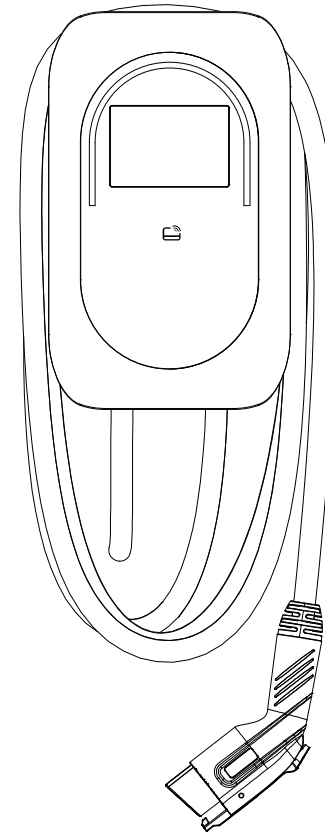


Electric Vehicle AC Charger

User Manual



TGAX-AC-48A/H0/J1/R/2/BK

TGAX-AC-48A/H0/J1/B/2/BK

TGAX-AC-80A/H0/J1/R/2/BK

TGAX-AC-80A/H0/J1/B/2/BK

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⚠ WARNING & CAUTION

1. Important Safety Instructions

1.1 Overall Warnings & Cautions

- ⚠ WARNING:** To avoid fire, injury or death, carefully read and follow the instructions during installation, operation and maintenance.
- **DO NOT** put fingers into the electric vehicle connector.
- **DO NOT** use this product if the flexible power cord or EV cable is frayed, insulation-broken, or 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.
- **DO NOT** remove cover or attempt to open the enclosure because of risk of electric shock.
- ⚠ WARNING:** This device should be supervised when used around children.
- ⚠ WARNING:** This device must be grounded.
- ⚠ WARNING:** To avoid a risk of fire or electric shock, do not use this device with an extension cord.
- ⚠ WARNING:** The suitability of the use of flexible cord in accordance with CE code, part I, rule 4-012, is to be determined by the local inspection authority.
- ⚠ WARNING:** To reduce the risk of fire, connect only to a circuit provided branch circuit over-current protection in accordance with the CSA C22.1–15 Canadian Electrical Code, Part 1 (Canada) or NOM-001-SEDE Electrical installations (utility) (Mexico) or ANSI / NFPA 70 National Electrical Code (USA).

Circuit Breaker Options table

Output Amperage (A)	48A	80A
Circuit Breaker Options (A)	60A	100A

⚠ WARNING & CAUTION

1.2 Installation Requirements

- ⚠ WARNING:** Disconnect electrical power prior to installing the charging station.
- ⚠ WARNING:** Be sure to preview the user manual and ensure local building and electrical codes are reviewed before installing the AC charger.
- ⚠ WARNING:** The AC charger should be installed by a qualified technician according to the user manual and local safety regulations.
- ⚠ CAUTION:** Use appropriate protection when connecting to the main power distribution cable.
- ⚠ CAUTION:** Type B, C or D breaker with the rating current for table should be installed in the upstream AC distribution box.
- ⚠ CAUTION:** The device shall be mounted at height between 2 feet and 4 feet from ground.
- ⚠ CAUTION:** Please keep the charger in a clean area with low humidity. Not recommended to be installed in coastal environments with high humidity or high dust.

1.3 Daily Maintenance

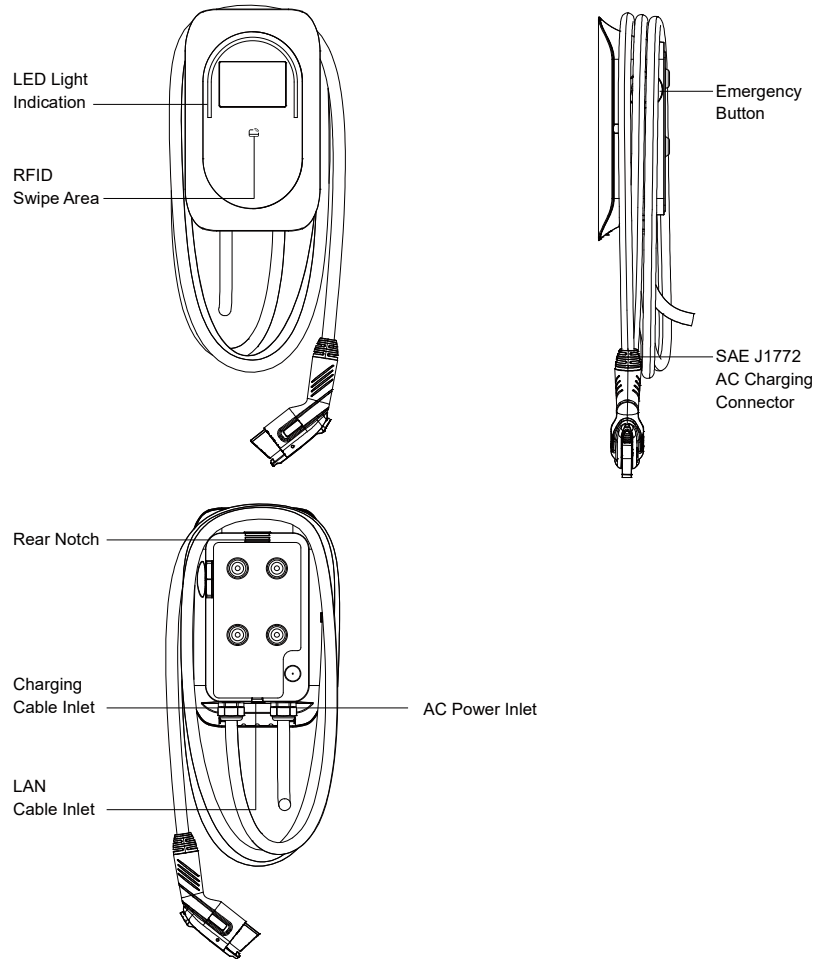
- ⚠ CAUTION:** Avoid moisture or water in the charger. If there is water or moisture ingress in the charger, it is necessary to immediately power off to avoid immediate danger, and notify the professionals to carry out maintenance before next use.
- ⚠ CAUTION:** Please use the charger properly. Do not hit or press hard on the enclosure. If it is damaged, please contact a professional technician.
- ⚠ CAUTION:** Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.
- ⚠ CAUTION:** Do not put heavy objects on the charger to avoid danger.

2. Product Introductions

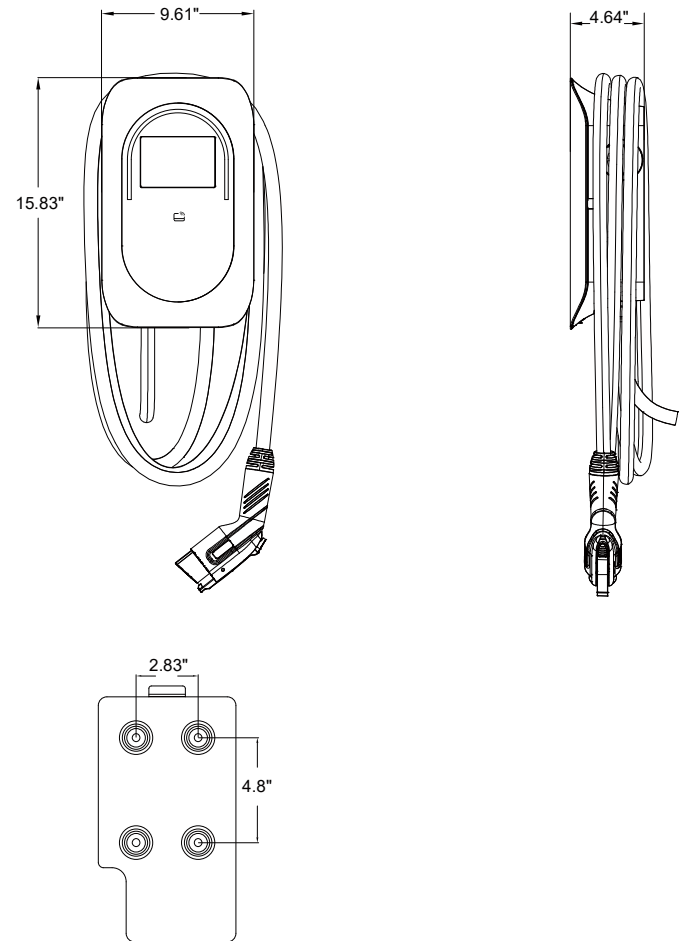


CAUTION: Avoid placing the charger near hot objects and at high temperature locations and away from dangerous substances such as flammable gases and corrosive materials.

2.1 Basic Interface



2.2 Basic Dimensions

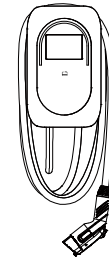


2.3 Specifications

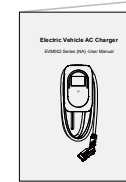
EVM002	
POWER	
Input Rating	208~240V AC
Output Current&Power	11.5 kW (48A) 19.2 kW (80A)
Power Wiring	L1 / L2 / GND
Input Cord	Hard-wire
Mains frequency	50 / 60 Hz
Connector Type	SAE J1772 Type1 18ft
Ground Fault Detection	CCID 20
Protection	UVP, OVP, RCD (CCID 20), SPD, Ground Fault Protection, OCP, OTP, Control Pilot Fault Protection
Meter Accuracy	±1% (CTEP qualified)
USER INTERFACE	
Status Indication	LED indication
Screen	4.3' touch screen (UI upgradable)
Language	English / Spanish / French
User Interface	Compatible with multiple CPOs
Connectivity	Bluetooth5.2, Wi-Fi (2.4G / 5G), Ethernet
Communication Protocols	OCPP 1.6Js self-adaptation
Pile Group Management	Dynamic Load Balancing
User Authentication	Plug&Charge (Free) / RFID Card / Credit Card (Optional)
Card Reader	RFID, ISO14443A, ISO14443B, 13.56MHz
Software Update	OTA
CERTIFICATION & STANDARDS	
Safety & Compliance	UL991, UL1998, UL2231, UL2594, ISO15118 (P&C)
Certification	ETL / IC
Warranty	36 months
GENERAL	
Button	Emergency Button
Enclosure Rating	NEMA 4 (IP65), IK08
Operating Altitude	< 6561ft (2000m)
Operating Temperature	-40°F ~ +122°F (-40°C ~ +50°C)
Storage Temperature	-40°F ~ +185°F (-40°C ~ +85°C)
Operating Humidity	5 ~ 95%
Mounting	Wall mount / Pedestal (Optional)
Product Dimensions	15.83"×9.61"×4.64" (402×244×118mm)

3. Verify Contents

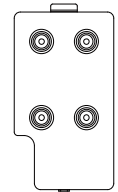
Ensure you have this installation guide and these parts:



AC Charger x1



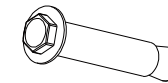
User Manual x1



Wall-Mounted Bracket x1



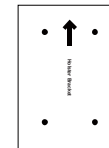
M4 Anti-Theft Screws x1



M6 Hexagonal Expansion Screws x4



Allen Wrench x1



Mounting Template x1



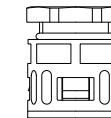
RFID Card x2



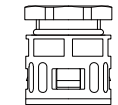
Cable Ramp x1



ST3.5*16 Screws x2



AD34.5 Conduit Fitting x1



AD21.2 Conduit Fitting x1



M32 Conduit Fitting x1

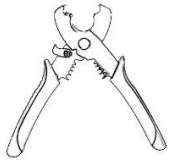


M4 Anti-Theft Round Head Screws x4 (Spare)

4. Gather Tools

Tools required before installing the Wall-Mounted charger, gather the following tools:

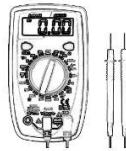
1. Wire stripper
2. Adjustable Wrench
3. Voltmeter or digital multi-meter (for measuring AC voltage at the installation site)
4. Level
5. Pencil or marker
6. Drill
7. Phillips screwdriver



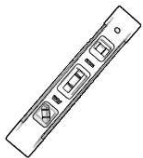
1



2



3



4



5



6



7

Note: The above tools are very important, please gather them all.

5. Plan The Mounting



WARNING: In areas with frequent thunderstorms, add surge protection at the service panel for all circuits. Ensure all power and ground connections, especially those at the breaker and bus bar, are clean and tight.



CAUTION: Not recommended to be installed in coastal environments with high humidity or high dust.

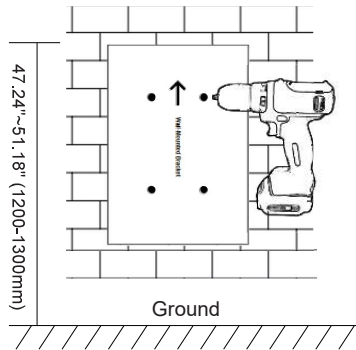
Select the appropriate mounting location with electrical capacity:

- I. Ensure the owner has chosen a mounting location that allows the charging cable to reach the car's charging port while still providing slack.
- II. The device must be anchored into mounting such as 3.14" x 5.11" stud or a solid wall.

6. Wall mounting

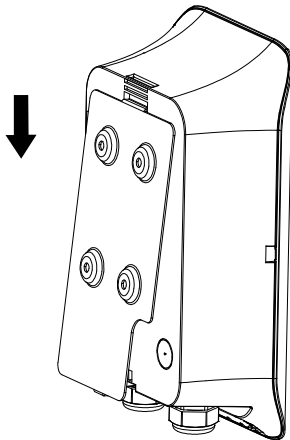
STEP 1

Make sure the installation wall is vertical, and use the Mounting template to drill four screw holes with a diameter of 0.33" (8.5mm) and a depth of 2.17"~2.36" (55mm~60mm) at a height of 47.24"~51.18"(1200-1300mm) from the ground according to the hole positions.



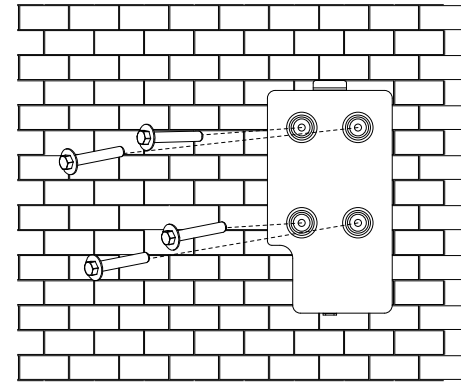
STEP 2

Push the bracket down to remove the wall hanger.



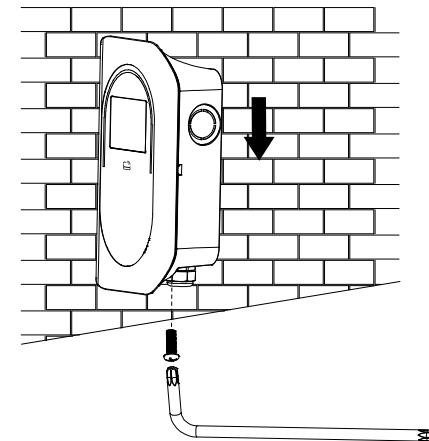
STEP 3

Use 4 Hexagonal Expansion Screws to secure the wall-mounted bracket on the wall, Use an wrench to tighten the screw nuts on the expansion screws.



STEP 4

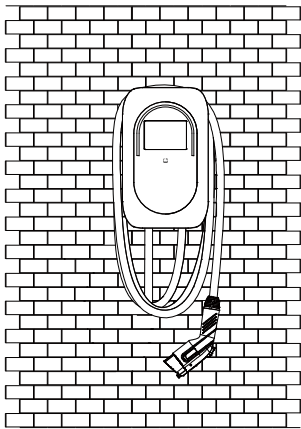
Align the rear notch of charger with the wall-mounted bracket and alignment the screw holes at the bottom, and secure it using M4 Anti-Theft Round Head Screws.



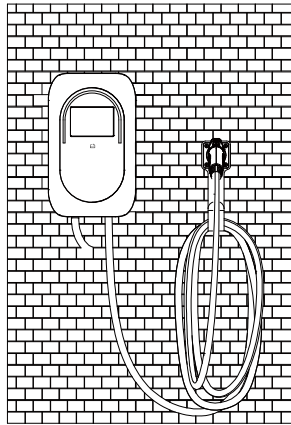
STEP 5

Overall outlook picture after installation:

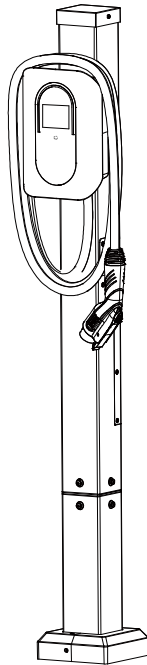
Wall-mounted cable winding



Plug holder (optional)



Pedestal (optional)



7. Wire The Circuit And Install 4G Card



WARNING: This device must be grounded. Disconnect electrical power prior to installing the charging station.



WARNING: Improper connection of the equipment-grounding conductor would result in a risk of electric shock. Check with a qualified electrician or serviceman if you are not sure whether the product is properly grounded. Do not modify the plug provided with the product – if it doesn't fit the outlet, have a proper outlet installed by a qualified electrician.



CAUTION: Use appropriate protection when connecting to the main power distribution cable.

This step is only to Hard-wire wiring and requires user-supplied AC input cables.

For safe use of electricity, please set circuit

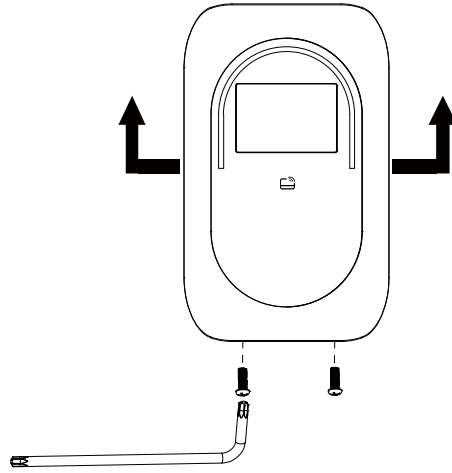
breaker protection in the input part of EV Charger.

Circuit Breaker Options table

Output Amperage (A)	48A	80A
Circuit Breaker Options (A)	60A	100A

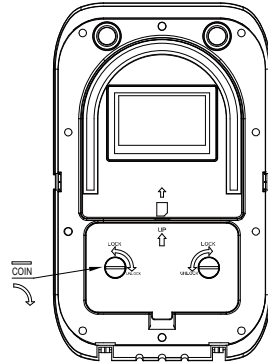
STEP 1

Use a allen wrench to loosen the two screws located at the bottom of the charging station. Open the buckle on both sides and lift up the front cover to remove it from the charging station.



STEP 2

Remove the cover from the charger using the appropriate tools. (such as coin)

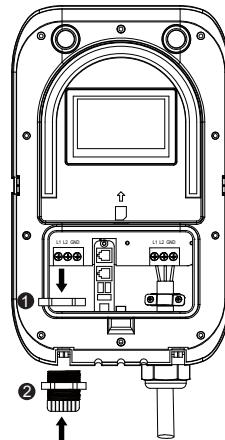
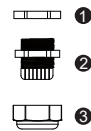


STEP 3

Remove the waterproof plug from the charger cable inlet, Connect and Lock the M32 Conduit Fitting Part1 (1) and Part2 (2) (including the washer) to the Inlet as shown below.

Note:

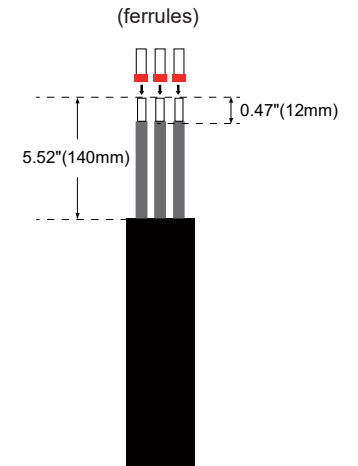
- 1.You need to bring your own AC input cable.
- 2.Select the AD34.5 or M32 Conduit Fitting based on the AC input cable type, If you use AD34.5 Conduit Fitting, perform the same steps as above.



STEP 4

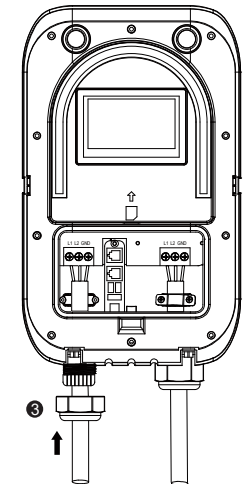
Take out the AC input cable and strip the TPU cover by 5.52" (140mm), and then strip individual wires by 0.47" (12mm). use ferrules on stranded wires and press it by wire crimper.

Note: You need to bring your own ferrules.



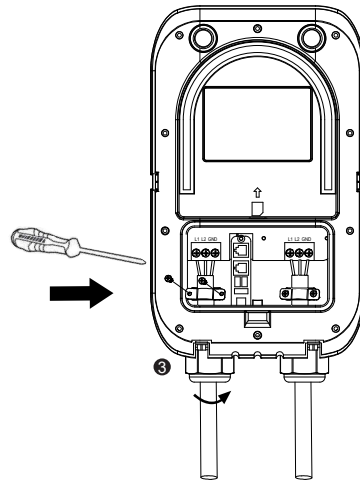
STEP 5

First, pass the AC input cable through the M32 Conduit Fitting Part 3 (3), then continue through Part 1 and Part 2. Connect the wires (L1, L2, GND) and tighten each connector screw to 2 N.m (17.7 in.lbs).



STEP 6

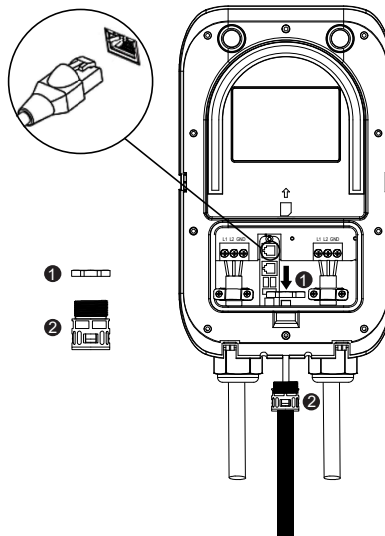
Lock the M32 Conduit Fitting Part 3 (③),
Press the AC input cable with cable ramp and
secure it with two screws (3.5*16).



STEP 7

Remove the waterproof plug from the
charger cable inlet. Connect and lock the
AD21.2 conduit fitting Part1 (①) and Part2
(②) to the inlet. Then, insert the Ethernet
cable with the RJ45 plug into the bellows,
through the AD21.2 conduit fitting, and plug
the cable into the RJ45 port (RS232/RS485
operate in the same mode).

Note: You need to bring your own bellows

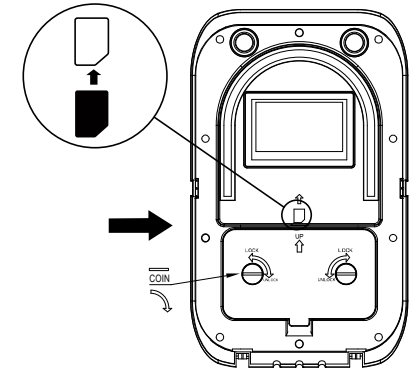


STEP 8

Align the cover with its position on the
charging station. Secure the cover in place
using the appropriate tools (such as coin).

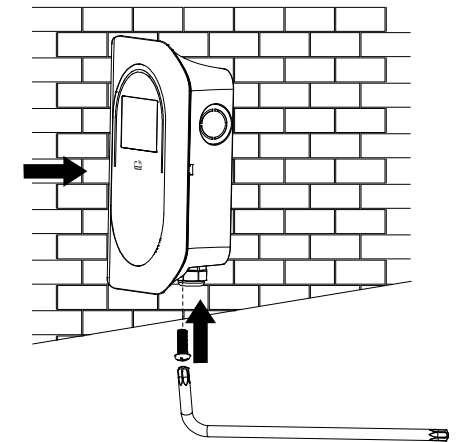
STEP 9 (Optional)

Insert the SIM (MICRO SIM) card according
to the picture's instruction (for 4G version,
Optional).



STEP 10

Align the magnetic positions of the cover
plate and the middle frame, Fasten both
clips and fix the two screws at the bottom.

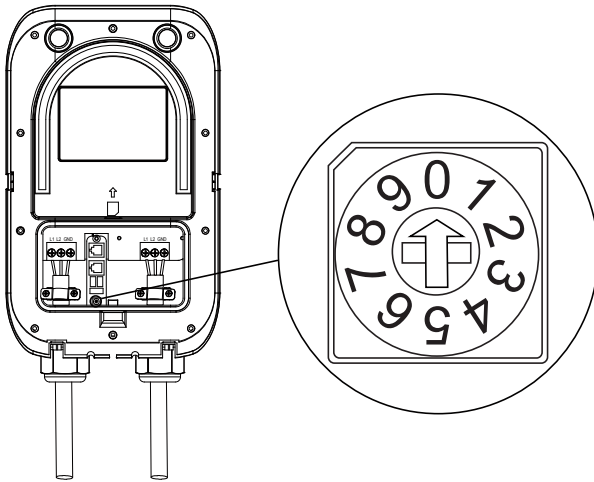


STEP 11

This AC charger is equipped with one current selectors, enabling it to support different maximum output currents via the setting rotary switch.

Setting methods are shown below:

- Before setting the rotary switch, make sure the input power is turned OFF.
- Use a non-conductive object to set the rotary switch.



WARNING: The load capacity of the selected AC input cable must be greater than the maximum output current.

Rated Current Type: 48A										
Switch Setting Number	0	1	2	3	4	5	6	7	8	9
Maximum Output Current	8A	16A	24A	32A	40A	48A				

Rated Current Type: 80A										
Switch Setting Number	0	1	2	3	4	5	6	7	8	9
Maximum Output Current	8A	16A	24A	32A	40A	48A	56A	64A	72A	80A

8. Light Codes

8.1 After Start UP

Device Status	Light Codes
Power On	Blue, green and red run clockwise
Standby	Solid Green
Plug The Charging Connector	Solid Blue
Authentication (Swipe Card)	Blue Blinking
Charging In Progress	Blue Breathing
Finished / Stopped Charging	Solid Blue
Reservation Charging	Solid Yellow
Device Unavailable	Yellow Blinking
OTA	Yellow Breathing
Fault	Red

8.2 Error and Warning Messages

No.	Fault Status	Red Light	Remark
1	Emergency Fault	Solid Red	Reset Recover
2	Meter Fault	1 flash followed by 3 sec pause	Auto Recover
3	CP Fault	2 flashes followed by 3 sec pause	Unplug the Connector to Recover
4	UVP	3 flashes followed by 3 sec pause	Auto Recover
5	OVP	4 flashes followed by 3 sec pause	Auto Recover
6	OTP	5 flashes followed by 3 sec pause	Auto Recover
7	OCP	6 flashes followed by 3 sec pause	Unplug the Connector to Recover
8	Ground Fault	7 flashes followed by 3 sec pause	Unplug the Connector to Recover
9	Relay Fault	8 flashes followed by 3 sec pause	Unplug the Connector to Recover
10	RCD Abnormal	9 flashes followed by 3 sec pause	Unplug the Connector to Recover
11	RCD Self-Test Fault	10 flashes followed by 3 sec pause	Reboot to Recover
12	Relay Self-Test Fault	11 flashes followed by 3 sec pause	Reboot to Recover
13	Sensor Fault	12 flashes followed by 3 sec pause	Check sensor or contact after-sales
14	Cable Fault	13 flashes followed by 3 sec pause	Check cable or contact after-sales

9. IC Declaration

ISED Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic

Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil contient des émetteurs/récepteurs sans licence qui sont conformes aux RSS sans licence d'Innovation, Sciences et Développement économique Canada. L'exploitation est soumise aux deux conditions suivantes :

- (1) Cet appareil ne doit pas causer d'interférences.
- (2) Cet appareil doit accepter toute interférence, y compris les interférences qui pourraient causer un fonctionnement indésirable de l'appareil.

ISED Radiation Exposure Statement:

This equipment complies with ISED RF radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Cet appareil est conforme aux limites d'exposition de rayonnement RF ISED établies pour un environnement non contrôlé.

Cet émetteur ne doit pas être co-implanté ou fonctionner en conjonction avec toute autre antenne ou transmetteur.

Cet équipement doit être installé et utilisé avec une distance minimale de 20cm entre le radiateur et votre corps.

10. Warranty and Maintenance

- The warranty period for this charger is three years.
- During the warranty period for any malfunction under normal use according to the User Manual (to be determined by certified maintenance technicians of sellers), the product shall be repaired free of charge. Except for the following situations, the charger shall be subject to the above warranty terms:

1. The warranty certificate cannot be provided or the contents of the warranty certificate are modified or inconsistent with the label indication of the repaired product.
2. Those who are unable to provide valid proof of purchase.
3. Those who exceed the manufacturer's specified warranty period.
4. Those who damage the product due to not following the product service instruction for use, maintenance and storage.
5. Damage or malfunction caused by external object entering.
6. Unauthorized repair, disassembly or modification.
7. Damage caused by force majeure (such as lightning, excessive voltage, earthquake, fire, flood, etc.).
8. Malfunction and damage caused by other unavoidable external factors. Malfunction and damage caused by improper use of equipment, such as water or other solutions entering into the equipment.
9. Malfunction and damage caused by the grid power supply and voltage which is not specified for use with the charger equipment.

The above guarantees shall be made solely, and no other express or implied warranties shall be made (including the implied warranties of merchant ability, particular and applicable reasonableness and adaptability, etc.) whether in the contract, civil negligence, or other aspects, the Company shall not be responsible for any special, incidental or consequential damages.

11. Network Configuration and Settings

1.Connecting with charger

Step A: Search charger's WiFi hotspot. The name of the WiFi will be the "AP" + charger's SN number. If the SN number has more than 12 digits, the name will be the first 6 digits of the SN number.

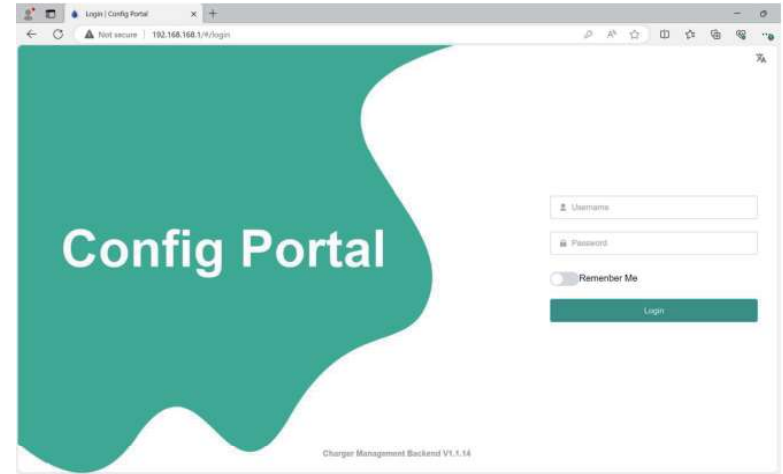
If you can't find the WiFi hotspot, please restart the charger.

For example, if the SN number is 182029789ABCDEF, the WIFI name will be AP-182029



The password for the AP hotspot is 12345678

Step B: Type 192.168.168.1 in the browser on the device which connects with the charger.

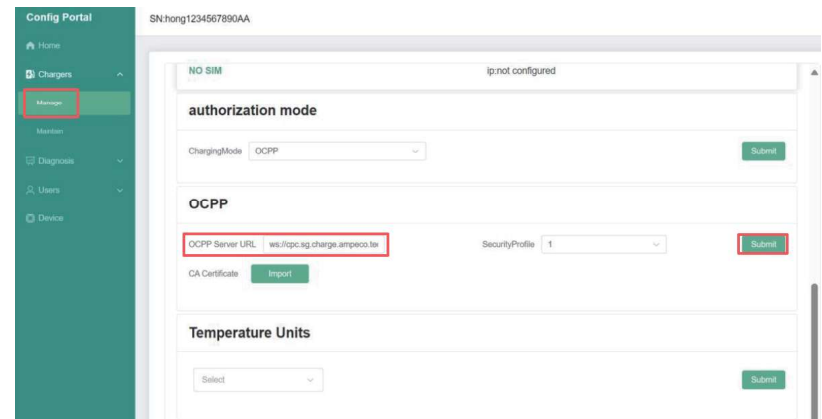


Username for the config portal is "admin" and password is "Admin@0520"

2.Config Network Settings

2.1 Set OCPP server address

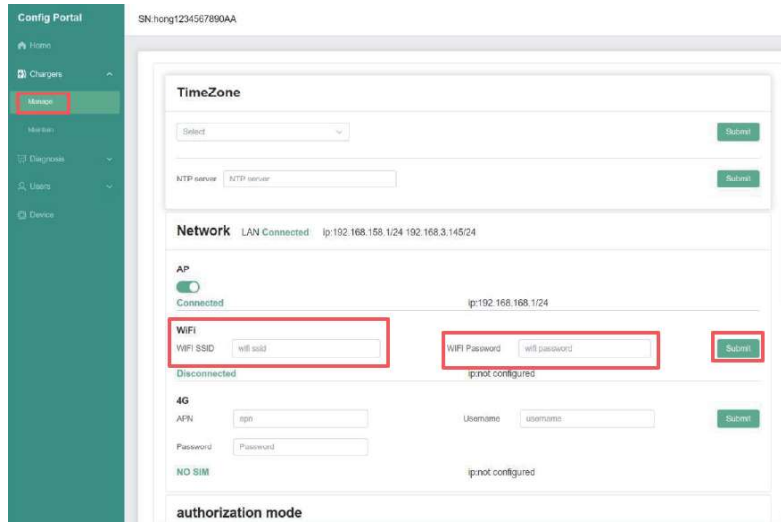
After logging into the config portal, on the left navigation bar go to Chargers -> Manage. Then scroll down to OCPP. The OCPP server URL is "ws://comm.charports.com:9511/ocpp". Then click "Submit"



If the URL has already been set to "ws://comm.charports.com:9511/ocpp", please skip this step.

2.2 Set WiFi network

After logging into the config portal, on the left navigation bar go to Chargers -> Manage. Then input the name of the WiFi you want the charger connects to in the WiFi SSID field and password in the WiFi Password field. Then click "Submit"



3. Charports Online Management Platform (for Charging Station Owner)

Please contact Turogize sales or authorized agent for applying Username and Password of the Charports Management Platform.

Go to www.charports.com to log on the platform once got the assigned Username and Password.

Please scan the QR code below for the Charports Platform Instruction



Charports Platform Instruction

4. Charports APP (for End-user)

To operate charging and manage payment in Charports powered site.



iOS



Android