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EV Charger
User Manual

V1.0

IMPORTANT SAFETY INSTRUCTIONS

WARNING- When using electric products, basic precautions should always be followed, including the following.

This manual contains important instructions for Models ECA-NC3202S, ECA-NC4002S and ECA-NC4802S that shall be followed during installation, operation, and maintenance of the unit.

1. Read all the instructions before using this product.
2. This device should be supervised when used around children.
3. Do not put fingers into the electric vehicle connector.
4. Do not use this product if the flexible power cord or EV cable is frayed, has broken insulation, or any other signs of damage.
5. Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
6. Indicate the ambient temperature rating, -30°C to 50°C.
7. **"CAUTION" and the following or equivalent:** "To reduce the risk of fire, connect only to a circuit provided with @ amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70, and the Canadian Electrical Code, Part I, C22.1."

Note (@)

Model	Current Rating
ECA-NC3202S	32 A
ECA-NC4002S	40 A
ECA-NC4802S	48 A

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CONSIGNES DE SÉCURITÉ IMPORTANTES

AVERTISSEMENT- Lors de l'utilisation de produits électriques, des précautions de base doFivent toujours être suivies, y compris les suivantes. Ce manuel contient des instructions importantes pour les modèles ECA-NC3202S, ECA-NC4002S and ECA-NC4802S qui doivent être suivies pendant l'installation, l'utilisation et la maintenance de l'unité.

1. Lisez toutes les instructions avant d'utiliser ce produit.
2. Cet appareil doit être surveillé lorsqu'il est utilisé à proximité d'enfants.
3. Ne mettez pas les doigts dans le connecteur du véhicule électrique.
4. N'utilisez pas ce produit si le cordon d'alimentation flexible ou le câble EV est effiloché, a une isolation cassée ou tout autre signe de dommage.
5. N'utilisez pas ce produit si le boîtier ou le connecteur EV est cassé, fissuré, ouvert ou montre toute autre indication de dommage.
6. Indiquez la température ambiante, de -30℃ à 50℃.
7. "MISE EN GARDE" et ce qui suit ou équivalent: "Pour réduire le risque d'incendie, connectez uniquement à un circuit équipé d'une protection maximale contre les surintensités de circuit de dérivation de @ ampères conformément au Code national de l'électricité, ANSI / NFPA 70 et au Code canadien de l'électricité, Partie I, C22.1. "

Noter (@)

Model	Current Rating
ECA-NC3202S	32 A
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1 ABBREVIATIONS

S/N	Abbreviations	Description
1	IEC	International Electrotechnical Commission
2	EV	Electrical Vehicle, this can be BEV (battery EV) or PHEV (plug-in hybrid EV)
3	EVSE	Electric Vehicle Supply Equipment [IEC61851-1]
4	OBC	On-board charger (of an EV)
5	kW	Kilo Watt (unit of Power)
6	A	Ampere (unit of Current)
7	V	Volt (unit of Voltage)
8	Hz	Hertz (unit of Frequency)
9	LCD	Liquid Crystal Display
10	LED	Light-emitting Diode
11	RFID	Radio Frequency Identification
12	CMS	Central Management System, manages EVSE and has the information for authorizing users for using its EVSE.
13	OCPP	Open Charge Point Protocol A standard open protocol for communication between EVSE and a Central System and is designed to accommodate any type of charging technique. (www.openchargealliance.org)
14	HMI	Human-Machine Interface
15	CCID	Charging Circuit Interrupting Device
16	GMI	Ground Monitor Interrupter
17	GFCI	Ground Fault Circuit Interrupter

2 SAFETY NOTES

2.1 Safety signs used

The following warning signs, mandatory signs and information signs are used in this manual, on and in the AC EV Charger.
Les panneaux d'avertissement, panneaux obligatoires et panneaux d'information suivants sont utilisés dans le manuel d'utilisation, sur et dans la station de charge ECA-NC4802S EV:

CAUTION: Warning of electrical hazards.
This sign is intended to alert the user that severe personal injury or substantial property damage can result if the device is not operated as requested.

MISE EN GARDE: Avertissement de risques électriques.
Ce signe est destiné à alerter l'utilisateur que des blessures graves ou des dommages matériels importants peuvent survenir si l'appareil n'est pas utilisé comme demandé.

ATTENTION: Warning of a danger spot or dangerous situation.
This sign is intended to alert the user that minor personal injury or material damage can result, if the device is not operated as requested.

ATTENTION: Avertissement d'un point de danger ou d'une situation dangereuse.
Ce signe est destiné à alerter l'utilisateur que des blessures légères ou des dommages matériels peuvent survenir si l'appareil n'est pas utilisé comme demandé.

CAUTION: Do not touch by hands in case of ESD.
Indicates the possible consequences of touching electrostatically sensitive components.

MISE EN GARDE: En cas de décharge électrostatique, ne touchez pas à la main.
Indique les conséquences possibles du contact avec des composants sensibles à l'électricité statique.

No access for unauthorized persons.
Pas d'accès pour les personnes non autorisées.

Use protective footwear.
Utilisez des chaussures de protection.

Indicates important texts, notes, or tips.
Représente un texte, une note ou un indice important.

2.2 Installation

Safety protection must be done when installing the EV Charger.
Une protection de sécurité doit être effectuée lors de l'installation de la station de charge EV.

- Installation must be carried out by personnel with professional qualification, otherwise there is a risk of electric shock.
  L'installation doit être effectuée par du personnel qualifié, faute de quoi il y a un risque d'électrocution.
- It shall be installed in the place without violent vibration and impact, and placed vertically to facilitate ventilation.
  Il doit être installé à l'endroit sans vibrations et chocs violents, et placé verticalement pour faciliter la ventilation.
- It shall be installed on noncombustible materials, or there is a risk of fire.
  Il doit être installé sur des matériaux incombustibles, ou il existe un risque d'incendie.
- Do not drop any foreign objects, especially metal objects, into the inside of the Charger or there is a risk of fire.
  Aucun objet étranger, en particulier un objet métallique, ne doit être placé dans le chargeur sans risque d 'incendie.
- The lead nose of the Charger must be securely attached or there is a risk of damaging the equipment.
  Les fils du chargeur doivent être solidement connectés, faute de quoi le matériel risque d'être endommagé.

2.3 Maintenance

Personnel must always use protective footwear when maintenance work.
Le personnel doit toujours porter des chaussures de protection lors des travaux de maintenance.

- It is recommended that routine safety inspection visits to Charger be conducted at least once a week.
  Il est recommandé que le chargeur fasse l'objet d'un contrôle de sécurité au moins une fois par semaine.
- Do not put inflammable, explosive, or combustible materials, chemicals, combustible steam, and other dangerous goods near the Charger, otherwise there is a risk of fire.
  Il est interdit de placer des substances dangereuses telles que des matières inflammables, explosives ou inflammables, des produits chimiques, des vapeurs inflammables à proximité des chargeurs, faute de quoi il y a un risque d'incendie.

- Keep the charging adapter clean and dry and wipe with a clean, dry cloth if soiled. Do not touch the Charger with your hand when charged.
  Maintenir l 'adaptateur de charge propre et sec, en cas de saleté, et l' essuyer avec une toile sèche propre.Ne touche pas le chargeur avec la main.

2.4 Operation

- Strictly forbidden for minors or persons of restricted capacity to approach the Charger to avoid injury.
  Il est strictement interdit aux mineurs ou aux personnes dont la capacité de mouvement est limitée d'avoir accès au chargeur pour éviter les blessures.
- Forced charging is strictly forbidden when the electric vehicle or Charger fails.
  La charge forcée est interdite en cas de panne du véhicule électrique ou du chargeur.

- Electric vehicle can only be charged with the engine off and stationary. Do not charge in rainy and thunderous weather.
  Le véhicule électrique ne peut être rechargé que si le moteur est éteint et statique.Il ne faut pas recharger les jours de pluie et les orages.
- It is strictly prohibited to use the Charger when the charging adapter or charging cables are defective, cracked, worn, broken or the charging cables is exposed. If you find any, please contact the supplier in time.
  L'utilisation de chargeur est strictement interdite lorsque l'adaptateur de charge ou le câble de charge présente des défauts, des défauts, des défauts, de l'usure, de la rupture ou de la nudité.En cas de découverte, veuillez contacter le fournisseur en temps voulu.

3 STANDARDS COMPLIANCE

3.1 Standard(s) for safety

Conformerto UL , Issue Date: 2023-XX-XX

3.2 AC Level 2 Charging

ECA-NC4002S product (the maximum output current is 40 A) was designed for AC Level 2 charging.

3.3 Charging mode and connection

The Charging mode of ECA-NC4002S product is Mode 2, and charging connection is the Case C.

Mode 3:
A method for the connection of an EV to an AC EV supply equipment permanently connected to an AC supply network, with a control pilot function that extends from the AC EV supply equipment to the EV.

Case C:
Connection of an EV to a supply network utilizing a cable and vehicle connector permanently attached to the EV charger.

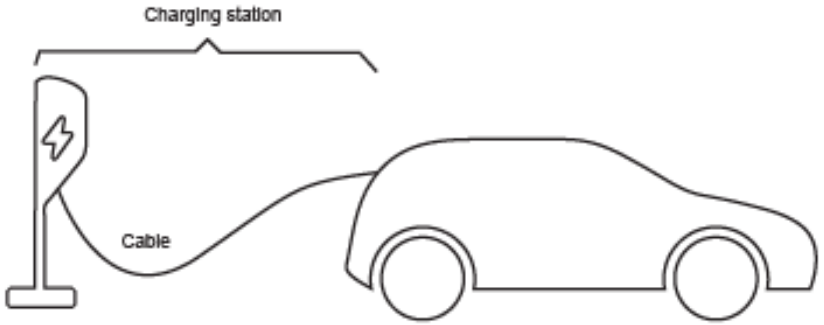
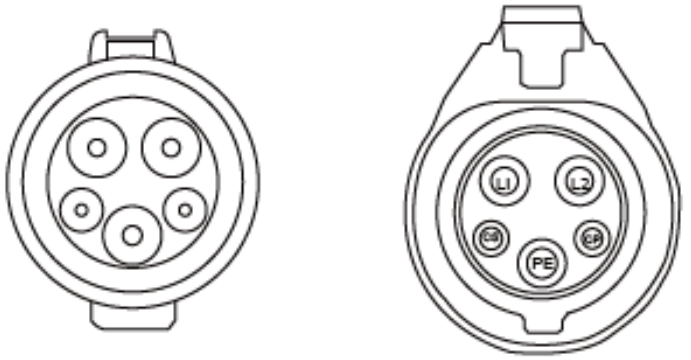


Fig. 3-1 Schematic diagram of CASE C connection

3.4 Charging interface

The charging plug of ECA NC4002S products meet SAE J1772/IEC 62196 2, Type 1.

ECA NC4002S products provide a Type 1 female plug with charging cable, it only charging an EV with a



(a) Socket (b) Plug

Fig. 3-2 Schematic diagram of Type 1 interface

4 PRODUCT INFORMATION

4.1 General

Welcome to use Level 2 AC EV Charger produced by our company.

4.1.1 Shape & dimensions

The shape & dimensions of AC EV charger shown as Fig. 4-1.

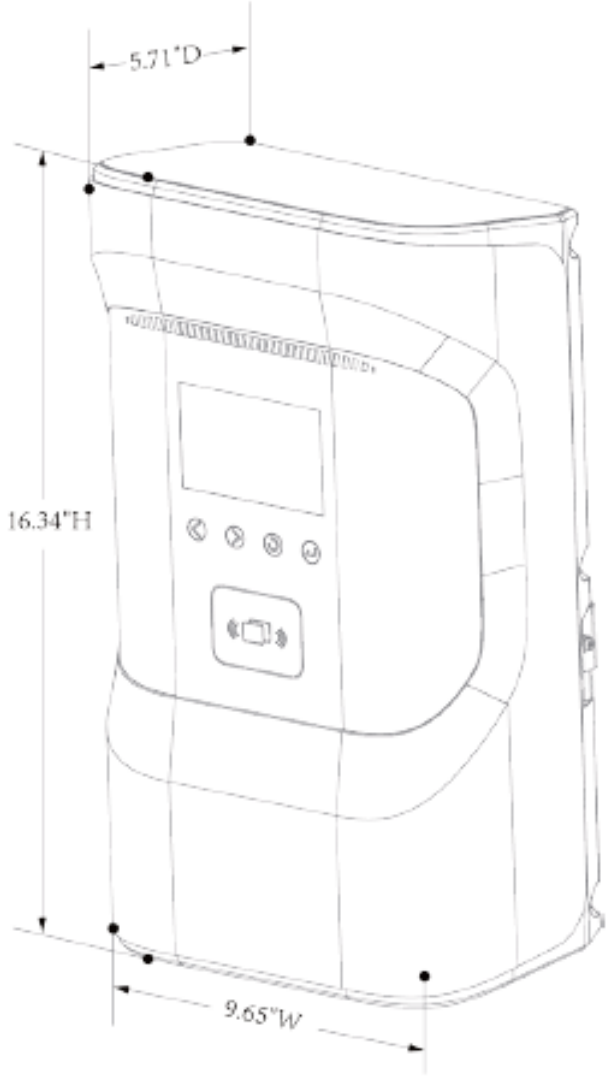


Fig. 4-1 The shape & dimensions of ECA-NC4802S

4.1.2 Block diagram

The block diagram of ECA-NC4802SAC EV charger is shown as Fig. 4-2.

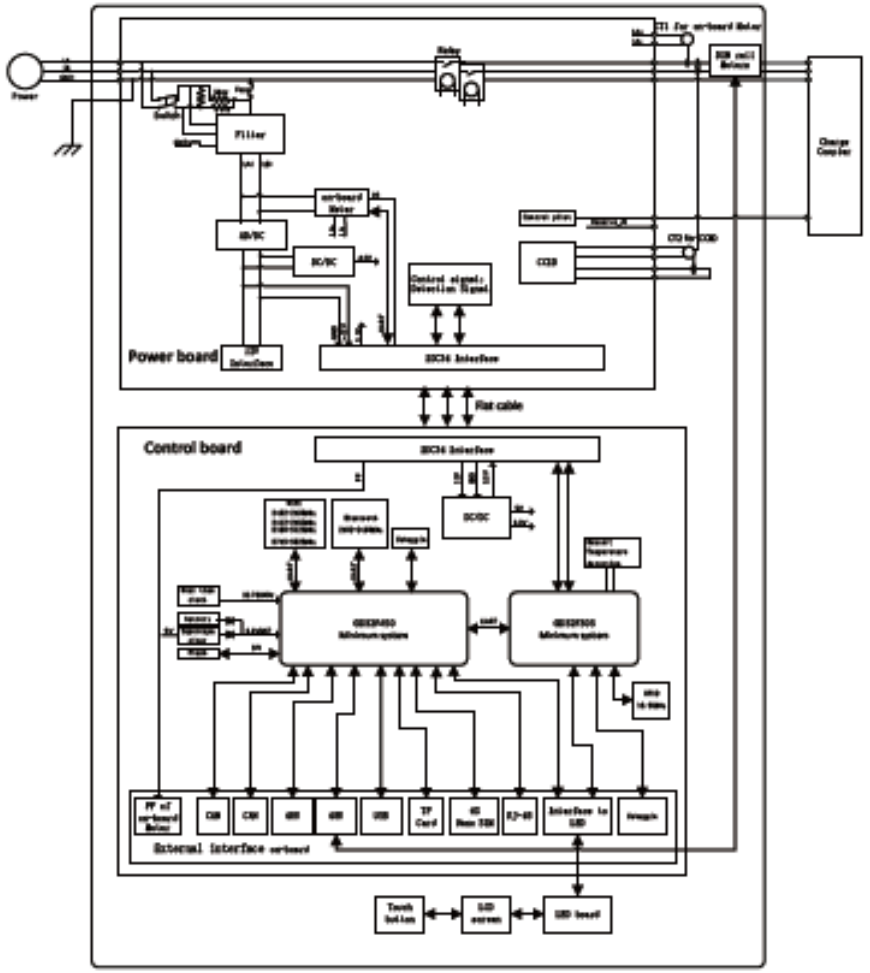
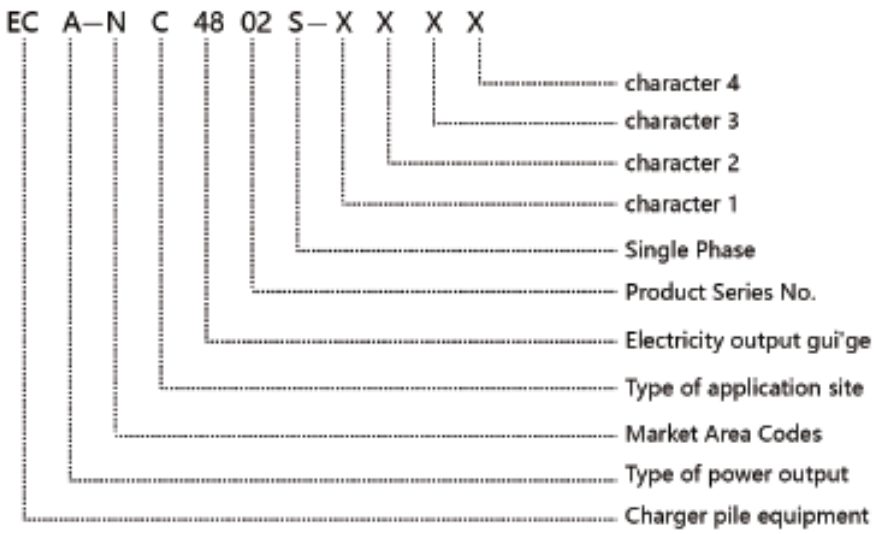


Fig. 4-2 Block diagram of products

It is widely used in various household electric vehicle charging in North America, as well as various chargers, parking lots, community garages and public electric vehicle charging places.

4.1.3. Model number definition

The model number definition of charger follows the rules as shown in Fig. 4-3.



The blank character 1 represents the basic communication function, in the range A-Z, which is defined as follows:

A	LAN+WiFi+BLE+4G	B	LAN+WiFi+BLE
C	LAN+WiFi+4G	D	LAN+BLE+4G
E	LAN+WiFi	F	LAN+BLE
G	LAN+4G	H	LAN

The blank character 2 represents an additional communication function, in the range A-Z, which is defined as follows:

A	CAN+RS485+PLC+USB	B	CAN+RS485+USB
C	CAN+PLC+USB	D	RS485+PLC+USB
E	CAN+USB	F	RS485+USB
G	PLC+USB	H	USB

The blank character 3 is for the presence or absence of a touch key and track table, in the range 0-9, and is defined as follows:

0	No touch buttons, no track meter
1	With touch keys with track gauge
2	No touch buttons, with track meter
3	With touch keys, no track meter

The blank character 4 represents the front shell colour, in the range 0 to 99, which is defined as follows:

0	RAL 7040	1	PT 021C
2	RAL 9007	3	RAL9010
4	PT 288UP	5	PT 5493UP
6	PT 147-4C	7	PT Black 2c

4.2. Specifications

RD01 American Standard AC Charging Post Series					
Category	**Model**	**Specifications & Parameters**			
Power Specification	ECA-NC3202S	Level 2, 208/240VAC 60Hz	32A	7.68kW	SAE J1772 TYPE1 /32A
	ECA-NC4002S	Level 2, 208/240VAC 60Hz	40A	9.6kW	SAE J1772 TYPE1 /40A
	ECA-NC4802S	Level 2, 208/240VAC 60Hz	48A	11.52kW	SAE J1772 TYPE1 /48A

Power wiring+B8:H30	Hardwired via pigtail ； L1/L2/GND
Communication	4G cat.4
	WiFi 2.4G
	BLE 5.0
	LAN（RJ-45）
	USB(type A)
	RS-485
	CAN
OCPP Version	OCPP 1.6J(Upgradeable to 2.0)
User Interface & Control	LCD Screen No touch function Size:4.3-inch Pixel:800*480 Operating Temperature：-30 ~ 70℃ Storage Temperature：-30 ~ 80℃
	RGB LED light bar
	Capacitive touch buttons
Meter	Guideway power Meter Build-in
	On-board power meter
User Authentication	RFID
	NFC
	APP
	ISO 15118 （Plug & Play ）

Power Management		Load Balancing:Operating Stations
Memory		Flash Rom（16M）
		TF card memory expansion
Real time clock		Coin Cell Battery
		Supercapacitor
Protection function		CCID20
		Over Voltage Protection
		Under Voltage Protection
		Over-current protection
		Over Load Protection
		Short Circuit Protection
		Ground Protection
		Over-temp Protection
		Surge Protection 6 kV @ 3,000A.
		Fault self-test,
Environmental	Enclosure Protection	Type 4
	Operating Temperature	-30 ~ 50℃
	Storage Temperature	-40 ~ 75℃
	Humidity	Up to 95%, non-condensing
	Altitude	≤2000m
	Cooling Method	Natural Cooling

Mechanical	EV Charger	145mm(D) x 245 mm(W) x 415mm(H)
	Cable Length	25 Ft or Customization
	Cable Management	TBD
	Pedestal	T100*W235*L1760mm
	Pedestal with cable Management	TBD
Regulation	Safety regulations	ETL（UL2231,UL2594,UL1998,UL991）
	Metering & Billing	CTEP
	Energy efficiency	Energy Star
	Wireless Certificate	FCC,IC
Warranty		1 year Or Other

4.3 Empty socket

ECA-NC4802S AC EV charger configures a type 1 charging connector.
When the charger is in standby state, please plug the charging plug in the empty socket in order to protect the charging plug.
Please use expansion screws to fix this empty socket at a suitable position beside the charger.

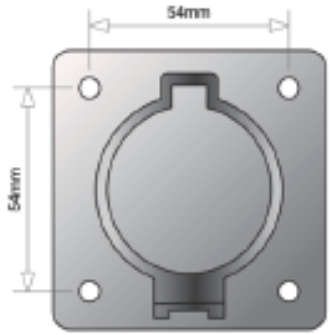
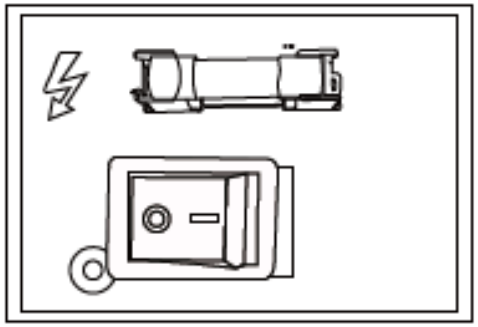


Fig. 5-7 Empty socket

5. OPERATION

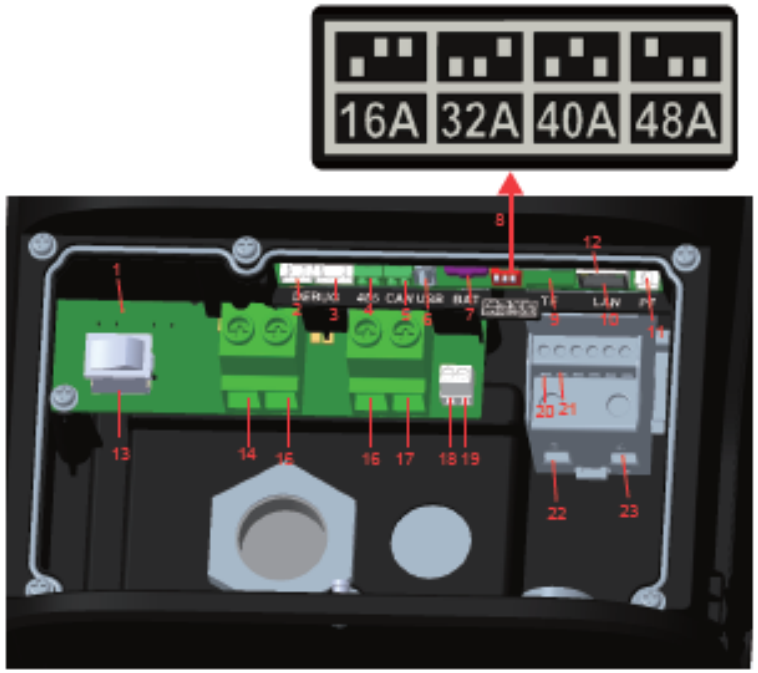
5.1. Power ont

1. Check whether the main board power supply switch is disconnected, and the fuse exists and has been installed.- Shown as follows:



2. Power supply to this product closed and turn on the main board power switch; observe whether the product's power-on interface is normal.

5.2. About interfaces



Sheet 3 Interfaces

NO		functions	Specification
1	Fuse	Safety Protection	5*20, 250VAC, 10A
2	Debug serial port	Not open	
3	Download interface	Not open	
4	485 interface	undeveloped	
5	CAN interface	undeveloped	
6	USB interface	undeveloped	
7	Coin cell battery	Clock power supply storage	CR1220
8	Dip switch Control	See picture 1 for setting method .rated current setting	See picture 1 for setting method .rated current setting
9	TF card holder	undeveloped	Micro SD
10	Ethernet interface(RJ45)	Internet connection	100Mbps
11	PF pulse interface	Meter calibration	Optocoupler output. external pull-up resistor
12	SIM card interface	Internet connection	4G Nano SIM
13	Power switch	Power control	
14	Input L1	Power input	AC 208/240V, 50/60Hz
15	Input L2	Power input	AC 208/240V, 50/60Hz
16	Input GND	Power input	
17	Cable GND	Power input	
18	Reserved interface		
19	CP interface	Charging control guide	
20	RS485 interface A	Meter communication	
21	RS485interface B	Meter communication	
22	Cable L2	Power output	Depending on input
23	Cable L1	Power output	Depending on input

The dip switch in the wiring compartment can adjust the rated charging power of this product. You may adjust the rated current according to the way as shown below. and the default dip code way out of the following picture is 48A rated.

6. FUNCTION

6.1 Introduction of screen elements and HCI status indication:

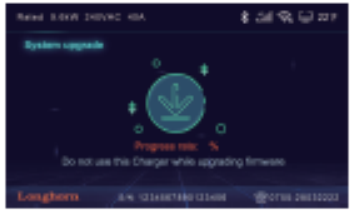
The following will use the standby screen as an example to illustrate the meaning of common elements in the LCD interactive interface:

1.The upper left corner of the status bar shows the electrical parameters; from left to right: charging power, voltage level, rated current.
Among them, charging power: grid voltage * rated current; voltage level: automatically check the grid voltage level when power on, there are "208", "240" two kinds of voltage level; rated current: dip switch to determine the rated current of the whole machine, dip code setting details see 2.4 Interface introduction and description.
2.Tthe upper right corner of the status bar shows the communication parameters; from left to right: Bluetooth icon, 4G icon, WIFI icon, Ethernet icon, Fahrenheit in the charger; all icons in the above figure are white highlighted icons.
The Bluetooth icon will only appear if the Bluetooth module is installed; the 4G module is a gray low light icon if it is not installed, and a white high light icon if the 4G module is correctly installed; the WIFI is a gray low light icon if it is not connected, and will appear when the WIFI is correctly set up and successfully connected; the Ethernet is a gray low light icon if communication is not established with the router, and a white high light icon when it is successfully established; the temperature inside the pile is white highlighted icon; the temperature in the pile is displayed dynamically in degrees Fahrenheit.
3.The status prompt is different in different language environments and different states.
4.This language switching prompt is unique to the standby interface, when lightly press the touch button, you can switch the language; currently English and French are available.
5.The main interface display, the content displayed in each state is different.
6.Product LOGO.
7.Charging post SN code, unique code when shipped. Subsequent customers can modify it through the server, and the uniqueness is not guaranteed after modification.
8.After-sales service phone number.
This product LED and LCD exist highly synchronized. Different LCD interface exists corresponding LED interactive display, through the effect of LED can check the state of LCD, to assist in judging the state of charging.

column 4 status of chargers

Status	LCD description	LED description	Current state of interaction function
Power on		Yellow light continuously flashes slowly after red, green, blue lights alternatively flash.	1any operations not recommended. 2.If there is a fault in the power-up, self-test will lead to the fault state.
Standby		Green light always on	1. Touch the button to switch languages. 2.The screen will go off automatically after 3 minutes. 3. Touch the button, swipe the card, insert the plug and wake up the screen This state can respond to the "suspend use" command; other states will not respond.
Preparing		Green light flashes	1.Under standby state users can jump to this interface when they appear to insert the plug operation. 2. This state will always wait for the user to swipe the card. 3. Return to the standby interface after pulling out the plug.
			1.Under standby state users can skip to this interface when the card swipe operation occurs. 2. This interface will stay for 1 minute, if the user does not insert the plug within 1 minute, it will return to standby mode.

Starting		Blue light slowly flashes	1. Swipe the card and plug in when both conditions are met and skip to this state. 2. Plug out in this state and return to the standby state. 3.Swipe the card in this state and return to the settlement interface.
Charging		Blue light always on	1. Fault in this state, skip to the fault settlement interface 2. Swipe the card in this state, jump to the settlement interface. 3. Loose the plug in this state (pull out the plug), skip to the abnormal settlement interface.
Settlement		Purple light always on	Plug out and return to the standby screen.
Fault		Red light always on Red light slowly flashes	1. Non-charging fault, will skip to this state. 2.Recoverable (slow flashing): under voltage, over voltage, over temperature, leakage, short circuit, over current, ground fault. 3. Non-recoverable (always on): abnormal CP voltage, meter failure, relay sticking
False settlement status		Red light always on Red light slowly flashes	1. Recoverable (slow flash): under voltage, over voltage, over temperature, leakage, short circuit, over current, ground fault 2. Non-recoverable (always on): CP voltage abnormal, meter failure, relay sticking 3. This state after the plug is pulled, if the fault is not lifted will enter the fault state; if the fault has been lifted.

Abnormal settlement Status		Purple light slowly flashes	1. The plug is loose in the charging state or directly plug in under this state. 2. Re-plug in, you need to re-swipe the card to start, and recalculate the order.
Scheduled Status		Green light slowly flashes	1. The server sends "scheduled instruction" to enter this state. 2. In this state, the offline management card can still be activated normally, and the order data is bound to the offline management card account 3. Non-scheduled card cannot start charging. 4. Plug in first and then swipe the card to start charging. First swipe the card and plug in can not start.
Upgrade Status		Yellow light slowly flashes	1. In this state, there will be a percentage figure of the upgrading firmware. Download the firmware until it's completed, then the checking content of the upgrade package will be judged. 2. When the download is completed and the verification succeed, it will enter the upgrade succeeded state. 3. During download-ing,if the network is disconnected or the verification fails after downloading is completed, it will enter the upgrade failed state.

Upgrade succeeded Status		Yellow light slowly flashes	Wait for 10 seconds and then restart.
Upgrade failed Status		Yellow light slowly flashes	Wait for 10 seconds and returns to the state before the firmware upgrading.
Suspension of use Status		Yellow light always on	1. From the standby state, accept the "suspend use" command from the server to enter this state. 2. Suspend the use of the state, you can accept the server issued by the "resume use" command, back to the standby state.
WIFI Configuration status		Pending	Tentative: Enter this state when APP opens the setting. As APP hasn't been developed yet, there is no interface to enter this state at present.

6.2 Config WiFi network(currently no APP)

Internet configuration by WIFI and OCPP Authpass(由于无 APP，临时方案)

Taking the configuration of charger parameters by laptop as an example, it is introduced as follows (the method of setting parameters by mobile phone is similar and will not be repeated):

■ Step 1: connect to WIFI hotspot

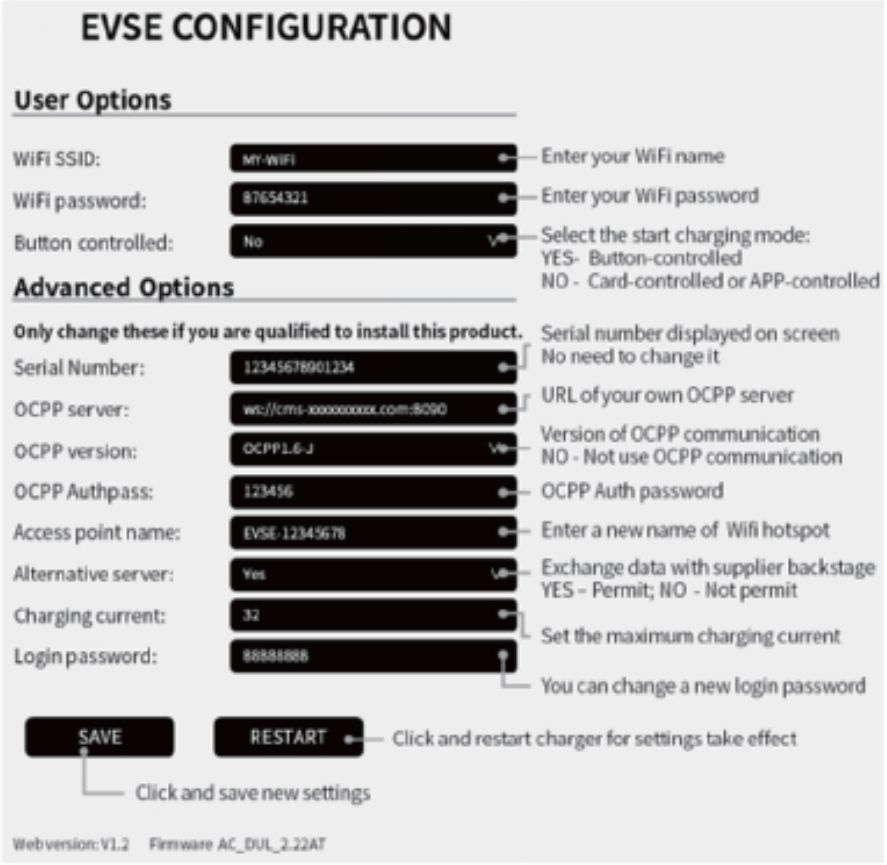
Keep your laptop in a state where it can connect to WIFI hotspots. Power on the charger. Find a hotspot with name "LHNM4001B-XXXXXXXX" (XXXXXXXX are 8 numbers), and connect it, don't need a password. (If you don't find a hotspot with name "LHNM4001B-XXXXXXXX", please restart the power supply of charger).

■ Step 2: login to setting

Open a web browser on your laptop, preferably using Google Chrome or Microsoft Edge, and fill the IP address "192.168.4.1" in the address bar of the browser, press the enter key to access the webpage of EVSE CONFIGURATION LOGIN (*Note: Microsoft IE browser cannot access*).

■ Step 3: Config your EV Charger

Fill the default password "12345678" to enter the page. Please change a new login password at the first-time login this webpage.



Fill hotshot's name and password of your WIFI router in the webpage.

Click the "SAVE" button to save the settings, and click the "RESTART" button to restart charging station for settings take effect.

After it takes effect, the charging station can access Internet via your WIFI router.

6.3 Operation guide

Method 1: Swipe card charging

① Plugging the charging connector into the AC charging socket of the electric vehicle (User can swipe the card first and then insert the gun)

② After swiping the card in the card swipe area, the user hears A "tick" sound, the card is swiped successfully(RFID card to start and stop charging)

③ When the vehicle is ready, start charging

④ Settlement on mobile phone when charging is complete Payment (no billing for domestic piles)

⑤ When finished charging, unplug the charging plug and insert it into an empty socket(Possibility of unusual draws during charging)

Mode 2: Charging by appointment (operational installation)

① Book a charging station via mobile phone

② After the reservation user has swiped the code or swiped the card at the swipe area, he/she will hear a "drop". to unlock the card.

③ Plugging the charging connector into the AC charging socket of the electric vehicle (User can swipe the card first and then insert the gun)

④ After swiping the card in the card swipe area, the user hears A "tick" sound, the card is swiped successfully(RFID card to start and stop charging)

⑤ When the vehicle is ready, start charging

⑥ Settlement on your mobile phone when charging is complete Payment

⑦ When finished charging, unplug the charging plug and insert it into an empty socket(Possibility of unusual draws during charging)

Mode 2: Charging by appointment (home installation)

① Plugging the charging connector into the AC charging socket of the electric vehicle (Users can make a reservation or swipe a card and plug in the gun)

② Book a charging station via mobile phone

③ After swiping the card in the card swipe area, the user hears A "tick" sound, the card is swiped successfully(RFID card to start and stop charging)

④ When the vehicle is ready, start charging

⑤ When finished charging, unplug the charging plug and insert it into an empty socket(Possibility of unusual draws during charging)

Mode 3: Plug and Play

① Plugging the charging connector into the AC charging socket of the electric vehicle

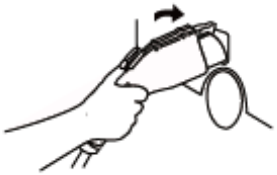
② When the vehicle is ready, start charging

③ Settlement on mobile phone when charging is complete Payment (no billing for domestic piles)

④ When finished charging, unplug the charging plug and insert it into an empty socket(Possibility of unusual draws during charging)

Method 4: Scan and Charge

1. Plugging the charging connector into the AC charging socket of the electric vehicle



2. Users scan the code via mobile phone

3. User determined charging

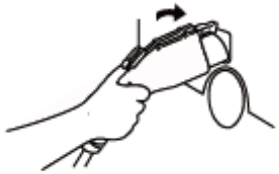
4. When the vehicle is ready, start charging

5. Settlement on mobile phone when charging is complete Payment (no billing for domestic piles)

5. When finished charging, unplug the charging plug and insert it into an empty socket(Possibility of unusual draws during charging)

Mode 5: Remote start/stop

1. Plugging the charging connector into the AC charging socket of the electric vehicle



2. Charging is initiated remotely by the user via mobile phone

3. User determined charging

4. When the vehicle is ready, start charging

5. Settlement on mobile phone when charging is complete Payment (no billing for domestic piles)

6. When finished charging, unplug the charging plug and insert it into an empty socket(Possibility of unusual draws during charging)

6.4 FAULT HANDLING AND MAINTENANCE

Fault Handling

If All LED are not on, please check:

- Whether the power supply and distribution are normal;
- Whether the branch breaker is tripped, and close the breaker after troubleshooting;
- Whether the connection is correct, if the cable comes off, should be properly connected to tighten the cable.

The charger is automatically protected in the event of the fault. The fault information and handling methods are as follows.

Indicator twinkle	Fault code	Handling method
• 1Xslow, 1Xfast	**Fault code 11:** CP voltage anomaly	• Check the connection of charging plug and socket. • Disconnect and reconnect the charging plug.
• 1Xslow, 3Xfast	**Fault code 13:** Undervoltage input	• Check whether input plug is reliably connected. • Check whether the input voltage is abnormal.
• 1Xslow, 4Xfast	**Fault code 14:** Overvoltage input	• Check whether the input voltage is abnormal.
• 1Xslow, 5Xfast	**Fault code 15:** Over-temperature protection	• Check whether the charger is covered or installed in a high temperature environment.
• 1Xslow, 6Xfast	**Fault code 16:** Metering fault	• Power off and restart the device.
• 1Xslow, 7Xfast	**Fault code 17:** Leakage protection	• Check whether the charging plug, charging cable and EV socket are damaged or wet. • Power off, disconnect and reconnect the charging plug and restart.

Indicator twinkle	Fault code	Handling method
• 1Xslow, 8Xfast	**Fault code 18:** Output shortage	• Check whether the charging plug and its cables are damaged or wet.
• 1Xslow, 9Xfast	**Fault code 19:** Output overcurrent	• Check whether the charging connector is correctly connected. • Check whether the OBC is normal. • Check the set of output maximum current.
• 2Xslow, 1Xfast	**Fault code 21:** EV response timeout	• Battery of EV is full. Or the charging plug is not properly connected. • Disconnect and reconnect the charging plug.

Indicator twinkle	Fault code	Handling method
• 2Xslow, 2Xfast	**Fault code 22:** EV not supported	• This EV does not meet the SAE J1772 and cannot be charged.
• 2Xslow, 3Xfast	**Fault code 23:** Relay sticking	• The device is damaged and needs to be returned to the factory for repair.
• 2Xslow, 4Xfast	**Fault code 24:** CCID sensor fault	• The sensor is damaged and needs to be returned to the factory for repair.
• 2Xslow, 5Xfast	**Fault code 25:** Ground fault	• Charger is not grounded; Input power socket and input plug need to be checked.

7 INSTALLATION

7.1 Nameplate

On the wallbox shell, there is a nameplate identifying the model and specification of the charger, the content is shown as Fig. 4-4.

7.2 Unpacking

7.2.1 Packing list

Package	Quantity
Three hole nylon waterproof connecto (BN-M32-25r)	1 pc
Three hole nylon waterproof connecto (BN-M25-18)	1 pc
Hooks	1 pc
AC charging gun socket	1 pc
American Standard gun mount silicone pad	1 pc
Plummer slot 304 stainless steel blackened countersunk head Self-tapping screws	8 pc
Small yellow fish expansion bolts	10 pc
Expansion screw	3 pc
Plug-in terminal block (plug)	2 pc
Plummer medium hole alloy steel electric drill head	1 pc
Packing bags	2 pc
American Standard AC Stake Instructions	1 pc
Crystal IC card	2 pc
UL label - nameplate	1 pc

7.2.2 Inspection & confirm

When unpacking, please carefully confirm the following points:

Whether the accessories are missing according to the packing list.

Whether there is any damage during transportation.

Whether the model and specification of the machine's nameplate are consistent with the order requirements.

- ▷ If any damage or missing parts are found, please do not start the machine, and contact the supplier as soon as possible.
- ▷ Please keep the packing box and packing materials 1 month for future handling..

The paper packaging is recyclable.

7.3 Prepare

When transporting or moving the EV charger, pay attention to the following points to ensure product safety:

In order to ensure the long-term stable operation of the product, it is recommended to avoid installing

- ▷ This product is electrical equipment. It should be handled with care to avoid violent vibration and impact.
- ▷ The charger shall not be transported by dragging the charging connector and the charging cable.

chargers in extreme weather as far as possible, especially low or high ambient temperature may affect the installation effect due to thermal expansion and cold contraction.

The electrical power supply socket (NEMA 14-50R) must be prepared.

Space requirement: When the charger is fixed on the wall, the minimum space requirements are shown in Fig. 5-2.

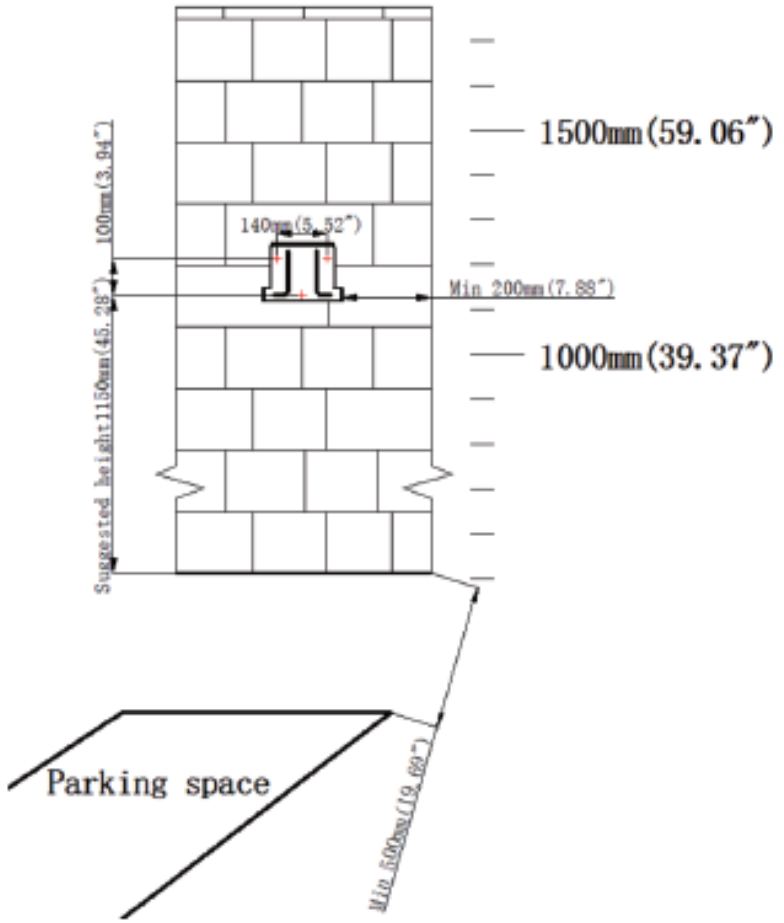


Fig. 5-2 Minimum space requirements for wall mounting

It is suggested that the charger should be installed in a place with good ventilation, no direct sunlight and shelter from wind and rain. In order to ensure good ventilation condition, you should mount the charger vertically and leave enough space.
Tools for installation Prepare the following tools at least before installing the AC EV charger.

No.	Tools' Name	Main Uses
1	Multimeter	Check the electrical connection and measure the voltage
2	Electric impact drill	Drill fixing holes in the wall
3	Wrench	Fastening bolt
4	Diagonal plier	Cut the cable
5	Wire stripper	Peeling cables
6	Crimping plier	Pressed cable terminal
7	Cross screwdriver	Fastening screw
8	Plummer medium bore alloy steel electric drill	For use with electric batches

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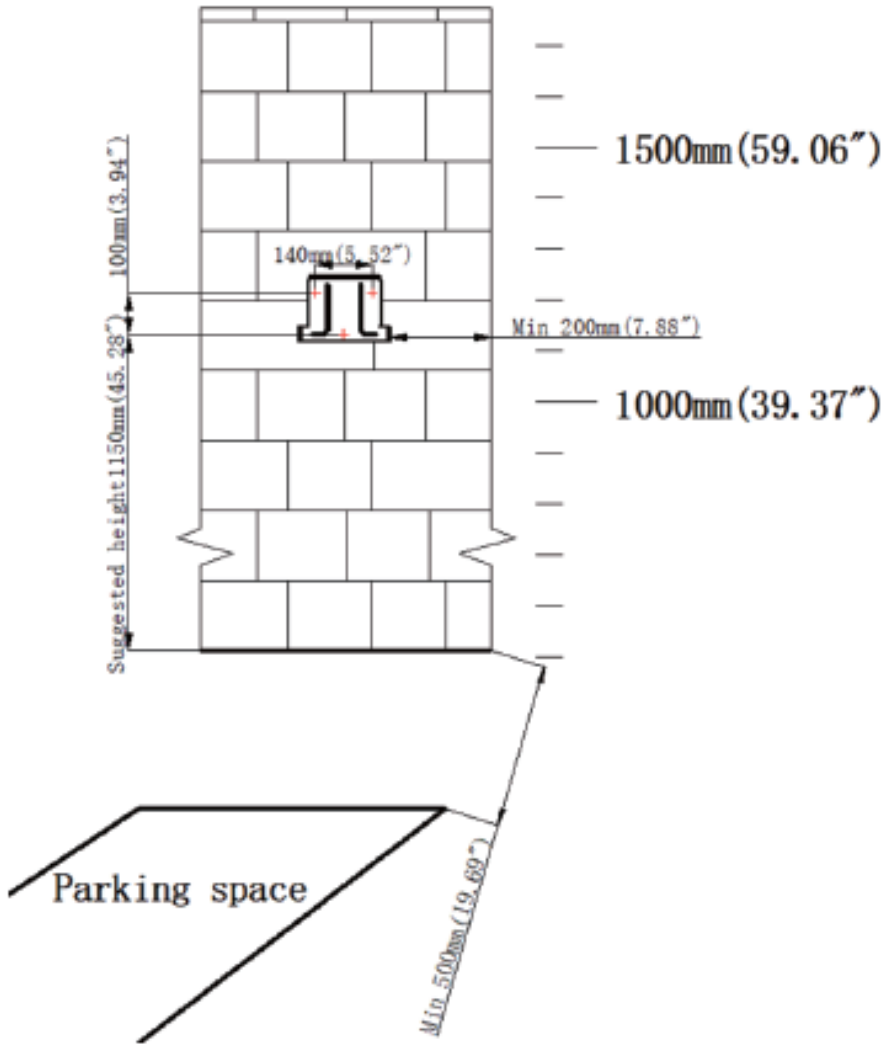
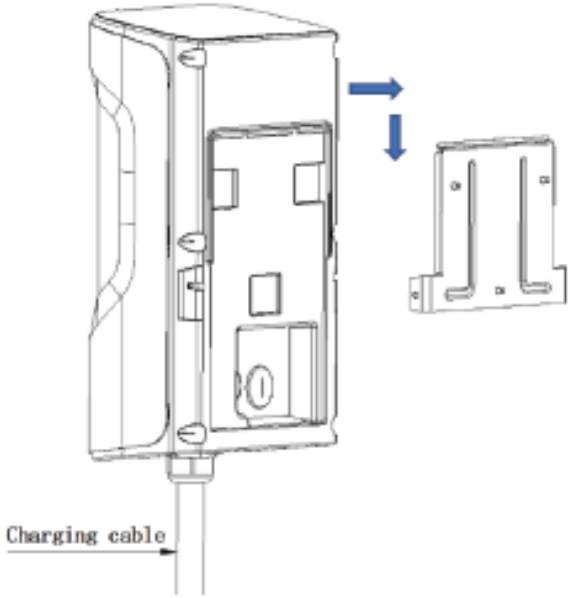
7.4 Installation steps

7.4.1 Install the Charger on the wall as following:

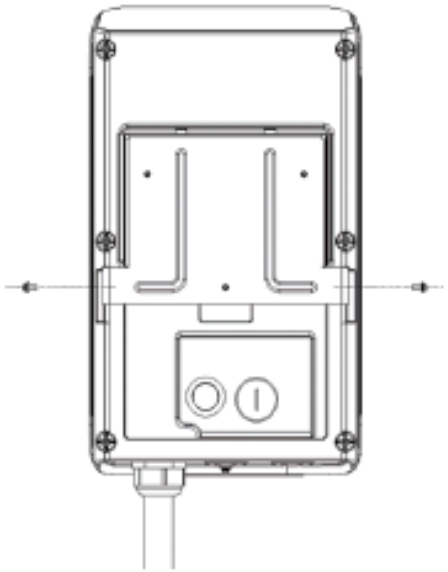
Step 1: Install the back plate using 3CPS of M6X50mm expansion screws fixed on the wall in the position shown below.



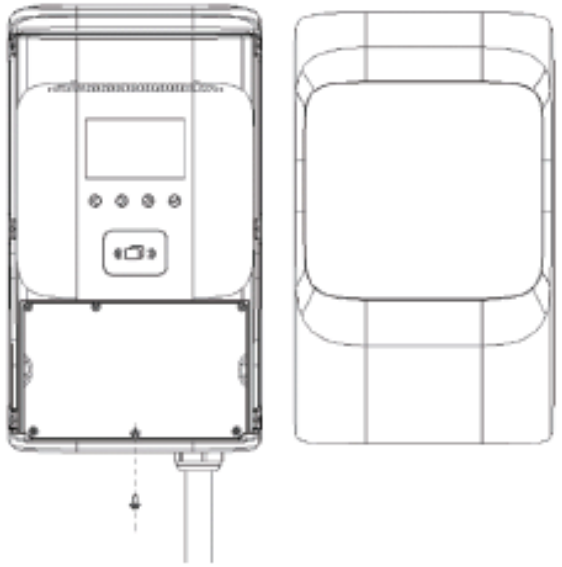
Step 2: Hang the charger on the mounting back plate as shown below:



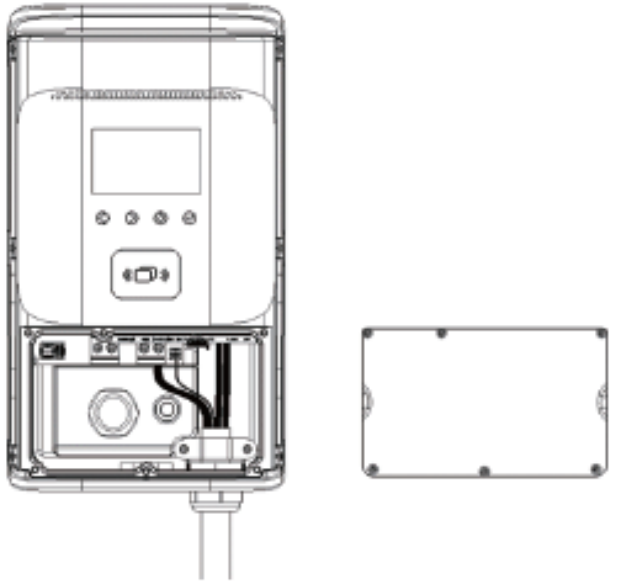
Step 3: Fix the mounting screws on both sides as shown below:



Step 4: Remove the decorative cover, as shown below:



Step 5: Remove the wiring cover as shown below:

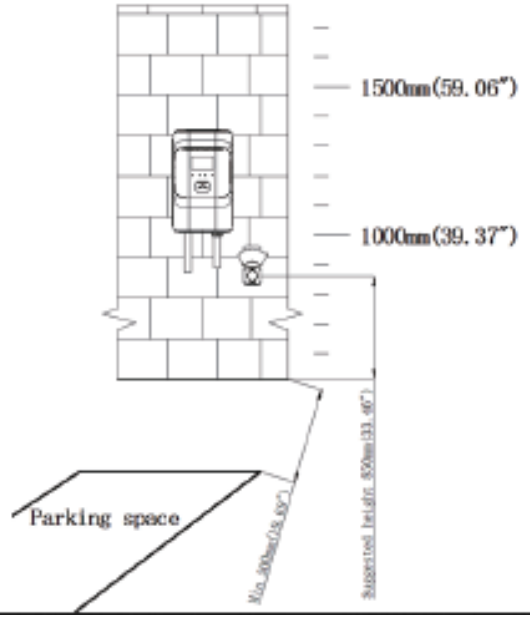


Step 6: Access the AC input power line as shown below:

Step 7: Reinstall the wiring cover as shown below:

Step 8: Reinstall the decorative surface cover, as shown below:

Step 9: Use 8PCS of M5X40mm expansion screws to install the socket and cable hanger on the wall, the location is recommended as shown below:



7.4.2 Pedestal installation:

Pedestal installation:

Step 1: Fix the installation plate on the pedestal, as shown in the figure below:

Step 2: Hang the whole charger on the installation plate, as shown in the figure below:

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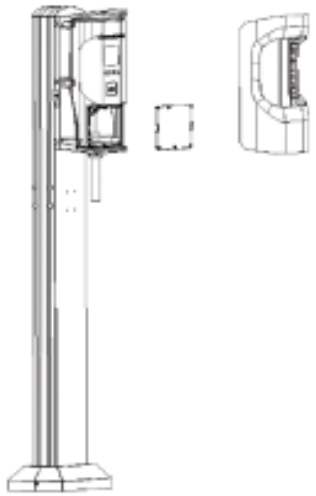
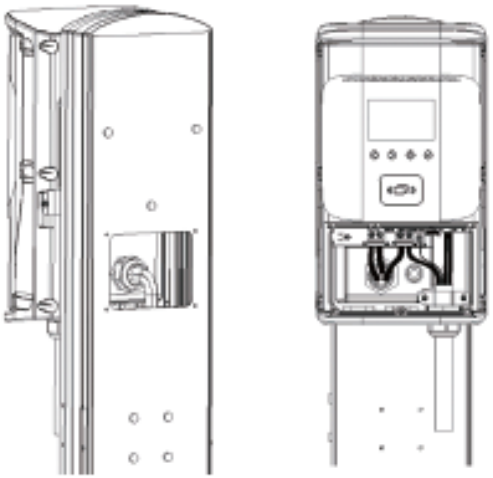
Step 3: Get rid of the front cove and wiring plate, as shown in the figure below:

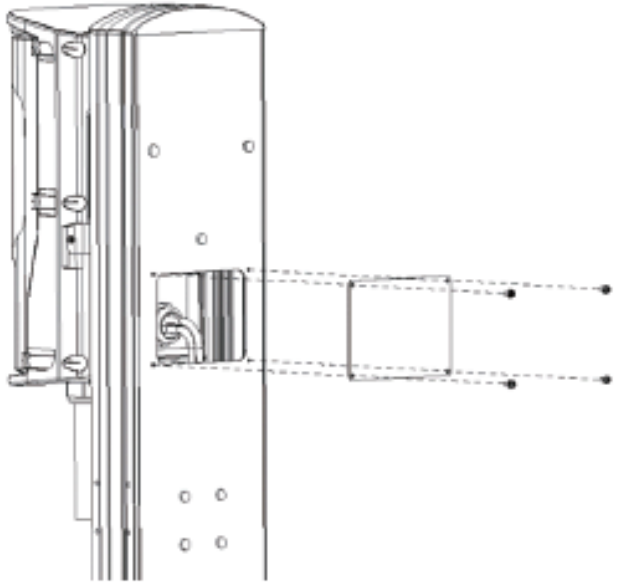


Step 4: Install the water-proof, as the below picture shown:

Stop 5: Pull the AC input wire through water-proof terminal, and wiring into the relating wiring terminal, as the below: picture shown:



Step 6: Fix the pedestal wiring plate, as the below picture shown:



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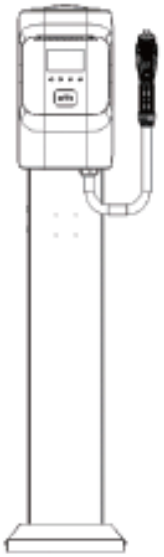
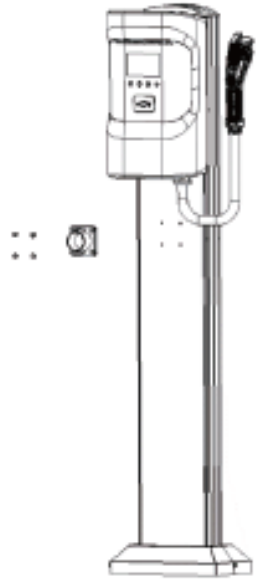
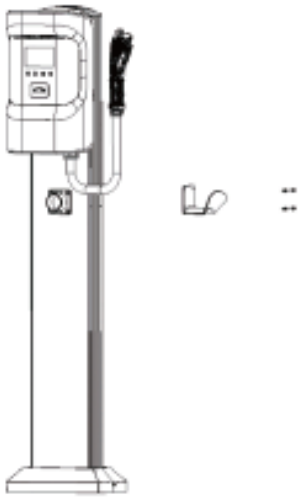
Step 7: Assembly the wiring cover and plate cover and assembly in the whole machine, as the below picture shown:



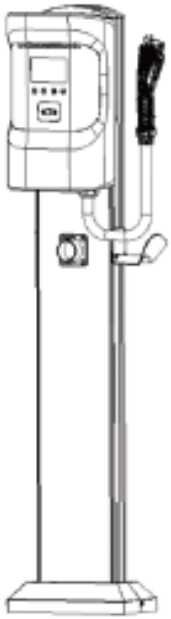
Step 8: Install the charger holder, as the below picture shown:



Step 9: Install the hook, as the below picture shown:



Step 10: Complete installation.



7.5 Maintenance

To ensure the long-term stable operation of the equipment, please maintain the equipment regularly (usually every month) according to the operating environment.

a) The equipment is maintained by professionals.

b) Check whether the equipment is well grounded and safe.

c) Check whether there are potential safety hazards around the charging pile, such as whe ther there are high temperature, corrosion or inflammable and explosive articles close to the charger.

d) Check whether the join point of the input terminal is in good contact and whether there is any abnormality. Check whether other terminal points are loose.

WARRANTYAGREEMENT

1. The scope of warranty refers to the product itself.
2. The warranty period is 12 months. During the warranty period, the company will repair the product free of charge in case of failure or damage (determined by the company's technical personnel) under normal use.
3. The starting time of warranty period is the date of product manufacture.
4. Even in the warranty period, a certain maintenance fee will be charged in case of the following situations.
   ① Equipment failure caused by not following the user's manual.
   ② Equipment damage caused by fire, flood, abnormal voltage, etc.
   ③ Equipment damage caused by using the product for abnormal functions.
   ④ Equipment damage caused by foreign matter entering.
   ⑤ Equipment damage caused by other human external factors.
5. The service fee shall be calculated according to the actual cost. If there is another contract, the contract shall prevail.
6. Please be sure to keep this card and show it to the maintenance personnel during the warranty period.
7. If you have any questions, please contact the agent or our company directly.

After sales service center

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For Both FCC & IC application:

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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

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

MPE Requirements

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

Les antennes installées doivent être situées de facon à ce que la population ne puisse y être exposée à une distance de moin de 20 cm. Installer les antennes de facon à ce que le personnel ne puisse approcher à 20 cm ou moins de la position centrale de l' antenne.
La FCC des états-unis stipule que cet appareil doit être en tout temps éloigné d'au moins 20 cm des personnes pendant son functionnement.