



ATESS NANO EVA-11/22D-SW

3-phase AC EV Charging Station
User Manual

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Thank you for using ATESS AC EV charging station

EVA series intelligent three-phase AC EV charging station 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.

We sincerely hope that this product can meet your needs and will continuously improve the quality of our products.

Contents

1.Product Description	1
2.Pakaging List	2
3.Installation and Wiring	3-7
3.1 Installation on the wall	
3.2 Installation on a pole	
4.Parameter Setting	8- 20
4.1 Set the IP address of the PC	
4.2 Configure parameters	
5.Operation Instruction	21- 24
5.1 Charging mode and operation	
5.2 LCD interface introduction	
6.Firmware Update	25- 26
7.Troubleshooting	27- 34
7.1 Troubleshoot by LED behavior or LCD display	
7.2 Firmware update failure	
7.3 WiFi connection & App issue	
7.4 Cannot access parameter setting page	
7.5 Charging issue	
8.Load Balancing	35- 36
8.1 Wiring	
8.2 Parameter configuration for this function	
9.Use Excess Solar Power to Charge Your Car	37- 39
9.1 Introduction to the 3 modes for solar charge	
9.2 Wiring	
9.3 Parameter configuration for this function	
10.Specification	40
11.App Set Up	41- 58
11.1 App Introduction	
11.2 Instructions	
12.Warranty	59
13.Electical diagram	60
14.EU Declaration of Conformity	61
15.Annex A: inspection and Maintenance Manual	62-69
15.1 Safety Instructions	
15.2 Inspection Contents	
Contact	70

Safety precautions

This document contains important safety information about your AC EV charging station. Please keep this file for future reference.

Please read this document thoroughly before installing and using the ATESS AC EV charging station. Failure to follow safety instructions may result in electric shock, fire, serious injury or death.

	Check the charger cable and case regularly for damage. If the product is defective or damaged, suspend use and contact ATESS for advice.
	Do not open, repair, tamper or modify the charger in any way without authorization.
	We recommend that the charger installation, inspection, etc. be carried out by qualified electricians who have obtained relevant certificates, and the installation should comply with local wiring regulations to ensure safe use.
	Ensure that the charger is in the working temperature. Do not touch the surface of the charger in high temperature environment to avoid burns.
	Do not expose any part of the equipment or cable to strong force, impact, or sharp objects.
	There may be power left within 5 minutes after the charger is powered off. Please ensure that it is completely disconnected before operating.
	You can clean the surface of the charger with a soft, damp cloth without using solvents or abrasives. Power must be off before cleaning.
	This symbol on products and accompanying items indicates that used electrical appliances and other products should not be mixed with general domestic waste. For proper handling, recovery and recycling, please take this product to the designated collection point for disposal.

1 Product Description



1. LCD (opt)
2. A/B status switch button
3. Status indicator
4. RFID reader
5. POS(opt)
6. Power line input
7. Emergency stop button
8. Socket outlet
9. Communication line input

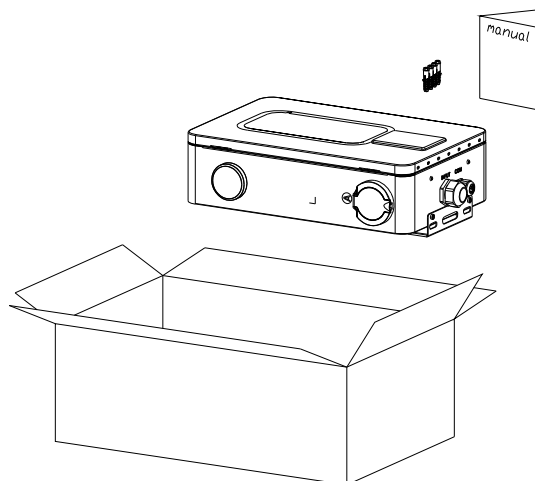
2 Packaging List

No.	Name	Qty	Remark
1	EV Charger	1	
2	User manual	1	
3	Quality certificate	1	
4	User card	3	
5	Black Nylon Cable Tie, HY-200IC, 3.6 × 200 mm	3	
6	M6.3 304 Stainless Steel Composite Waterproof Washer	2	
7	Cross Recessed Hex Head Combination Screw, M6*16	2	
8	M12X46 Plastic expansion plugs	5	
9	ST6.3 × 40 Stainless Steel Hexagon Head Self-Tapping Screw	5	

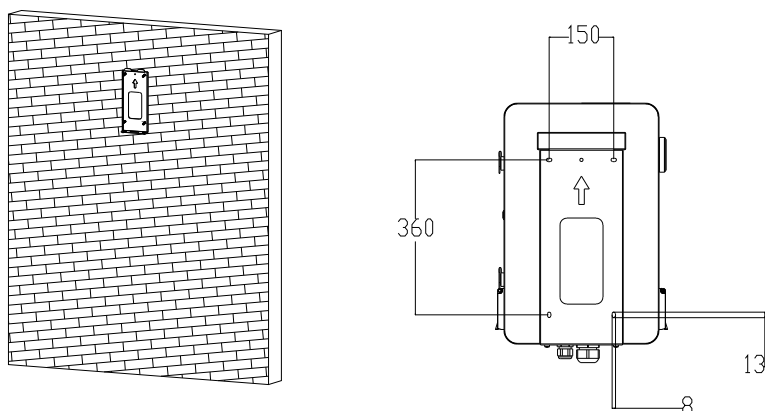
3 Installation and Wiring

3.1 Installation on the wall

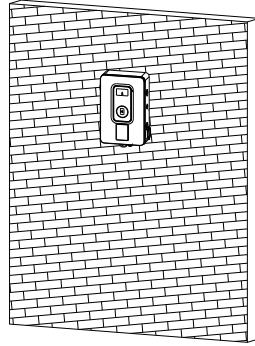
3.1.1 Open the packaging, you'll see a charge point, a mounting bracket, a user manual and a bag of mounting accessories. There are also 3 RFID cards if the charge point is RFID version. For cabled version, a cable holder is also included inside.



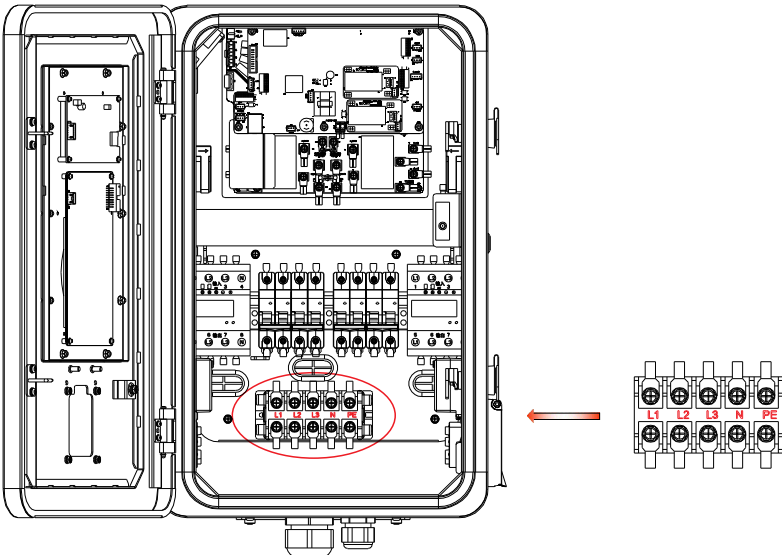
3.1.2 Remove the mounting bracket from the charge point, use it as a template to mark the position of the drill holes. Drill the holes and hammer the expansion bolts in the accessories bag into the holes. Then fix the mounting bracket onto the wall.



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.



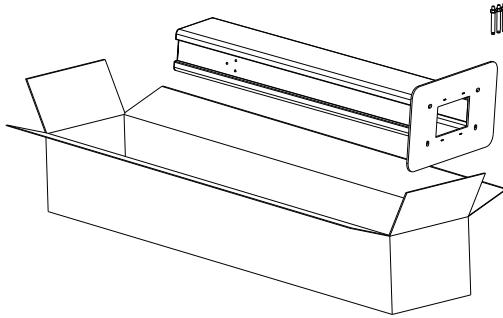
3.1.4 Crimp the below shown insulated ferrule or ring terminals on the end of the AC input wires. Connect the wires into the terminal block of the charge point as below. Check the wiring and then close the RCD, Close the front cover.



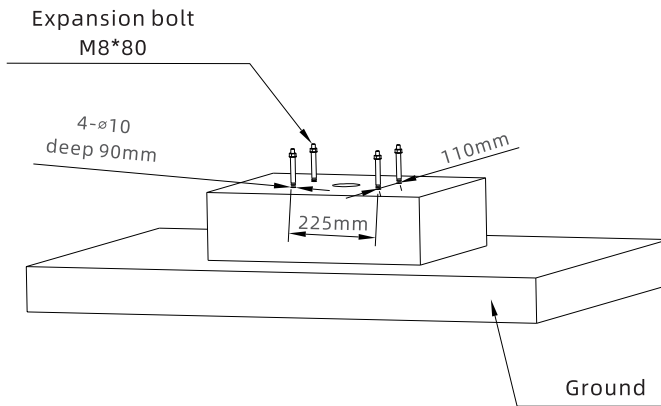
	Model	L1	L2	L3	N	PE
Terminal	11k					
	22k					
Wire	11k	6~25mm ² AWG9~4	6~25mm ² AWG9~4	6~25mm ² AWG9~4	6~25mm ² AWG9~4	6~25mm ² AWG9~4
	22k	16~25mm ² AWG5~4	16~25mm ² AWG5~4	16~25mm ² AWG5~4	16~25mm ² AWG5~4	16~25mm ² AWG5~4

3.2 Installation on a pole

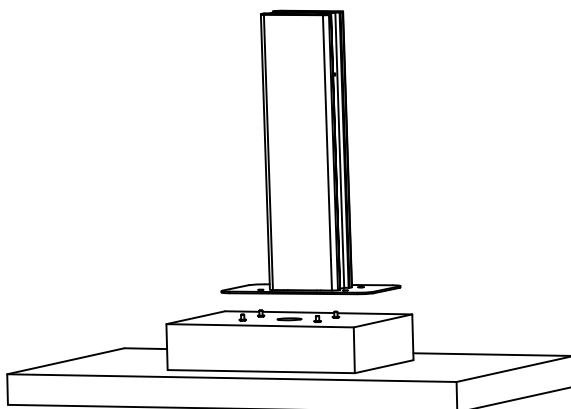
3.2.1 Open the packaging of the pole, take out the pole and mounting accessories.



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 holes according to the requirements marked on the illustration for fixing expansion bolts.

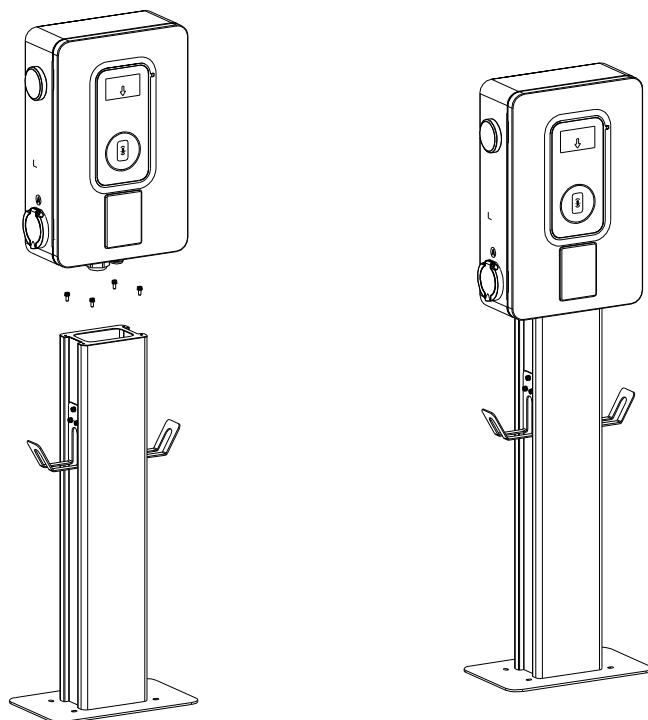


3.2.3 Fix the pole onto the holes with expansion bolts. The input cables shall go into the pole from the bottom middle area and come out of it from the area below the cable holder.

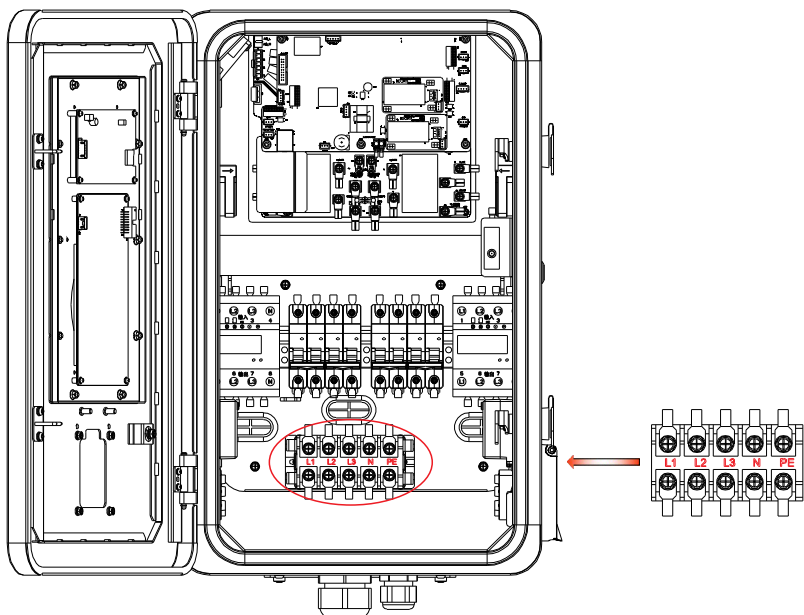


3.2.4 Fix the mounting bracket onto the pole.

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. Check the wiring and then close the RCBO in the side window. Close the side window with the cover. then the wiring is done.



	Model	L1	L2	L3	N	PE
Terminal	11k					
	22k					
Wire	11k	6~25mm ² AWG9~4	6~25mm ² AWG9~4	6~25mm ² AWG9~4	6~25mm ² AWG9~4	6~25mm ² AWG9~4
	22k	16~25mm ² AWG5~4	16~25mm ² AWG5~4	16~25mm ² AWG5~4	16~25mm ² AWG5~4	16~25mm ² AWG5~4

Note:

1. Only professional personnel can do the wiring, connect the AC input wires in correct phase order according to the markings on the terminal block.
2. The PE terminal shall be connected to the Earth firmly and reliably.
3. No live work! Turn off the breaker inside the charging equipment before repairing or maintaining.
4. Please do not disassemble the unit unless authorized!

4 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 using.

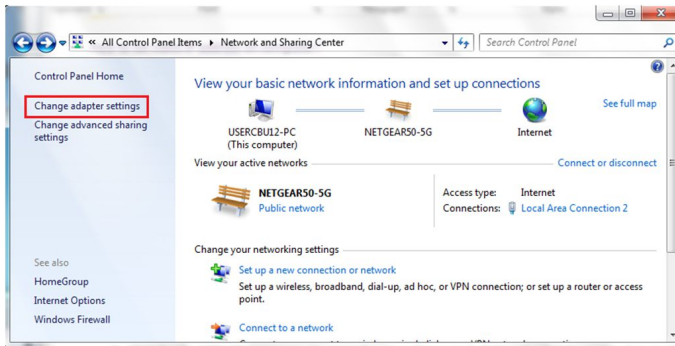
4.1 Set the IP address of the PC

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).

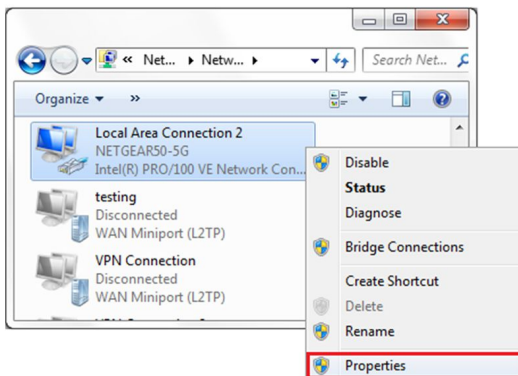
To set a static IP on your Windows computer:

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).

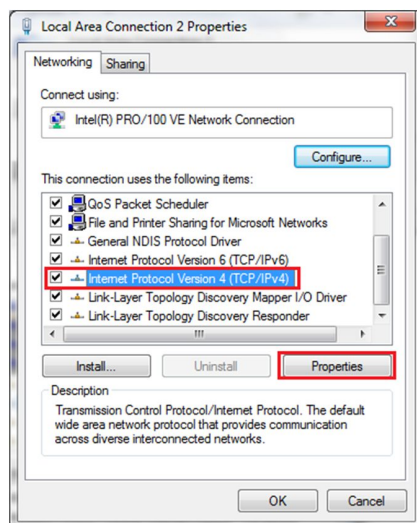
2. Click Change adapter settings.



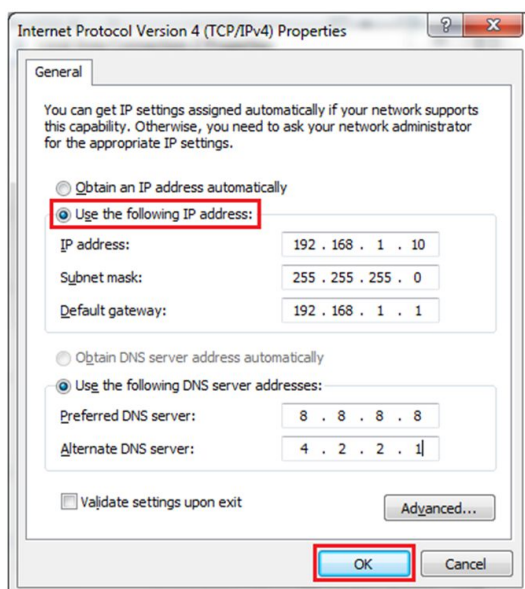
3. Right-click on Local Area Connection and click on Properties.



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 enter the password: 12345678 and click enter again, 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.

← → 🔒 Not secure 192.168.1.5:8080/index.html

Configure Charger Parameters

Firmware Version Num:	EVA-22D-SEW-V04.2.1.0-NANO-Test11	Language Set:	English
Charge ID(MaxLen 20):	BVEGA01002	Machine Type:	EVA-22D-SEW-NANO
PP Enable:	Disable	Half Power Charge:	Disable
Authentication Key For OCPP:	12345678	Max Output Current Set(6~32A):	32.0
Charger IP:	192.168.1.5	Default Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0	Charger DNS:	8.8.8.8
Net MAC Address:	50:88:F8:01:43:36	Charge Mode:	Plug&Charge
DHCP Enable:	STATIC	Server URL(MaxLen 250):	ws://nereace.ws.ateesspower.com/ocpp/es
WiFi SSID(MaxLen 30,Not support ','): ATESS		WiFi Key(MaxLen 32,Not support ','): *****	
Time Zone:	UTC+08:00	Daylight Saving Time(MM-DD):	00-00/00-00
Charger Time(2018-01-12 16:02:35):	2026-08-20 13:48:23	Login Password:	*****
Charging Rate (Per KWh):	0.0000	Set Start Charging Time(Plug&Charge, E.g:22:00-03:30(H-M)):	00:00-00:00
MeterValue Interval(0~24*3600 Sec):	60	Hearbeat Interval(0~24*3600 Sec):	60
4G APN:	Default	Card Pin(6 digits, E.g:123456):	242007
4G Account(MaxLen 30):		4G Password(MaxLen 30):	
Type B RCD Protection Level:	3	TypeB RCD2(Enter 0 Calibration):	0-1
TypeB RCD1(Enter 0 Calibration):	0-112	Grid Limit Current A(Solar:6-32A):	6
Solar Mode Charge A:	Disable	Grid Limit Current B:	6
Solar Mode Charge B:	Disable	PowerMeter A Addr:	1
Meter Measure Enable:	Enable	PowerMeter B Addr:	2
PowerMeter A Type:	Easutron SCMF2D MIDX(Three)	Sensor Monitor Max Power(KW):	45
PowerMeter B Type:	Easutron SCMF2D MIDX(Three)	PowerMeter LoadBalance Addr:	2
Power Distribution Charge:	Disable	Off Peak Current1(A):	32
PowerMeter LoadBalance Type:	Easutron SCMF2D MIDX(Three)	Off Peak Current2:	32
Off Peak Charge:	Disable	Off Peak Current3:	0
Off Peak Time1(HH:MM-HH:MM):	11:00-16:00	Off Peak Current4:	0
Off Peak Time2:	22:00-08:00	Off Peak Current5:	0
Off Peak Time3:	00:00-00:00	Websocket Ping Interval(24*3600 Sec):	50
Off Peak Time4:	00:00-00:00	EndChargePlugKeepFinish:	Disable
Off Peak Time5:	00:00-00:00	Vendor Type:	ATS
Rand Delay Charge Time(0~1800 Sec):	0	OCPP Protocol Version:	OCPP1.6
Volt OverLimit(260-280V):	260		
Volt UnderLimit(150-190V):	190		
485 control timeout(10~600Sec):	60		

[Set and Reload](#)

[Firmware Updating](#)

[Choose File](#) [No file chosen](#) [Upload](#)

[Restore factory settings](#)

[Reset](#)

[Clear Charge Record](#)

[Clear](#)

[Quectel Wifi Updating](#)

Quectel Wifi OTA URL(MaxLen 128):

[update](#)

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Overview of Parameter setting page

Explanation of parameters:

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

Firmware Version Num:	EVA-22D-SEW-VA4.2.1.0-NANO-Test11
------------------------------	--

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.

Charge ID(MaxLen 20):	BVE0A01002
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Fig.2

(3) When this function is enabled, the EV charger will only start charging when the CP signal and the PP signal is normal.

PP Enable:	Disable
-------------------	--------------------------------------

Fig.3

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

Authentication Key For OCPP:	12345678
-------------------------------------	---------------------------------------

Fig.4

(5) 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.

Charger IP:	192.168.1.5
Default Gateway:	192.168.1.1
Charger DNS:	8.8.8.8

Fig.5

(6) 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.

Subnet Mask:	255.255.255.0
--------------	--

Fig.6

(7) 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.

Net MAC Address:	50:88:A0:92:26:35
------------------	--

Fig.7

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

DHCP Enable:	STATIC
--------------	-------------------------------------

Fig.8

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

WIFI SSID(MaxLen 30,Not support ','):

ATESS

WIFI Key(MaxLen 32,Not support ','):

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.

Time Zone:

UTC+08:00

Charger Time(2018-01-12 16:02:35):

2026-08-20 13:48:23

Fig.10

(11) Set the tariff for charging energy.

Charging Rate (Per KWh):

0.0000

Fig.11

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

MeterValue Interval(0~24*3600 Sec):

60

Fig.12

(13) 4G connection, when the 4G network cannot be connected, login SIM card APN and other information.

4G APN:

Default

4G Account(Maxlen 30):

4G Password(Maxlen 30):

Fig.13

(14) 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.

Type B RCD Protection Level:	3
TypeB RCD1(Enter 0 Calibration):	0.-112
TypeB RCD2(Enter 0 Calibration):	0.-1

Fig.14

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

Solar Mode Charge A:	Disable
Solar Mode Charge B:	Disable
Grid Limit Current A(Solar:6-32A):	6
Grid Limit Current B:	6

Fig.15

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

Meter Measure Enable:	Enable
PowerMeter A Type:	Eastron SDM72D MID(Three)
PowerMeter B Type:	Eastron SDM72D MID(Three)
PowerMeter A Addr:	1
PowerMeter B Addr:	2

Fig.16

(17) Load balancing, sets the total power input of the home grid to avoid tripping.

Power Distribution Charge:	Disable
Sensor Monitor Max Power(KW):	45

Fig.17

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

PowerMeter LoadBalance Type:	Eastron SDM72D MID(Three)
PowerMeter LoadBalance Addr:	2

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.

Off Peak Charge:	Disable
------------------	---------

Fig.19

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

Off Peak Time1(HH:MM-HH:MM):	11:00 16:00
Off Peak Time2:	22:00-08:00
Off Peak Time3:	00:00-00:00
Off Peak Time4:	00:00-00:00
Off Peak Time5:	00:00-00:00
Off Peak Current1(A):	32
Off Peak Current2:	32
Off Peak Current3:	0
Off Peak Current4:	0
Off Peak Current5:	0

Fig.20

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

Rand Delay Charge Time(0~1800 Sec):

Fig.21

(22) The over voltage value range of a single-phase AC EV charger.

Volt OverLimit(260-280V):

Fig.22

(23) The under voltage value range of a single-phase AC EV charger.

Volt UnderLimit(150-190V):

Fig.23

(24) RS 485 controls the timeout setting.

485 control timeout(10~600Sec):

Fig.24

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

Language Set:

Fig.25

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

Machine Type:

Fig.26

(27) After enabling, the maximum charging current for a single gun is 32A. When charging both guns simultaneously, each gun is charged at 16A.

When both guns are charged simultaneously with the enable turned off, both guns are at 32A.



Half Power Charge: Disable

Fig.27

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



Max Output Current Set(6~32A):

Fig.28

(29) Charging mode setting. 1: APP mode; 2: RFID mode; 3: Plug&Charge mode. The factory mode defaults to APP mode. In APP mode, RFID cards can also be used. For other modes, only one mode can be used by default.

The charging mode can be set according to the actual situation.



Charge Mode: Plug&Charge

Fig.29

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

The domain name of ATESS EV server is "ws://enerace-ws.atesspower.com/ocpp/ws" .



Server URL(MaxLen 250):

Fig.30

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

Daylight Saving Time(MM-DD):	00-00&00-00
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Fig.31

(32) The login password is used to set the login parameters for the web page. For the default password, please check the SN number on the charger nameplate. You can change your password after logging in.

Login Password:	
-----------------	--

Fig.32

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

Set Start Charging Time(Plug&Charge, E.g:22:00-03:30(H:M)):	00:00-00:00
--	--

Fig.33

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

Hearbeat Interval(15~3600 Sec):	60
---------------------------------	---------------------------------

Fig.34

(35) 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.

Card Pin(6 digits, E.g:123456):	242007
---------------------------------	-------------------------------------

Fig.35

(36) The time interval for the EV charger to send pings to the background server is used to check whether the EV charger is online .Keep the default value.

Websocket Ping Interval(24*3600 Sec):

Fig.36

(37) End charge plug keep finish .

EndChargePlugKeepFinish:

Disable

▼

Fig.37

(38) Open charge point protocol version .

OCPP Protocol Version:

OCPP1.6

▼

Fig.38

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

Set and Reboot

Fig.39

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

Firmware Updating

Choose File

No file chosen

Upload

Fig.40

(41) Restore the charger to factory Settings.



[Restore factory settings](#)

Reset

Fig.41

(42) Clear charging records.

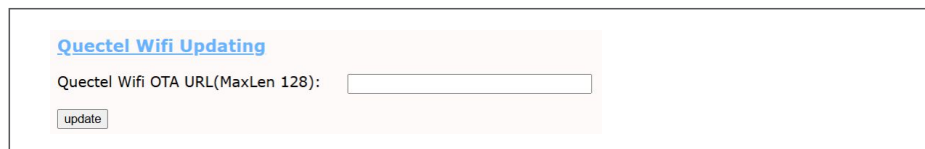


[Clear Charge Record](#)

Clear

Fig.42

(43) Quectel WiFi module updating.



[Quectel Wifi Updating](#)

Quectel Wifi OTA URL(MaxLen 128):

update

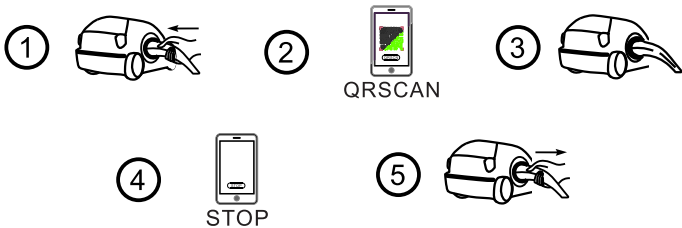
Fig.43

5 Operation instruction and LCD description

5.1 Charging mode and Operation

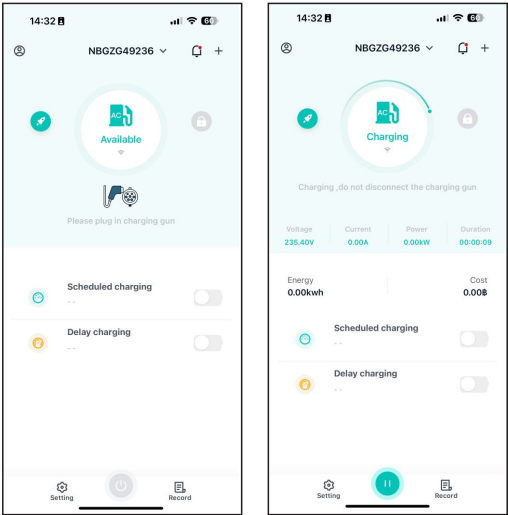
APP/RFID mode:

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.



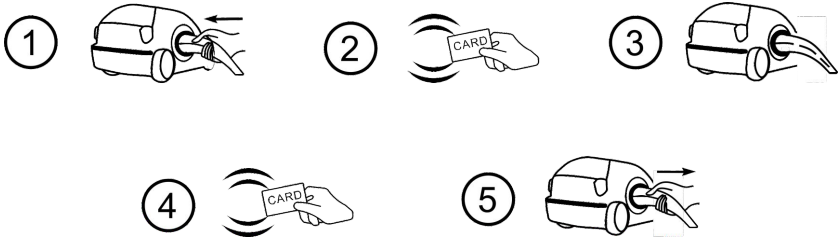
APP/RFID mode operation process flow

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



RFID mode:

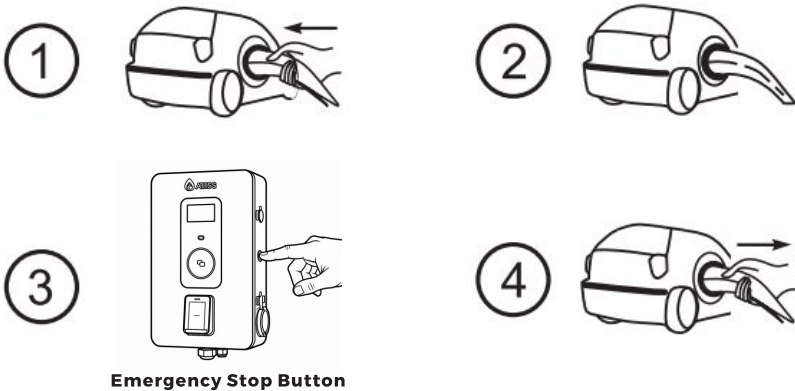
Charging can only be initiated or ceased by swiping RFID card



RFID mode operation process flow

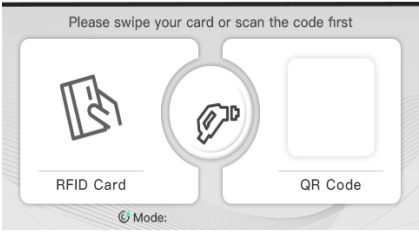
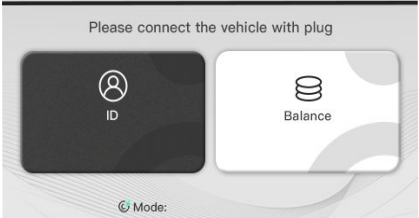
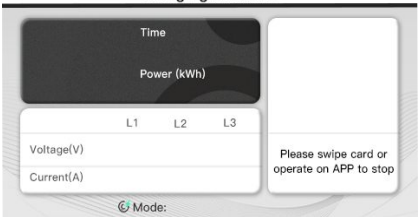
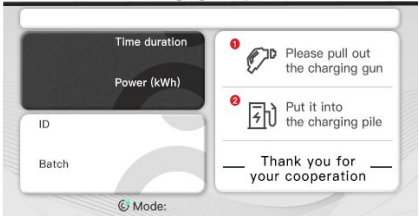
Plug & Charge:

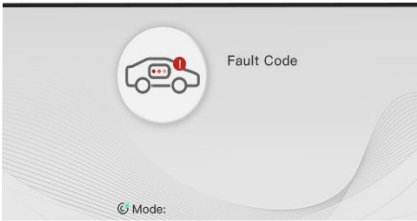
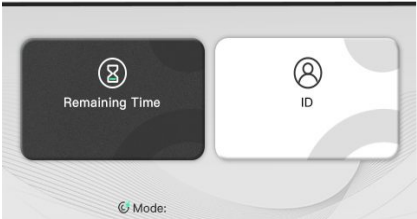
Connect the charger to the EV. The charger will start charging automatically. Once charging is complete, the charging station will automatically stop, and the user can safely remove the charging plug. If you wish to stop charging early, press the silver emergency stop button on the right, and the charger will halt output. Or stop charging by operating your electric vehicle.



Plug & Charge mode operation process flow

5.2 LCD interface introduction

 The screen displays the instruction "Please swipe your card or scan the code first". Below this, there are two main options: "RFID Card" with a card icon and "QR Code" with a QR code icon. At the bottom, there is a "Mode:" indicator with a green icon.	Interface of stand by status Charging mode is displayed at the bottom centre of the screen.
 The screen is titled "User information" and says "Please connect the vehicle with plug". It shows two main sections: "ID" with a person icon and "Balance" with a coin icon. At the bottom, there is a "Mode:" indicator with a green icon.	Interface of user card information Displayed for user to check card ID and balance when swiping RFID card while EV is not connected.
 The screen is titled "Charging interface". It displays "Time" and "Power (kWh)" in a dark box. Below this, there are three columns labeled "L1", "L2", and "L3" for "Voltage(V)" and "Current(A)". On the right, it says "Please swipe card or operate on APP to stop". At the bottom, there is a "Mode:" indicator with a green icon.	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.
 The screen is titled "Charging complete". It shows "Time duration" and "Power (kWh)" in a dark box. Below this, there are two columns for "ID" and "Batch". On the right, there are two numbered instructions: "1 Please pull out the charging gun" and "2 Put it into the charging pile". At the bottom, it says "Thank you for your cooperation". At the bottom, there is a "Mode:" indicator with a green icon.	Interface of charging complete Displayed when the EV stops charging, or forced on/off button is pressed on charger side.

Fault interface  The screenshot shows a grey background with a car icon inside a white circle, which has a red exclamation mark above it. To the right of the icon, the text 'Fault Code' is displayed. At the bottom left, there is a small green icon followed by the text 'Mode:'.	Interface of fault status Displayed with fault code and fault description when fault occurs.
Reservation interface  The screenshot shows a grey background with two white rounded rectangles. The left rectangle has a clock icon and the text 'Remaining Time'. The right rectangle has a person icon and the text 'ID'. At the bottom left, there is a small green icon followed by the text 'Mode:'.	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.

6 Firmware Update

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, then enter the password 12345678 and click enter,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.



← → 🔍 Not secure 192.168.1.5:8080/index.html

Configure Charger Parameters

Firmware Version Num:	EVA-22D-SEW-V4.2.1.0-NANO-Test11	Language Set:	English
Charge ID(MaxLen 20):	BVE0AD1002	Machine Type:	EVA-22D-SEW-NANO
PP Enable:	Disable	Half Power Charge:	Disable
Authentication Key For OCPP:	12345678	Max Output Current Set(6~32A):	32.0
Charger IP:	192.168.1.5	Default Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0	Charger DNS:	8.8.8.8
Net MAC Address:	50:08:F8:01:43:36	Charge Mode:	Plug&Charge
DHCP Enable:	STATIC	Server URL(MaxLen 250):	ws://emerce-ws.ateesspower.com/ocpp/ps
WIFI SSID(MaxLen 30,Not support ','):	ATESS	WIFI Key(MaxLen 32,Not support ','):	*****
Time Zone:	UTC+08:00	Daylight Saving Time(MM-DD):	00-00&00-00
Charger Time(2018-01-12 16:02:35):	2026-08-20 13:48:23	Login Password:	*****
Charging Rate (Per KWh):	0.0000	Set Start Charging Time(Plug&Charge, E.g:22:00-03:30(H:M)):	00:00-00:00
MeterValue Interval(0~24*3600 Sec):	60	Hearbeat Interval(0~24*3600 Sec):	60
4G APN:	Default	Card Pin(6 digits, E.g:123456):	242007
4G Account(Maxlen 30):		4G Password(Maxlen 30):	

7 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.

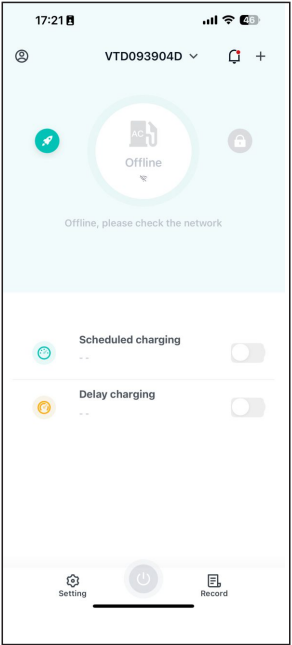
Please see the table below for detail information

No.	Error code	Number of flashes	Fault description
1	100	3	The emergency stop button is pressed or broken
2	101	1	Under voltage on phase L3
3	102	2	Under voltage on phase L3
4	103	1	Over voltage on phase L2
5	104	2	Over voltage on phase L2
6	105	1	Over voltage on phase L1
7	106	2	Under voltage on phase L1
8	107	2	Three phases are under voltage
9	108	4	Over current
10	109	5	Over temperature
11	110	6	DC leakage current detected
12	111	7	RS485 communication fault
13	112	8	Reserved
14	113	9	Type A Switch Fault
15	114	10	Relay Fault
16	115	11	PE fault
17	116	12	PEN fault
18	117	13	Out of service
19	118	14	The door opened abnormally

7.2 Firmware update failure

If 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.

Configure Charger Parameters

Firmware Version Num:	EVA-22D-SEW-V04.2.1.0-NANO-Test11	Language Set:	English
Charge ID(MaxLen 20):	BVEDAD1002	Machine Type:	EVA-22D-SEW-NANO
PP Enable:	Disable	Half Power Charge:	Disable
Authentication Key For OCPP:	12345678	Max Output Current Set(6~32A):	32.0
Charger IP:	192.168.1.5	Default Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0	Charger DNS:	8.8.8.8
Net MAC Address:	50:88:F8:01:43:36	Charge Mode:	Plug&Charge
DHCP Enable:	STATIC	Server URL(MaxLen 250):	ws://emance-ws.ateesspower.com/occppws
WiFi SSID(MaxLen 30,Not support ','): ATESS		WiFi Key(MaxLen 32,Not support ','): *****	
Time Zone:	UTC+08:00	Daylight Saving Time(MM-DD):	00-00&00-00
Charger Time(2018-01-12 16:02:35):	2028-08-20 13:48:23	Login Password:	*****

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.

Connect to WiFi

1. Network 2. Charger Setting

Network Setting

WiFi Internet 4G

ATESS

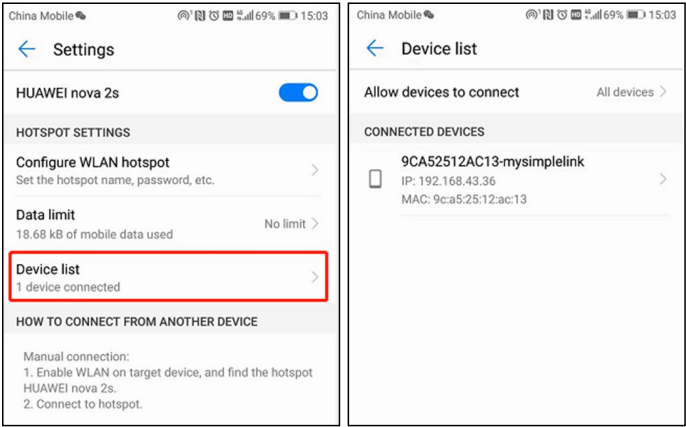
Only 2.4GHz network is supported

Save

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.

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



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.

Wireless	Enabled
Wireless Network Name (SSID)	SKYE2496 (2.4 GHz), SKYE9689 (5 GHz)
Wireless Network Visible	Yes
Current Wireless Channel	13 (2.4 GHz), 36 (5 GHz)
Wireless Encryption	WPA2-PSK

Devices connected to your home network

Device Name	MAC Address
UNKNOWN	70:70:0d:d5:bce5
iPhone	88:e8:7f:9e:2f:ac
23C01K568FILDJZ	20:47:47:3d:85:f4
HUAWEI_nova_2s-8ed2a8f95	ec:89:14:40:3b:9c
iPhone	a8:5c:2c:30:d7:07
Priyas-iPad	78:7e:61:c3:f7:03
LATITUDE-05	34:e1:2d:b5:c7:fa
Priyas-iPhone	b8:53:ac:4d:05:50
UNKNOWN	40:99:22:2a:fc:93
UNKNOWN	00:1b:67:16:d7:82



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://enerace-ws.atesspower.com/ocpp/ws`.

Configure Charger Parameters

Firmware Version Num:	EVA-22D-SEW-V04.2.1.0-NANO-Test11	Language Set:	English
Charge ID(MaxLen 20):	BVE0A01002	Machine Type:	EVA-22D-SEW-NANO
PP Enable:	Disable	Half Power Charge:	Disable
Authentication Key For OCPP:	12345678	Max Output Current Set(6~32A):	32.0
Charger IP:	192.168.1.5	Default Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0	Charger DNS:	8.8.8.8
Net MAC Address:	50:08:F8:01:43:36	Charge Mode:	Plug&Charge
DHCP Enable:	STATIC	Server URL(MaxLen 250):	ws://enerace-ws.atesspower.com/ocpp/ws
WIFI SSID(MaxLen 30,Not support ','): ATESS		WIFI Key(MaxLen 32,Not support ','): *****	

7.4 Cannot access parameter setting page

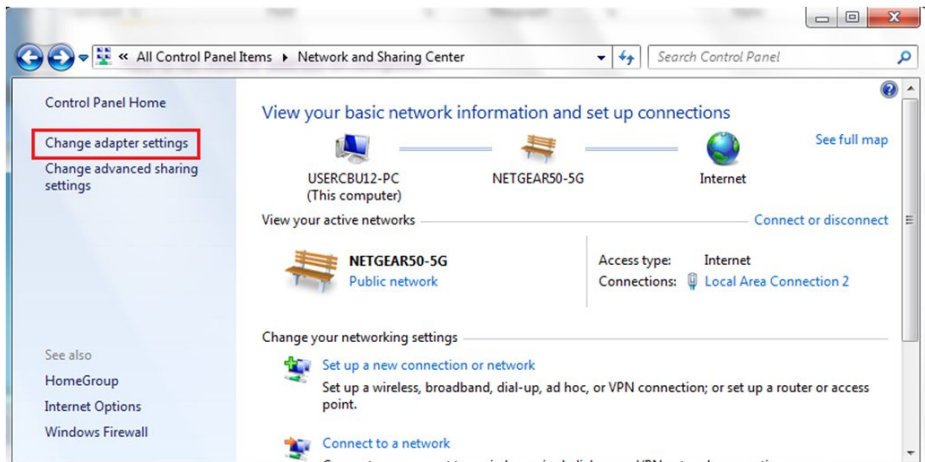
a. Check if you have connected the charger to your computer,

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).

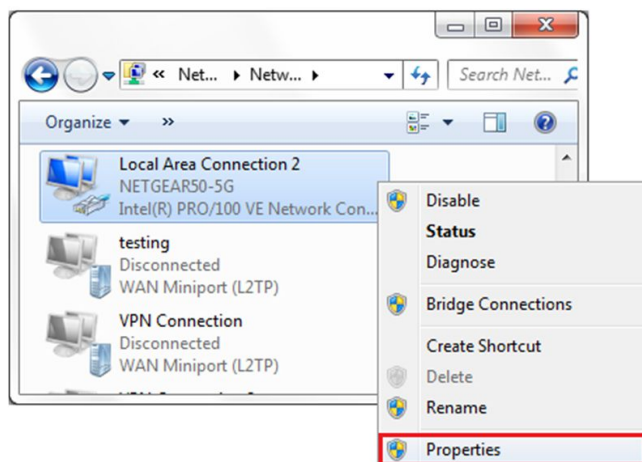
To set a static IP on your Windows computer:

(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).

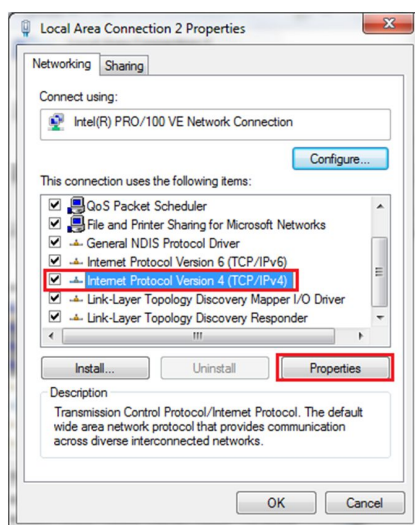
(2). Click Change adapter settings



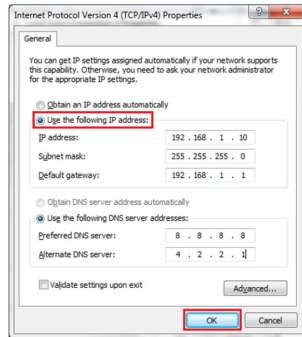
(3). Right-click on Local Area Connection and click on Properties.



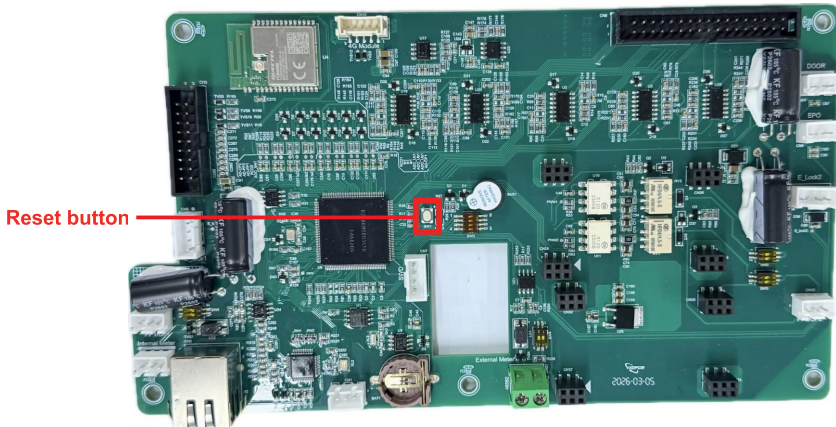
(4). Select Internet Protocol Version 4 (TCP/IPv4) and click on Properties.



(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.

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

← → ↻ ⚠ Not secure 192.168.1.5:8080/index.html 🔍 ★ ⬇ ⚙ ⋮

Configure Charger Parameters

Firmware Version Num:	EVA-22D-SEW-V04.2.1.0-NANO-Test11	Language Set:	English
Charge ID(MaxLen 20):	BVE0A01002	Machine Type:	EVA-22D-SEW-NANO
PP Enable:	Disable	Half Power Charge:	Disable
Authentication Key For OCPP:	12345678	Max Output Current Set(6~32A):	32.0
Charger IP:	192.168.1.5	Default Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0	Charger DNS:	8.8.8.8
Net MAC Address:	50:08:F8:01:43:36	Charge Mode:	Plug&Charge
DHCP Enable:	STATIC	Server URL(MaxLen 250):	ws://emerce-ws.ateesspower.com/ocpples
WiFi SSID(MaxLen 30,Not support ','): ATESS		WiFi Key(MaxLen 32,Not support ','): *****	
Time Zone:	UTC+08:00	Daylight Saving Time(MM-DD):	00-00&00-00
Charger Time(2018-01-12 16:02:35):	2026-08-20 13:48:23	Login Password:	*****

- 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.

← → ↻ ⚠ Not secure 192.168.1.5:8080/index.html 🔍 ★ ⬇ ⚙ ⋮

Configure Charger Parameters

Firmware Version Num:	EVA-22D-SEW-V04.2.1.0-NANO-Test11	Language Set:	English
Charge ID(MaxLen 20):	BVE0A01002	Machine Type:	EVA-22D-SEW-NANO
PP Enable:	Disable	Half Power Charge:	Disable
Authentication Key For OCPP:	12345678	Max Output Current Set(6~32A):	32.0
Charger IP:	192.168.1.5	Default Gateway:	192.168.1.1
Subnet Mask:	255.255.255.0	Charger DNS:	8.8.8.8
Net MAC Address:	50:08:F8:01:43:36	Charge Mode:	Plug&Charge
DHCP Enable:	STATIC	Server URL(MaxLen 250):	ws://emerce-ws.ateesspower.com/ocpples
WiFi SSID(MaxLen 30,Not support ','): ATESS		WiFi Key(MaxLen 32,Not support ','): *****	
Time Zone:	UTC+08:00	Daylight Saving Time(MM-DD):	00-00&00-00
Charger Time(2018-01-12 16:02:35):	2026-08-20 13:48:23	Login Password:	*****
Charging Rate (Per KWh):	0.0000	Set Start Charging Time(Plug&Charge, E.g.:22:00-03:30(H-M)):	00:00-00:00
MeterValue Interval(0~24*3600 Sec):	60	Heartbeat Interval(0~24*3600 Sec):	60

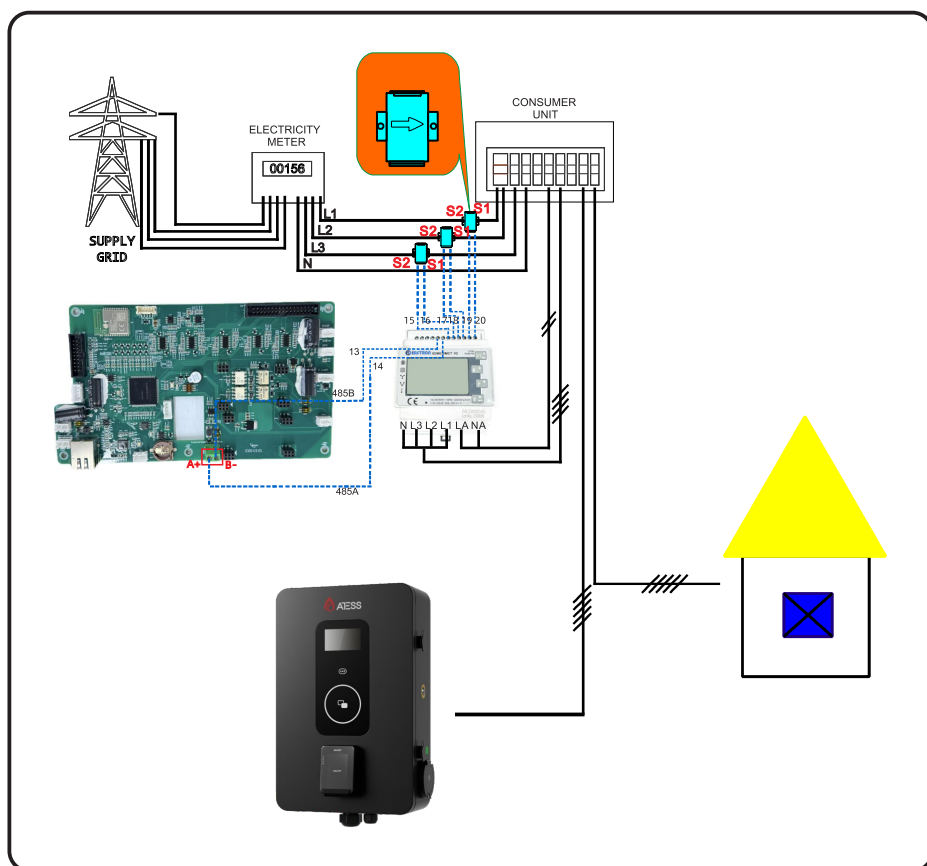
8 Load Balancing

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.

8.1 Wiring

Meter is needed to detect the power import, please wire it as below:



8.2 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 Charger, and set it to Enable to activate the power modulation function.

Power Distribution Charge:	Disable
----------------------------	--------------------------------------

(3) Set the maximum power import value in the field of External Max limit 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.

Sensor Monitor Max Power(KW):	45
-------------------------------	---------------------------------

(4) Change Power Meter Addr to the address shown on the meter, such as 2 shown in the figure below.

PowerMeter LoadBalance Type:	Eastron SDM72D MID(Three)
PowerMeter LoadBalance Addr:	2

9 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+.

9.1 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.

- a. The power of three-phase charger belongs to (5.3kW-Pe).
- b. The power of single-phase charger belongs to (1.8kW-Pe).

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

- a. The power of three-phase charger $P2=1000W$
- b. The power of single-phase charger $P2=500W$

(3) Operation mode:

- a. when Initial charging, Permissible output power of charger $P3(P3 = P)$
- b. If $P1 < P2$, Permissible output power of charger $P3.(Pe \geq P3 \geq P)$
- c. If $P1 \geq P2$, 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 $P3.(Pe \geq P3 \geq P)$

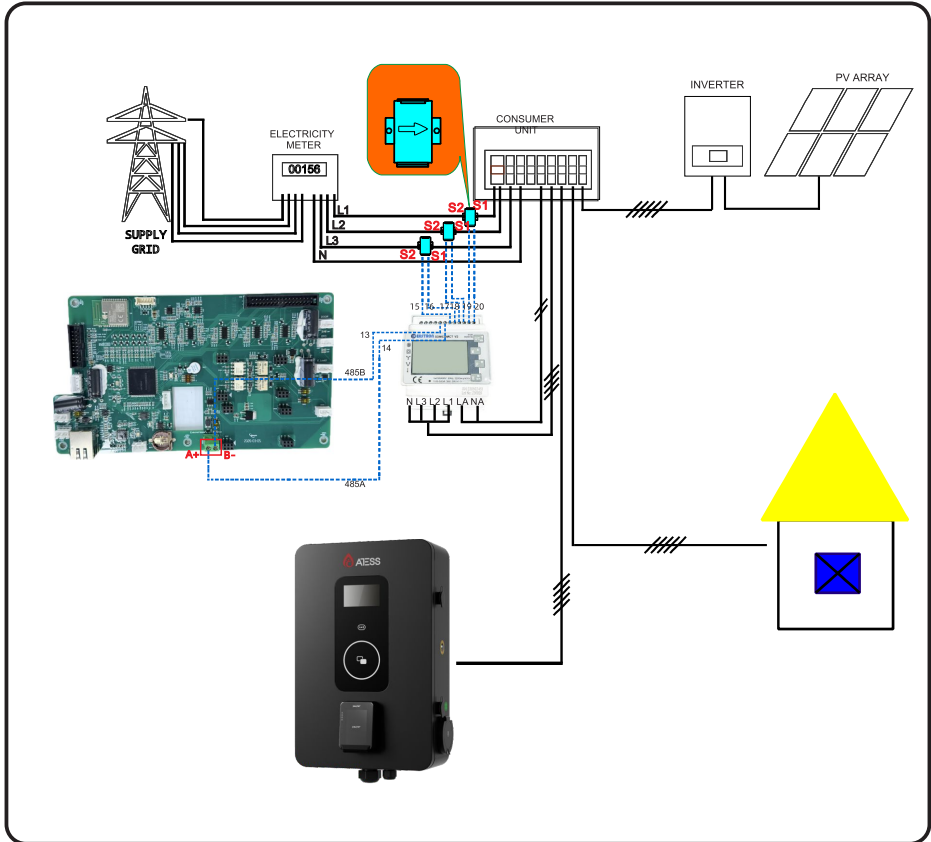
ECO+ Mode:

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.

9.2 Wiring

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

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



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 parameters: Solar Mode, FAST, ECO or ECO+.

Solar Mode Charge A(0:Disable,1:ECO,2:ECO+):	0
Solar Mode Charge B(0:Disable,1:ECO,2:ECO+):	0

- (3) Select the type of meter and enter the address on the meter screen

PowerMeter LoadBalance Type:	Eastron SDM30(Three)	PowerMeter LoadBalance Addr:	2
Off Peak Charge(0:Disable,1:Enable):	Null	Off Peak Current1(A):	32
Off Peak Time1(HH-MM-HH:MM):	Eastron SDM30(Three)	Off Peak Current2:	32
Off Peak Time2:	Eastron SDM120 MID	Off Peak Current3:	0
Off Peak Time3:	Eastron SDM72D MID(Three)	Off Peak Current4:	0
Off Peak Time4:	Acrel AGF-AE	Off Peak Current5:	0
Off Peak Time5:	00:00:00:00	Websocket Ping Interval(0~300 Sec):	50
Rand Delay Charge Time(Sec):	0		

[Firmware Updating](#)

[Restore factory settings](#)

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10 Specification

Model	NANO EVA-11/22D-SW
Dimension(mm)	562*360*177(L*W*H)
Weight(kg)	<22
Display	LCD(OPT)
Casing Material	Stainless steel&Engineering plastics&Tacrlyic
Input	
Voltage	AC 400V
Output	
Voltage	AC 400V
Max current	16*2/32A*2
Ingress protection	IP65
Working environment temperature	-25°C ~ +50°C
Relative humidity	5%~95%
Altitude	≤2000m
Frequency	50/60Hz
Communication	Ethernet / WiFi / 4G (opt)
Charging mode	APP/RFID/Plug and Charge
Standby power	<8W
Standard	EN 62196-2; EN 61851
Mounting	Ground/Wall
Certificate	CE
Protection features	
Overvoltage	450V
Undervoltage	329V
Overcurrent	18A/35.2A
Shortcircuit	Yes
Leakage protection	30mA AC+6mA DC RCD
Over temperature	Yes
Lightning protection	Type II

11 App Set Up

11.1. APP Introduction

11.1.1 Description

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

11.1.2 Main Function Of EneRace

- (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 EneRace by scanning the below QR code or download it from the APP store(IOS) or GooglePlay(Andriod).

"EneRace " App Download QR Code:



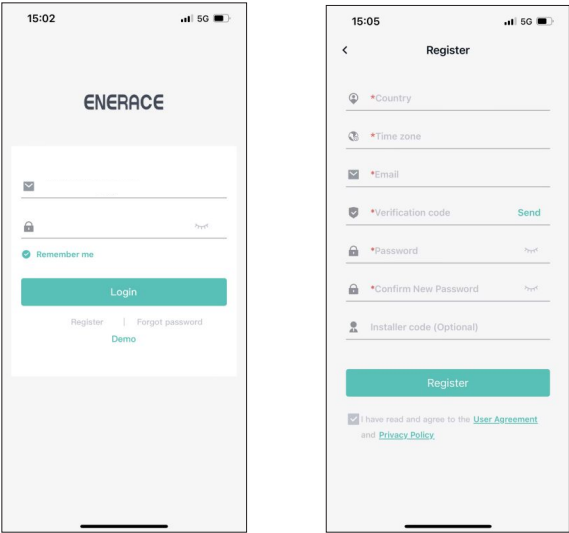
<IOS>



<Andriod>

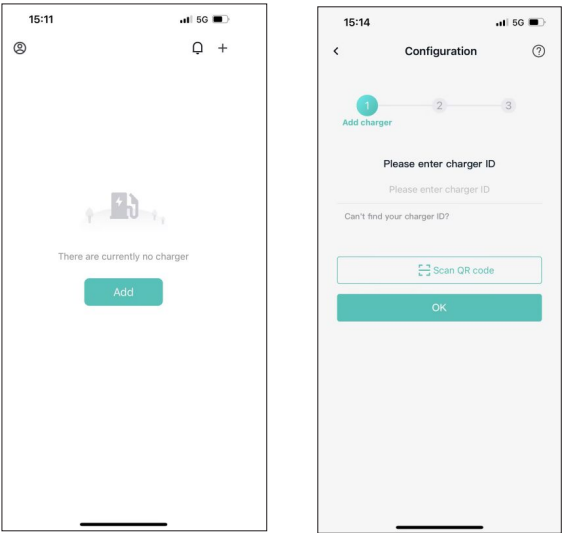
11.2.2 Registration and login

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.



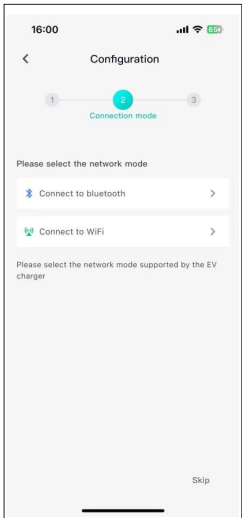
11.2.3 Add Charger

(1) IF you use ATESS APP 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 QR code (nameplate)or entering the charger ID. You can check the OR code/Bar code on the side window nameplate.



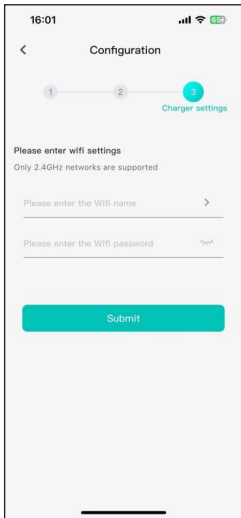
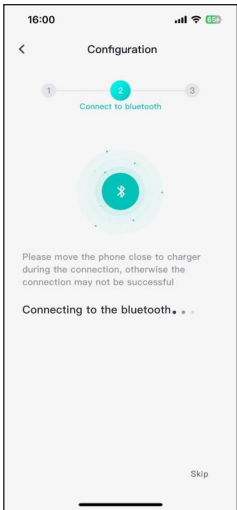
(2) Select the connection method

Select the connection method supported by the model. You can choose between Bluetooth and hotspot connection methods.



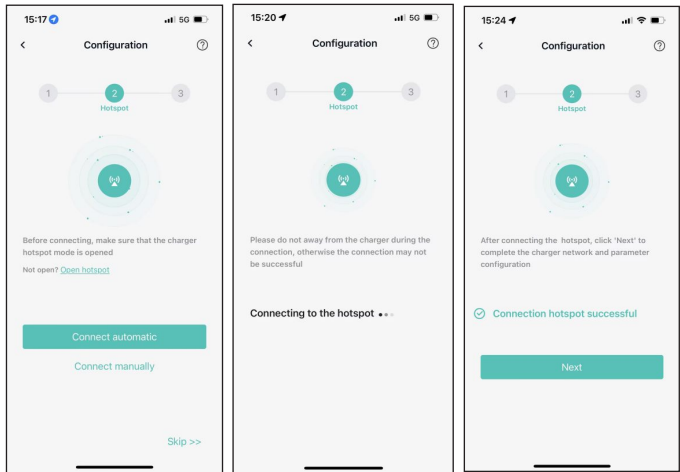
Bluetooth connection

After entering the Bluetooth connection interface, it will automatically match the terminal Bluetooth for connection. Once the connection is successful, the network can be configured.

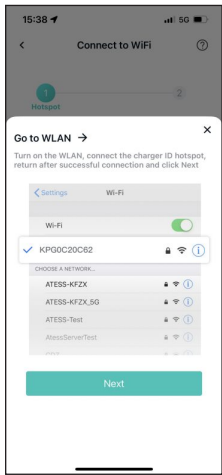


WiFi connection

(1) After entering the WiFi connection interface, click the "Connect automatic" button. The App will automatically find the charger hotspot for connection. After a successful connection, you can click "Next" to enter the pile configuration page. If the connection fails, you can reconnect or switch to manual connection.



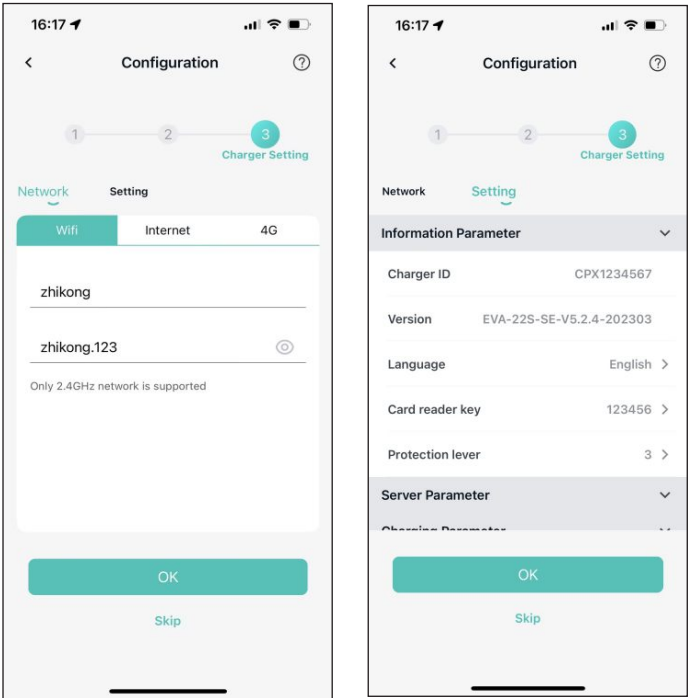
(2) Connect manually: Click "Go to WLAN" to jump to the mobile phone WLAN page. Find the hotspot named after the SN number of the charging pile and connect it (The default password is 12345678). After a successful connection, return to the App and click "Next" to enter the charger configuration page.



Charger setting

After successfully connecting to the hotspot, enter the charger Settings page, where you can set the charger network and parameters. The network distribution methods support three types: Wifi, Ethernet, and 4G. After the Settings are completed, click the “OK” button, and the charger will automatically configure a restart. If you do not need to set up the charger, you can click “Skip” .

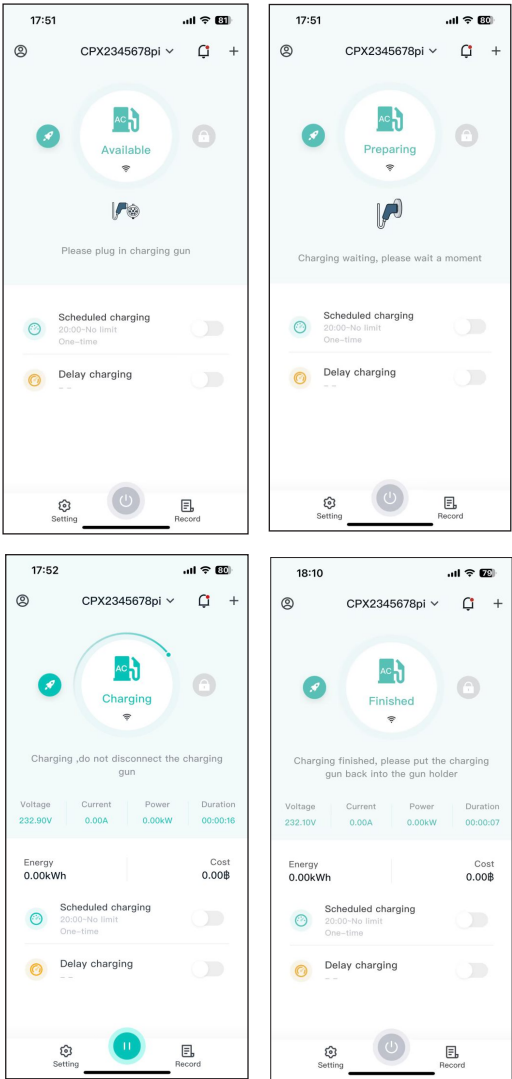
Note: If the network or server address is not configured correctly, the charger cannot be used normally in the App.



11.2.4 Charger status

Charging page

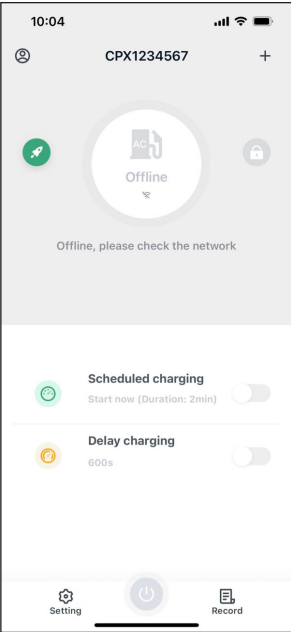
Start and stop control of charger.



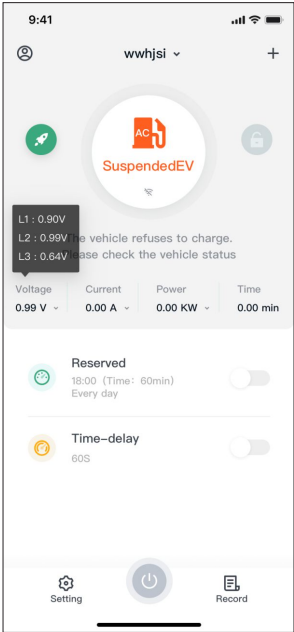
Press “  /  ” to turn on/off.

Note: When the charger is faulty, refuses charging or is offline, the charging button turns gray “  ” and cannot be clicked.

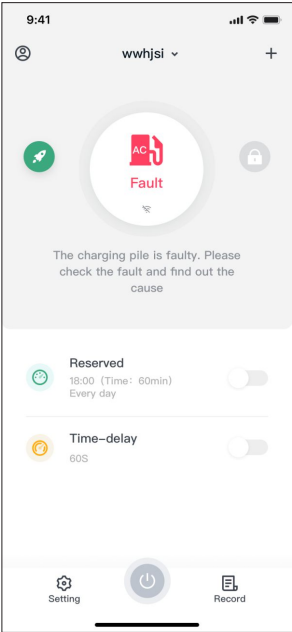
Other states



Charger offline



Charger refuses to charge



Fault

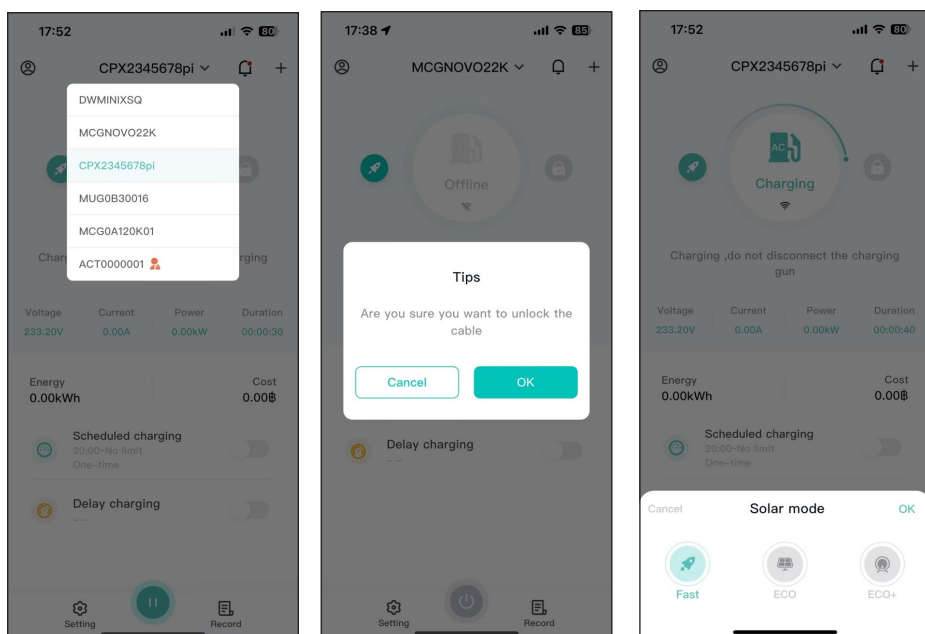
11.2.5 Charger switch and delete

Switch the charger: When multiple chargers are added, the chargers can be switched for operation.

Electronic lock: If the electronic unlock is operated during charging, the charging will stop (some chargers do not support this function).

Charging mode: There are three modes: Fast, ECO and ECO+, which can be used in combination with photovoltaic systems.

When you have multiple chargers, you can switch chargers by clicking the arrow. A list of chargers can be found in the account information, swipe left to delete.



11.2.6 Scheduled charging

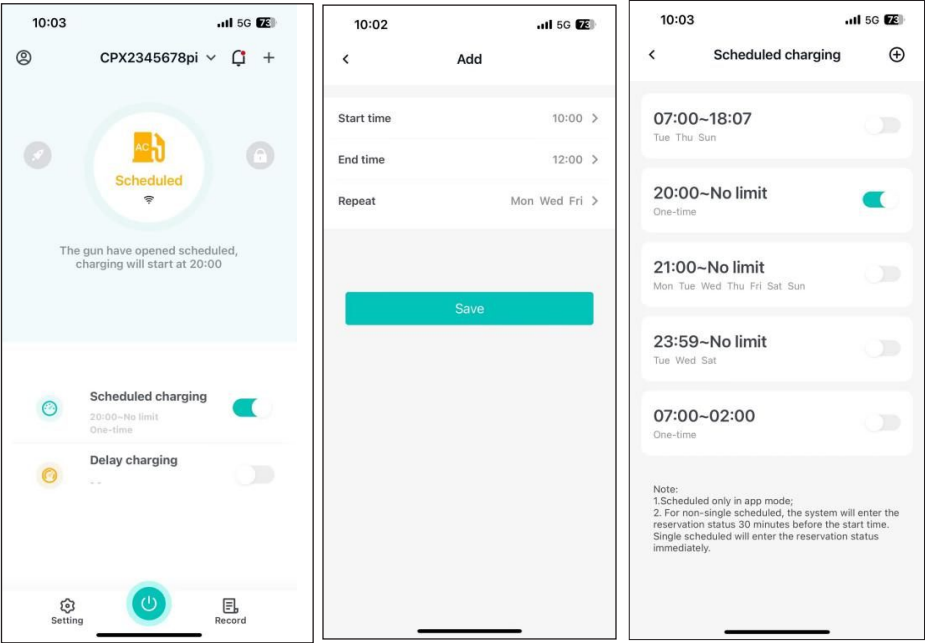
Multiple reservation plans can be preset in advance. Once activated, the charger will charge according to the reservation plan.

Start time: Set the time when charging begins;

End time: Set the time when charging ends;

Repeat: Set the repetition frequency of the reservation plan, which can be set as a single time or Monday to Sunday.

Note: Reservation for charging must be used in the App mode.



11.2.7 Delay charging

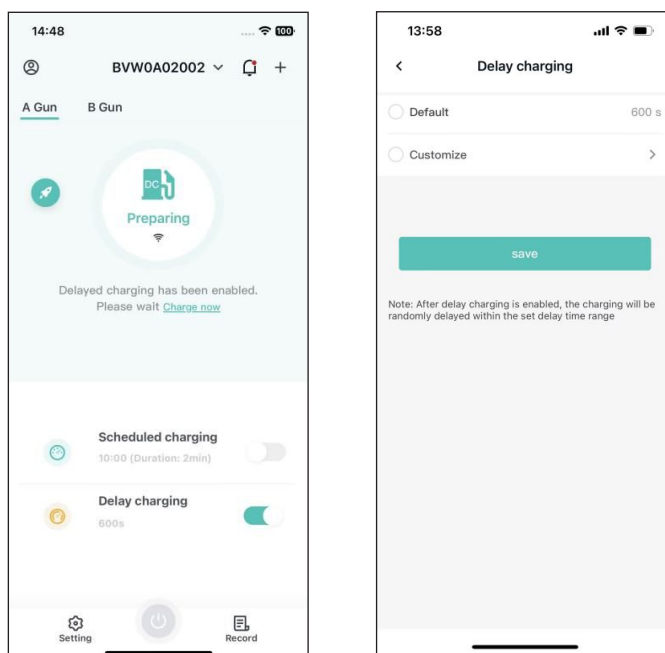
If a delay time is set, when charging starts, it will randomly delay within the set time range (immediate charging can be operated).

You can set it in two ways: "default 600S" and "customize".

The "customize" delay range is 1 to 1800S;

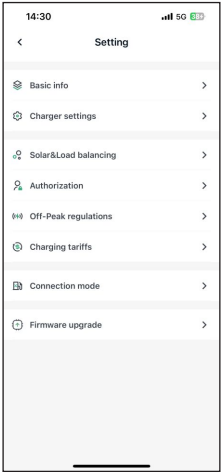
Delay switch: After setting the value, it automatically turns on.

Clicking the off button will clear the set time and turn off the delay.



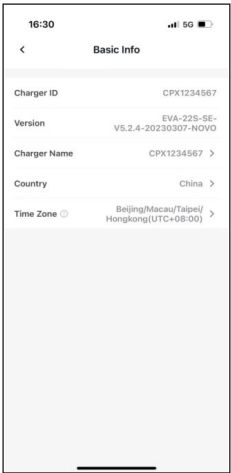
11.2.8 Setting

The functions of the Settings page include: "Basic Information" "Charger Settings" "Solar& Load Balancing" "Authorization Management" "Peak and Valley Settings" "Charging Rate" "Connection Method" "Firmware Upgrade"



Basic info

- Charger ID:** The authentication code of the charger cannot be modified;
- Version:** Firmware version of the charger;
- Charger Name:** The name of the charger is taken as the SN number of the charger by default and can be modified.
- Country:** Set the current country so that the charger displays the correct time;
- Time zone:** Set the current time zone so that the charger displays the correct time.



Charger Settings

Charger language: Set the language of the charger.

Charging mode: Three modes control the charging of the charger : APP, RFID and plug & charge.

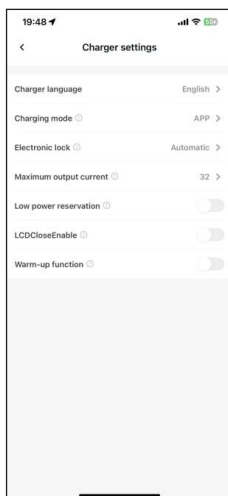
Allow charging time: When the charging mode is Plug&Charge, it can be set to control the charging time allowed in the gun insertion mode (only supported by AC chargers).

Electronic lock: There are two modes: manual and automatic. When the manual mode is selected, the charging connector will lock. When the automatic mode is selected, it is locked during charging and will be automatically unlocked after charging is completed (only supported by AC chargers).

Maximum output current (power): Limit the output capacity of the charger.(for AC chargers, set the current; for DC chargers, set the power).

LCD close Enable: Control whether the LCD screen of the charger is turned off or not. When the button is turned on, the screen is turned off; when the button is turned off, the screen is turned on(only supported by AC chargers).

Warm-up function: Control whether the preheating function is enabled. Once enabled, the charger will continue to supply energy to the vehicle, which can be used to preheat the vehicle in extremely cold weather and reduce battery consumption. It can also prevent the situation where charging cannot be restarted when it is interrupted or paused.(only supported by AC chargers).



Solar & Load balancing

Sampling wiring: The load balancing function and the solar function detect the type of tool for fuse or gird power. CT2000,CT3000 and meter.

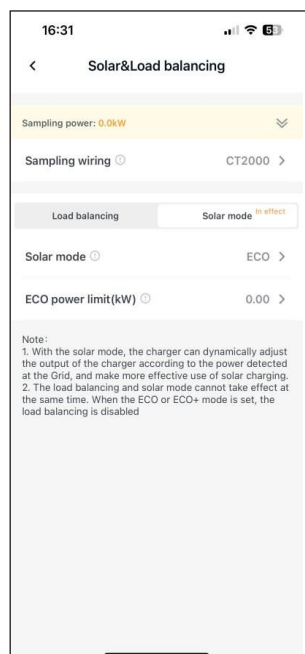
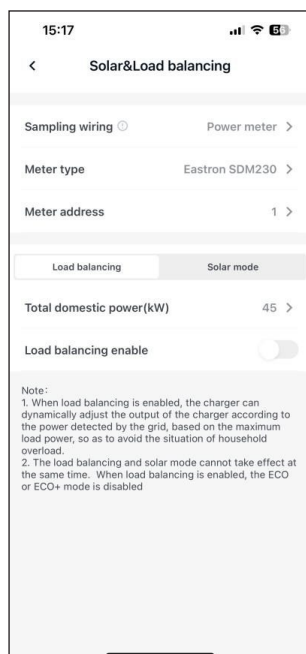
Meter type: The type of electricity meter is set, and the sampling method is displayed when the electricity meter is on.

Meter address: The address of the electricity meter is set, and the sampling method is displayed when the electricity meter is on.

Load balancing: When power distribution is enabled, the charger can dynamically adjust the output of the charger based on the power detected at the grid end and the maximum load power to avoid overload in household use.

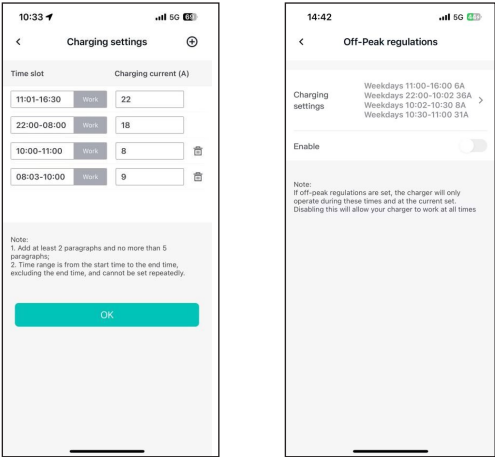
Solar mode: In combination with the photovoltaic charging mode, the charger can dynamically adjust the output of the charger according to the power detected at the grid end, making more effective use of photovoltaic charging. When set to ECO mode, ECO power limit can be set to control the maximum power that is allowed to draw electricity from the power grid.

Note: Load balancing and Solar mode cannot take effect simultaneously.



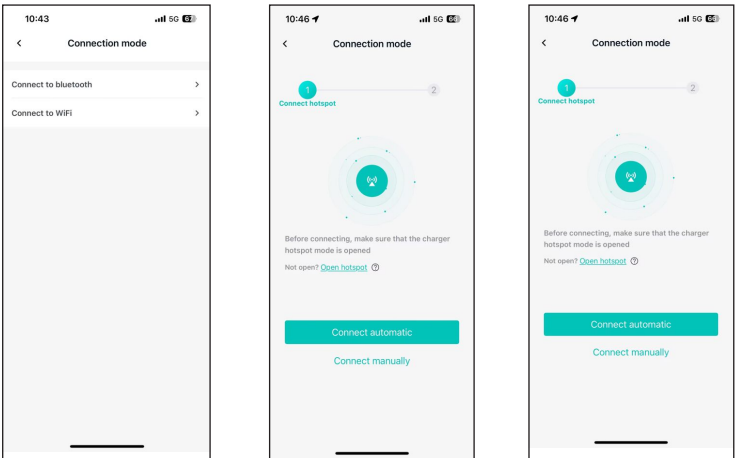
Off-peak Regulations

According to the power price, set the output capacity of the charger in various time periods to save electricity costs. You can set a maximum of five time periods. Each time period can be configured for three types: weekdays/weekends/daily. Older versions of chargers only support setting weekday time slots; an upgrade is required to use the additional options.



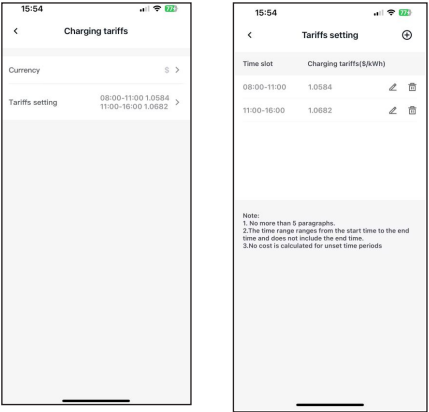
Connection mode

The charger can be connected via Bluetooth or a hotspot for network distribution or parameter setting. Please use it according to the actual connection method supported by the charger.



Charging rate

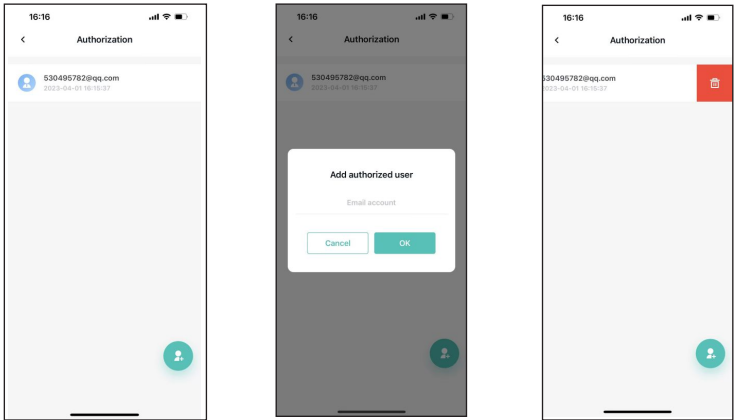
If a charging rate is set, the charging cost will be calculated by multiplying the unit price of the rate set within the charging period by the amount of electricity. For unset time periods, the rate is 0. The start time of the time period cannot be greater than the end time, and it cannot be set repeatedly. The maximum number of segments should not exceed 5.



Authorization

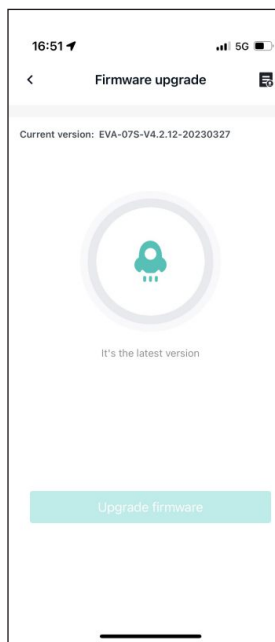
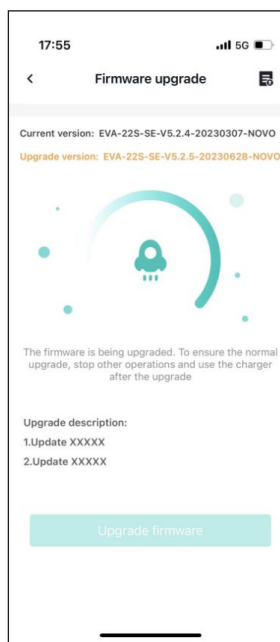
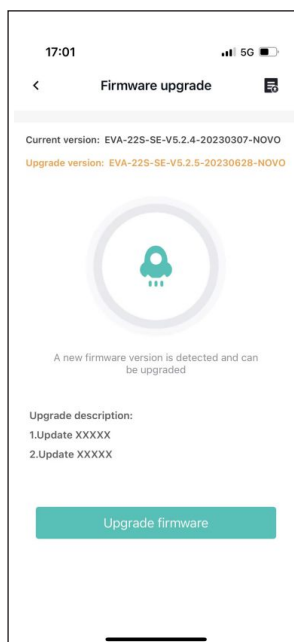
Users can authorize other users to use the charging piles through authorization management. Enter the user's email account (registered) to authorize other users to use this charger. To manage authorized users, you can view the authorization time and email account on the authorization management interface. Swipe left to click "Delete". After deletion, the authorized user can no longer use the charger.

Note: Authorized users can only operate to start charging. Stopping charging/unlocking the electronic lock can only operate charging initiated by themselves.



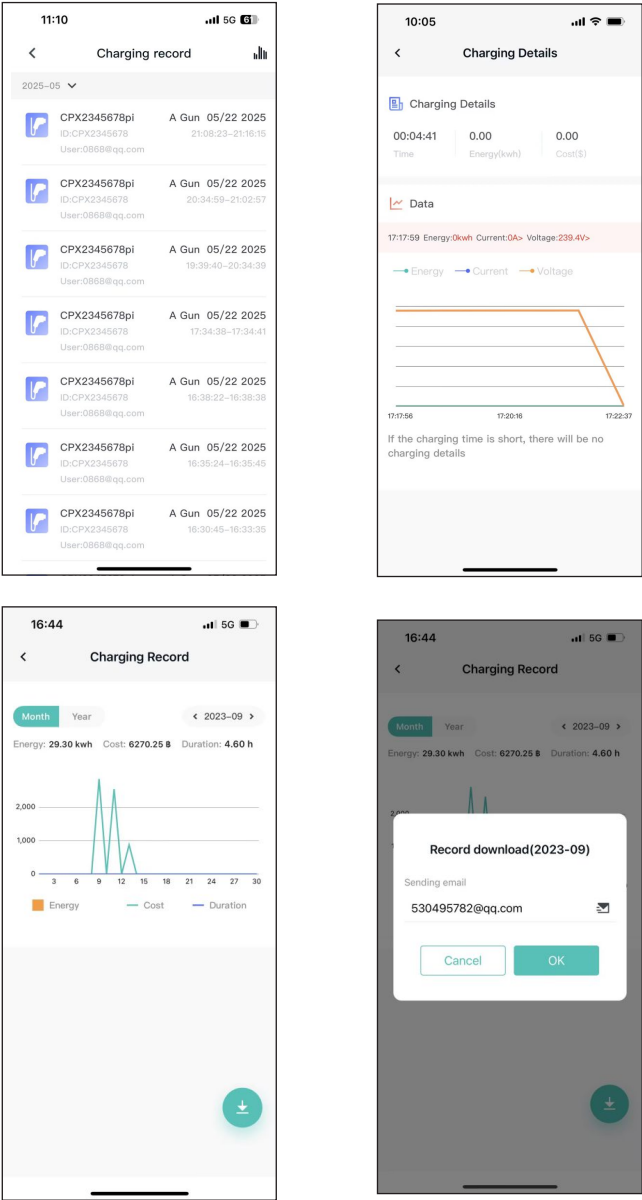
Firmware upgrade

When there is a new version of firmware available for Upgrade, an upgrade pop-up window will pop up. Click “Upgrade” to jump to the upgrade page, click “Later” to close the pop-up window, and you can enter it through the “Setting” entry. After a successful upgrade, the firmware version will become the new one. If the upgrade fails, you can perform the upgrade again.



11.2.9 Charging record

Query the historical charging records of the charger and click to view the charging data.



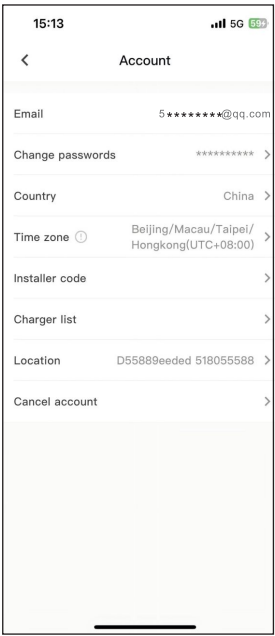
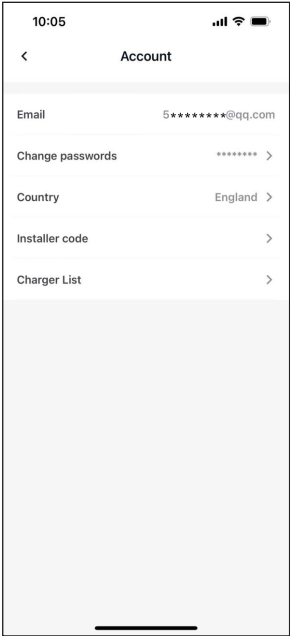
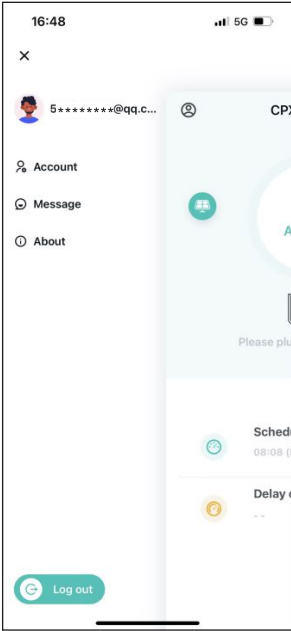
11.2.10 Account Management

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.



12 Warranty

Warranty

The warranty period of this product (Including hardware and software) is 2 years. If the contract stipulates otherwise, the contract shall prevail.

For warranty cases during the warranty period, the customer should present the invoice of the purchase of the product to our service team. At the same time, the nameplate on the product should be clearly visible, otherwise the warranty claim might not be accepted.

Warranty condition

We will repair or replace the product free of charge during the warranty period. The defective machine after replacement shall be owned by us, and the customer shall reserve a certain amount of time for us to repair the faulty machine.

Liability exemption

We reserve the right not to accept the warranty claim if the conditions below happen.

- 1.No trademark on the product.
- 2.Warranty period has expired.
3. Fault or damage caused by incorrect installation, by installing the device in a not allowed environment, by improper storage or usage, etc.(e.g. too high or too low temperature, moisture or too dry environment, high altitude or unstable voltage/ current etc.
- 4.Failure or damage caused by the installation repair, modification or disassembly by unauthorized service personnel.
- 5.Failure or damage caused by using our non-genuine spare parts.
- 6.Damage or damage caused by accident or human cause (operational error, scratching, handling, bumping, access to inappropriate voltage, etc.), or transport damage.
- 7.Failure or damage caused by force majeure such as natural disasters (such as earthquakes, lightning strikes, fires, etc.)
- 8.Other failures or damages that are not caused by quality problem of the product or its components.

Statement of liability

The copyright of this manual belongs to our company. Any organization or individual may not extract or copy part or all of the contents of this manual without any written permission from us, and may not be reproduced and spread in any form (including materials and publications). We have the final right to interpret this manual. This manual is subject to change without prior notice. For more information, please contact support@atesspower.com.

13 Electrical diagram

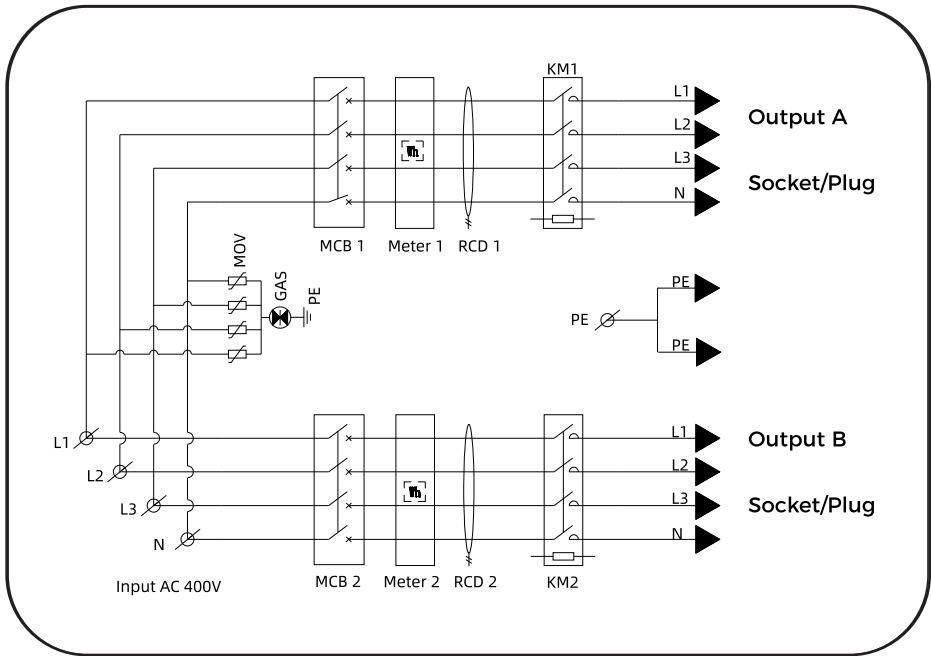


Fig13-1. Main circuit diagram

14 EU Declaration of conformity

EU statement of compliance

This declaration is issued under the sole responsibility of the manufacturer Shenzhen ATESS Power Technology Co.,Ltd. This is to declare that the products listed below have been developed, constructed and manufactured according to the following EU directives:

- LVD directive 2014/35/EU& EMC directive 2014/30/EU
- The applied harmonized standards are shown in the following list

Product	Standard
NANO EVA-11D-SW NANO EVA-22D-SW	EN IEC61851-1:2019 EN IEC 61851-21-2:2021

15 Annex A: inspection and Maintenance Manual

15.1 Safety Instructions

Before installing, operating, and maintaining this equipment, you must carefully read and strictly comply with the following safety requirements. Failure to comply with these requirements may result in serious safety accidents such as electric shock to personnel, equipment damage, fire, and explosion, and any resulting liability shall be borne by the operator who fails to comply:

1. Power must be cut off before inspecting the internal structure. During functional testing, the switch must be closed first, followed by closing the cabinet door. Before powering on the equipment, confirm that the protective grounding is properly connected and the grounding resistance meets industry standards to prevent personal injury due to electric shock.
2. The equipment must not be operated in an environment containing flammable or explosive gases or dust, and the working area must be adequately ventilated.
3. No person or organization shall disassemble, modify, or add internal components to the equipment without authorization. If maintenance becomes necessary, contact personnel authorized by the original equipment manufacturer.
4. Do not forcibly disconnect the charging connector during charging. Always follow the on-screen prompts to complete the settlement, high-voltage discharge, and power module shutdown procedures before unplugging or reconnecting the connector.
5. The installation, commissioning, maintenance, and fault rectification of the equipment shall only be carried out by qualified electrical personnel who are properly trained and authorized.
6. Before powering on the equipment, confirm that the input voltage and power frequency match the nameplate ratings. Operation beyond the rated parameters is strictly prohibited.
7. For tools used during operation and maintenance, exposed metal parts other than the working end must be properly insulated (e.g., wrapped with insulating tape) to prevent short circuits caused by contact with the equipment enclosure.
8. The charging connector and cable must not be bent, squeezed, or subjected to excessive stretching or pulling, to prevent electrical hazards caused by mechanical damage.
9. If the charging connector is found to be damaged, cracked, contaminated, or have poor electrical contact, discontinue use immediately and report it for repair.
10. To ensure proper heat dissipation of the equipment, the ventilation dust filter must be cleaned regularly to prevent blockage from dust accumulation.
11. During the installation and operation of the EV chargers, all applicable national and local electrical safety laws and standards shall be complied with.

15.2 Inspection Contents

15.2.1 Charger Environment Inspection

1. Heat Dissipation and Ventilation Requirements: The air inlets/outlets shall be unobstructed (with a distance of $\geq 1.5\text{m}$). The indoor area shall be adequately ventilated, and the outdoor area shall be protected from direct sunlight to prevent heat accumulation.

2. Safety Zone Requirements: The area around the EV charger shall be kept free of flammable or explosive materials, corrosive liquids, and debris. Fire-fighting equipment shall be unobstructed and readily accessible for emergency use.

3. Installation foundation requirements: The foundation shall be free from structural damage and settlement. The anchor bolts shall be securely fixed. For outdoor or flood-prone areas, the base shall be elevated above ground level and equipped with anti-backflow measures (it is recommended to be $\geq 15\text{cm}$).

4. Ambient Temperature and Humidity conditions: The ambient temperature shall be between $-25\text{ }^{\circ}\text{C}$ and $50\text{ }^{\circ}\text{C}$, and the relative humidity shall be 5%-95% non-condensing. There shall be no water ingress or condensation in the installation environment.

5. Drainage and Water Accumulation Requirements: There shall be no water accumulation in the installation area. Outdoor areas shall be provided with a drainage slope, and drainage facilities in underground garages shall be properly functioning.

6. Pollution Protection Requirements: There shall be no significant dust accumulation, and no dust-generating sources near the heat dissipation ports. In chemical plants or coastal areas, the equipment shall be protected against corrosion from corrosive gases or salt spray.

7. Electromagnetic Interference and Clearance Requirements: There shall be no interference from high-power electromagnetic equipment (to ensure normal communication), and the equipment shall be protected against collision during construction. The distance between outdoor vegetation and the EV charger's body shall be $\geq 1.5\text{m}$.

15.2.2 Charging Gun Storage and Inspection

1. Storage status: When not in use, the charging gun must be placed in the designated socket to prevent the ingress of dust and rainwater.

2. Physical status: The charging gun head shall be free from cracks, deformation, and signs of overheating or burning. The cable shall be free from flattening, breakage, exposed conductors, aging, and cracking, and the insulating layer shall be intact. If any of the above conditions are observed, discontinue use of the charging gun immediately and replace it.

3. Connection detection: After inserting the charging gun into the vehicle's charging inlet, the equipment shall be able to promptly identify the connection status and display the corresponding connector insertion icon.

4. Cleaning and maintenance: There shall be no foreign matter or oxidation on the metal contacts inside the charging connector. If any foreign matter is present, it shall be carefully removed using an insulated tool, with the equipment completely powered off and appropriate insulation protection in place. Metal tools shall not be used to contact the terminals.

15.2.3 Charger Appearance Inspection

1. EV Charger Housing: The charger housing shall be free from obvious deformation, collision dents, and deep scratches. The metal parts of the housing shall be free from rust and extensive paint peeling. The plastic parts shall be free from cracks and aging. The sealing rubber strips shall be properly fitted, with no looseness or signs of water ingress at the joints. The installation bracket shall be securely fixed.(with no looseness, detachment, tilting, deformation, or rust.)

2. Display screen: The screen shall be free from cracks, obvious scratches, and persistent stains on the surface. The displayed text and icons shall be clear, with no image blooming, flickering, black screen, or afterimages. The touch control shall be responsive, with no unresponsive areas. The frame shall be properly fitted, with no warping. Outdoor screens shall be free from fogging and water ingress.

3. Indicator lights: The indicator light cover shall be intact, with no yellowing or damage. The lamp holder shall be securely fixed, with no looseness. The indicator light colors shall be accurate (blue for standby, green for charging, red for fault, yellow for standby schedule charging).The brightness shall be normal, with no abnormal conditions such as failing to light or remaining on continuously. The indicator lights shall respond promptly and accurately when the operating state changes, consistent with the equipment status.

4. Equipment door lock: The lock body shall be free from deformation and rust. The fixing screws shall be properly installed and secure. The mechanical lock shall operate smoothly when the key is inserted and removed. The electronic lock shall respond promptly to electronic inputs. The switch shall operate smoothly without jamming. The sealing gasket shall be intact. The keyhole shall be free from water ingress and corrosion.

5. Emergency stop switch: The button shall be free from damage, deformation, or sticking, and shall return promptly after being pressed. The protective cover (if present) shall be intact and shall open and close smoothly. The "Emergency Stop" marking shall be clear and unobstructed. The sealing at the bottom wiring port shall be intact and properly installed, with no exposed wires.

15.2.4 EV Charger Internal Components Inspection

1. Core requirement: All internal inspections shall be performed with the equipment completely powered off. First, use a multimeter set to AC voltage mode to measure the incoming terminals and verify that no voltage is present before proceeding.
2. Internal cables: The internal cables shall be free from burn marks, oxidation, damage, or rodent bites. The cables shall be properly arranged, with no looseness or displacement caused by bending or tension.
3. Screws and Wiring Terminals: Check the terminals by gently manipulating the cables. The terminals shall be free from looseness, signs of aging, rust, burn marks, or heat discoloration. Screws shall be fastened using an insulated screwdriver, following the diagonal tightening pattern.
4. AC input circuit breaker: The breaker shall operate smoothly, without sticking or jamming. After closing, the contacts shall make proper contact and operate without abnormal noise or sparking.
5. Incoming Cable Hole Sealing: The fire-resistant sealing compound at the AC input cable entry shall be intact, without detachment or cracking, to ensure proper sealing and prevent moisture ingress.
6. Dust Filter: The dust filter at the air inlets and outlets shall be free from excessive dust accumulation and oil contamination. If the dust filter is contaminated, it shall be cleaned by blowing from the inside out using a high-pressure air blower, and shall be replaced if cleaning is insufficient.
7. Circuit board: The circuit board shall be free from scorching, bulging, or liquid leakage. There shall be no detached or cold solder joints, and no oxidation or corrosion of the copper traces. The connectors shall be firmly seated, with no looseness. Cleaning shall be performed only with an anti-static brush by gently brushing, or by blowing with low-pressure dry compressed air from an oblique top position at a distance of ≥ 15 cm. Cleaning with a damp cloth, high-pressure air, or metal tools is strictly prohibited. Operators shall wear anti-static gloves during cleaning to prevent electrostatic damage to components.
8. Power module: The appearance shall be free from signs of scorching or water ingress and shall have no burning smell. The wiring terminals shall be secure, with no looseness. During power-on testing, there shall be no red light alarms. The output voltage and current shall comply with the rated specifications of the equipment. In case of any abnormality, contact the manufacturer.
9. SPD: The appearance shall be free from physical damage, scorching, or rust; the wiring shall be secure (without looseness or detachment), and the pins shall be free from oxidation or corrosion. the indicator light shall function normally (displaying green for normal operation and red for fault).

Charger Inspection Record Form			
Charger SN:		Inspection Date:	Installation Address:
Inspector:		Contact Information:	
Inspection Status			
No.	Type	Inspection Contents	Result
1	Environment	Heat Dissipation and Ventilation: Air inlets/outlets are unobstructed ($\geq 1.5\text{m}$), well-ventilated, no risk of heat accumulation due to direct sunlight.	☐ Normal ☐ Abnormal
2		Safety Boundary: No accumulation of flammable/explosive substances, corrosive liquids or debris around; fire-fighting equipment is in normal.	☐ Normal ☐ Abnormal
3		Installation Foundation: Foundation is free from damage and settlement; charger's body is firmly fixed; base is at least 15cm above the ground; effective anti-backflow measures are properly adopted.	☐ Normal ☐ Abnormal
4		Temperature and Humidity Conditions: Ambient temperature ranges from -25°C to 50°C ; relative humidity ranges from 5% to 95% (no condensation).	☐ Normal ☐ Abnormal
5		Drainage and Water Accumulation Prevention: No water accumulation on the ground; good drainage conditions.	☐ Normal ☐ Abnormal
6		Pollution Protection: No risk of dust sources, corrosive gases or salt spray erosion.	☐ Normal ☐ Abnormal
7		Surrounding Interference: No serious electromagnetic interference or construction collision risk; distance from vegetation is $\geq 1.5\text{m}$.	☐ Normal ☐ Abnormal
8	Charging Gun	Storage Status: Charging gun is stored properly; gun holder is undamaged.	☐ Normal ☐ Abnormal
9		Physical Status: No cracks, deformation or ablation on the gun head; no flattening, breakage, exposed copper, aging or cracking on the cable; insulating layer is intact.	☐ Normal ☐ Abnormal
10		Connection Detection: Equipment can correctly identify the connection status and display the gun insertion symbol.	☐ Normal ☐ Abnormal

No.	Type	Inspection Contents	Result
11	Charging Gun	Cleaning and Maintenance: No foreign matter blockage or metal contact oxidation inside the gun head.	☐ Normal ☐ Abnormal
12	Appearance	Charger's Body Shell: No deformation, depression, deep scratch, rust, paint peeling or cracking; good sealing; no looseness or water leakage at joints; installation bracket is free from looseness, falling off, inclination, deformation or rust.	☐ Normal ☐ Abnormal
13		Display Screen: No cracks, obvious scratches or stains; clear display without screen blooming, flickering or black screen; sensitive touch control; well-fitted frame; no fogging or water ingress.	☐ Normal ☐ Abnormal
14		Indicator Lights: No damage or looseness; accurate color; normal brightness; indication consistent with equipment working conditions.	☐ Normal ☐ Abnormal
15		Equipment Door Lock: No deformation or rust on the lock body; smooth insertion and removal of mechanical lock key; no jamming of the switch.	☐ Normal ☐ Abnormal
16		Emergency Stop Switch: No damage; normal rebound; smooth opening and closing of protective cover; clear marking.	☐ Normal ☐ Abnormal
17	Internal components (completely powered off and confirmed with a multimeter)	Internal Cables: No scorching, damage, etc.; cables are neatly arranged; no winding, looseness or falling off.	☐ Normal ☐ Abnormal
18		Screws and Wiring Terminals: No looseness, rust or discoloration of terminals; no looseness of screws.	☐ Normal ☐ Abnormal
19		AC Input Circuit Breaker: Normal opening and closing; good contact without abnormal noise after closing.	☐ Normal ☐ Abnormal
20		AC Incoming Cable Hole: Complete fire-proof mud sealing at the incoming cable hole; no falling off or cracking.	☐ Normal ☐ Abnormal
21		Dust-proof Net: No serious dust accumulation or oil pollution on the dust-proof net at air inlets/outlets.	☐ Normal ☐ Abnormal
22		Circuit Board: No scorching, liquid leakage, oxidation or dust; no solder joint falling off or cold solder; no loose interfaces.	☐ Normal ☐ Abnormal

No.	Type	Inspection Contents	Result
23	Internal components (completely powered off and confirmed with a multimeter)	Power Module: No scorching, water ingress or abnormal smell; no alarm; normal output voltage and current.	☐ Normal ☐ Abnormal
24		Lightning Protection Module: No damage, scorching or rust in appearance; firm wiring; no pin oxidation; indicator light shows green.	☐ Normal ☐ Abnormal
25	Function	Charging Function: Normal start via card swiping, App, etc.; normal response time.	☐ Normal ☐ Abnormal
26		Human-Computer Interaction Function: Accurate touch control of the touch screen; complete information displayed on the interface.	☐ Normal ☐ Abnormal
27		Indication Function: Indicator light status is consistent with the actual working condition of the equipment.	☐ Normal ☐ Abnormal
28		Emergency Stop Function: In charging state, pressing the emergency stop button stops the equipment from charging and prompts emergency stop fault.	☐ Normal ☐ Abnormal
29		Leakage Protection Function: Circuit breaker trips instantly when the test button is pressed; normal closing without refusal to operate.	☐ Normal ☐ Abnormal
30		Metering Function: Normal response of electric energy meter buttons; clear screen display; normal electricity consumption.	☐ Normal ☐ Abnormal
31		Grounding Function: Grounding screws are fastened; grounding wires are free from breakage and oxidation; good grounding continuity.	☐ Normal ☐ Abnormal
32		Power Module Function: No abnormal noise; output meets rated parameters; no alarm or fault code.	☐ Normal ☐ Abnormal
33		Heat Dissipation Function: Heat dissipation fan starts normally during charging; no stalling or abnormal noise.	☐ Normal ☐ Abnormal
34		Communication Function: Stable connection between equipment and server; no offline or packet loss.	☐ Normal ☐ Abnormal

No.	Type	Inspection Contents	Result
35	Function	Firmware Version: Confirm that the firmware version is the latest without known vulnerabilities (can be confirmed with the manufacturer).	☐ Normal ☐ Abnormal
36		Fault Record: Historical faults have been handled; no unresolved alarms.	☐ Normal ☐ Abnormal
Inspection Results and Abnormal Conditions:			
Disposal Plan for Abnormal Inspection Results:			
Disposal Results of Abnormal Conditions:			
Suggestions for Optimization and Improvement Content to be Optimized:			
Equipment Maintenance and Spare parts Replacement Record			
No.	Parts Name		Chargeable
1			☐ Y ☐ N
2			☐ Y ☐ N
3			☐ Y ☐ N
Customer Confirmation			
Inspector Engineer(Signature): Customer in Charge Confirmation(Signature) Date:			



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