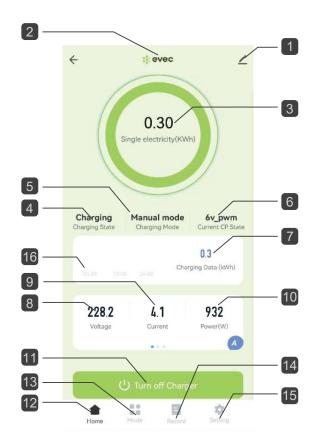


**Step 8.** The first connection will appear with the default screen, you can select the default mode, edit the charging time or select the manual mode.

Step 9. Click manual mode.

**Step 10.** Connecting to the car, after click Enable to start charging, then the charger will charging after randomised delay.

## **OPERATE INTRODUCTION**



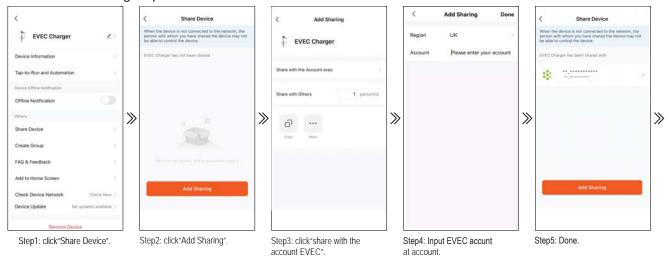
### INTERFACE INTRODUCTION

- 1 Edit
- 2 Device name
- Single charging energy consumption
- 4 Charging state
- 5 Charging mode
- 6 CP state Cumulative
- Charging energy consumption

- 8 Charging voltage
- 9 Charging current
- 10 Charging power
- 11 On/off
- 12 HOME
- 13 Mode
- 14 Record
- 15 Setting
- 16 Energy consumption record

- 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.

**NOTE:** When using EVEC account to share, the shared account can be added the device without any operation. Refer to the following steps:



- (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 .



### 13 Charging mode

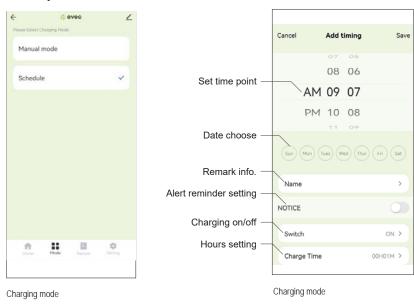
(1).manual mode:control charger by Enable and Turn off charger on APP.

(2). Schedule: Timed charging.

**NOTE1:** 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;

**NOTE2:** When you choose the set time point to turn off the charging, there is no hours setting;

NOTE3: When you choose the date choose, this time of each week will default to on or off charging.



## 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

### 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 08-120, and the factory default setting is 45A (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.

**NOTE1:** 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.

**NOTE2:** It will take effect only after clicking to enter to set any current value, and the current value adjustment range is 6-32A; **NOTE3:** If the current value has never been set here, the value displayed here is invalid.

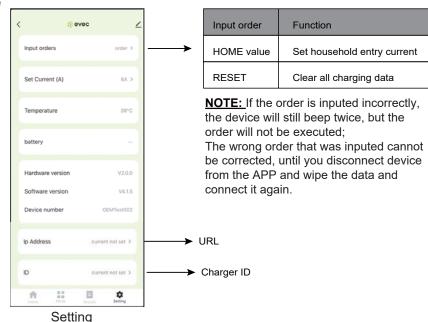
- (3). Temperature Monitor: can check device interior temperature value.
- (4). IP Address: Change the address of the OCPP back-office server;
- (5). ID: The product name in the OCPP back-office server.

NOTE1: make sure the ID is only.

**NOTE2:** 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.

**NOTE3:** After the IP or ID is replaced, it must be powered off and restarted to take effect.



### APP function turned on/off through the OCPP



## **FAULT INTERFACE**

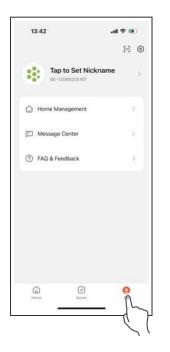
If device has fault, you can view the cause of the failure in the center of the main interface of the APP.



### **ALARM**

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

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# **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**

## **TROUBLESHOOTING**

Red light flashing	One fast, two slow	CP fault
	Two fast, two slow	Leakage current fault (PEN)
	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



M17 1SW

#### **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.

