TUROGIZE



Installation Guide

TGA-AC-48A/H0/J1/R1/GR

V.1

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1. Safety

Important Safety Instructions

This manual contains important instructions for model number: TGA-AC-48A/H0/J1/R1/GR.

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.

Pour le français:

Consignes de sécurité importantes:

Ce manuel contient des instructions importantes pour les modèles TGA-AC-48A/H0/J1/R1/GR.

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:

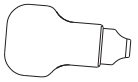
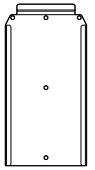
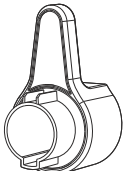
1) l'appareil ne doit pas produire de brouillage; et

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)

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
Dismounting tool		1
L-shaped wrench		1
Wall plug		6
M4 * 32 screw		6
Mounting bracket		1
Cable holder		1
RFID card		2
Installation guide		1

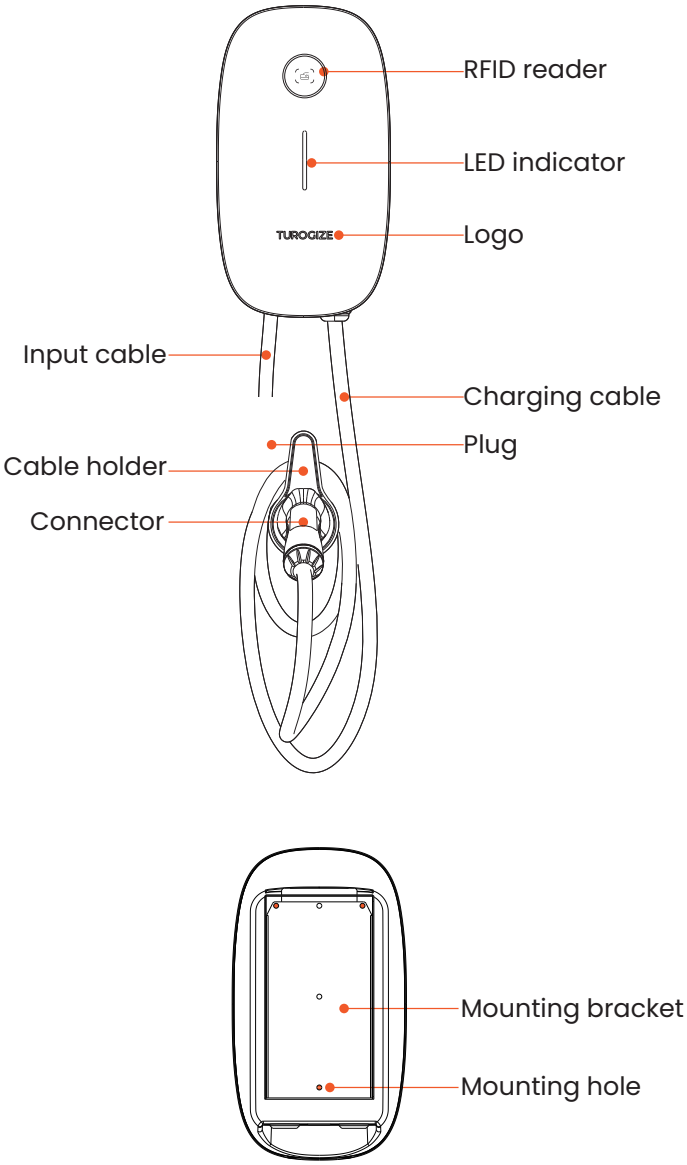
3. Specifications

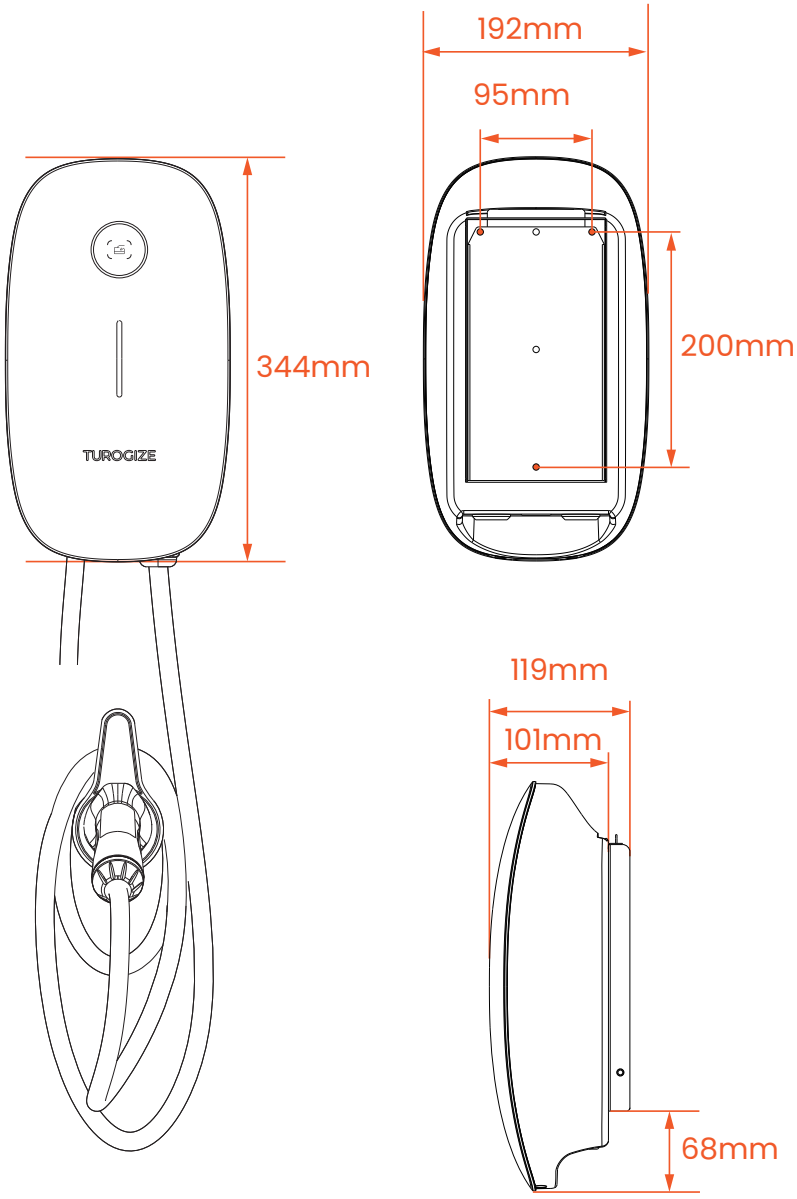
Product model	TGA-AC-48A/H0/J1/R1/GR
Input	
Power Supply	3-wire (L1, L2, Earth)
Rated Voltage	240V AC
Rated Current	48A
Frequency	60Hz
Output	
Output Voltage	240V AC
Maximum Current	48A
Maximum Power	11.5KW
User Interface	
Connector	SAE J1772 (Type 1)
Cable length	25ft (7.5m)
LED Indicator	Red/Yellow/Green
RFID Reader	Mifare ISO/IEC 14443 A
Communication	
Wi-Fi	2.4GHz
Bluetooth	BLE4.1
Ethernet	Support
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/Under temperature protection
Surge Protecion	6kV @3000A
Warranty	2 years
Certification	CSA, IC
Certification Standard	CSA C22.2 No. 280:22, CSA C22.2 No.281.1-12, CSA C22.2 No. 281.2-12, IC Regulation ICES-003 Issue 7

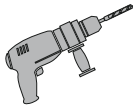
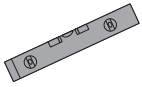
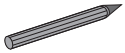
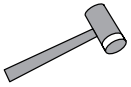
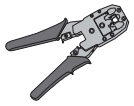
Environmental	
Installation	Wall-mounted
Work Temperature	- 30℃ ~+50℃
Work Humidity	5%~95%
Work Altitude	<2000m

4. Product Overview




192mm
95mm
344mm
200mm
TUROGIZE
119mm
101mm
68mm

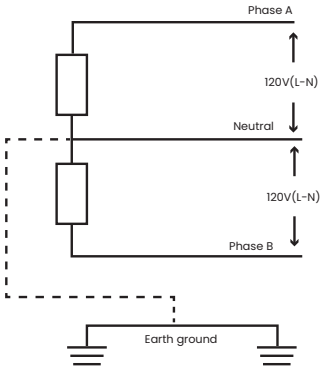
4.1 Required Tools

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.
Wire stripper		/	Used to strip Ethernet cable
Wire crimping tool		/	Used to crimp the RJ45 connector

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 60A.
- 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



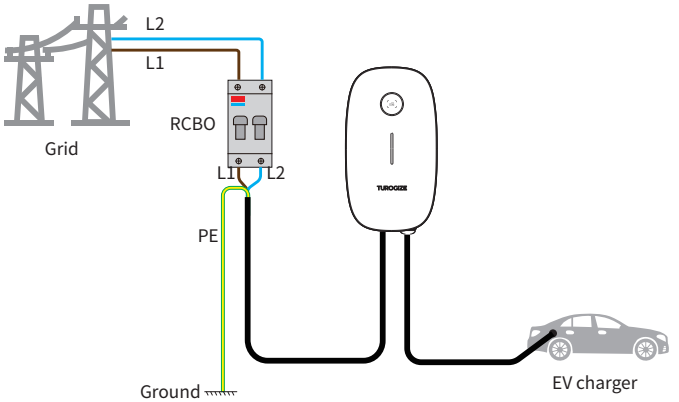
The most common source of AC power for residential use is single-phase 120/240 (also referred to as Split Phase 240).

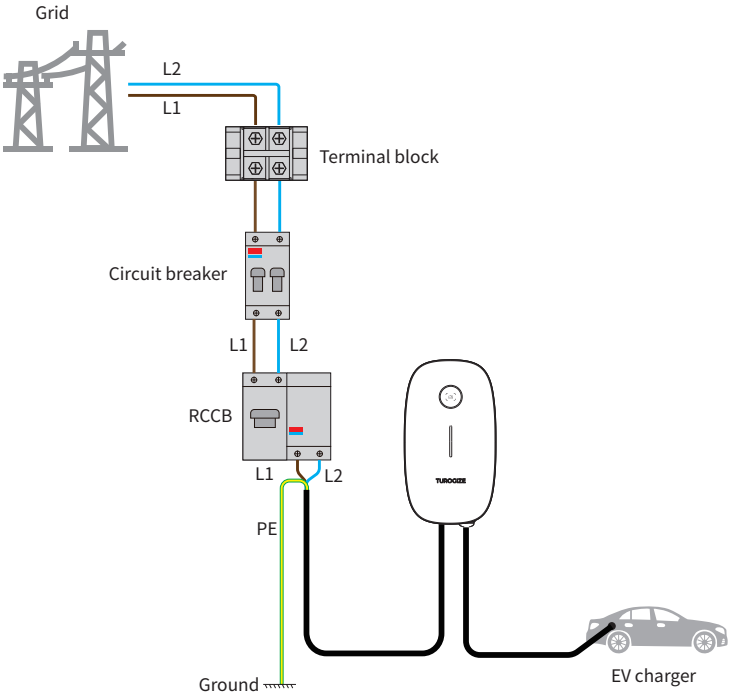
This configuration consists of 2 voltage legs that are 180 degrees apart. The voltage between the two legs (callled phase to phase or line to line) is 240V and the phase to neutral voltage is 120V. Some list the phase-to-phase voltage in which case this is referred to as240/120 single phase.

5.1 Wiring

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

The specification for RCBO, RCCB and circuit breaker: 60A, 2P, Type A, C.

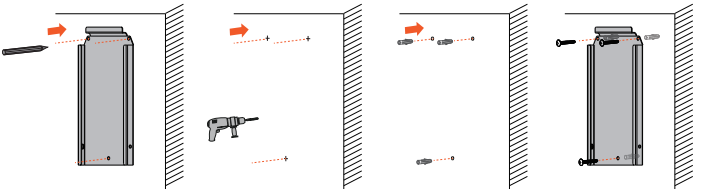




5.2 Installation Procedure

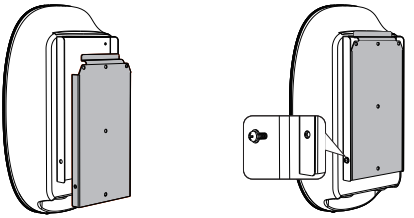
1 Install the backplate

- 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.



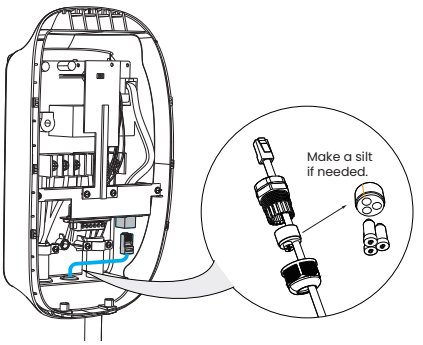
2 Secure the charger to the backplate

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

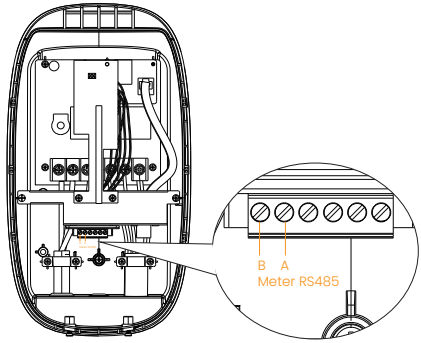


3 Connect Ethernet cable.

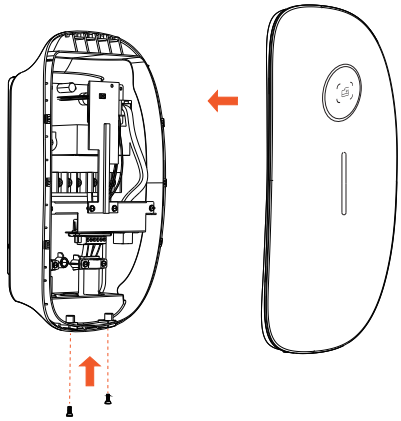
- Plug the RJ45 connector into the Ethernet port.



4 Connect RS485 cable (If connecting to a meter for load balancing is requird)

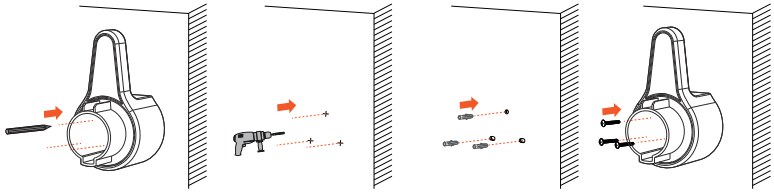


5 Secure the front cover



6 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. Usage Scenario

6.1 Residential Scenario

Upon completing the installation, if you plan to use the charger in a home scenario and wish to initiate a charging session via an app, you'll first need to download and install the most recent version of the app on your smartphone. Once installed, follow the in-app instructions or scan the QR code provided below to effortlessly complete the setup wizard and configure all necessary parameters.



App download



App instructions

! Please be aware that this charger is designed to operate on the 2.4GHz frequency band. When setting up your Wi-Fi connection, make sure to select a 2.4GHz Wi-Fi network to ensure a successful connection. Failure to do so may result in an inability to connect to the network.

6.2 Commercial Scenario

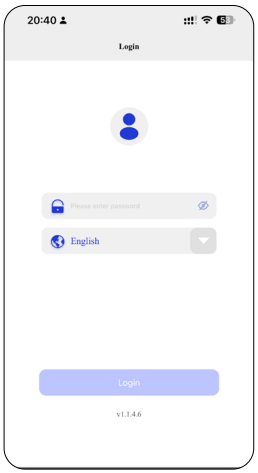
AP mode is recommended to configure the network for the charger:

- 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 Wi-Fi hotspot, allowing your phone to connect directly it for network setup.

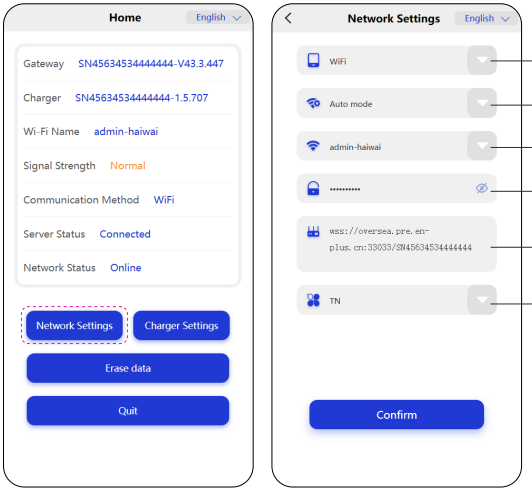
Log In

1. Make sure the Wi-Fi is turned on in your phone.
2. Turn on the charger's power supply to activate its Wi-Fi hotspot.
3. Locate the charger's Wi-Fi hotspot (wifi name: the SN of the charger) in your phone's Wi-Fi 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 a PIN, which can be found on the last page of this manual to access the configuration page.

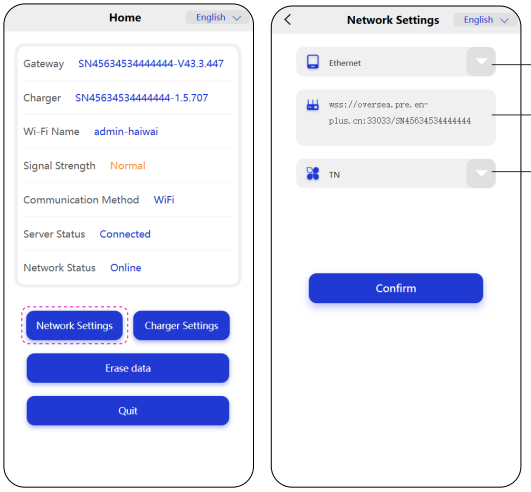


- The Wi-Fi hotspot of the charger remains available for 15 minutes.
- Your charger will automatically restart once the network configuration is complete, ending communication between your phone and the charger. At this point, your phone may automatically join other Wi-Fi hotspots, preventing you from accessing the network configuration page. As a result, before accessing the network configuration page, please ensure that your phone is connected to the Wi-Fi hotspot of the charger.

Use Wi-Fi for Communication



Use Ethernet for Communication



6.2.1 Charport Cloud Management System

CHARPORTS

Charport platform instruction

7. Indicator

Indicator color	EV charger status	Indicator status
Green	Available	Slow flashing: The indicator light is on for 1s, then off for 3s, and this cycle repeats continuously.
	Charging initiated, awaiting vehicle response	Rapid flashing: The indicator light is on for 200ms, then off for 1000ms, this pattern repeats twice, followed by a 3000ms off period, after which the cycle repeats.
	Charging connector Connected, ready for Charging	Rapid flashing: The indicator light is on for 200ms, then off for 1000ms, this pattern repeats five times, followed by a 3000ms off period, after which the cycle repeats.
	Charging in progress	Breathing light: The indicator light gradually brightens, then gradually dims, on for 1s, off for 1s, and this cycle repeats continuously.
	Charging complete	The indicator light remains on continuously.
Yellow	No Network/Not Connected to Server	Alternating green and yellow lights: The green light is on for 1s, followed by the yellow light on for 1s, then both are off for 3s, and this cycle repeats continuously.
	Insufficient Power Allocated, Pausing Charging	Rapid flashing : The indicator light is on for 200ms, then off for 1000ms, this pattern repeats five times, followed by a 3000ms off period, after which the cycle repeats.
	Card Identified Successfully	Limited rapid flashing: The indicator light is on for 100ms, then off for 100ms, with a maximum of 5 repetitions.
	Grounding Alarm	Yellow light alternating: The yellow light is on for 2s, then off for 2s, and this cycle repeats. continuously.
White	Program is upgrading	Rapid flashing: The indicator light is on for 200ms, then off for 1000ms, this pattern repeats five times, followed by a 3000ms off period, after which the cycle repeats.
	Power-On Self-Test	Breathing light: The indicator light gradually brightens, then gradually dims, on for 1s, off for 1s, and this cycle repeats continuously.

8. Troubleshooting

EV charger status	Indicator status
Relay adhesion	The red light remains on continuously.
Leakage current fault	The indicator light is on for 500ms, then off for 500ms, this pattern repeats ***once***, followed by a 3s off period, after which the cycle repeats.
CP fault	The indicator light is on for 500ms, then off for 500ms, this pattern repeats ***twice***, followed by a 3s off period, after which the cycle repeats.
Overcurrent fault	The indicator light is on for 500ms, then off for 500ms, this pattern repeats ***three times***, followed by a 3s off period, after which the cycle repeats.
Leakage current loop anomaly (self-check)	The indicator light is on for 500ms, then off for 500ms, this pattern repeats ***five times***, followed by a 3s off period, after which the cycle repeats.
Input terminal overheat fault	The indicator light is on for 500ms, then off for 500ms, this pattern repeats ***six times***, followed by a 3s off period, after which the cycle repeats.
Relay Overheat	The indicator light is on for 500ms, then off for 500ms, this pattern repeats ***seven times***, followed by a 3s off period, after which the cycle repeats.
Undervoltage fault	Yellow light stays on for 2s, followed by the red light flashing once (on for 500ms, off for 500ms), then 3 seconds off, and the cycle repeats.
Overvoltage fault	Yellow light stays on for 2s, followed by the red light flashing once (on for 500ms, off for 500ms), then 3 seconds off, and the cycle repeats.
Current transformer (CT) anomaly	Yellow light stays on for 2s, followed by the red light flashing five times (on for 500ms, off for 500ms), then 3s off, and the cycle repeats.
Charging connector current anomaly	Yellow light stays on for 2s, followed by the red light flashing seven times (on for 500ms, off for 500ms), then 3s off, and the cycle repeats.
Grounding fault	Yellow light stays on for 2s, followed by the red light flashing eight times (on for 500ms, off for 500ms), then 3s off, and the cycle repeats.

For issues not covered in this table, contact our customer service team at: +1 888-251-6197 (toll-free, Mon.–Fri. 9am–9pm, Sat. morning 8am–12pm) or support@turogize.com

9. 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.

10. 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.

11. 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 three 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.

Warranty Card

To ensure you receive the best possible after-sales support, **please ask your installer to complete this page immediately after installation**, photograph the completed page, and send it by email to **support@turogize.com**.

Product & Installation Information (Filled by Installer / Dealer)

- **Full Model Name:** _____
- **S/N Number (S/N):** _____
- **Distributor Name:** _____
- **Date of Invoice:** _____
- **Home-use or Commercial-use:** _____
- **Installer Name:** _____
- **Installer Contact:** _____

Customer Instructions

Please photograph this completed card, keep a digital copy for your records.
Provide a copy to your dealer/installer when submitting a warranty request.

Service Support (Mon.–Fri. 9am–9pm, Sat. morning 8am–12pm):
Toll-free +1 888-251-6197, support@turogize.com

PIN Code