Installation Guide

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1. Safety

Important Safety Instructions

This manual contains important instructions for model number: AC012K-HU-35, AC012K-NU-35.

The following basic precautions should be followed during installation, operation, and maintenance.

These general instructions apply to all models and makes of the product.

- Read all the instructions before installing or using this product.
- Do not use this product if the flexible power cord or EV cable is frayed, has broken insulation, or has any other signs of damage.
- Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other indication of damage.
- Please save these instructions.
- The charger does not contain any user-repairable parts. Do not attempt to disassemble, repair, or reassemble the charger yourself. If necessary, please contact a qualified technician.

Improper Connection

Improper connection of the equipment-grounding conductor can result in risk of electric shock. If you are unsure whether the product is properly grounded, contact a qualified technician. Do not alter the plug provided with the product. If it does not fit the socket, please contact a qualified technician to have a proper socket installed.

Grounding Instructions

This product must be grounded. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current, reducing the risk of electric shock. This product is equipped with a cord that has an equipment-grounding conductor and a grounding plug. The plug must be inserted into an appropriate socket that is properly installed and grounded in accordance with local regulations.

User Maintenance Instructions

- Turn off the power to the charger before cleaning.
- Do not use any cleaning solvents or chemicals to clean any part of the charger.
- Clean the enclosure, cable, and connector with a clean, dry cloth to remove dust and dirt.
- Ensure all maintenance is grounded in accordance with local regulations.

Moving, Transporting, and Storage Instructions

Improper movement or storage of the charger can result in damage to the product

Relate to Risk Of Fire Or Electric Shock

Turn OFF the circuit breaker at the service panel before performing any electrical work or repairs.

Charging should be supervised when used around children. Do not allow children to operate the charger.

Keep the charger away from explosive or flammable materials, chemicals, vapors, and other hazardous objects.

Do not touch the connector or end terminals with your fingers or any sharp metallic objects or tools. Do not insert fingers into the socket pin when the unit is powered on.

Install the charger in a location where the charging cable will not be stepped on, tripped over, damaged, or stressed.

When using or operating the charger:

- Place it in a lighted area away from crowded places to avoid accidental tripping hazards.
- Keep it away from areas where children are active to prevent potential risks of electric shock.

Do not tamper with or modify this device.

Do not use this device if the charger fails to work correctly as per the operation manual. Contact a qualified technician for repair or the supplier for a replacement.

Improper installation of the charger may result in personal injury or product damage.

This charger installation guide does not replace electrical safety precautions.

Use this charger within the specified operating parameters to avoid injury or death.

IC Statement

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FCC Compliance Statement

This device complies with part 15 of the FCC Rules.

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.

Note: 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.

Warning: Changes or modifications to this unit not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement

This equipment complied with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Pour le français:

Consignes de sécurité importantes:

Ce manuel contient des instructions importantes pour les modèles AC012K-HU-35, AC012K-NU-35.

Les précautions de base suivantes doivent être suivies lors de l'installation, de l'utilisation et de la maintenance.

Pour les instructions générales, il n'est pas nécessaire d'indiquer les types de modèle spécifique: required to be indicated:

- Lisez toutes les instructions avant d'installer ou d'utiliser ce produit.
- N'utilisez pas ce produit si le cordon d'alimentation flexible ou le câble EV est effiloché, a une isolation brisée ou présente tout autre signe de dommage.
- N'utilisez pas ce produit si le boîtier ou le connecteur EV est cassé, fissuré, ouvert ou présente tout autre signe de dommage.
- Veuillez conserver ces instructions.
- Le chargeur ne contient aucune pièce réparable par l'utilisateur. N'essayez pas de démonter, réparer ou remonter le chargeur vous-même. Si nécessaire, veuillez contacter un technicien qualifié.

Mauvaise Connexion

Une connexion incorrecte du conducteur de mise à la terre de l'équipement entraînera un risque de choc électrique. Veuillez con correctement mis à la terre. Ne remettez pas la fiche fournie avec le produit - si elle ne rentre pas dans la prise, veuillez contacter un technicien qualifié pour faire installer une prise appropriée.

Instructions de mise à la terre

Ce produit doit être mis à la terre. En cas de dysfonctionnement ou de panne, la mise à la terre fournira un chemin de moindre résistance pour le courant électrique afin de réduire le risque de choc électrique. Ce produit est équipé d'un cordon doté d'un conducteur de mise à la terre et d'une fiche de mise à la terre. La fiche doit être branchée dans une prise appropriée qui est correctement installée et mise à la terre conformément aux réglementations locales.

Instructions d'entretien pour l'utilisateur

- Coupez l'alimentation du chargeur avant de le nettoyer.
- N'utilisez pas de solvants de nettoyage pour nettoyer les pièces du chargeur.
- Le boîtier, le câble et le connecteur doivent être nettoyés avec un chiffon propre et sec pour enlever la poussière et la saleté.

Instructions de déplacement, de transport et de stockage

Un déplacement ou un stockage incorrect du chargeur entraînera des dommages au produit.

Concerne le risque d'incendie ou de choc électrique

lÉteignez le disjoncteur au niveau du panneau de service avant d'effectuer tout travail ou réparation électrique.

La charge doit être supervisée lorsqu'elle est utilisée à proximité d'enfants. Ne laissez

pas les enfants utiliser le chargeur.

Maintenez la borne de recharge à l'écart des matières explosives ou inflammables, des produits chimiques, des vapeurs et d'autres objets dangereux.

Ne touchez pas le connecteur ou les bornes d'extrémité avec vos doigts ou tout objet ou outil métallique pointu. Ne mettez pas les doigts dans la broche de la prise lorsque l'appareil est sous tension.

Si le point de charge présente des défauts répétés, veuillez contacter le personnel qualifié.

Utiliser/faire fonctionner le chargeur:

- l doit être dans une zone bien éclairée et loin des endroits bondés pour éviter tout risque de trébuchement accidentel.
- Loin des zones d'activité des enfants pour éviter tout risque de choc potentiel.

Coupez l'alimentation ou débranchez le connecteur de charge pour obtenir une isolation électrique.

Ne pas altérer ni modifier cet appareil.

IN'utilisez pas cet appareil si le chargeur ne fonctionne pas correctement conformément au manuel d'utilisation.

Contactez le technicien qualifié pour réparer ou contactez le fournisseur pour le remplacement.

Une installation incorrecte du chargeur entraînera des blessures corporelles ou des dommages au produit.

Avis d'Industrie Canada

Le présent appareil est conforme aux CNR d'industrie Canada applicables aux appareils radio exem pts de licence L'exploitation est autorisée aux deux conditions suivantes:

1) l'appareil ne doit pas produire de brouillage; et

2) l'utillsateur de l'appareil doit accepterbrouillage radioélectrique subi meme si le brouillage est susceptible d'encompromettre le fonctionnement. mauvais fonctionnement de l'appareil.

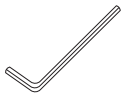
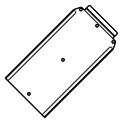
CAN ICES-3 (B)/ CAN NMB-3 (B)

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

2. Unpacking

Unwrap the package to verify that all items are present and accounted for. Should there be any discrepancies, do not hesitate to reach out to us promptly.

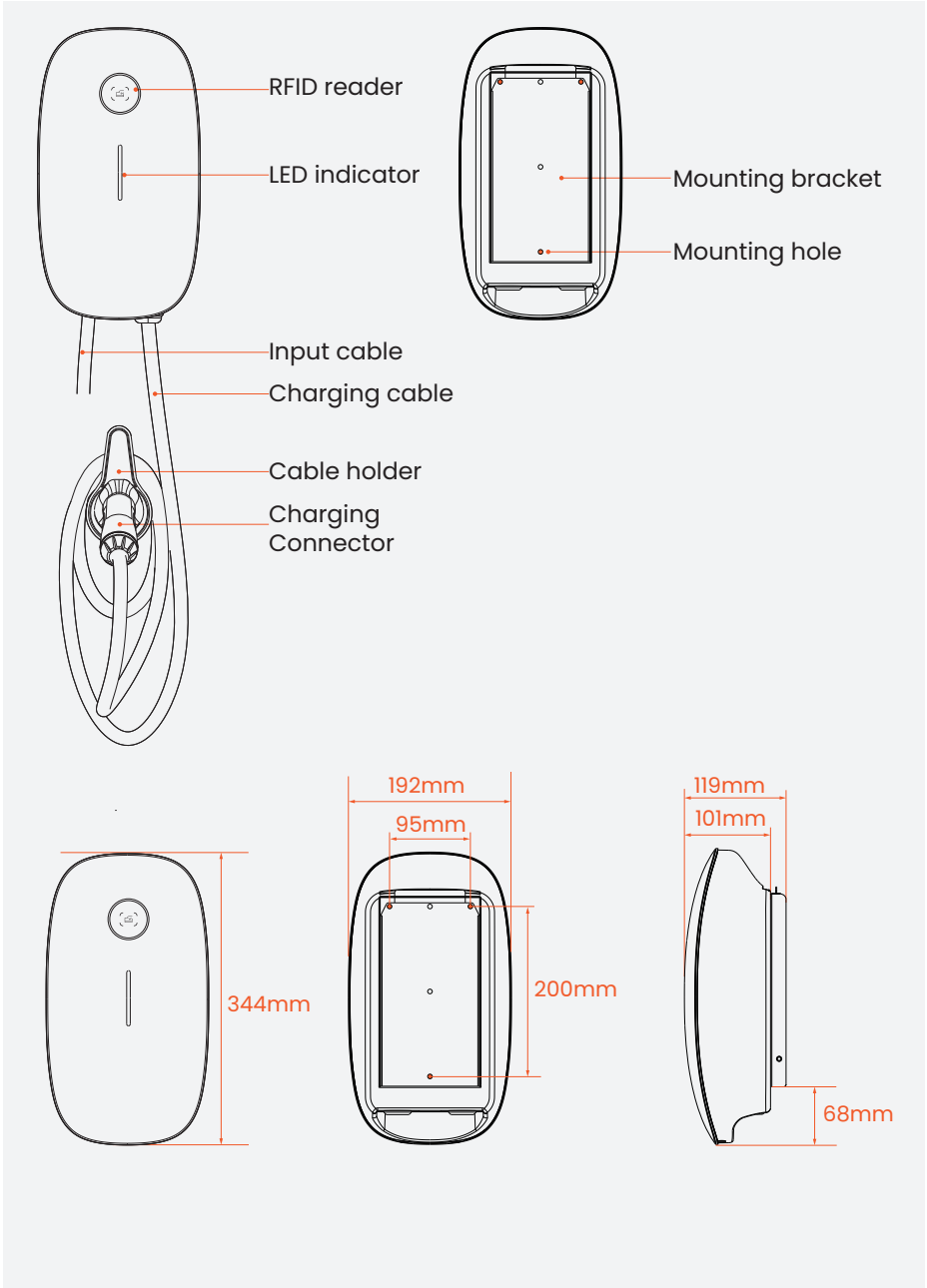
Item	Icon	Quantity
Allen wrench		1
Demounting tool		1
Wall plug		6
M4 * 32 screw		6
Mounting bracket		1
Cable holder		1
RFID card		2
Installation guide		1

3. Specifications

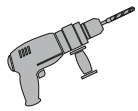
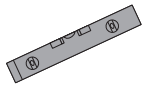
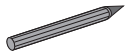
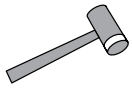
Product model	AC012K-HU-35	AC012K-NU-35
Input		
Power Supply	3-wire (L1, L2, Earth)	
Power Plug	Hardwired	
Rated Voltage	240V AC	
Rated Current	50A	
Frequency	60Hz	
Output		
Output Voltage	240V AC	
Maximum Current	50A	
Maximum Power	12KW	
User Interface		
Connector	SAE J1772 (Type 1)	NACS
Cable length	25ft (7.5m)	
LED Indicator	Red/Yellow/Green	
RFID Reader	Mifare ISO/IEC 14443 A	
Communication		
Wi-Fi	2.4GHz	
Bluetooth	Bluetooth Low Energy (BLE4.1)	
General		
Energy Measurement	On board metering ±2% accuracy	
Internal Consumption	<10W	
Ground Fault Detection	CCID 20	
Ingress Rating	NEMA 4	
Impact Rating	IK08	
Dimensions	344mm*192mm*101mm(H*W*D)	
Weight(net)	6.3kg	

Electrical Protection	Over current protection, Residual current protection, Ground protection, Surge protection, Over/Under voltage protection, Over temperature protection
Warranty	2 years
Certification	CSA, FCC/IC
Environmental	
Installation	Wall-mounted
Work Temperature	- 30°C ~+50°C
Work Humidity	5%~95%
Work Altitude	<2000m

4. Product Overview



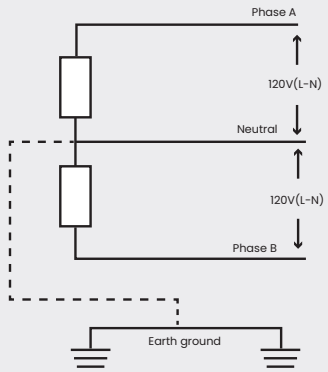
4.1 Required Tools

Tool	ICON	Specificatin	Function
Electric drill		Drill bit: φ6mm	Used to create holes in the wall.
Level		1m, accuracy: 0.5mm/m	Used to determine if a surface is perfectly horizontal or vertical
Tapr ruler		10m	Used for accurate measurements of length, width, or height.
Pencil		/	Marking on the wall.
Hammer		/	Used to drive wall plugs in to holes.
Electiric screwdriver		PH2	Used to drive screws into wall plugs.

5. Installation

- Upstream Wiring Charging station are considered continuous load devices (EV draw maximum load for long durations); therefore, electrical branch circuits must be sized at 125% of the load for North American installations, in accordance with National Electric Code (NEC) and Canadian Electrical Code C22.1 requirements. (For other regions, refer to local code.) This means that the rating of overcurrent protection associated with field installed branch circuits is at least 63A.
- The charger can be installed on wood, stone, cement, or metal walls, but must be securely fastened to prevent it from falling easily.
- For indoor use, the storage means for the coupling device shall be mounted at a height between 450 mm (18 inches) and 1.2 m (4 feet) above the ground. For outdoor use, the height shall be between 600 mm (24 inches) and 1.2 m (4 feet) above the ground.
- The device is to be installed as a permanent fixture, and if relocation is necessary, the required tools should be used.
- The installation of the ev charger must ensure electrical safety, including proper grounding and secure electrical connections.

Residential Installations

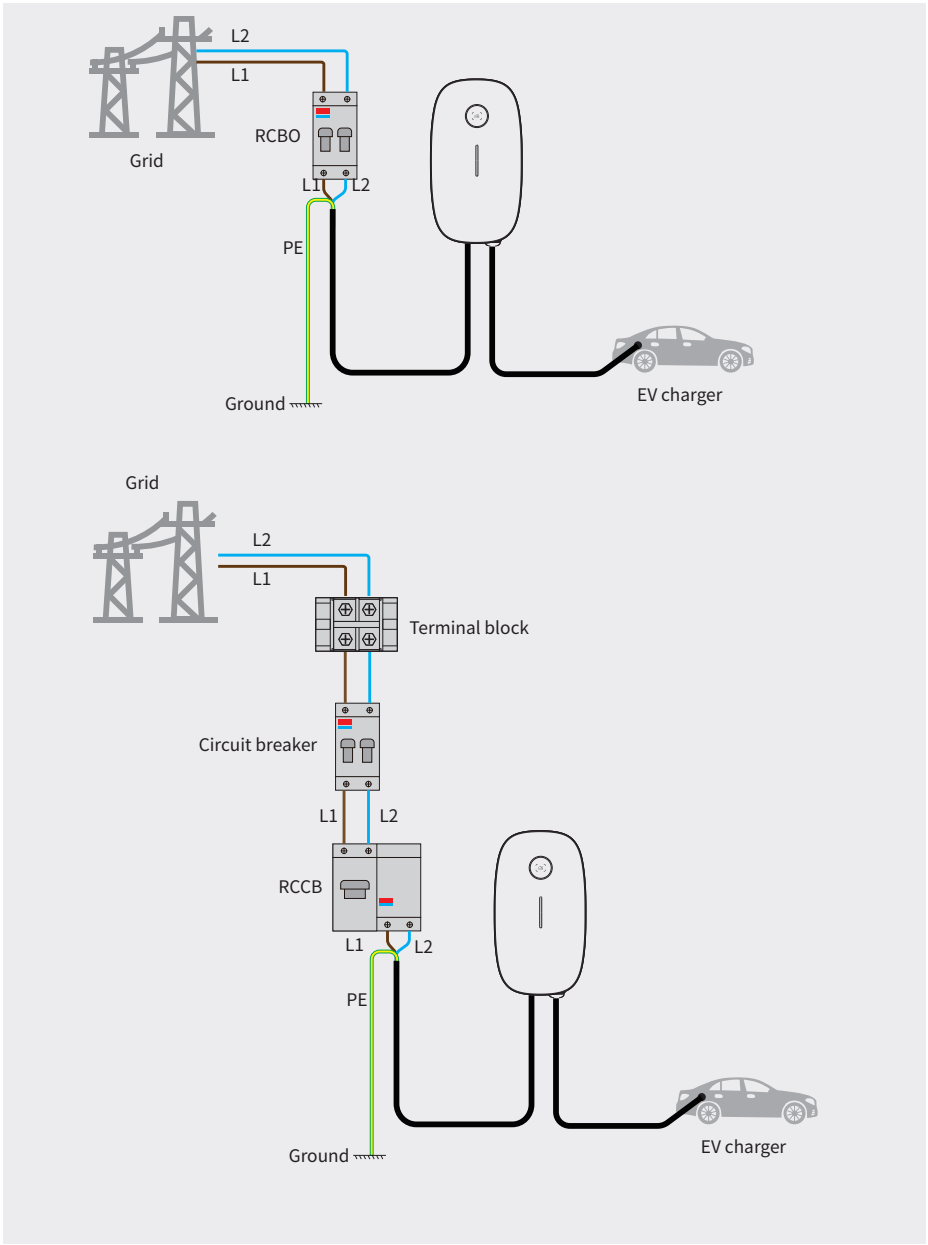


The most common source of AC power for residential use is single-phase 120/240 (also referred to as Split Phase 240).

This configuration consists of 2 voltage legs that are 180 degrees apart. The voltage between the two legs (called phase to phase or line to line) is 240V and the phase to neutral voltage is 120V. Some list the phase-to-phase voltage in which case this is referred to as 240/120 single phase.

5.1 Wiring

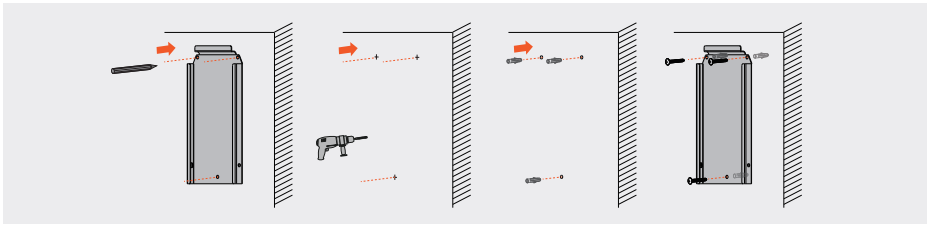
A RCBO (Residual Current operated Circuit-breaker with Integral Overcurrent protection) or RCCB (Residual Current Circuit Breaker) + Circuit Breaker must be installed on the building side.



5.2 Installation Procedure

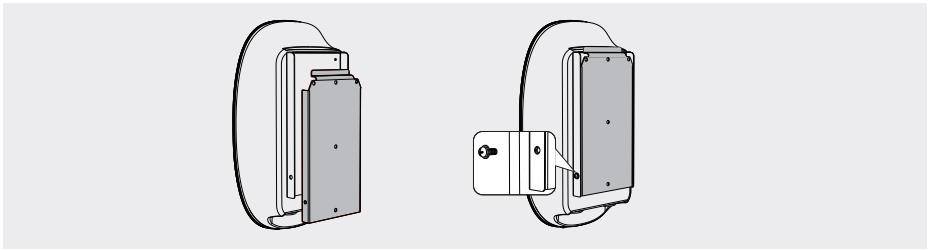
1 Install the backplate

- Mark the wall at the locations corresponding to the holes on the mounting bracket.
- Drill three holes (depth: 25mm) at the designated marked spots on the wall.
- Insert wall plugs into the drilled holes, followed by passing the screws through the holes in the mounting bracket to secure the bracket.



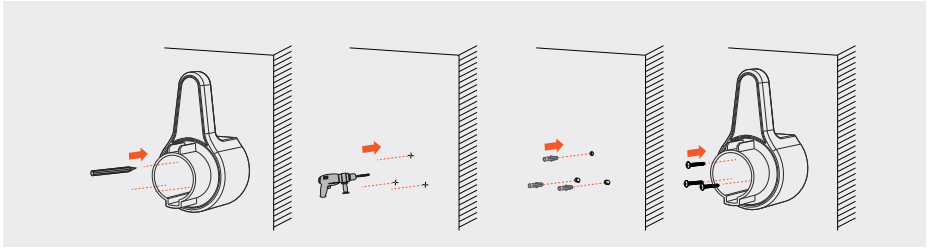
2 Secure the charger to the backplate

- Securely attach the charger to the mounting bracket, followed by firmly tightening the two lateral screws to ensure stability.



3 Install cable holder

- Mark the wall at the locations corresponding to the holes in the cable holder.
- Drill three holes at the designated marked spots on the wall.
- Insert wall plugs into the drilled holes, followed by passing the screws through the holes in the cable holder to secure the holder.



6. Charging App

If you are an installer :

1. *You can download and install Evchargo App, and after completing all necessary configurations, you can transfer the ownership to the user. The user then simply install the App and log in to easily control the charging process with the App.*
2. *Or you can use AP (access point) mode to configure network for the charger, and then the users download the App to operate by themselves, see **Section 7. AP Mode***

6.1 App Introduction

Evchargo App, your companion app for managing your charger.

Designed with user-friendly interface, Evchargo offers seamless integration with your charging needs.

6.2 Download & Installation

Download and install the latest app on your smartphone.

Follow the instructions on the app to complete wizard settings and parameter settings.

App installation

App user manual

6.3 Sign Up and Sign In

Account creation:

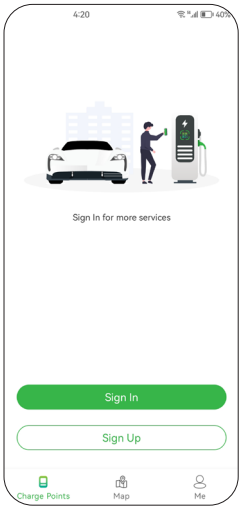
Open the app and tap "Sign Up" to create a new account. Enter your Email address, set a password and confirm you details.

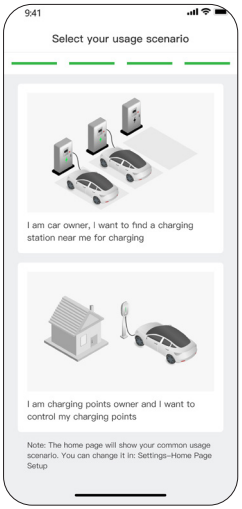
Login:

To login, enter your email and password.

Select Scenario:

Select the second one.



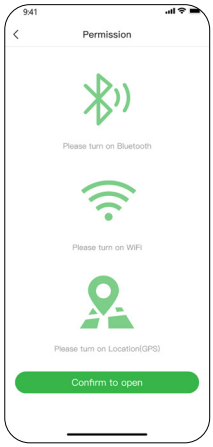


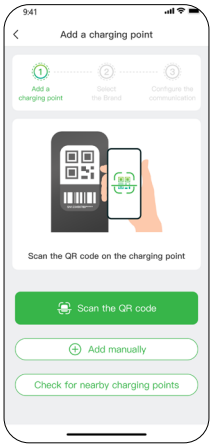
6.4 Link Charger to App

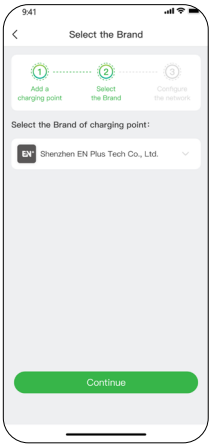
Turn on Bluetooth, Wi-Fi and GPS in your mobile phone.

Add the charger through the provided methods.

Select the brand of your charger.





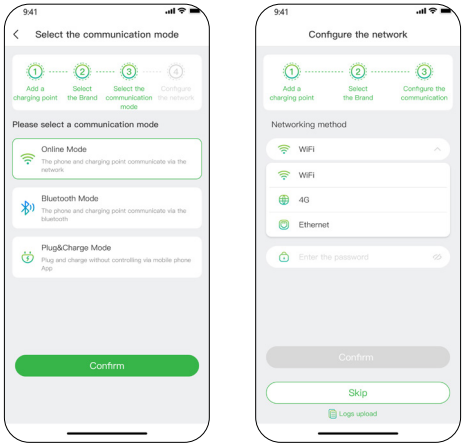


6.5 Select Communication Mode

The communication modes determine the charging modes you use to charge EV.

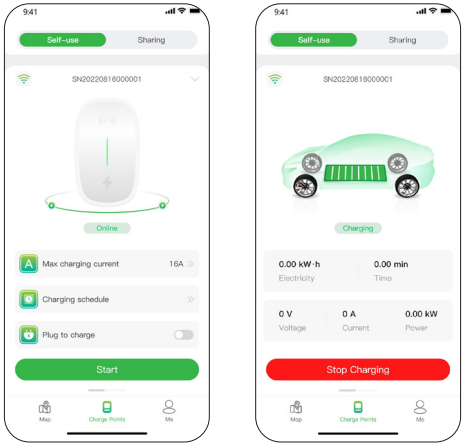
If Bluetooth mode or plug to charge mode is selected, it will jump to the charging control page directly.

If online mode is selected, you need to configure network (Wi-Fi) for the charger.



6.6 Set Max. Charging Current

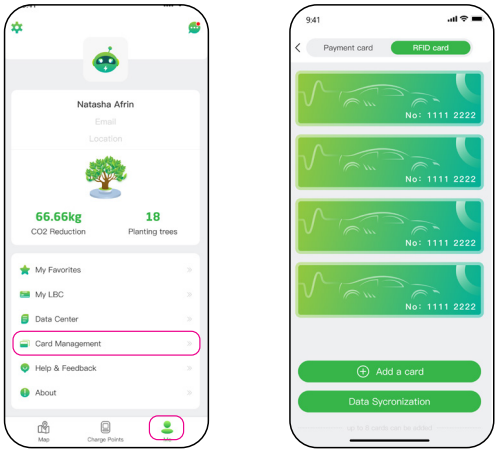
The main fuse or circuit breaker in the property's consumer unit should be labelled to state the maximum load. It is imperative that the maximum charging current is configured in such a way that the property's power supply remains uninterrupted, even at peak usage, while ensuring that all other household appliances continue to function without disruption.



6.7 Set the RFID Card

The RFID cards provided with the charger can only be used when the charger is offline. However, if the end user wish to use the card when the charger is online, you will need to link the card with your charger in App. The steps are as follows:

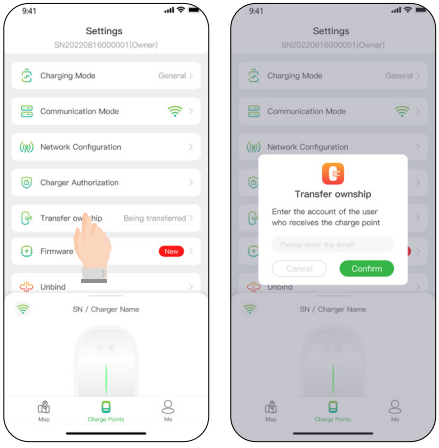
1. Tap 'Me' > 'Card Management' to enter the card management page.
2. Tap 'RFID card' > 'Add a card', then enter the number on the card.
3. Place the card on the card sensor area to start charging.



6.8 Transfer Ownership to End User

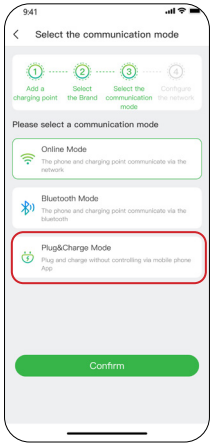
If you are an installer, after completing the above steps, you can use the "Transfer Ownership" feature within the APP to transfer account control to the user. This way, the user can easily control charging without any additional configuration through the APP.

1. Swipe down on the charging page.
2. Tap "Transfer ownership".
3. Enter the email address of the receiver.



6.9 Charging Operation

Plug to charge



Select "plug to charge" when select a communication mode then tap "Confirm".

Plug the charging connector in, and the indicator flashes green quickly.

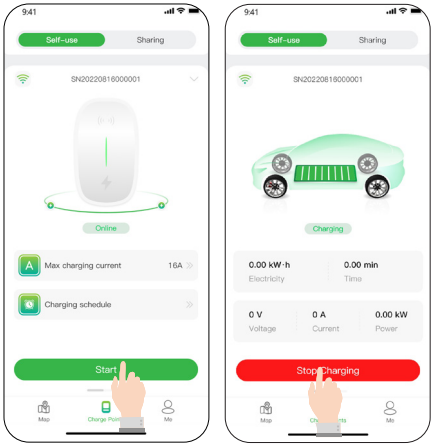
The indicator gradually brightens, then gradually dims in green while charging in progress.

The charging session will be stopped by EV side upon it is fully charged.

Control charging via App

Controlling charging process via App is convenient, with two options available: either through network connections like Wi-Fi, or via Bluetooth.

> **!** For the Bluetooth, it's important to maintain your phone within the Bluetooth communication range of charger to ensure a reliable and stable connection.



Plug the charging connector in, and the indicator flashes green quickly.

Tap "Start" button in the screen, and the indicator gradually brightens, then gradually dims in green while charging in progress.

The charging will be stopped automatically as EV is fully charged, or you can tap "Stop" button to stop charging.

Scheduled charging

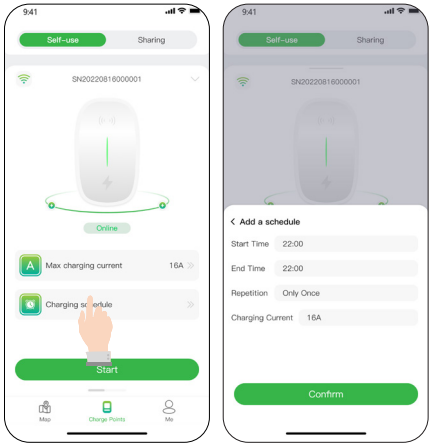
Scheduled charging for EVs lets you set specific times to charge your electric vehicle, helping you save on electricity costs and reduce strain on the grid.

Plug the charging connector in, and the indicator flashes green quickly.

Tap "Charging schedule" to create a schedule.

The charging will start automatically upon reaching the specified time.

The charging will be stopped automatically as EV is fully charged, or you can tap "Stop" button to stop charging.



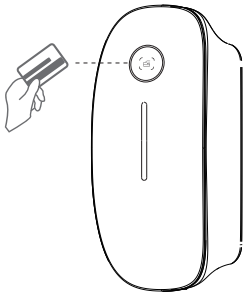
Charging by swiping card

Plug the charging connector in, and the indicator flashes green quickly.

Swipe card, and the indicator flashes yellow quickly.

During charging, the indicator gradually brightens, then gradually dims in green.

Swipe card and unplug to the connector.



7. AP Mode

AP mode is recommended to configure the network for the charger:

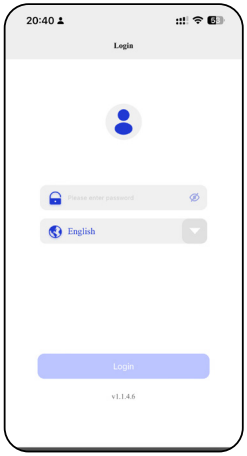
Connect to Evchargo platform in a commercial scenario

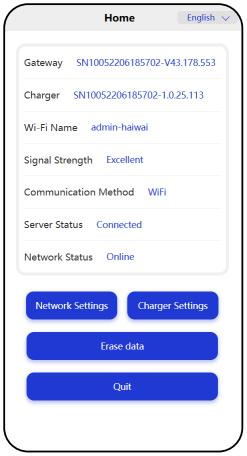
Connect to a 3rd party's platform, and use a 3rd party's App to charge EV.

> In Access Point (AP) mode, the charger acts as a temporary WiFi hotspot, allowing your phone to connect directly it for network setup.

1. Make sure the WLAN is turned on in your phone.
2. Turn on the charger's power supply to activate the Wi-Fi hotspot.
3. Locate the charger's wifi hotspot (wifi name: the SN of the charger) in your phone's wifi list.
4. Enter the password: **admin123** to connect the charger to your phone.
5. Enter the IP address 192.168.4.1 in a browser, followed by the 4-digit password: a PIN number, which can be found on the last page of this manual to access the configuration page.

> The hotspot of the charger remains available for 15 minutes.





After login, please scan the QR code below for more operations about AP mode such as configure network, switching charging mode and configure load balancing, please, etc.

8. Indicator

Indicator color	EV charger status	Indicator status
Green	Standby	Cycle: slow flashing: on for 1s, then off for 3s.
	Charging initiated, awaiting vehicle response	Cycle: rapid flashing: on for 200ms, then off for 1000ms, twice; followed by a 3000ms off.
	Charging connector Connected, ready for Charging	Cycle: rapid flashing: on for 200ms, then off for 1000ms, 5 times; followed by a 3000ms off.
	Charging in progress	Cycle: gradually brightens, then gradually dims, on for 1s, off for 1s.
	Charging completed	Steady green.
Yellow	No Network/Not Connected to Server	Cycle: the green light is on for 1s, followed by the yellow light on for 1s, then off for 3s.
	Insufficient Power Allocated, Pausing Charging	Cycle: rapid flashing: on for 200ms, then off for 1000ms, five times; followed by a 3000ms off.
	Card Identified Successfully	Cycle: rapid flashing: on for 100ms, then off for 100ms, with a maximum of 5 repetitions.
	Alarm	Steady yellow
	Charger has been reserved	Cycle: on for 2s, then off for 2s.
White	Program is upgrading	Cycle: rapid flashing: on for 200ms, then off for 1000ms, 5 times; followed by a 3000ms off.
	Power-On Self-Test	Cycle: breathing light: gradually brightens, then gradually dims, on for 1s, off for 1s.

9. Troubleshooting

Indicator color	EV charger status	Indicator status
Red	Relay adhesion	Steady red
	Leakage current fault	Cycle: on for 500ms, then off for 500ms once, followed by 3s off.
	CP fault	Cycle: on for 500ms, then off for 500ms, twice; followed by 3s off.
	Overcurrent fault	Cycle: on for 500ms, then off for 500ms, 3 times; followed by 3s off.
	Leakage current loop anomaly (self-check)	Cycle: on for 500ms, then off for 500ms, 5 times; followed by 3s off.
	Input terminal overheat fault	Cycle: on for 500ms, then off for 500ms, 6 times; followed by 3s off.
	Relay Overheat	Cycle: on for 500ms, then off for 500ms, 7 times; followed by 3s off.
Yellow + Red	Undervoltage fault	Cycle: yellow on for 2s, followed by the red flashing once (on for 500ms, off for 500ms), then off for 3s.
	Overvoltage fault	
	Current transformer (CT) anomaly	Cycle: yellow on for 2s, followed by the red flashing 5 times (on for 500ms, off for 500ms), then off for 3s.
	Charging connector current anomaly	Cycle: yellow on for 2s, followed by the red flashing 7 times (on for 500ms, off for 500ms), then off for 3s.
	Grounding fault	Cycle: yellow on for 2s, followed by the red flashing 8 times (on for 500ms, off for 500ms), then off for 3s.
White	BOOT security verification failed or security chip is malfunctioning	Cycle : rapid flashing: on for 200ms, then off for 1000ms, twice; followed by 3000ms off.

10. Routine Maintenance

- Chargers do not need special maintenance. You are advised to check and clean the enclosure of the charger and accessories such as the charging connector every six months.
- Check whether the charger and cables are damaged.
- Use a dry cloth to clean the surface of the charger. Do not spray water directly on the charger.

Note: Do not use corrosive cleaners, glass cleaners, or organic solvents.

11. Miscellaneous

Storage and Transportation

Chargers should be transported in the original packages. Do not place other objects on the top of the charger.

Before transportation, store the product in a clean, dry, and well ventilated place with a relative humidity of not more than 80% and free from corrosive gases.

The environmental specifications for storage and transportation shall not go beyond those specified in the Technical Specifications.

Disassembly

Only authorized and qualified electricians are allowed to disassemble the product.

Power off the charger before disassembling it. Disassemble a charger in the reverse order of installation.

Disposal/Scrapping

The product should be disposed of at recycling points for electronic equipment. Dispose of the product in a correct and environmental friendly manner in compliance with local laws and regulations.

Electronic devices cannot be disposed of as household waste.

12. EV Charger Limited Warranty Details

STANDARD LIMITED WARRANTY

Dear customer, please keep the provisions of the Warranty in mind when using this product.

Our company warrants, to the original purchaser or owner only, that any product manufactured and sold by our company will be substantially free from defects in material and workmanship under normal use and service, for a period of two years from the date of purchase, whichever is sooner. This limited warranty applies only to products, which have been installed properly in accordance with Installation Instructions supplied by our company and any applicable codes and standards. The customer is responsible for the proper installation and maintenance of the EV charger.

EXCLUSIONS FROM STANDARD LIMITED WARRANTY

Even within the warranty period, the following conditions are NOT covered under the terms of the warranty:

- Normal wear and tear;
- Alteration or modification of the Product in any way not approved in writing by our company;
- Vandalism;
- Harm, damage or otherwise being subjected to problems caused by negligence (including but not limited to physical damage from being hit by a vehicle or other object) or misuse, or use of the products other than as specified in the relevant documentation;
- Improper site preparation, installation, or maintenance;
- Damage caused because of mishaps, power surges, severe electromagnetic field, acts of nature/God or other reasons; or
- Use of the Product with software or parts not provided or specified by our company.

Activation:

Our company standard limited warranty does not require any activation. The following must be supplied to activate within six (6) months of the finished install date:

A) Photos of the installed charger(s) from (2) sides;

B) Photos of all wiring connections of the charger(s);

C) Photos of all of the electrical panel(s), breaker(s), and disconnect(s) feeding the charger(s);

D) Factory sales order number (should be included in close-out documents); and

E) Serial number of each of the charger(s).

Obtaining Warranty Service:

For warranty service you must: obtain a return from our company by contacting customer service.

Maintenance Card

Product Information	
Product Model	
Product S/N	
Installation Date	
Installation Company	

Personal information	
Name	
Telephone	
E-mail	
Home address	

Maintenance Records				
Data	Fault reason	Handled by	Delivery date	Maintenance staff

PIN Code