ATESS NOVO EVA-07/09/12S-PU

Single-phase AC charger Quick installation guide

Shenzhen Atess Power Technology Co.,Ltd

GROWATT-ATESS Industrial Park, No.23 Zhulongtian Road, Shuitian Community, Shiyan Street, Baoan District, Shenzhen

T + 86 755 2998 8492

E info@atesspower.com

W www.atesspower.com

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“IMPORTANT SAFETY INSTRUCTIONS” and “SAVE THESE INSTRUCTIONS”.
INSTRUCTIONS IMPORTANTES CONCERNANT LA SÉCURITÉ
CONSERVER CES INSTRUCTIONS.

NSTRUCTIONS PERTAINING TO A RISK OF FIRE OR ELECTRIC SHOCK.
INSTRUCTIONS AYANT TRAIT À UN RISQUED’INCENDIE OU DE
CHOC ÉLECTRIQUE

Disclaimer

ATESS has the final right to interpret this user manual. The information in this manual is subject to change without notice.

Thank you for using ATESS EVA charging equipment!

EVA series intelligent single phase AC charger is a power supply device that uses professional and advanced technology to provide energy supply to electric vehicles, it also has friendly man-machine interface and versatile functions of control, billing, and communication. The charger can be connected to a back-office server to realize the functions of reservation and payment via Mobile phone APP. Diversified communication options, including wired Ethernet, WIFI, 4G is available for back-office server connection.

For use with Electric Vehicles.
Pour utilisation avec des véhicules électriques.

Ventilation Not Required.
Aucune ventilation requise.

WARNING To avoid a risk of fire or electric shock, do not use this device with an extension cord.
AVERTISSEMENT Pour réduire le risque de choc électrique ou d'incendie, ne pas utiliser de rallonge aveccet appareil.

CAUTION: Do not use this product if there is any damage to the unit.
ATTENTION Ne pas utiliser ce produit si l'appareil est endommagé.

CAUTION "Risk of electric shock. Do not remove cover or attempt to open the enclosure. No user serviceable parts inside. Refer servicing to qualified service personnel."
ATTENTION Risque de choc électrique. Ne pas retirer le couvercle ni essayer d'ouvrir le boîtier.Aucune pièce interne réparable par l'utilisateur. Confier tout travail d'entretien ou de réparation à un technicien qualifié.

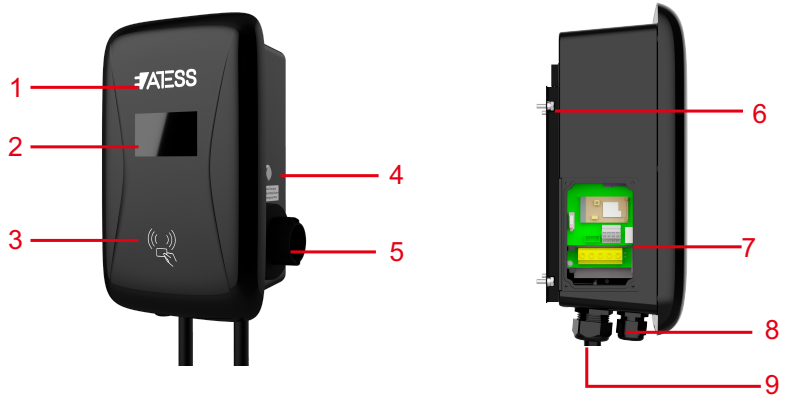
"WARNING" "Risk of explosion. This equipment has arcing or sparking parts that should not be exposed to flammable vapors. This equipment should be located at least 460 mm (18 inches) above the floor."
AVERTISSEMENT Risque d'explosion. L'appareil comporte des pièces pouvant produire des arcs électriques ou des étincelles qui ne devraient pas être exposées aux vapeurs inflammables. Cet appareil devrait être installé à au moins 460 mm (18 pouces) au-dessus du plancher.

"WARNING": "This device is intended only for charging vehicles not requiring ventilation during charging."
AVERTISSEMENT Ce dispositif est destiné au chargement des véhicules ne nécessitant pas de ventilation au cours du chargement.

automatic reset feature is provided. AVERTISSEMENT - Caractéristique de réarmement automatique incluse.

Menu

I. Product description



1.LOGO and status indicator

2.LCD display (For LCD charger version)

3.RFID ready (For RFID version)

4.Start or stop button

5.Plug holder

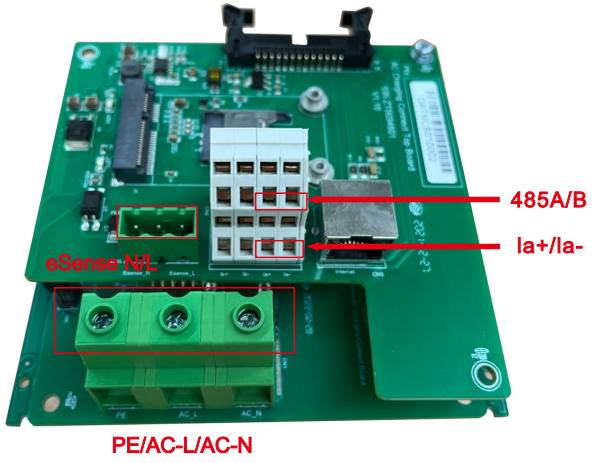
6.Mounting bracket

7.Side window and nameplate

8.Waterproof cable gland for AC input cables

9.Waterproof cable gland for communication wires

Wiring definition in the side window



1. Terminal block for CT/meter wiring. The terminal definition is:
 485A/485B is RS485 terminal for meter connection;
 Ia+/Ia- is for CT connection
2. AC input terminals. Terminal definition is:
 L/N/PE
3. Peak&Off Peak Charging Enable signal is:
 eSense L/N

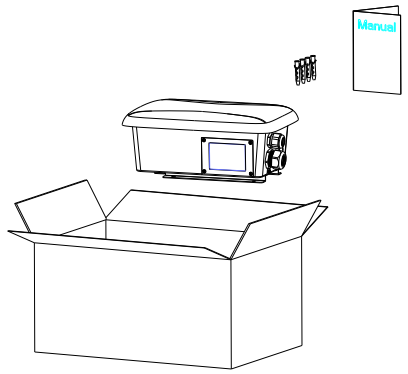
II. Packaging list

No.	Name	Qty	Remark
1	Charger	1	
2	User manual	1	
3	Quality certificate	1	
4	Mounting bracket	1	
5	Cable hook	1	
6	ST6.3X40 Stainless steel hex-head self-drilling screws	4-7	4 for socket version, 7 for cabled version(3 of the 7 screws is for cable hook fixing)
7	12X46 Plastic expansion plugs	4-7	4 for socket version, 7 for cabled version(3 of the 7 plugs is for cable hook fixing)
8	User card	1	RFID function will be equipped with user card

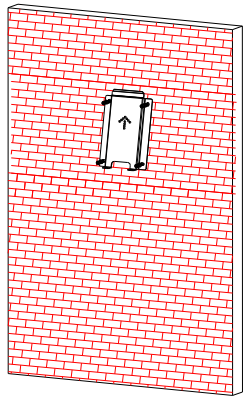
III. Installation and wiring

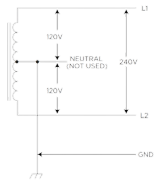
3.1 Mount on a wall

3.1.1 Open the packaging, you'll see a charge point, a mounting bracket, a user manual and a bag of mounting accessories. There is also an RFID card if the charge point is RFID version. For cabled version, a cable hooker is also included inside.

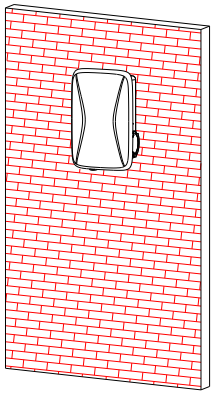


3.1.2 Remove the mounting bracket from the charge point, use it as a template to mark the position of the drill holes. Drill the holes and hammer the expansion bolts in the accessories bag into the holes. Then fix the mounting bracket onto the wall.



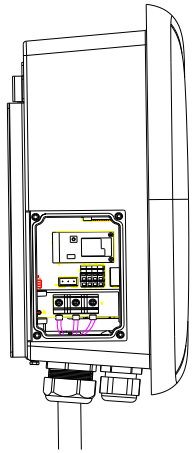


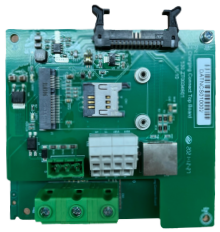
3.1.3 Put the charge point onto the bracket, and fix it with the 2 screws at the bottom of the charge point. The installation is done.



3.1.4 Crimp the below shown insulated ferrule or ring terminals on the end of the AC input wires. Connect the wires into the terminal block of the charge point as below. Close the side window with the cover, then the wring is done.

In Canada, a power supply that is intended to be fixed in place to a structure and is provided with a supply cord in accordance with 12.1.1.1 shall be marked with the following or equivalent: “THE SUITABILITY OF THE USE OF FLEXIBLE CORD IN ACCORDANCE WITH CE CODE, PART I, RULE 4-012, IS TO BE DETERMINED BY THE LOCAL INSPECTION AUTHORITY HAVING JURISDICTION”C’EST À L’AUTORITÉ LOCALE COMPÉTENTE EN MATIÈRE D’INSPECTION QU’INCOMBE DE DÉTERMINER SI UN CORDON SOUPLE PEUT ÊTRE UTILISÉ CONFORMÉMENT À L’ARTICLE 4-012 DU CCÉ, PREMIÈRE PARTIE



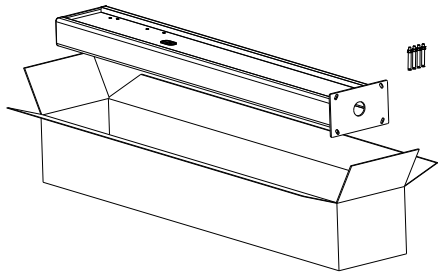


	Model	L	N	PE
Terminal	7K			
	9K			
	12K			
Wire	7K	≤AWG10	≤AWG10	≤AWG10
	9K	≤AWG9	≤AWG9	≤AWG9
	12K	≤AWG8	≤AWG8	≤AWG8

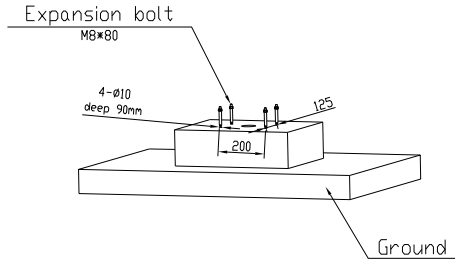
Use Copper Conduc-tors Only. Utiliser uniquement des conducteurs en cuivre.

3.2 Mount on a pole

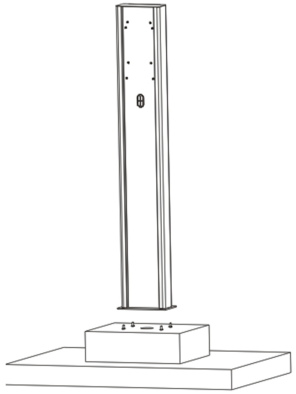
3.2.1 Open the packaging of the pole, take out the pole and mounting accessories.



3.2.2 The pole must be installed on a hard surface, concrete surface is recommended, it can also be mounted on a solid ground. Drill hols according to the requirements marked on the illustration for fixing expansion bolts.

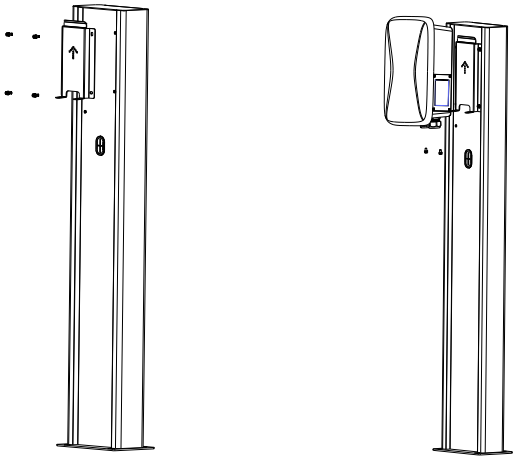


3.2.3 Fix the pole onto the holes with expansion bolts. The input cables shall go into the pole from the bottom middle area and come out of it from the area below the cable hooker.

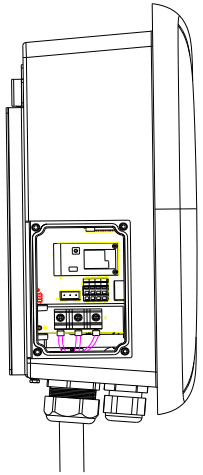


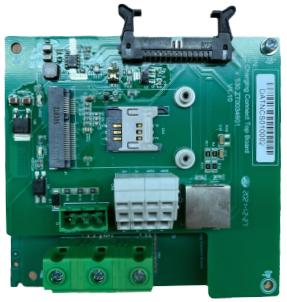
3.2.4 Fix the mounting bracket onto the pole.

3.2.5 Position the charge point onto the bracket and secure it on the bracket with the 2 screws.



3.2.6 Crimp the below shown insulated ferrule or ring terminals on the end of the AC input wires. Connect the wires into the terminal block of the charge point as below.Close the side window with the cover, then the wring is done.





	Model	L	N	PE
Terminal	7K			
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	12K			
Wire	7K	≤AWG10	≤AWG10	≤AWG10
	9K	≤AWG9	≤AWG9	≤AWG9
	12K	≤AWG8	≤AWG8	≤AWG8

IV. Parameter setting

After the installation and wiring is done, connect the Charger to a computer and configure parameters via the web browser of the computer, then the Charger can be ready for use.

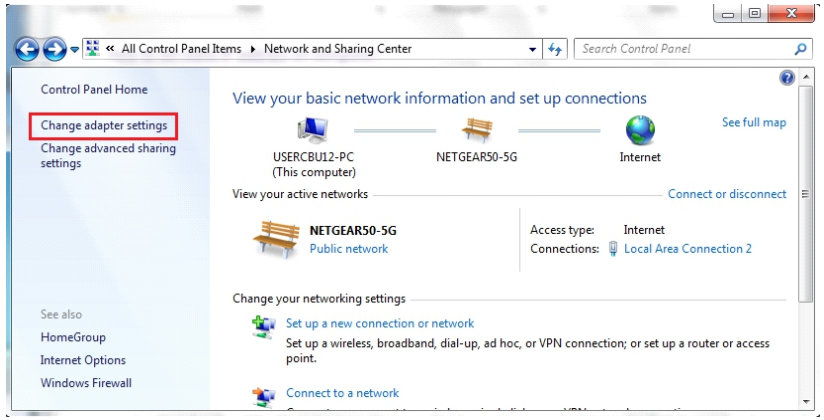
4.1 Set computer's IP

The Charger's default IP address is 192.168.1.5. To access the parameter setting interface, you'll need to first set the computer's IP to 192.168.1.x(x can be any value between 1 and 255 except for 5, e.g. 192.168.1.10).

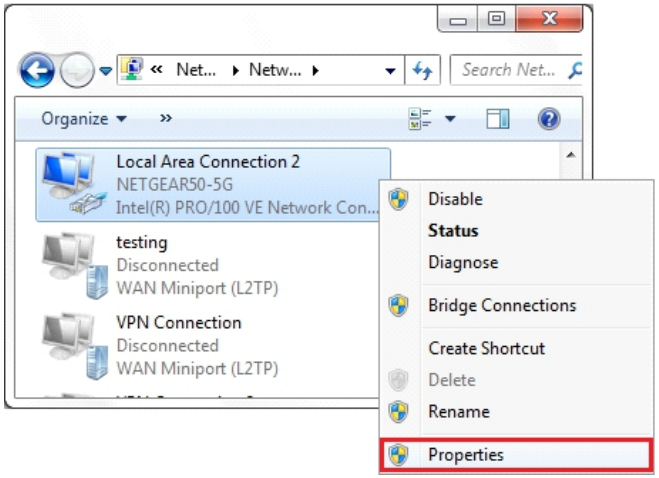
To set a static IP on your Windows computer:

1.Click Start Menu > Control Panel > Network and Sharing Center. (For Windows 8 and higher, search for and open Control Panel and select Network and Internet).

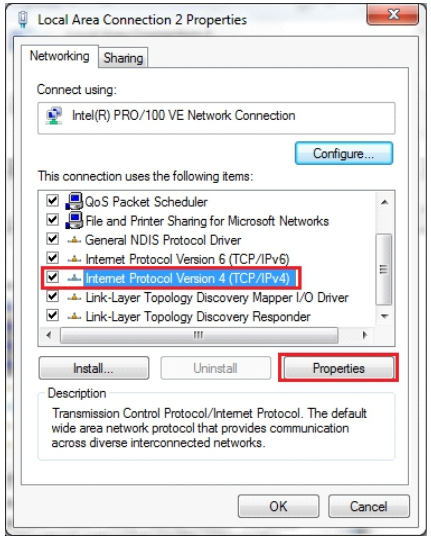
2.Click Change adapter settings.



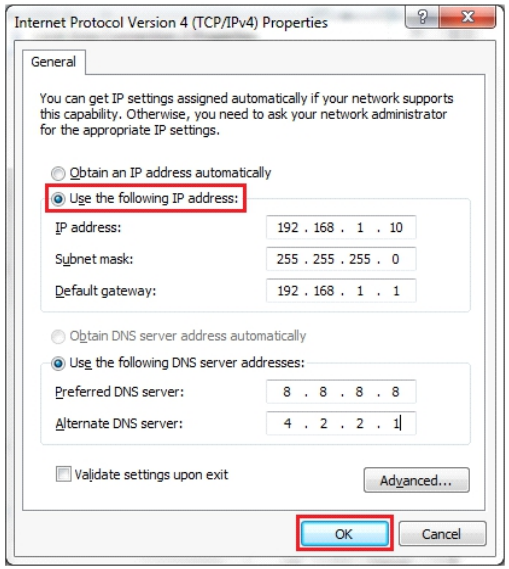
3.Right-click on Local Area Connection and click on Properties.



4.Select Internet Protocol Version 4 (TCP/IPv4) and click on Properties.



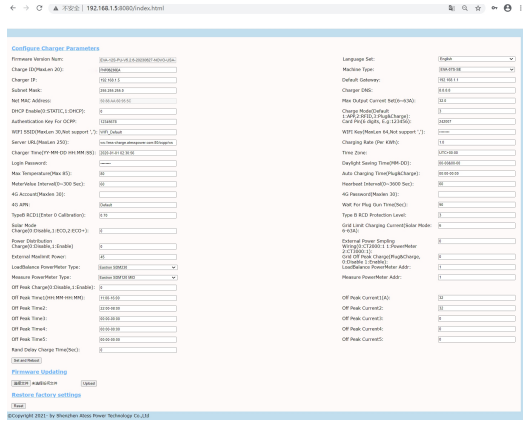
5.Select "Use the following IP address" and enter the IP address, Subnet Mask, Default Gateway. Click OK and close the Local Area Connection properties window.



4.2 Configure parameters

Connect the charger to a computer via a network cable. Open the web browser and type in http://192.168.1.5:8080/ in the address field and click enter, then the parameter setting page of the charger will open up.

Parameter setting can only be done via web browser on a computer. It is suggested to use IE or Firefox, other browser might have compatibility problem.



Overview of Parameter setting page

Explanation of parameters:

(1) Firmware version of the Charger. This item cannot be modified here on the setting page.

Fig.1

(2) Charger ID, this is the unique identification of the Charger. If the charger is to be connected to ATESS back-office server, this ID must be set as the serial number on the nameplate of the Charger. Otherwise the Charger cannot be registered on the server.

Fig.2

(3) Charger IP. The default IP is 192.168.1.5. It is not suggested to change the default IP. If you have changed the default IP and forgot the new IP, you can reset the charger to factory setting by long press the reset button(the reset button on control board, not the red emergency stop button) until the charger reboot. Then you can use the default 192.168.1.5 for access.

Please note: After restoring the charger to factory setting, you'll need to reset the charger ID(same as serial number, can be found on the nameplate sticker) and server url, otherwise the charger won't be connected to the back-office server.

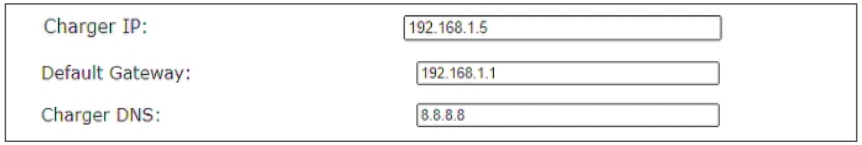


Fig.3

(4) Charger Subnet mask. The default value is 255.255.255.0. It is not suggested to change. If the subnet mask has been reset to other value and you have forgotten the new value, you can restore the charger to factory setting by long press the reset button.

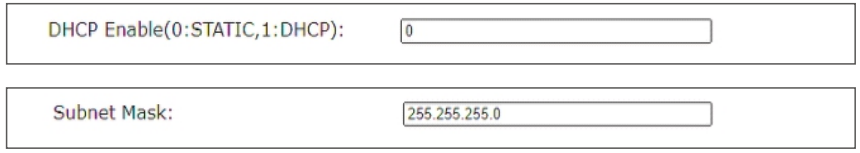


Fig.4

(5) MAC address. This is the MAC address used for LAN cable connection. If the charger is connected to ATESS back-office server via LAN cable and the router has MAC access control, then you can put this MAC in the router to allow the charger to access server

Fig.5

(6) Enable the DHCP mode to automatically assign IP addresses to routers and Connect to charger via network cable under internet connection.

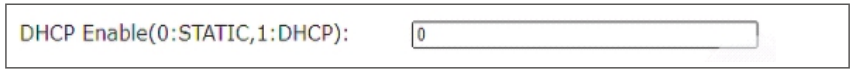


Fig.6

(7)The secret key to connect to the OCPP server for authentication.

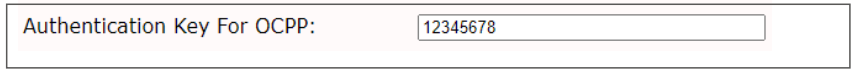


Fig.7

(8) WiFi SSID(wireless network name) and WiFi Key(WiFi password) is used for WiFi connection

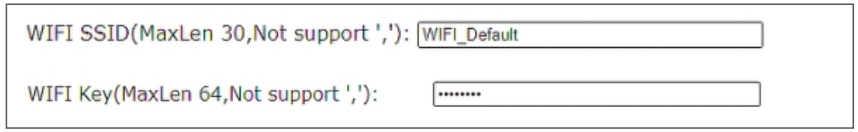


Fig.8

(9)Server URL is to set the domain name or IP address of the back office server to be connected.

The domain name of ATESS server is “ws://ess-charge.atesspower.com:80/ocpp/ws”;

IP address is “ws://ess-charge.atesspower.com:80/ocpp/ws”.

Heartbeat Interval is used for testing. No need change.

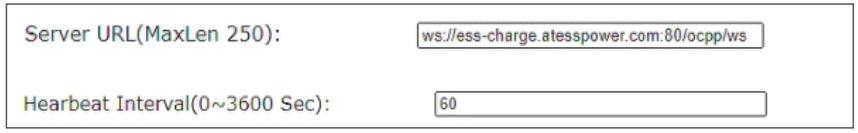


Fig.9

(10) Time of the charger. Set according to the local time. After the charger is connected to back-office server, the time will be synchronized with the server’s time. If the charger has no server connection, then you’ll have to reset the time every time you turn off and back on the charger.

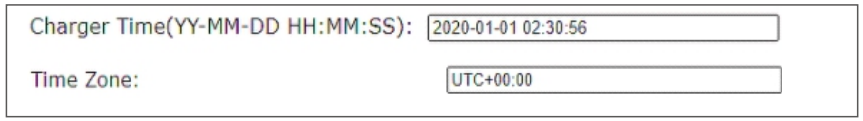


Fig.10

(11) Login password is used for web page login parameter settings,the default password is 1234578.

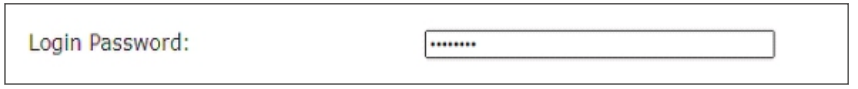


Fig.11

(12) Over temperature protection value, not suggested to change.

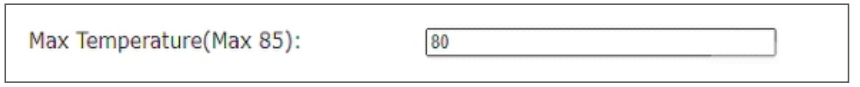


Fig.12

(13)Interval for uploading metering data during charging, keep the default value.

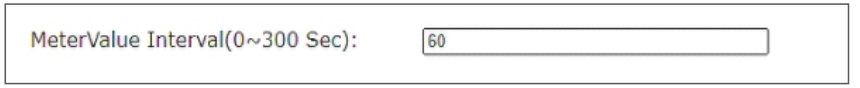


Fig.13

(14)4G connection, when the 4G network cannot be connected, login SIM card APN and other information

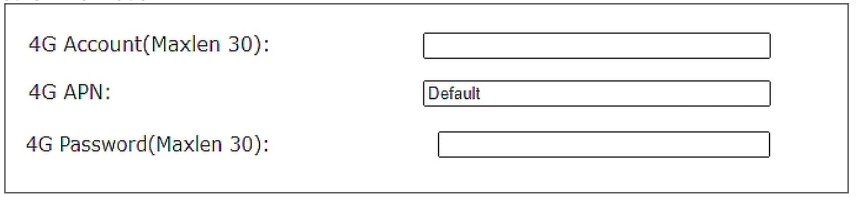


Fig.14

(15) DC residual current sampling value calibration. Enter 0 and press “Set and Reboot ” to calibrate the DC RCD ring. Display real-time detection value of DC residual current.keep the default RCD level.

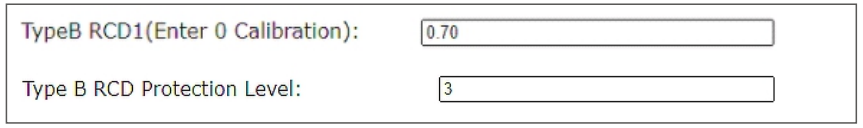


Fig.15

(16) For the charger with an integrated meter, set the meter model and address and keep the default value.

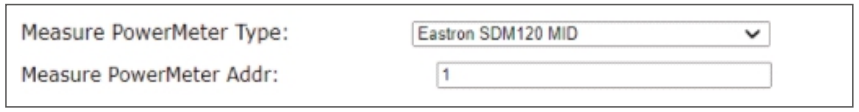


Fig.16

（17)Set low electricity prices for charging time to reduce costs.

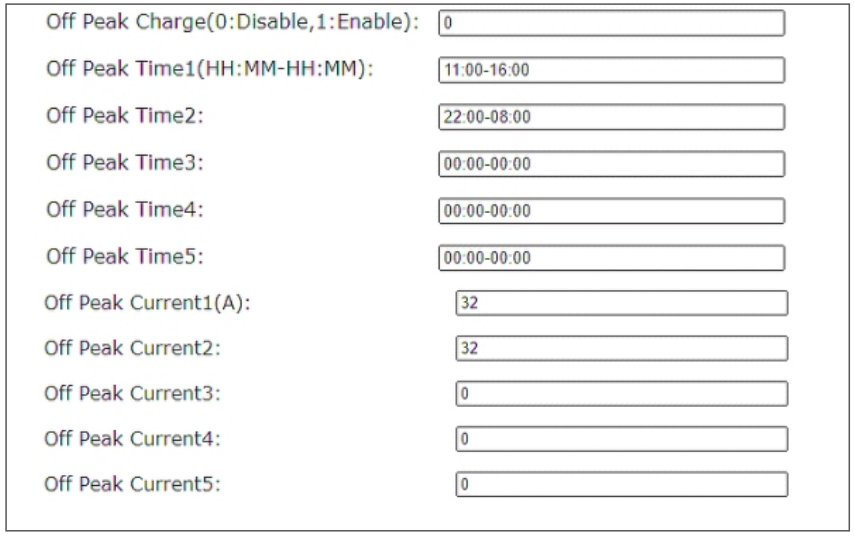


Fig.17

(18) Relieve the power grid pressure, authorized charging, after the set time to start.

Fig.18

(19) Open the function, the user's home meter provides dry contact signal, identify the off-peak period, reduce the charge of electricity

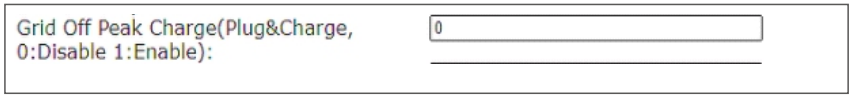


Fig.19

(20) Loadbalancing, sets the total power input of the home grid to avoid tripping.

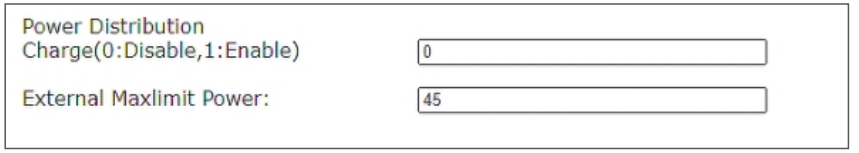


Fig.20

(21) To set the working mode of solar, the ECO mode requires setting the KWH of electricity obtained from the grid.

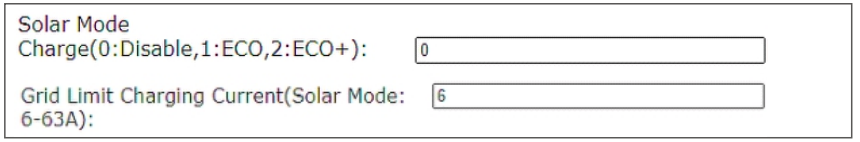


Fig.21

(22)Set the load balancing or Solar function, sampling instrument type and address.

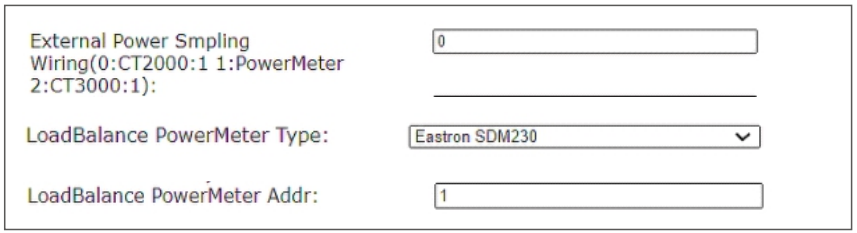


Fig.22

(23) Set the display language of the charger LCD.

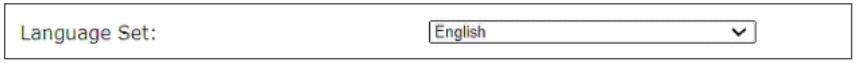


Fig.23

(24) The charger model, can not be modified, factory default.

Fig.24

(25) Set the output current of the charger to limit the output power of the charger.

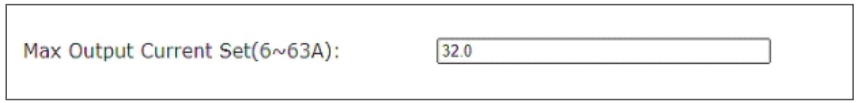


Fig.25

(26) Charging mode setting. 1: APP/RFID mode; 2: RFID mode; 3: Plug&Charge mode.

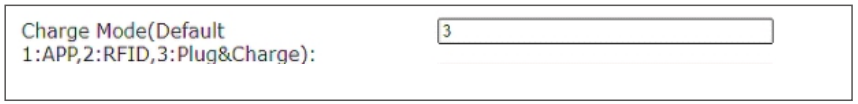


Fig.26

(27) PIN of the charger, used to verify the PIN of user card. To use a RFID card with the charger, their PIN must be consistent. If the user card has a different PIN, then it cannot be used on this charger. The default PIN setting of the charger is 242007.

Fig.27

(28) Set the tariff for charging energy.

Fig.28

(29) Set daylight saving time for the charger to switch automatically.

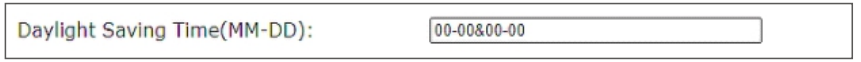


Fig.29

(30) The time for automatic charging in Plug and charge mode.

Fig.30

(31) In any mode, after the authorized charger starts, wait for the time to connect the electric vehicle.

Fig.31

(32) The communication interval between the charger and server,keep the default value.

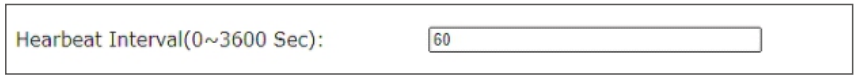


Fig.32

(33) After modifying any parameters, click "Set and Reboot" to take effect. Some parameters may cause the charger to automatically restart.

Fig.33

(34) Upgrade the firmware of the charger. After clicking upload, the charger will restart.

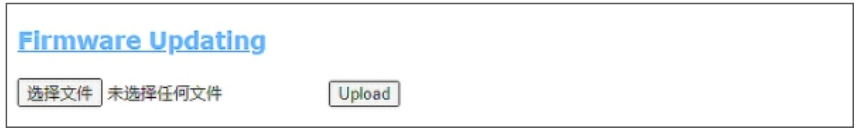


Fig.34

(35) Restore the charger to factory Settings.

Fig.35

V. Operation instruction and LCD description

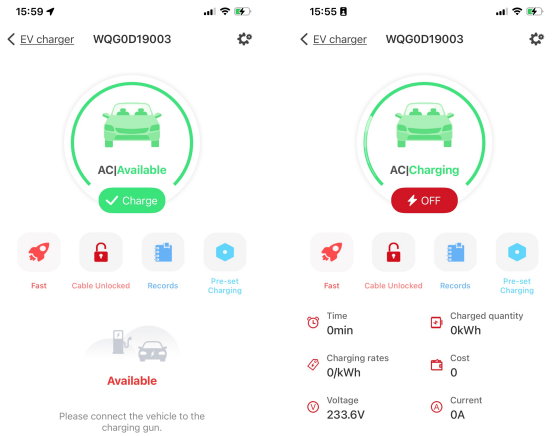
5.1 Charging mode and Operation

APP/RFID mode:

Initiate or cease charging by scanning QR code using APP or by swiping RFID card. You can also use APP for reservation and payment provided that the back-office server supports such functions.

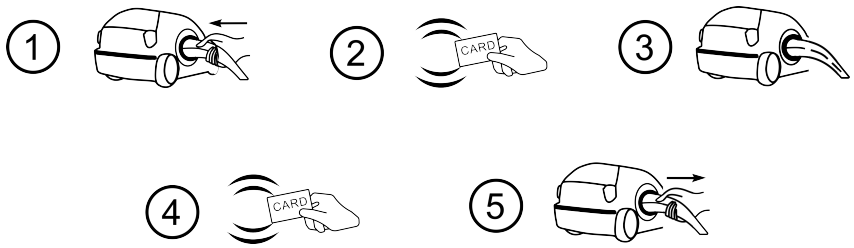
APP/RFID mode operation process flow

If you are using the ATESS APP, Charging can be started/stopped by pressing the ON/OFF button on the APP.



RFIDmode:

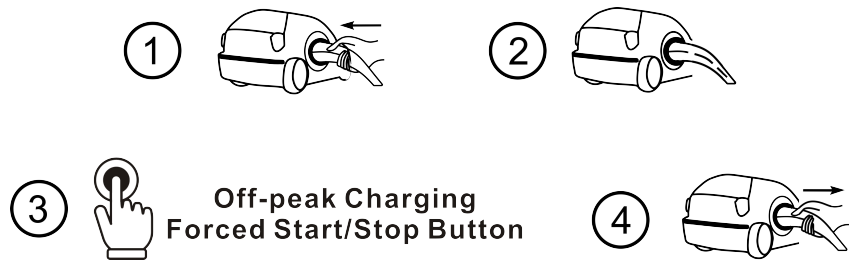
Charging can only be initiated orceased by swiping RFID card.



RFID mode operation process flow

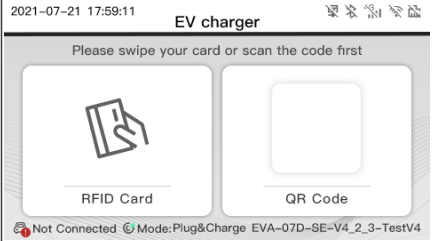
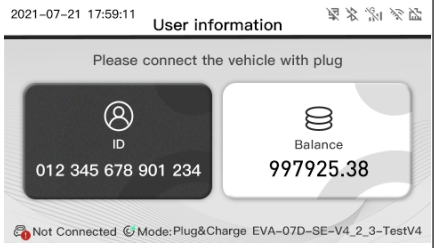
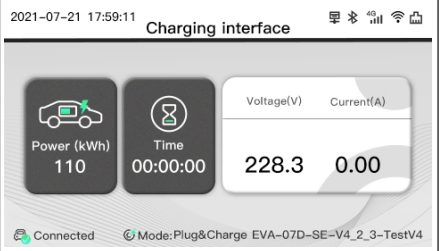
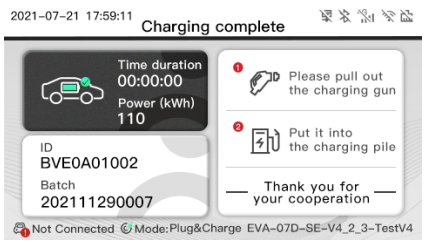
Plug&Charge:

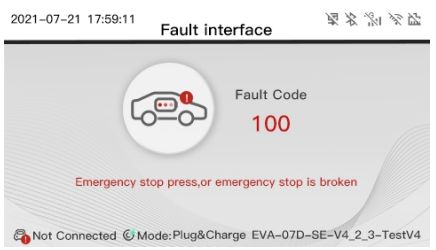
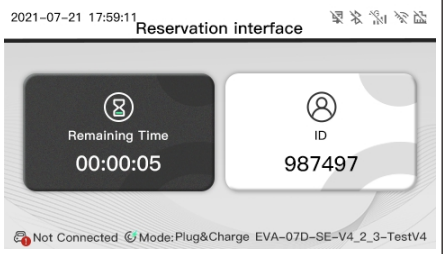
Charging will start automatically after EV plugged in.If you want to stop the charging,just press the forced on/off button on the side of the charger.



Plug&Charge mode operation process flow

5.2 LCD interface introduction

	Interface of standby status. Charging mode is displayed at the bottom centre of the screen.
	Interface of user card information Displayed for user to check card ID and balance when swiping RFID card while EV is not connected
	Interface of charging status. Displayed when the charging is being carried out. There is charging time, consumed electricity, charging cost on it, as well as real-time charging voltage and charging current.
	Interface of charging complete. Displayed when the EV stops charging, or forced on/off button is pressed on charger side.

	Interface of fault status. Displayed with fault code and fault description when fault occurs.
	Interface of reserved status. If the back-office server and APP support reservation function and the charger is reserved, this interface will come out showing user ID and remaining time to reserved time.

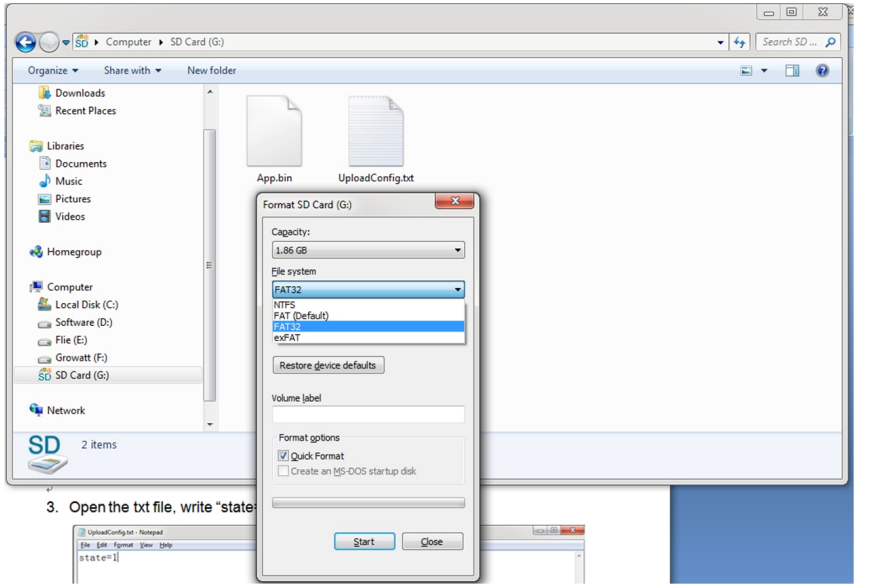
VI. Firmware update

There are 2 ways to update firmware for EV charger
1. Update by SD card
2. Update on parameter setting page

6.1 Update by SD card

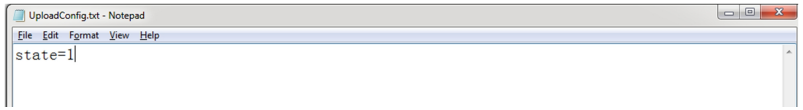
The firmware file must be named as “App.bin”.

1. Prepare a microSD card with capacity not greater than 4G. Format the SD card using FAT32.

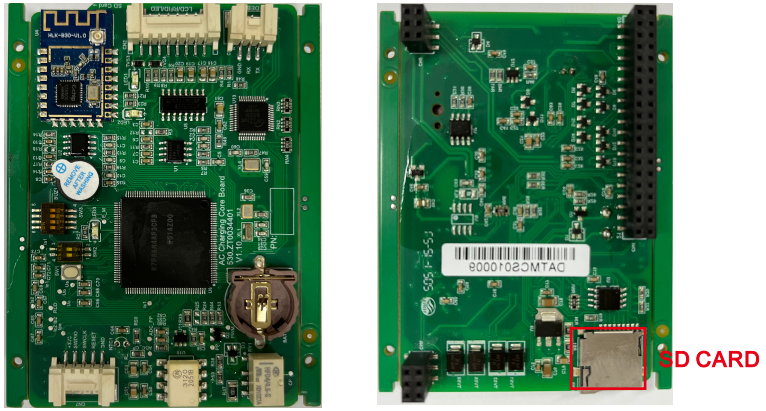


2. In the root directory of the SD card, rename the firmware file as “App.bin”. And create a txt file with name of “UploadConfig.txt”.

3. Open the txt file, write “state=1” in it and save the file.



4. Insert the SD card into the charger, turn off and back on the charger, the update will start automatically. The indicator will first flash red and then flash green with a long beep as the end of the update(sometimes the beep sound may not be clearly heard). After the update is done, turn off the charger and remove the SD card.

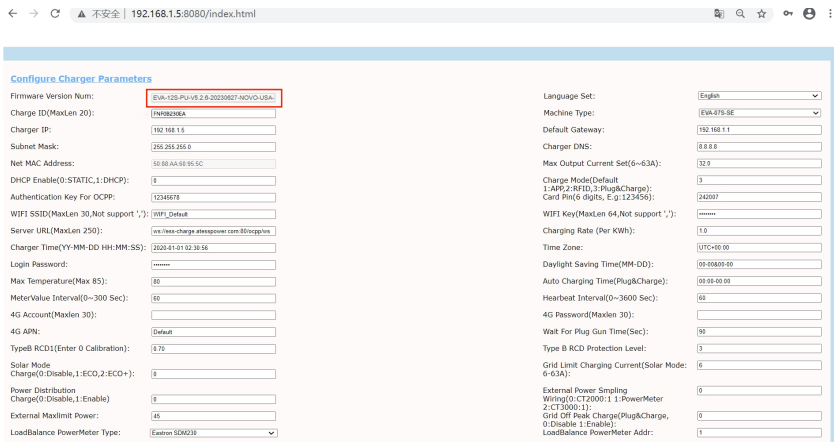


Micro SD slot of 7kW charger

5. Check the current FW version on LCD or the parameter setting page.

To check FW version on the paramete setting page

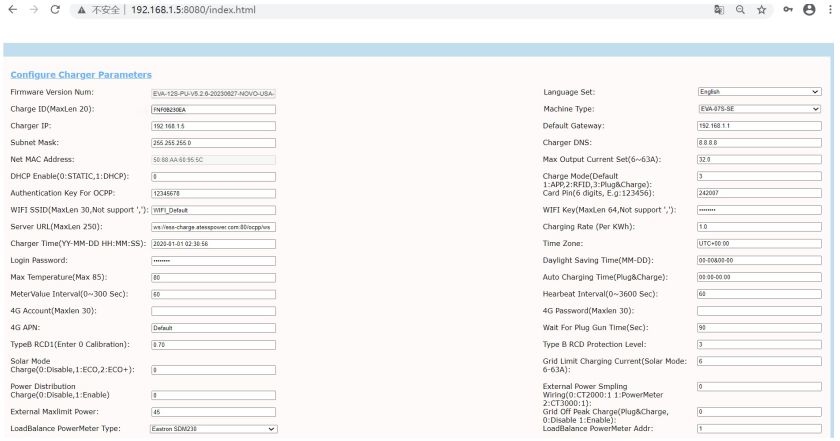
Connect the charger to computer via a network cable, the computer’s IP must be within the 192.168.1.x segment(x is any value between 1 and 255 except 5).Open the web browser, type in the charger’s default IP of “http://192.168.1.5:8080” and click enter, then you can check the firmware version on the appeared parameter setting page.



6.2 Update on parameter setting page

Using this method for update doesn’t require any specific name for the firmware file.

1. Connect the charger to a computer with IP address set as 192.168.1.x(x can be any value between 1 and 255 except 5) via a network cable. Open web browser and type in the charger’s default IP address–http://192.168.1.5:8080, click enter then you’ll get into the parameter setting page.



2. Scroll down to the below field.

3. Click the ”Browse” button and select the firmware file. Click “Upload”, then update will start automatically.

During the update, the LED indicator will behave as below,

First flash red and goes out with a short beep sound, during this period the firmware file is transmitted to the charger’s flash memory from the computer;

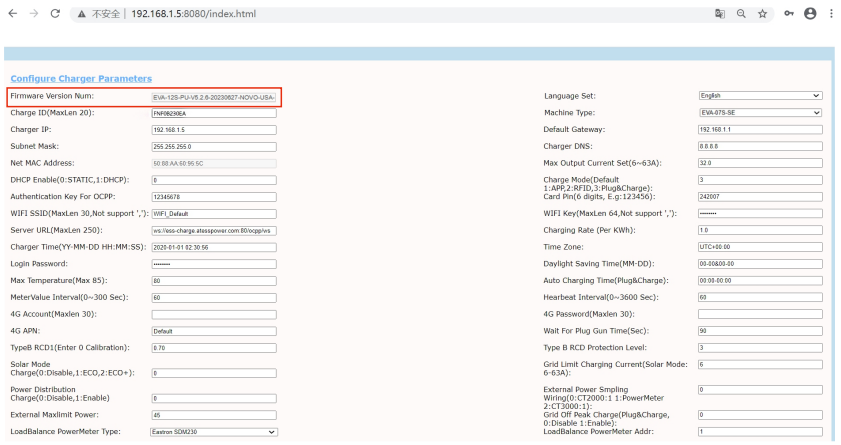
Then flash red again for some seconds and quickly change to green light flashing. During this period, the charger is updating the firmware to its micro controller.

When the greenlight goes out, there will be a long beep sound. That means the firmware is successfully updated.

The beep sound may not be audible with the front cover fixed on the charger.

If the update doesn’t start after click “Upload”, Turn off and back on the charge to try again.

4. You might see below content. If the charger is already successfully reboot after the firmware update, close the browser and open it again to check the current firmware version.



VII. Troubleshooting

7.1 Troubleshoot by LED behavior or LCD display

If fault occurs, users can check the fault information on the LCD or by the number of blinks of the LED indicator light. Each fault is indicated with a sequence of different numbers of LCD blinking. A pause of 3 seconds between each sequence indicates the beginning or end of a sequence. If multiple faults happen at the same time, each sequence of blinking shows in chronological order at an interval of 3 seconds.

Please see the table below for detail information

No.	Fault code on LCD (if available)	Number of blinks of the LED	Fault description
1	100	3	The red emergency stop button is pressed or broken
2	105	1	Over voltage on phase L1
3	106	2	Under voltage on phase L1
4	108	4	Over current
5	109	5	Over temperature
6	110	6	DC leakage current detected
7	111	7	RS485 communication fault
8	112		Reserved
9	113	9	Type A switch fault
10	114	10	Relay fault
11	115	11	PE fault
12	116	12	PEN fault
13	117		Reserved
14	1000		Other fault

7.2 Firmware update fails

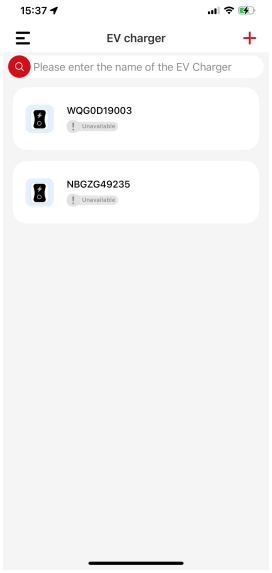
7.2.1 Firmware update failure with SD card:

a. Check if the capacity is over 4G bytes,please use a SD card of less than 4G to retry;
b. Check if the SD card is formatted with FAT32;
c. Check if the firmware file is renamed as App.bin;
d. Check if you have filled in “state=1” in the UploadConfig.txt file.

7.2.2 Firmware update failure with laptop:

Please try with IE browser. Or reboot the laptop to retry.

7.3 WiFi connection&APP issue

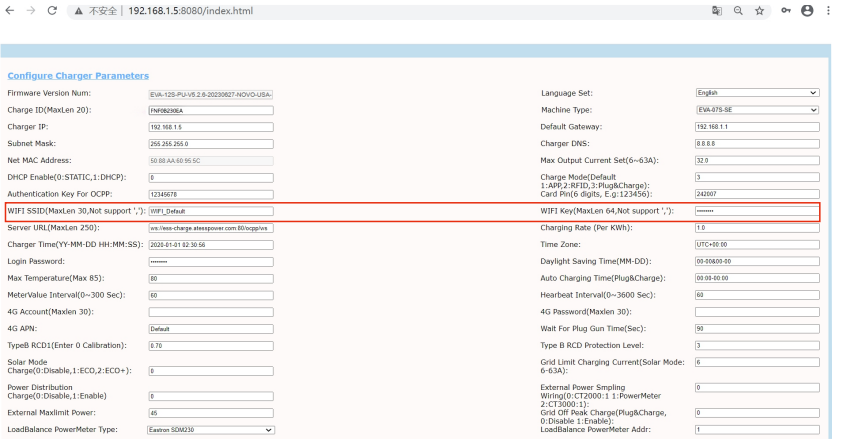


a. Check WiFi signal strength;

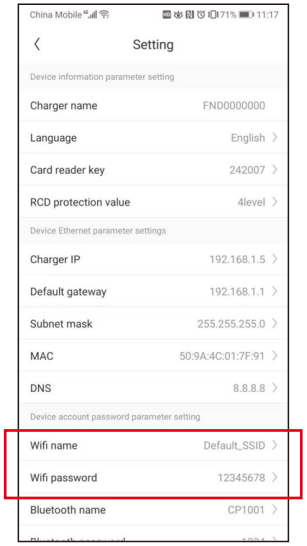
Signal strength on PC:

Signal strength on mobile:

b. Please check and input the correct WiFi SSID and password to retry;



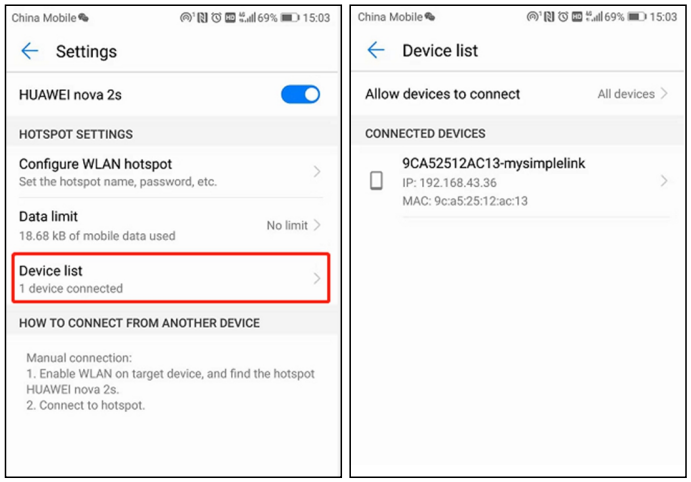
If you check the WiFi setting on the APP, please turn off and back on the charger and connect your mobile to the WiFi emitted by the charger for checking and setting.



c. Check if there is access control in the router, e.g. MAC filtering, port blocking, etc.

To verify this, you can use your mobile phone to create a hotspot and try to connect the charger to this mobile hotspot. If charger can connect to the hotspot, but cannot connect to the router, there must be access control in the router, please check with the site owner for this.

Check if charger is connected on Device list of the hotspot setting page

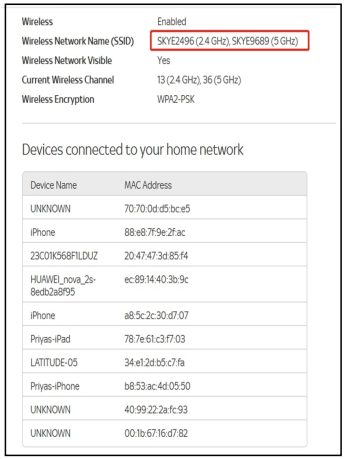


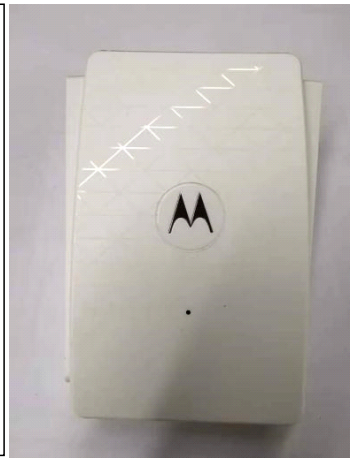
d. 1. Some routers have 2 WiFi, one is 2.4GHz, the other is 5GHz. Most homes just use the 5GHz WiFi as their default WiFi. But the charger can only connect to the 2.4GHz WiFi. So if the charger can connect to your mobile phone hotspot, but cannot connect to the home WiFi. Please check with the home owner or check on their router to see if you are using the 5GHz WiFi. Please do use the 2.4GHz WiFi for charger connection.

2.When the WiFi signal strength is lower than - 75dbm, the charging point will not be able to connect with WiFi.

（1)Download the WiFi signal strength test tool from the app store to check whether the WiFi signal strength connected to the charging point is greater than - 75dbm.

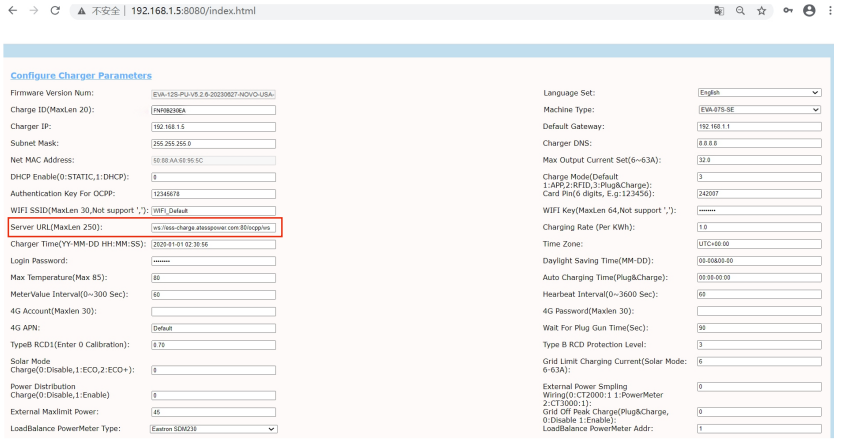
（2)If the WiFi signal strength is weak, it is recommended to use AP repeater to increase the signal strength, which can enlarge the WiFi signal range.





e. Check if the charger is still connected to the computer. Please unplug it from computer otherwise the charger won't connect to the back-office server.

f. Check if server address is correct in the"Server URL" field. The correct setting is : ws://ess-charge.atesspower.com:80/ocpp/ws



7.4 Cannot accessparameter setting page

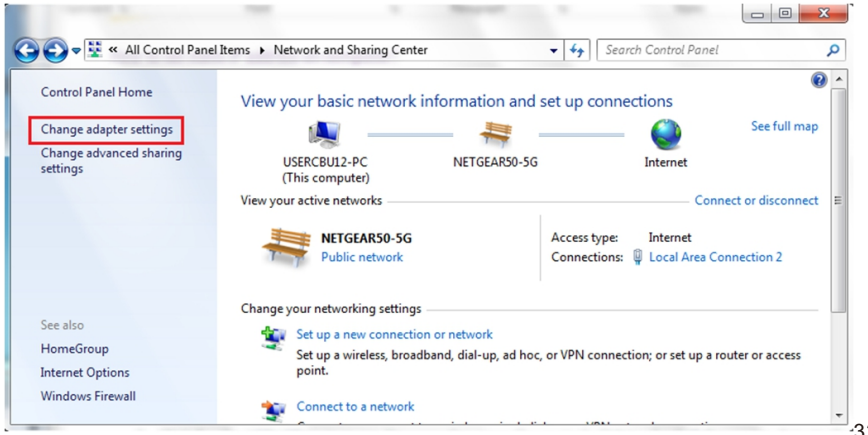
a. Check if you have connected the charger to your computer,

b. Check if you have change the computer's IP to 192.168.1.x(x can be any value between 1 and 255 except 5).

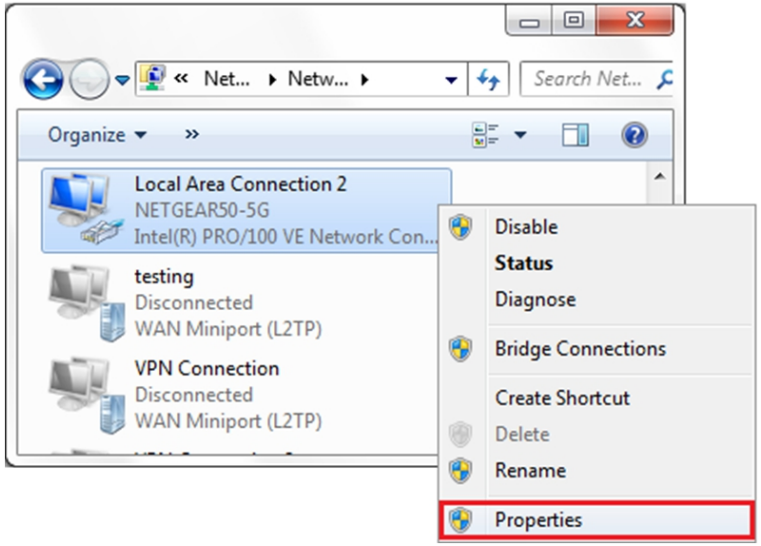
To set a static IP on your Windows computer:

(1). Click Start Menu>Control Panel>Network and Sharing Center. (For Windows 8 and higher, search for and open Control Panel and select Network and Internet).

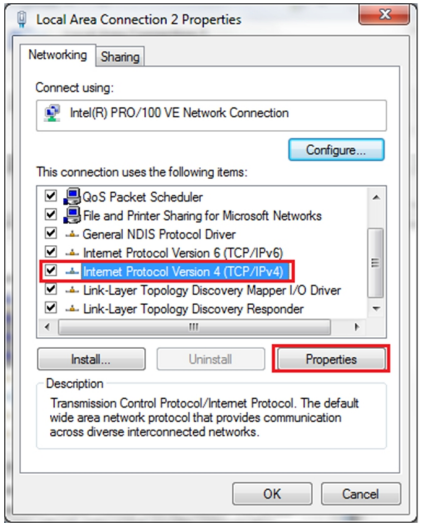
(2). Click Change adapter settings.



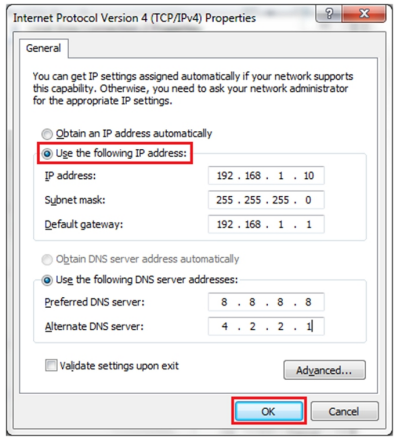
(3). Right-click on Local Area Connection and click on Properties.



(4). Select Internet Protocol Version 4 (TCP/IPv4) and click on Properties.



(5). Select "Use the following IP address" and enter the IP address, Subnet Mask, Default Gateway. Click OK and close the Local Area Connection properties window.

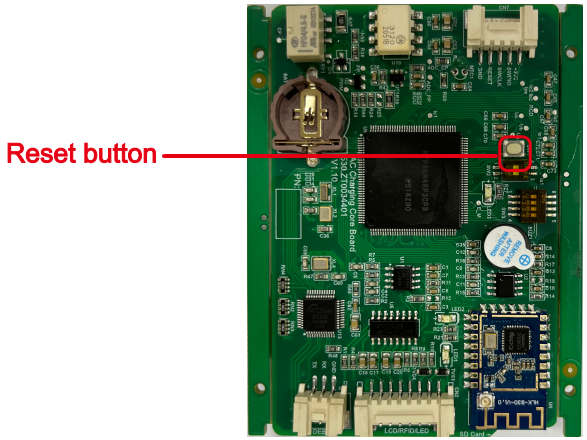


c. Check what web browser is being used, it's suggested to use Firefox or IE, Chrome cannot be used to update firmware.

d. Check if you have input the complete content, which is http://192.168.1.5:8080, in the address field, do not leave out the http:// or the":8080".

e. Sometimes you may need to restart the charger to access its parameter setting page.

f. If you have changed the charger's IP to other value and cannot remember, you can restore the charger to factory setting by long press the reset button. Then you can access it using http://192.168.1.5:8080



Please note: After restoring the charger to factory setting, you'll need to reset the charger ID and server url, otherwise the charger won't be connected to the back-office server.

7.5 Charging issue

If charging cannot start after the car is plugged in,

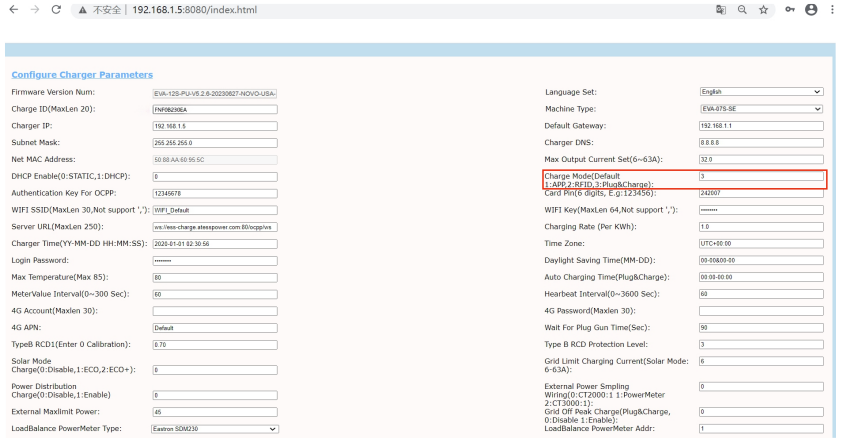
a. Check if the red emergency stop button is pressed.

b. Check what charge mode is being used

APP/RFID: Charge can only be started/stopped by APP or RFID card, and the charger must be connected to the back office server already;

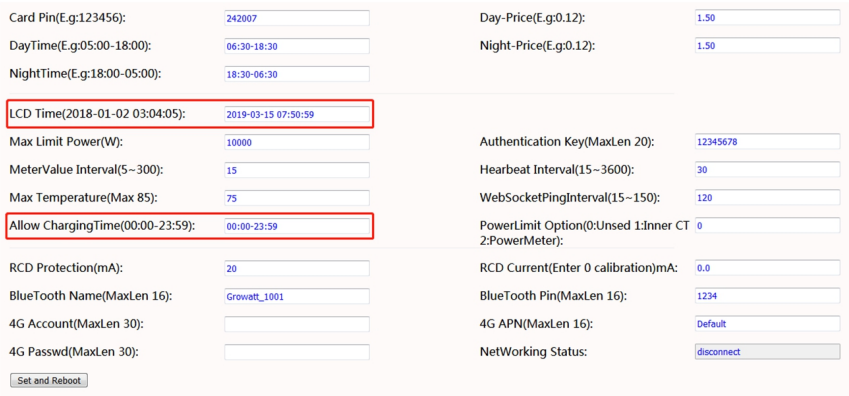
RFID: Charge can only be started/stopped by RFID card;

Plug&Charge: Charge will start automatically when car is plugged in.



c. Check if off-peak charging is set and if charger's time is correct.

If off-peak charging is set, charge can only start within the charging allowed time period.



VIII. Use excess solar power to charge your car

The charge point can work with grid-tied solar system, to detect and use the residual solar power to charge your car that otherwise would be fed back to grid. This can help increase the self-usage rate of the solar system and reduce electricity bill for the household.

The charge point supports 3 charge modes with grid-tied PV system: FAST, ECO and ECO+.

8.1 Introduction to the 3 modes for solar charge

FAST Mode: Charge at the rated power, the car can be fully charged in the shortest time at this mode.

ECO Mode:

（1）solar function set the power p range：Pe stands for rated power, P1 stands for Power

Transferred to Power Grid by Photovoltaic.

1. The power of three-phase charger belongs to（5.3kW-Pe）。
2. The power of single-phase charger belongs to（1.8kW-Pe）。

（2）The condition of changing duty cycle of charger：P2

1. The power of three-phase charger P2=1000W
2. The power of single-phase charger P2=500W

（3）Operation mode：

1. when Initial charging,Permissible output power of charger p3(P3=P)
2. If P1 < P2，Permissible output power of charger P3.(Pe≥P3≥P)
3. If P1≥P2，Charger will Increase Permissible Output Power，When detected during this process P1<P2 or P3=Pe. Charger will stop increasing allowable output power, now the allowable output power of charger P3.(Pe≥P3≥P)

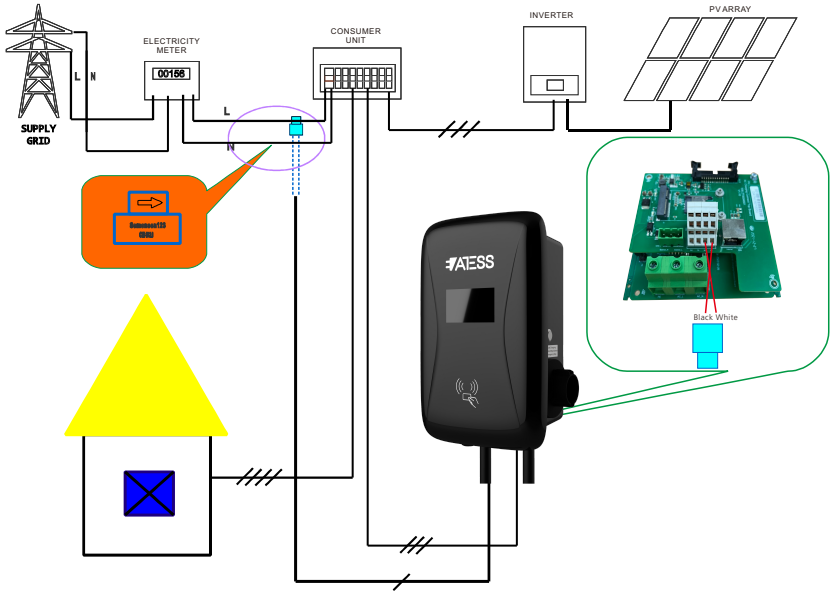
ECO+ Mode:

In this mode, the charging point only uses the electricity sent by the photovoltaic inverter to charge the electric vehicle. When the current sent by the inverter is less than 6A, the charging point will stop charging. Please choose this mode carefully.

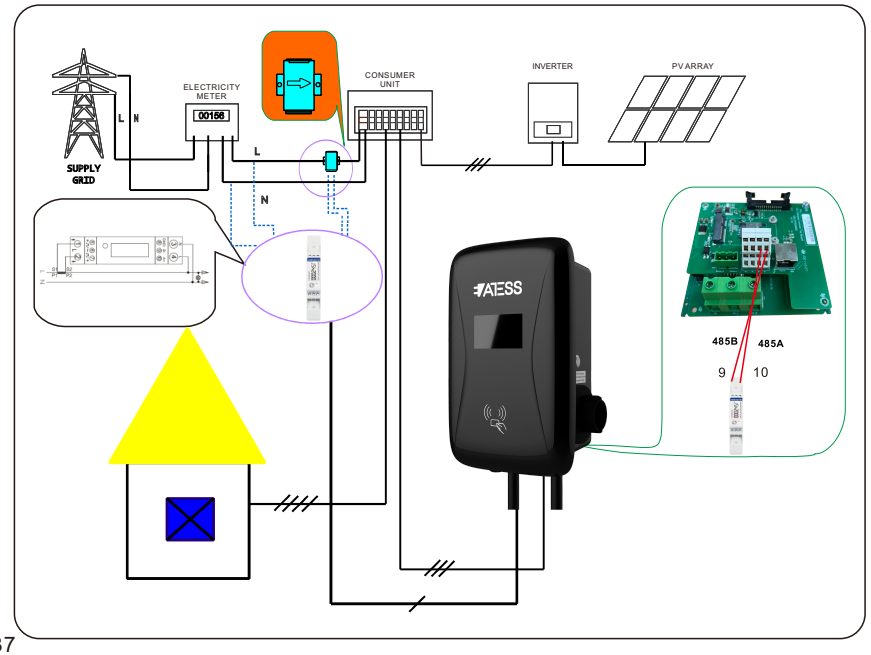
8.2 Wiring

To monitor the real-time power import and export, a CT or meter is needed for this function to work properly.

If CT is used, the wiring will be as below.



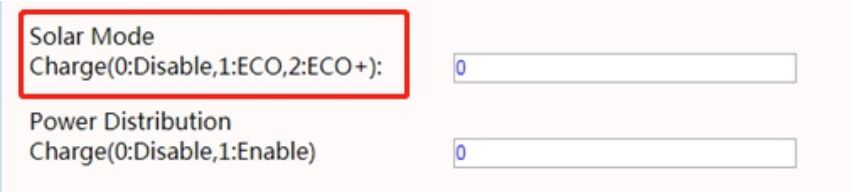
8.3 If meter is used, please wire it as below



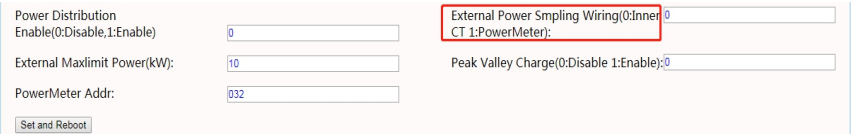
8.4 Parameter configuration for this function

(1) Connect the charge point to a laptop with a network cable, access the parameter setting page on the web browser of the laptop.

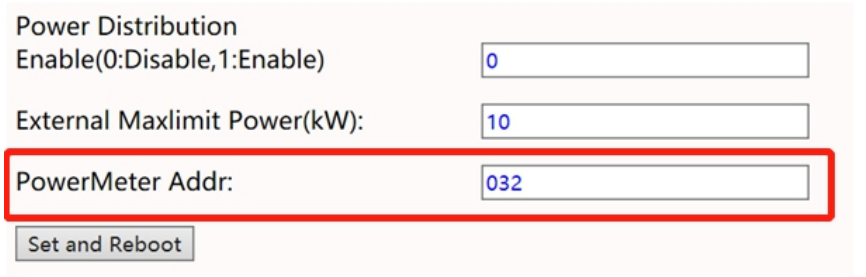
(2) Scroll down to find the following parameters: Solar Mode, FAST, ECO or ECO+.



(3) Select CT or meter as sampling device of this solar charge function. Scroll down to find the option: External Power Sampling Wiring(0:Inner CT 1:PowerMeter). If CT is used, please set it to 0; if meter will be used, please set it to 1.



(4) If you choose the PowerMeter.Plesae change PowerMeter Addr to the address shown on the meter.

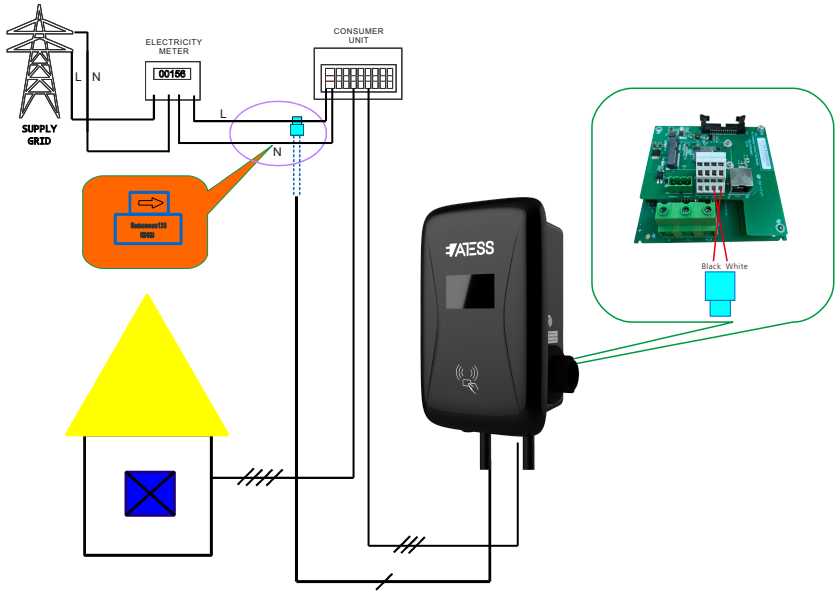


IX. Intelligent power modulation

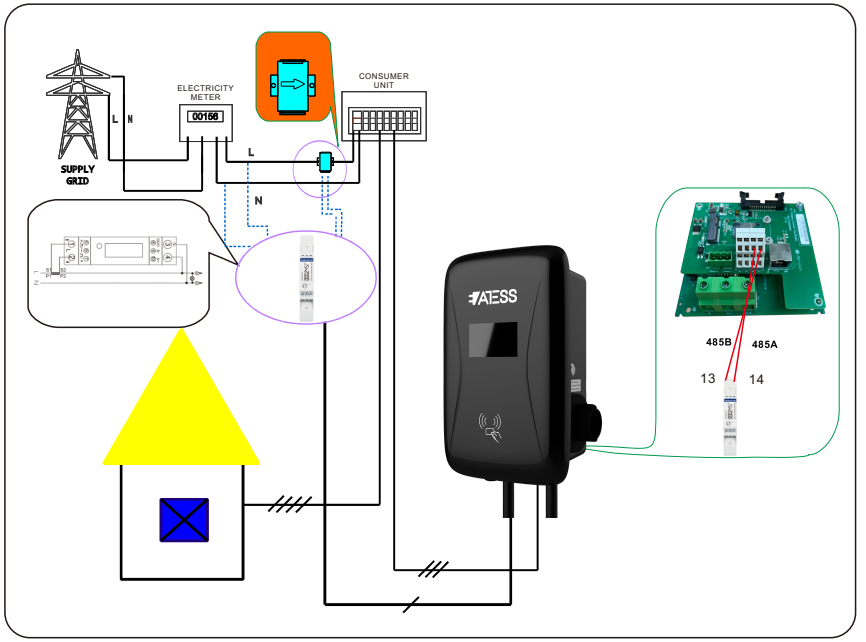
Introduction

The charge point can monitor the total power consumption of the household during charging. If the power consumption approaches the preset max value, the charge point will reduce charge power to avoid the situation of main breaker trip due to overload. It will adjust the charging power dynamically and in real-time thus the car can always be charged with the maximum allowable power.

9.1 Similar with the solar charge function, a CT or meter is needed to detect the power import. If a CT is used, please wire it as below,



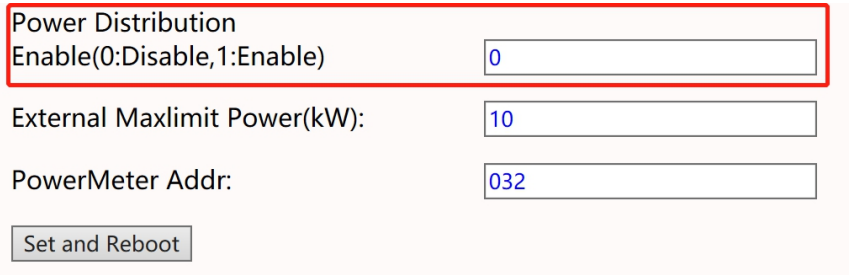
9.2 If a meter is used, the wiring will be as the following



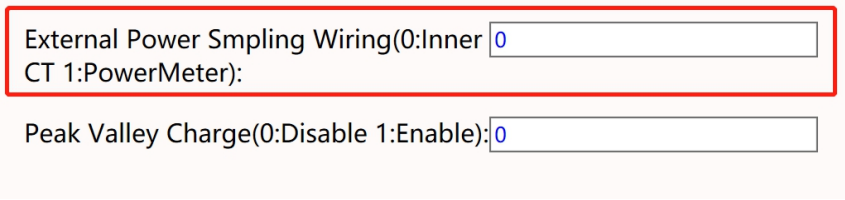
9.3 Parameter configuration for this function

(1) Connect the charge point to a laptop with a network cable, access the parameter setting page on the web browser of the laptop.

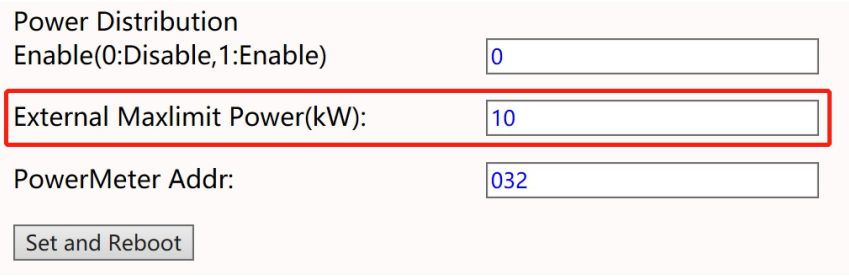
(2) Scroll down to find the following parameter: Power Distribution Enable(0:Disable, 1:Enable) and set it to 1 to activate the power modulation function.



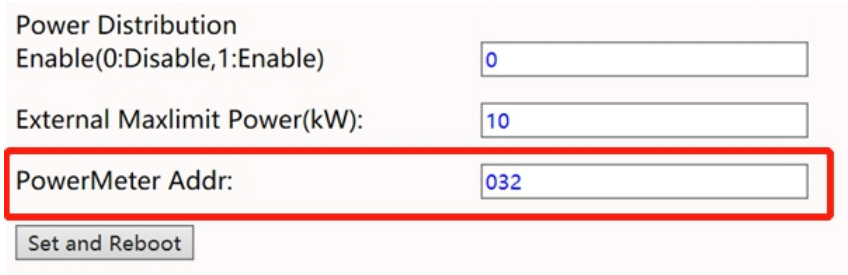
(3) Select power sampling device in the field of the parameter: External Power Sampling Wiring(0: Inner CT 1: PowerMeter). 0 means CT while 1 stands for meter.



(4) Set the maximum power import value in the field of External Maxlimit Power(kW). To avoid nuisance tripping of the main breaker, it is suggested to set this parameter slightly lower than the max supply power of the property. e.g. the max supply power is 15kW, you can set the max power import to 13kW or 14kW.



(5) If you choose the PowerMeter.Plesae change PowerMeter Addr to the address shown on the meter.



X. Specification

Model	NOVO EVA-07/09/12S-PU
Dimension(mm)	246/382/162mm
Weight(kg)	< 6
Display	LCD(opt)
Casing Material	Stainless steel& Engineering plastics& Tacrylic
Input	
Voltage	AC240V L1, L2,and Grouding
Output	
Voltage	AC 208V,240V
Overcurrent protection as-sociated with the branch circuit for field installa-tion:	40 A, 2P / 50 A, 2P /63 A, 2P
Max current	32/40/50A
Protection degree	NEMA Type 3R
Working environment temperature	-22°F to +122°F(30°C to +50°C)
Relative humidity	5%~95%
Altitude	5000m(Derating begins above 3000 meters)
Frequency	60Hz
Communication	Ethernet/WIFI/4G
Charging mode	APP/RFID/Plug and charge
Standby power	<8W
Standard	UI2251、UI2594、UL2231-1/-2 、FCC Part 15
Mounting	Pole/Wall
Certificate	UL
Protection features	
Overvoltage	260V
Undervoltage	180V
Overcurrent	35.2A 44A 55A
direct-current	Yes
Leakage protection	20mA CCID
Over temperature	Yes
Lightning protection	Type II

XI. Annex 1

11.1. APP Introduction

11.1.1 Description

ATS Charge is an app for controlling charger. It can help you quickly and easily charge your vehicle with a charger.

11.1.2 Main Function Of ATS Charge

(1) The APP can push the transfer information of the charger.
(2) The user can control the start and stop of the charger through the APP.
(3) The user can preset the charging scheme and scheduled charging.
(4) The user can modify the parameter settings of the charger.
(5) Users can authorize other users to use their own charger.
(6) The user can view the charging record and report to email.
(7) Users can manage and set up their own accounts.

11.1.3 Performance

APP has good ease of use and reliability, and guarantees the security and confidentiality of information.

11.2. Instructions

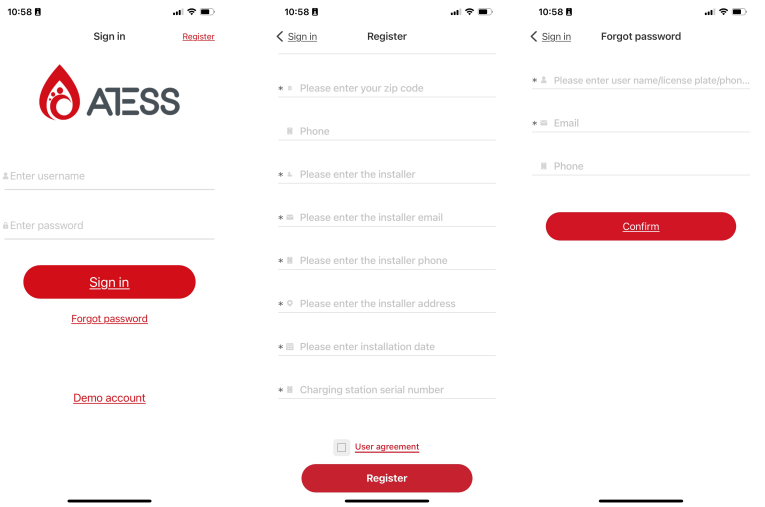
11.2.1 APP download and install

Users can install ATS Charge by scanning the below QR code or download it from the APP store(IOS) or Google paly(Andriod).

11.2.2 Registration and login

When the user first visits, the user registration is performed by the following steps: Click the desktop icon Login page Register.

When the user has an account, you can directly enter the user name and password to log in. If you forget the password, you can click the login page, forget the password button, and follow the prompts to retrieve the password through the mailbox.

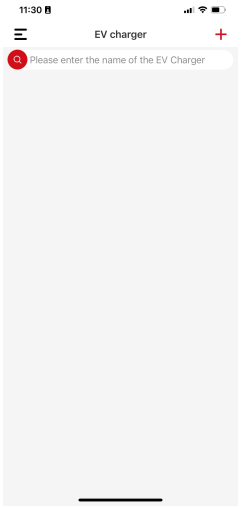


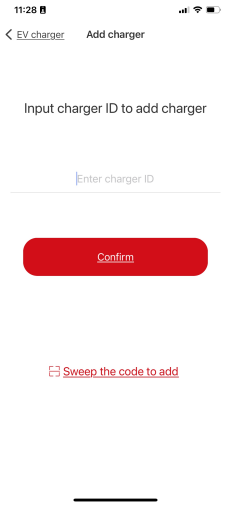
11.2.3 Add Charger

IF you use ATS Charge for the first time, you need to add charger in the APP to facilitate setting and controlling the charger.

The process of adding a charger is as follows:

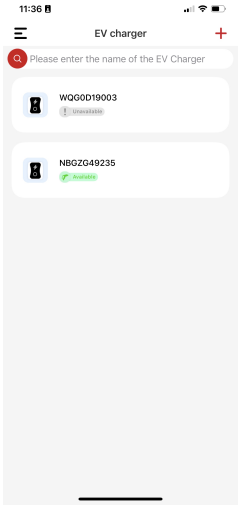
Click “Add” to add a charger by scanning the code or entering the charger ID.

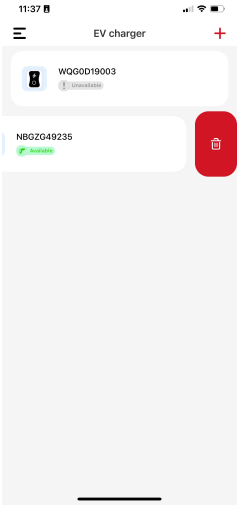




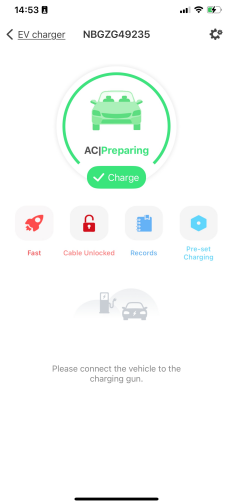
11.2.4 Charger switch and delete

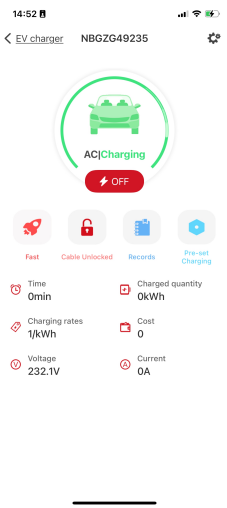
When you have multiple chargers, you can enter the setting charging interface by clicking on the charger. Press and hold the charger and swipe left to remove the charger.





11. 2.5 Start and stop control of charger



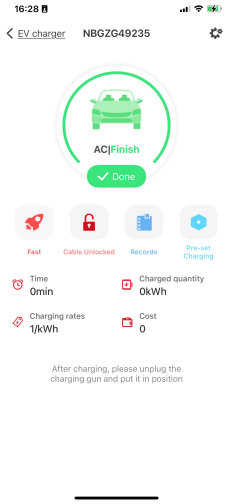


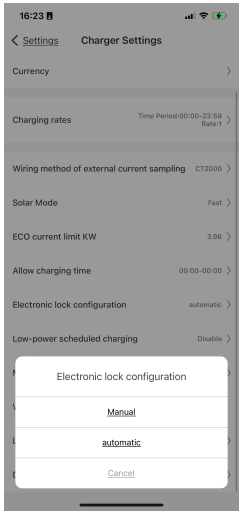
Press “Charge”to turn on/off.

Note: when charger status is Preparing , you can press”Charge” to start charging.

11.2.6 Cable locked

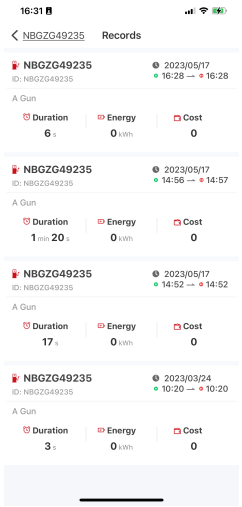
For chargers in the socket version, the connector can be unlocked via this button after setting up the manual unlock function



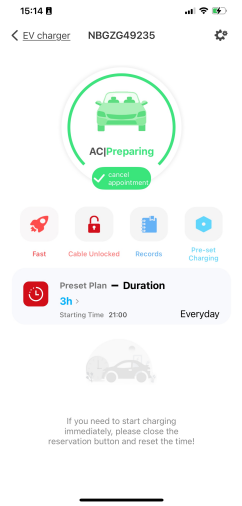


11.2.7 Charging record

Press “Record” to view past charge records, including changer ID, gun number, time, energy, cost and so on.



11.2.8 Preset charging scheme



There are three Pre-set charging schemes: Duration, Cost and Energy. Users can choose one of these options.The scheme can be canceled before the start charging time is reached.

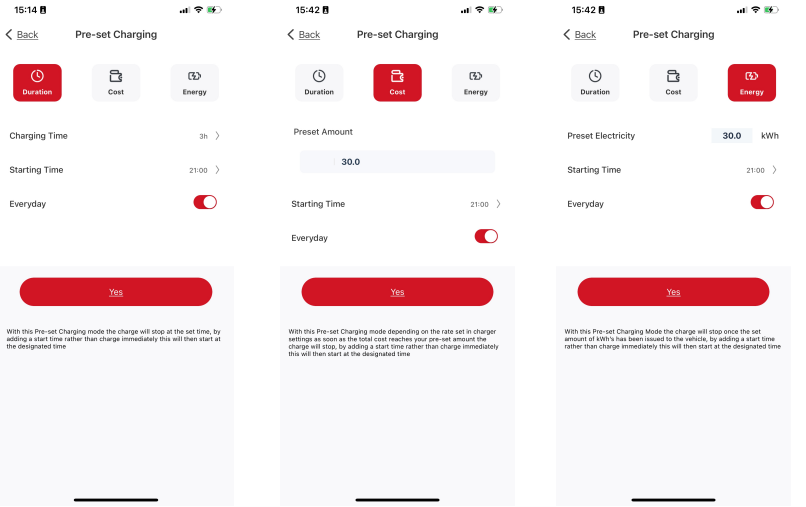
For example, in the "Cost" mode, you can set the amount and stop charging if the amount reaches the set value.

(1) Duration mode: Users can set the duration and start time of charging according to their consumption habits.

(2) Cost mode:Before setting this mode, you need to set the tariffs on the parameter “charger settings” interface, enter the predetermined amount and start charging time, and stop charging when the set amount is reached.

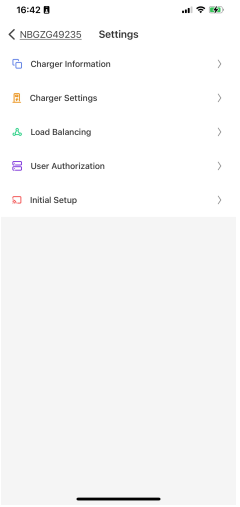
(3) Energy mode:Set the energy ahead of time and the charger will stop charging after reaching the set energy.

Note:The function is always effective after “Everyday” is enabled.



11.2.9 Charger parameter settings

Basic parameter Settings and function Settings of the charger, including Charger information,Charger settings, load balancing ,user authorization and initial setup.



●Charger Information

Charger ID: The authentication code of the charger cannot be modified;

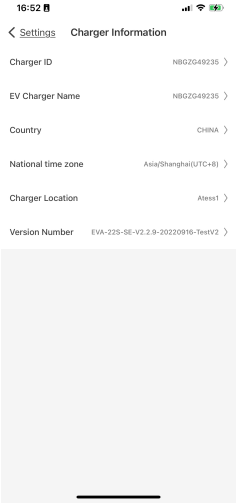
EV Charger Name

Country: Set the current country so that the charger displays the correct time;

National time zone:Set the current time zone so that the charger displays the correct time;

Charger Location

Verison Number: Firmware version of the charger.



●Charger Settings

Method of Control : Three modes control the charging of the charger,APP,RFID and plug and charge.

Currency: Select the currency in which the charge is settled and the charge report displays the bill with currency.

Charging rates: The charge tariff is used to calculate the cost of electricity consumed. The charge report shows the total cost.

Wiring method of external current sampling:The load balancing function and the solar function detect the type of tool for fuse or gird power. CT2000,CT3000 and meter.

Solar Mode:The Solar feature works in three ways, Fast,ECO and ECO+.In ECO mode, you need to set the power that can be allowed obtain from the grid.

ECO current limit kw：In solar mode, part of the charging energy comes from the photovoltaic and part from the grid. Here, set the power that is allowed to be obtained from the grid.

Allow charging time： The amount of time the charger is allowed to charge during the day.

Electronic lock configuration： Set the way to disconnect the connector after charging. You can unlock the connector manually or automatically through the APP.

Low-power scheduled charging： After the car is connected to the charger,and start a pre-set charging session,the charger will output Minimum power before reaching the set time.

Maxiumum output curret of electric pile(A): Limit the output capacity of the charger.For example, a 7kw charger with a maximum output of 32A can limit the output power by limiting the output current.Calculation mode:

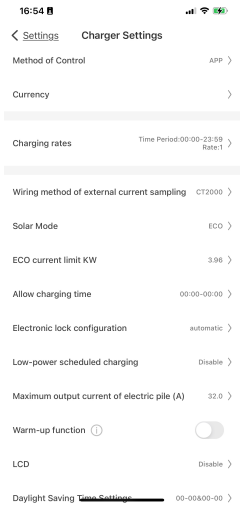
single phase charger: 230V*(XX)A=XX(kw) , 230V*32A=7.36kw

Three phase charger: 230V*(XX)A*3=XX(kw) , 230V*32A*3=22kw

Warm-up function: After the car starts preheating function, it will not consume the electric energy of the battery, which is provided by the charger.

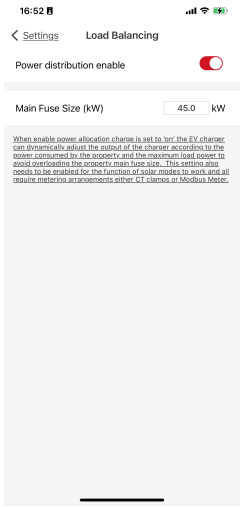
LCD: For the charger with LCD screen, you can control the LCD on or off.

Daylight Saving time settings: Set the time when daylight saving time starts and ends, and the charger displays the correct time.



●Load balancing

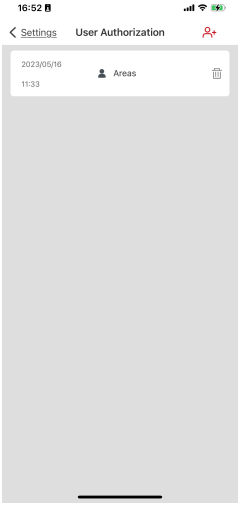
Main fuse size(kw):Set the total capacity of the home grid to maintain a balance between load and charger to avoid overload trips.

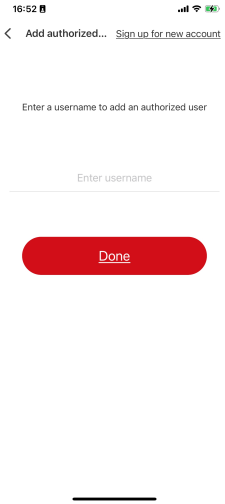


●User Authrization

To manage authorized users, you can view the authorization time, account name, and delete user in the authorization management interface.

Users can authorize other users to use charging stubs through authorization management. Enter the user name to authorize other users to use the chargepoint. If the person you want to authorize does not have an account, you can register for the new user by registering the new user in the upper right corner.





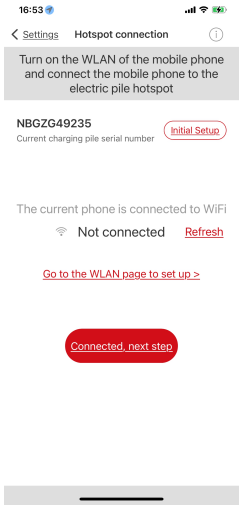
●Initial Setup

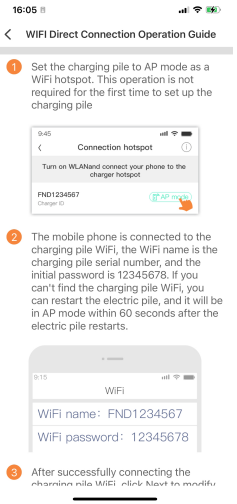
When the charger is not connected to the server, every 60 seconds will switch to AP mode. search for the charger WiFi, and the WiFi name is the charger ID. After connecting the charger WiFi, you can enter the setting page to set the parameters of the charger. When the charger is connected to the network, you can switch to AP mode in the parameter setting, set the charger to AP mode, and then connect.

Switching to AP mode can switch the STA mode to AP mode. If it is not operated for 60s, it will switch back to STA mode and connect to the server.

Click the "initial setup" button to enter the hot spot connection page. When connecting WiFi at the charging point, please note the serial number of the current stub. The connected hotspot must be the charger ID.

Click the upper right corner of the hotspot connection page to view the operation instructions of the WiFi Direct connection function.





●IOnly when the charger is in AP mode can you use the phone to connect to the charger. The charger ID is displayed in AP mode and the pile parameters can be set.

Pay attention to the format restrictions of the parameters when setting the pole parameters.

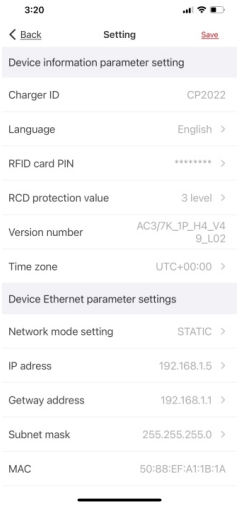
(1) IP address, gateway, mask, and DNS should be filled in according to the four-segment number format, for example: 192.168.1.1

(2) The following parameters must be integers: heartbeat interval (5-300), PING interval (5-300), meter upload interval (5-300), maximum output current of the pole (greater than 3), protection temperature (65 -85), externally monitors the maximum input power (greater than 3).

(3) rate range is (0-5000), you can set the decimal.

(4) The following parameters can only be numbers or letters: card reader key, WIFI password, Bluetooth password, 4G password, 4G APN, handshake login authorization key.

(5) The following parameters can only enter numbers, uppercase and lowercase letters, ion page to view the operation instructions of the WiFi Direct connection function. underscores (_), spaces, bars (-): wifi name, Bluetooth name, 4G username.



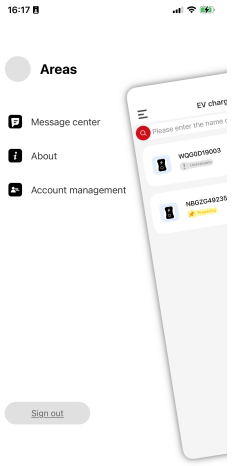
11.2.10 Account Management

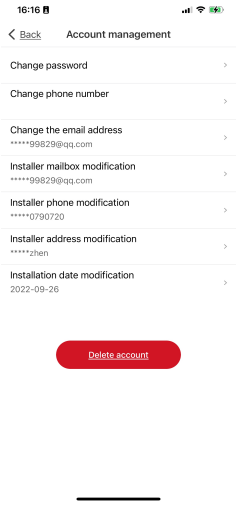
Users can manage their accounts, set their avatars, change their passwords, and bind their mobile phone numbers and mailboxes.

Change password: You need to verify the original password, then enter and confirm the new password.

Modify the phone number: Follow the steps to verify the new phone number with a verification code.

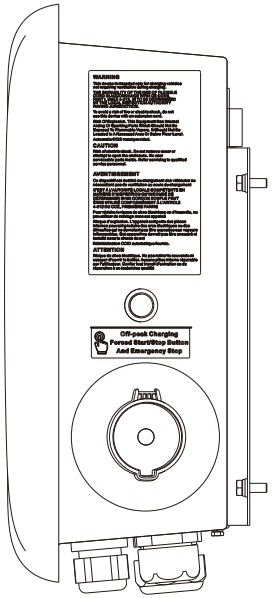
Modify the mailbox: Follow the steps to verify the new mailbox by verification code.





XII. Annex 2

12.1 Warning and safety marks Label description



WARNING

This device is intended only for charging vehicles not requiring ventilation during charging.

THE SUITABILITY OF THE USE OF FLEXIBLE CORD IN ACCORDANCE WITH CE CODE, PART I, RULE 4-012, IS TO BE DETERMINED BY THE LOCAL INSPECTION AUTHORITY HAVING JURISDICTION.

To avoid a risk of fire or electric shock, do not use this device with an extension cord.

Risk Of Explosion. This Equipment Has Internal Arcing Or Sparking Parts Which Should Not Be Exposed To Flammable Vapors. It Should Not Be Located In A Recessed Area Or Below Floor Level.

Automatic CCID reset provided.

CAUTION

Risk of electric shock. Do not remove cover or attempt to open the enclosure. No user serviceable parts inside. Refer servicing to qualified service personnel.

AVERTISSEMENT

Ce dispositif est destiné au chargement des véhicules ne nécessitant pas de ventilation au cours du chargement

C'EST À L'AUTORITÉ LOCALE COMPÉTENTE EN MATIÈRE D'INSPECTION QU'INCOMBE DE DÉTERMINER SI UN CORDON SOUPLE PEUT ÊTRE UTILISÉ CONFORMÉMENT À L'ARTICLE 4-012 DU CCÉ, PREMIÈRE PARTIE

Pour réduire le risque de choc électrique ou d'incendie, ne pas utiliser de rallonge avec cet appareil

Risque d'explosion. L'appareil comporte des pièces internes pouvant produire des arcs électriques ou des étincelles qui ne devraient pas être exposées aux vapeurs inflammables. Cet appareil ne devrait pas être encastré ni installé sous le niveau du sol

Réinitialisation CCID automatique fournie.

ATTENTION

Risque de choc électrique. Ne pas retirer le couvercle ni essayer d'ouvrir le boîtier. Aucune pièce interne réparable par l'utilisateur. Confier tout travail d'entretien ou de réparation à un technicien qualifié

12.2 Electrical diagram

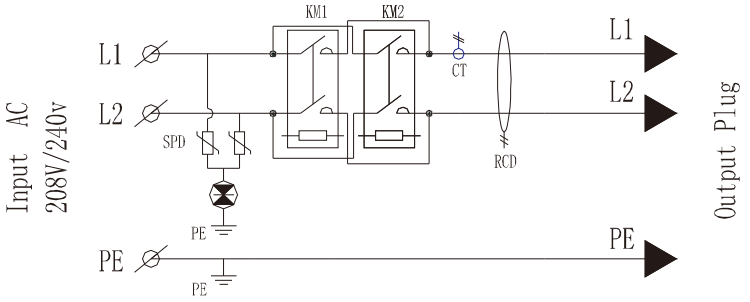


Fig12-1. Main circuit diagram

12.3 Contact

Company Name:Shenzhen Atess Power Technology Co.,Ltd

Address: GROWATT-ATESS Industrial Park, No.23 Zhulongtian Road, Shuitian Community, Shiyan Street, Baoan District, Shenzhen

Website: www.atesspower.com

Service line: +8675529988492

E-mail: info@atesspower.com