

AS 48A Smart AC Charging Point

User Manual

Introduction

Thank you very much for purchasing EVSElink Smart AC Charging Point!

- This manual contains instructions for use during installation, operation and maintenance of the charger.
- All information, specifications and illustrations in this manual are based on the latest information available at the time of printing.

Safety Information

Symbol Usage

Safety messages are provided throughout this manual to reduce the risk of electrical shock, and to ensure the safe installation and operation of the equipment.

DANGER

This indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or bystanders.

WARNING

This indicates a situation where failure to follow instructions may be a safety hazard or cause equipment malfunction. Use extreme caution and follow instructions carefully.

NOTE

This indicates important information for optimal system operation. Follow instructions closely.

Safety Instructions

- Read and follow all instructions before installing and operating the charger.
- Failure to follow these instructions may lead to death, serious injury or property damage.
- The equipment should only be installed, maintained or replaced by a licensed electrician in accordance with all local codes and ordinances. Failure to comply with this recommendation may void the warranty.
- Do not expose the equipment to flammable, explosive, harsh or combustible materials, chemicals or vapors.
- Children should be supervised when around the equipment.
- Do not put fingers into the EV connector.
- Switch off the circuit breaker of the electrical outlet before installing your charger.
- The equipment must be grounded through a permanent wiring system or an equipment-grounding conductor. Failure to ground the charger can lead to risk of electrocution or fire.
- Do not leave metals such as bolts, gaskets inside the equipment.
- Do not force the connector into the receiver on the vehicle.
- Do not use the equipment if the flexible power cord or EV cable is frayed, broken or otherwise damaged.

- Do not use the equipment if the enclosure or the EV connector is frayed, broken or otherwise damaged.
- Use the equipment when the ambient temperature is between -30°C and 50°C (-22°F to 122°F).
- #6 90°C copper wire should be used.
- For NEMA plug-in version, use only the NEMA outlet (6-50 or 14-50). For your own safety, do not unplug the charger during charging.
- Ensure that the charging cable is positioned so it is not stepped on, tripped over, or subjected to damage or stress. Do not close a garage door on the charging cable.
- Ensure EV engine is switched off before charging.
- Install the charger on a surface that can support its weight. Failure to do so can result in death, personal injury, or property damage. Inspect the charger for proper installation before use.
- Use a dry, clean cloth to wipe down the charger when it gets dirty.

Other Information

Product information in this User Manual is subject to change without notice. While the information in this manual has been carefully checked for accuracy, no guarantee is given for the completeness and correctness of the contents, including but not limited to the product specifications, functions, and illustrations.

FCC Information

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.



Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

This equipment complies 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 and your body.

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Product Overview

Product Introduction

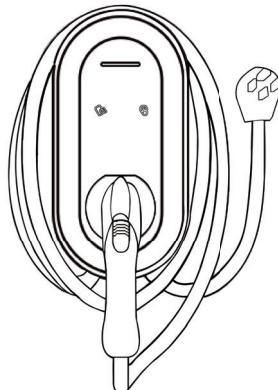
The AS Smart AC Charging Point is designed to supply electricity to an electric vehicle (EV).

The charger offers tailor-made, intelligent and network charging solutions for your company or home. It can connect to the internet via Wi-Fi (optional: 4G and LAN).

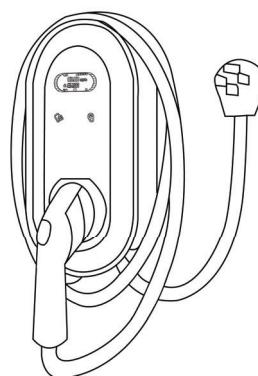
AS chargers share the same wallbox shell. The installation procedures for the four models (shown as below) are the same.

Models

Plug-in Version

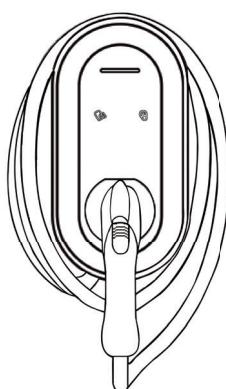


LCD Plug
(EAWS-AS09P101-20)

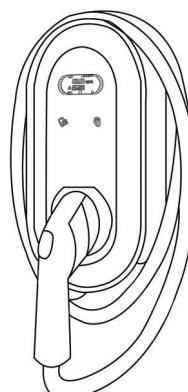


LED Plug
(EAWS-AS09P101-10)

Hardwire Version



LCD Hardwire
(EAWS-AS11W101-20)



LED Hardwire
(EAWS-AS11W101-10)

Specifications

Item	Description	
AC Power Supply	L1 + L2 + PE, single phase	
Rated Power	EAW-AS11W101-20 EAW-AS11W101-10	11.52kW
	EAW-AS09P101-20 EAW-AS09P101-10	9.6kW
Rated Voltage	AC 200-240V	
Rated Current	EAW-AS11W101-20 EAW-AS11W101-10	6-48A
	EAW-AS09P101-20 EAW-AS09P101-10	6-40A
Input Cord	EAW-AS11W101-20 EAW-AS11W101-10	Hardwired
	EAW-AS09P101-20 EAW-AS09P101-10	Hardwired NEMA 6-50 plug NEMA14-50 plug
Frequency	60Hz	
Connector Type	Type 1	
Cable Length (plug included)	25 feet (7.62 m)	
Charging Control	EVSElink mobile app RFID Plug-and-charge	
Display Screen	EAW-AS11W101-20 EAW-AS09P101-20	3.8-inch LCD screen
Indicator Lights	EAW-AS11W101-10 EAW-AS09P101-10	4 LEDs
Connectivity	Basis: Wi-Fi (2414MHz-2484MHz 802.11b/g/n) Bluetooth (2402MHz-2480MHz BLE5.0)	
Communication Protocol	OCPP 1.6-J	
Protection	Over current protection, over voltage protection, under voltage protection, over temperature protection, leakage protection, unconnected PE ground protection, lighting protection	
Ground Fault Circuit Interrupter	Integrated, no additional required (CCID20)	
Operating Altitude	2000m	
Storage Temperature	-40°F - 185°F (-40°C - 85°C)	
Operating Temperature	-12°F - 122°F (-25°C - 50°C)	
Relative Humidity	95%RH, No water droplet condensation	
Vibration	0.5G, No acute vibration and impaction	
Installation Location	Indoor or outdoor, good ventilation, no flammable, explosive gases	
Weight	13.2 lbs. (6KG)	
Dimension (H x W x D)	13 x 8 x 4 in (388 x 202 x 109 mm)	
Mounting	Wall-mounted or pole-mounted (mounting pole is optional)	
IP Code	IP66 (wallbox), IP54 (connector)	

Installation

Unpacking

Components

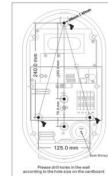
Make sure that all parts are delivered according to the order. Check the packaging for the following parts.



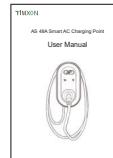
EVSElink charger



RFID cards



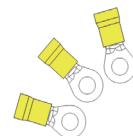
Drilling template



User Manual



Wall anchors (8 x 40 mm)



Insulated ring terminals



Screws (Φ5 x 40 mm)



Waterproof gaskets

Required tools



Measuring tape



Electric drill



Hammer



Slotted screwdriver



Phillips head screwdriver



Wire stripper



Crimp tool



Utility knife



Φ8mm drill bit



1-1/8 in. (35mm) step drill bit



Step Bit, 1-1/8 in (29mm)



Step Bit, 1-1/8 in (35mm)



Computer (with Wi-Fi)

Plan the Location

Before installation, check the site for appropriate mounting location and electrical capacity.

1. Choose an installation location that allows the charging cable to reach the car's charging port while still providing slack.
2. Install your charger on a flat and vertical surface capable of handling the 13.2 lbs. (6KG) load of the charger.
3. Ensure there is Wi-Fi signal available if you want to use the app.

NOTE

When installed outdoors, cord-and-plug installations require a NEMA outdoor rated receptacle and enclosure due to the risk of moisture.

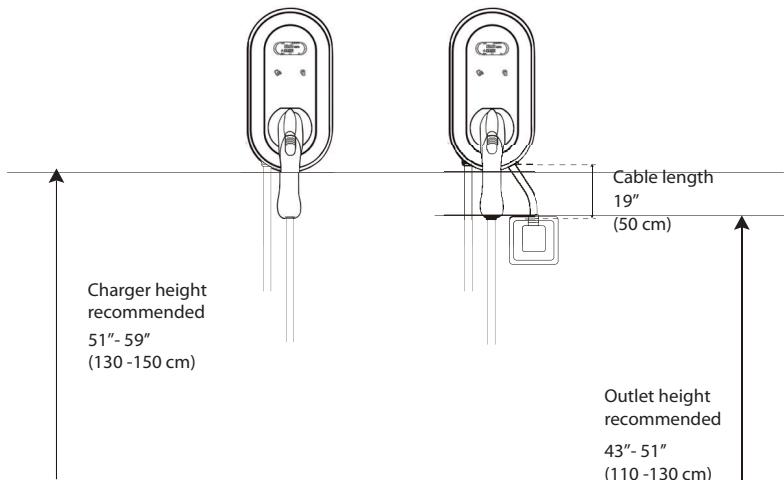
4. Determine the desired charging amperage and whether the desired circuit rating requires a hardwired circuit. Choose based on the electrical capacity in the panel, the desired speed of charging, and whether the user prefers a hardwired or plug-in installation.

Circuit Rating	Max Load	Estimated Range Per Hour (based on 16kW/100 km)	Plug-in	Hardwire
60 A	48 A	Up to 45 miles/72 km	No	Yes
50 A	40 A	Up to 38 miles/61 km	Yes	Yes
40 A	32 A	Up to 30 miles/48 km	Yes	Yes

5. The recommended installation height is between 51 and 59 inches (130 - 150 cm). Note that the minimum installation height must be at least 19 inches (50 cm), measured from the bottom of your charger.

For plug-in installations, the NEMA outlet should be located 43 and 51 inches (110 - 130 cm) from the ground adjacent to the stud where the charging station will be mounted.

Hardwire Version Plug-in Version



6. For NEMA plug-in installation, determine the purchased plug type, either a NEMA 6-50 or 14-50 plug.
7. Ensure the electrical panel supports a 240V dedicated circuit with a new, dedicated, and non-GFCI two-pole circuit breaker, in accordance with local codes and ordinances.

Grounding Requirements

The charger must be implemented equipment grounding through a permanent wiring system or an equipment grounding conductor. Use a wire with a dedicated grounding wire and a ring terminal and connected to the equipment ground terminal block for grounding.

NEMA Outlet Installation

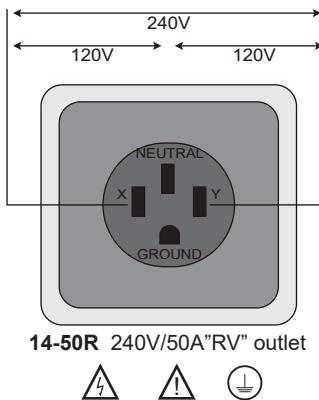
If you already have a NEMA outlet, ensure that:

- It complies with local electrical codes.
- It has a designated circuit breaker and electrical wiring that are dimensioned appropriately.

WARNING

Switch off the circuit breaker of the electrical outlet before installing your charger.

When installing a NEMA outlet, be sure the ground pin is facing up as shown in the diagram.



14-50R 240V/50A "RV" outlet



Important Recommendations

- Ensure you have the correct permits for this electrical installation.
- Keep in mind that the power supply cable length is about 19 inches (50 cm).
- Ensure the electrical panel supports a 240V dedicated circuit with a new, dedicated two pole circuit breaker.

Charger Installation

DANGER

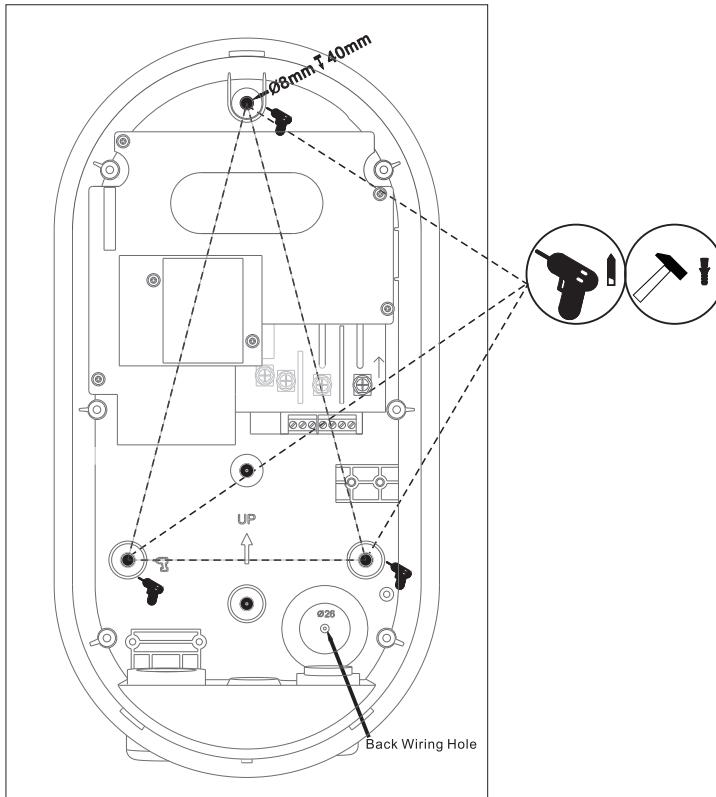
Turn off circuit breaker to the outlet. Do not restore power to the outlet until installation is complete. Failure to follow these instructions could result in shock or electrocution.

1. Locate a wall stud or pole nearest to the NEMA outlet (plug-in version) using a stud finder or if hardwiring (hardwire version), the wiring will come through the bottom of the charger.
2. Hold the included drilling template to the wall. Ensure that the placement of the NEMA outlet and your charger will allow for an adequate connection of the 19" (50 cm) NEMA cable.

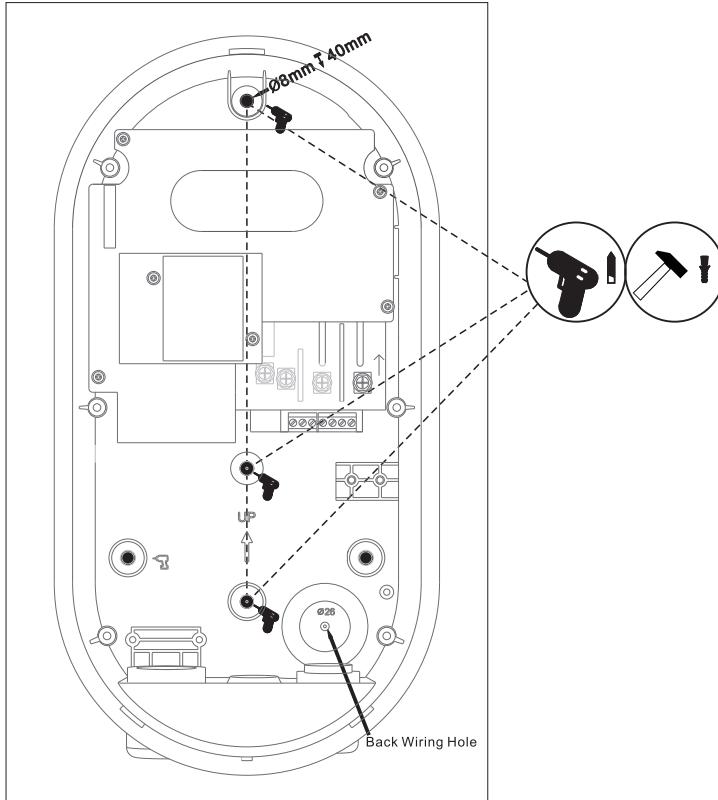
NOTE

To find the charger's ideal mounting height, plug the charger's NEMA cable into the outlet.

3. Drill holes through the template with a drill, remove the template and insert the wall anchors into the holes. Depending on your needs, you can choose either of the following methods to drill holes.

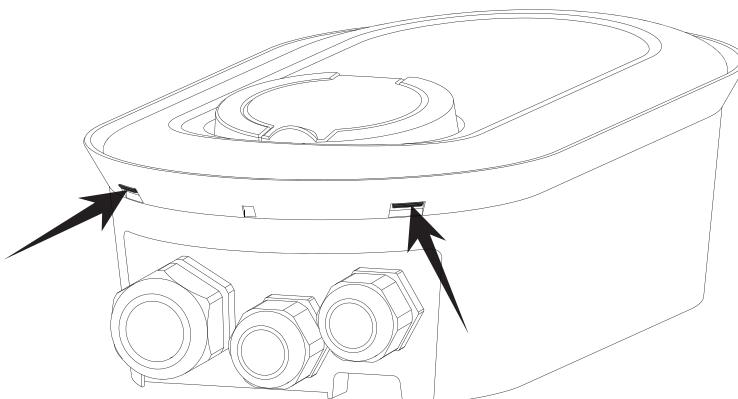


Drill holes for wall-mounted

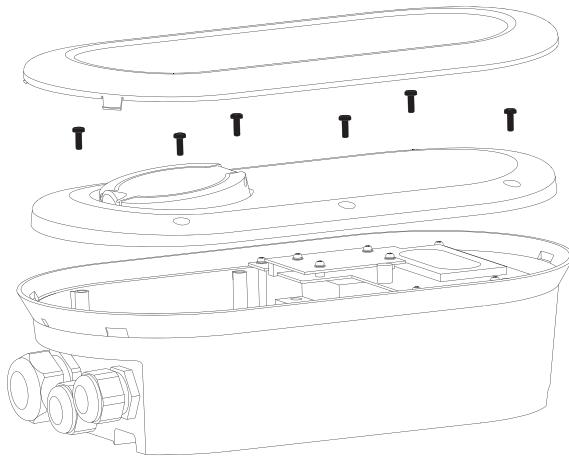


Drill holes for pole-mounted

4. Use a screwdriver to carefully push the two bars at the bottom of the equipment and remove the upper cover.



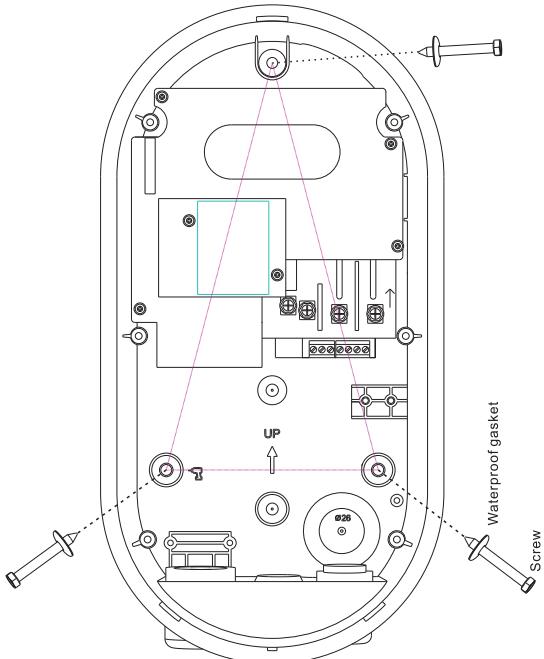
5. Loosen the six screws and carefully remove the second cover from the base box.



 **NOTE**

Drill the hole for rear wiring installation before you secure the box to the wall if you want to hardwire the charger. Make sure you use a waterproof connector.

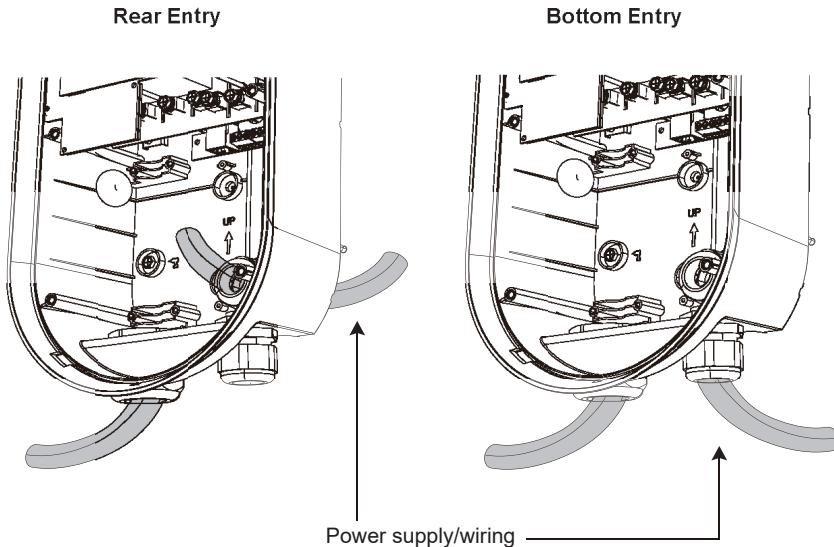
6. Attach the base box to the mounting location by inserting the screws and waterproof gaskets. Tighten the screws using a screwdriver.



7. Hardwired installation -- Skip to Step 8 if you have the plug-in version.

Power Supply Wiring

Before you start, determine which entry port you will be using for your power supply wiring or conduit. Your charger can be connected from either the rear or bottom entry ports. Choose the most appropriate connection based on the placement of your wiring or conduit.



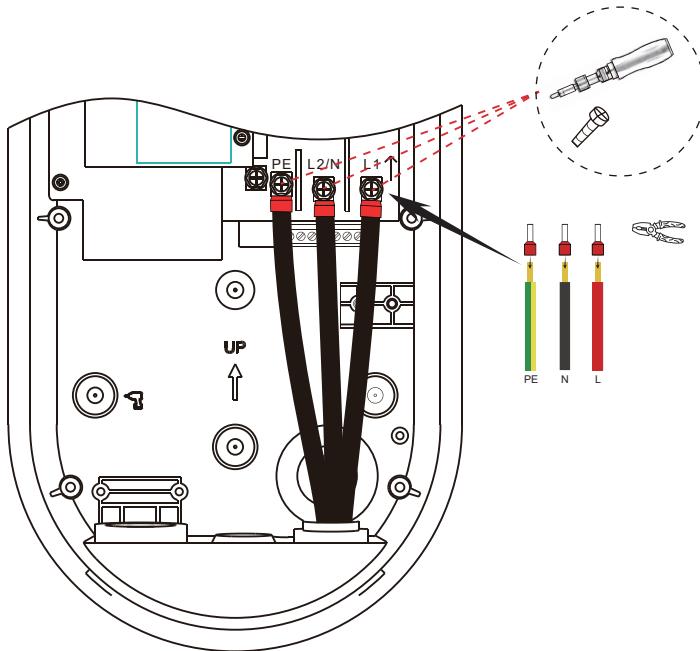
- For rear wiring installations, drill a 1" (26mm) hole for power supply wiring. For bottom wiring installations, remove the bottom cable gland, use a small screwdriver to cut a slit in the rubber grommet to create an opening for power supply wiring.
- Feed the power supply wires through the rubber grommet (bottom entry) or the hole (rear entry) with enough length to easily connect the wires to the terminals.

NOTE

The bottom aperture has a diameter of 0.9" (2.5 cm), therefore a 0.8" conduit fitting is recommended.

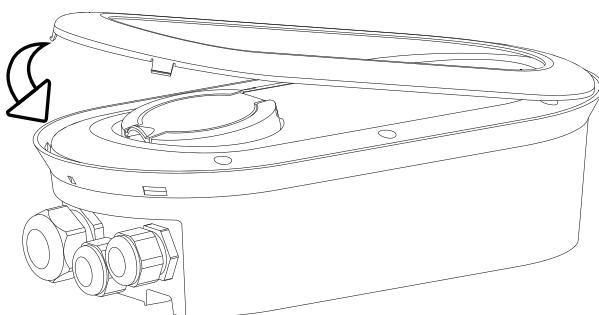
- Use copper conductors with the maximum wire size of 6 AWG (16 mm²).
- Strip the wires to 1/2" (12 mm), insert the exposed wires into the insulated ring terminals, and then crimp the terminals with a crimp tool.

- Attach the terminals per the diagram and tighten each connector screw to 5.6 N.m. using a torque screwdriver.



8. Screw the second cover back.

9. Buckle the upper cover.



Configuration

Install EVSElink Charge App

1. Download the EVSElink Charge app to your mobile device from the Google Play or Apple App Store.

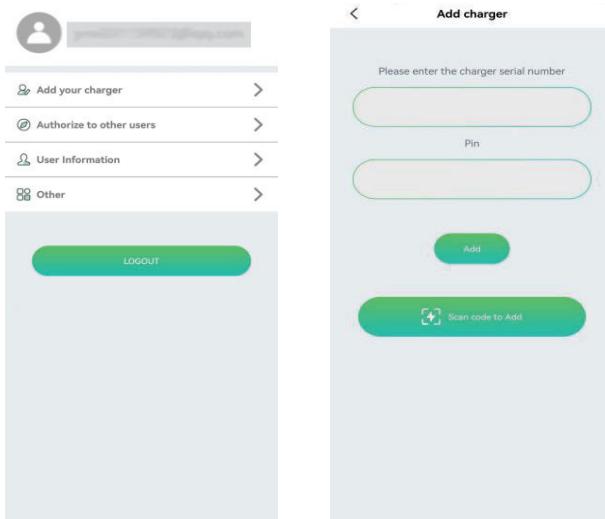


Figure 3-1 EVSElink app

2. Open the app, sign in or create an account with your and email.

Add the Charger

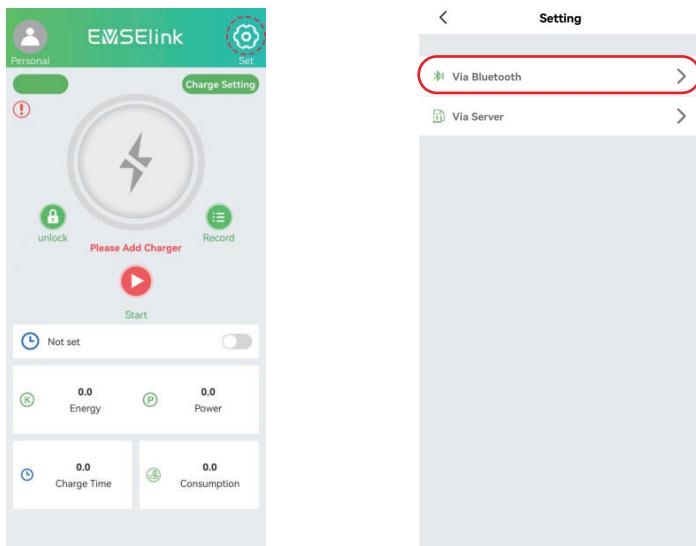
1. At the top left corner of the home screen, tap Personal.
2. Tap Add your charger.



3. Scan the QR code or enter the serial number, which can be found on the side of the wallbox, and pin (printed in the included quick installation guide) to add the charger.

Configure the Charger

1. From the home screen, tap Set > Via Bluetooth.



2. Select the Wi-Fi you want to connect and enter its password.

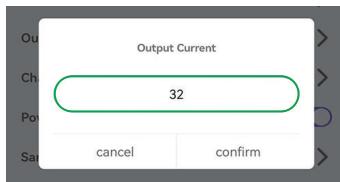


NOTE

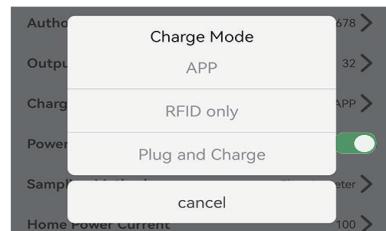
Keep the Server URL and Authorization Key unchanged.

The arews://charge.evselink.top:50015/websocket/CentralSystemService and 12345678.

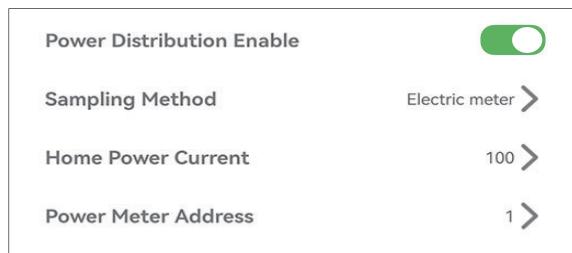
3. Enter your desired charge limit (amps).



4. Under Charge Mode, select APP, RFID Only, or Plug and Charge.



5. To use this feature, a supported CT (Current Transformer) clamp or electric meter must be installed to sense grid power. Please contact customer support for detailed information.



NOTE

The app is being continuously updated and optimized, the actual functions may vary.

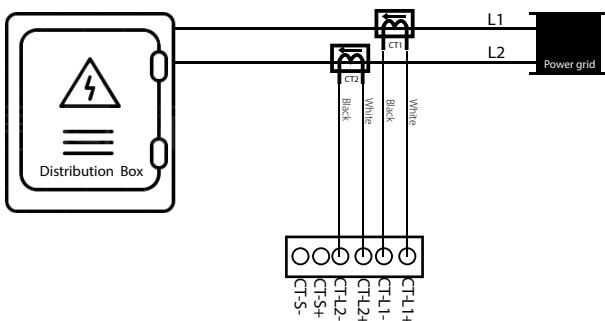
CT Clamp (optional)

The CT clamp can measure current up to 120A.



Installation instructions

Please refer to the schematic diagram below for the interface position of CT clamps in the charger.



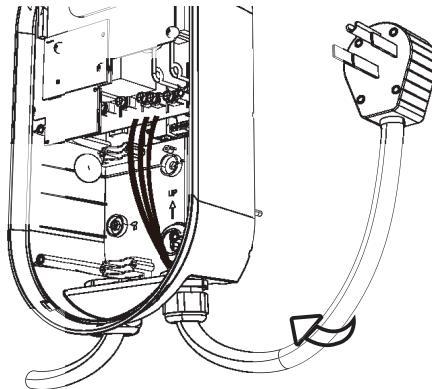
- CT1 is connected to the grid incoming line L1, the white line is connected to CT-L1+, and the black line is connected to CT-L1-.
- CT2 is connected to the grid incoming line L2, the white line is connected to CT-L2+, and the black line is connected to CT-L2-.
- CT3 is connected to the photovoltaic power output L1 line, the white line is connected to CT-S+, and the black line is connected to CT-S-.

Plug-in To Hardwire

40A NEMA Plug-in Model only

Remove the NEMA Cable

1. Remove the covers by following the instructions in pages 7-8 .
2. To disconnect the NEMA cable, unscrew the terminal screws per the diagram.



3. Loosen the cable gland in a counter-clockwise direction and pull down the NEMA cable to release it from your charger.

Safely store or dispose of the NEMA cable.

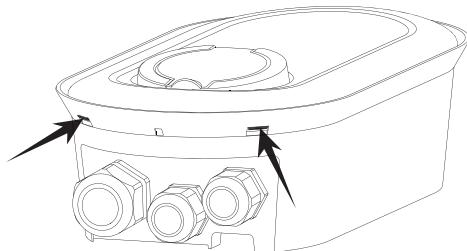
Current Limit Adjustment

The maximum current for the plug-in version is 40 A. You need to manually adjust the limit to 48 A if you want to hardwire the charger.

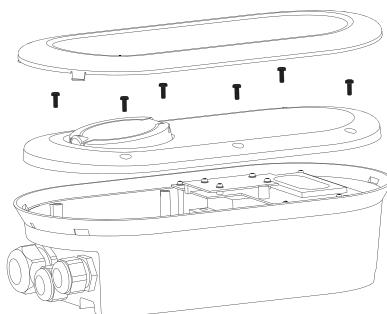
DANGER

Do not adjust the maximum current unless you use a hardwired installation. Failure to follow these instructions could result in shock or electrocution.

1. Open the cover

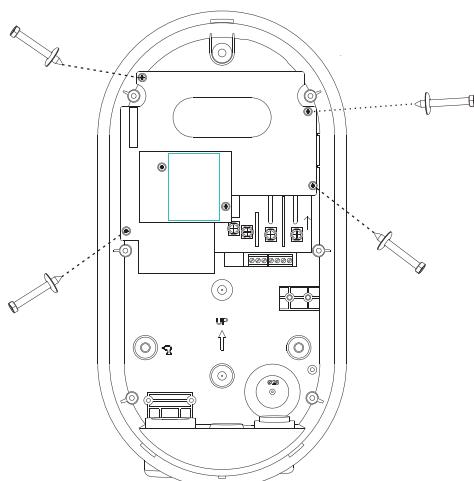


Press the two bars under the machine and take out the decorative cover.

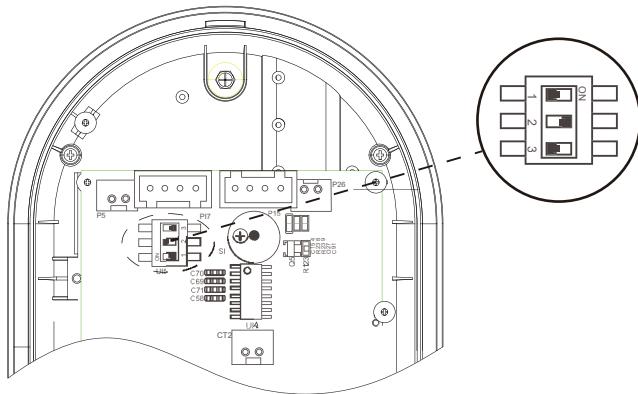


Loosen the six screws of the cover and take out the cover.

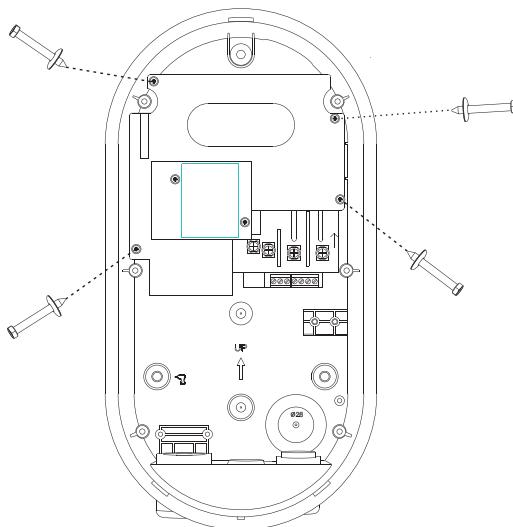
2. Power outage, loosen the four screws turn over the screen part.



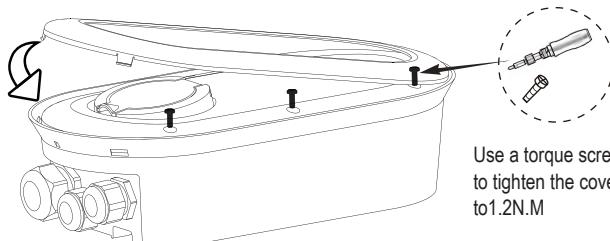
3. Push the Key 2 to ON side. Do not change Key 1 and Key 3.



4. Screw back the four screws.

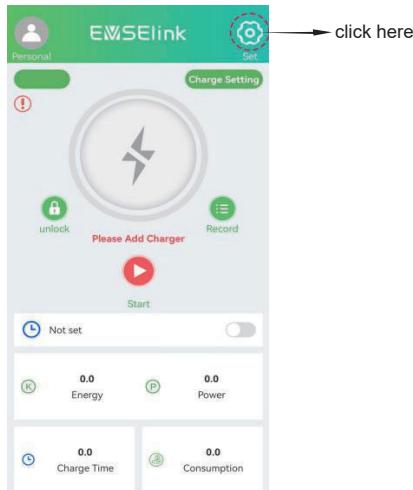


5. Put the cover back on. Connect the input power cord and power on again.

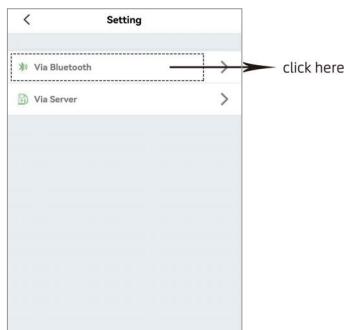


Use a torque screwdriver to tighten the cover screws to 1.2 N·m.

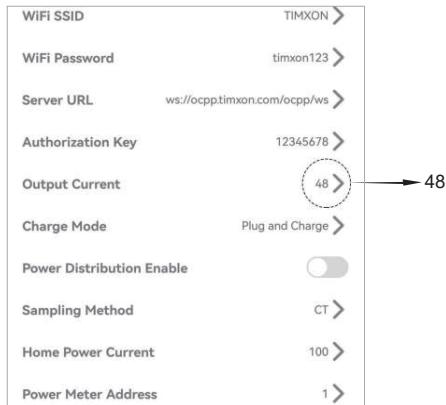
6.Open the APP and click Set.



7.Click Via Bluetooth.



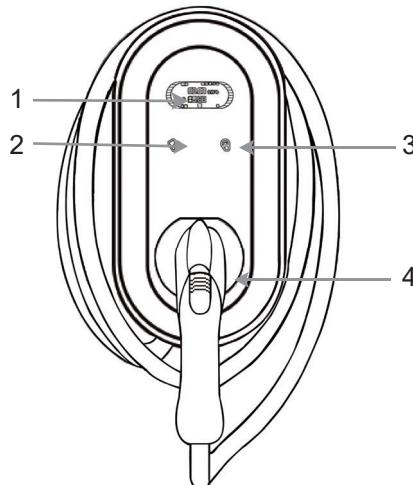
8.Enter the parameter setting interface and set the maximum current of 48A.



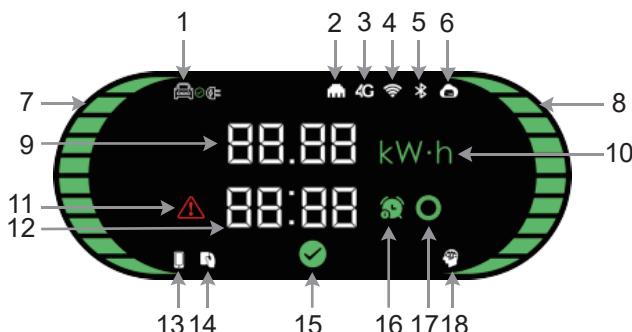
User Interface Instruction

LCD Display Cover

Applicable to the LCD display cover version (EAW-AS11W102-20 and EAW-AS09P102-20), skip if you are using a LED display cover version.



1. LCD 2. RFID reader 3. Touch Button 4. Connector

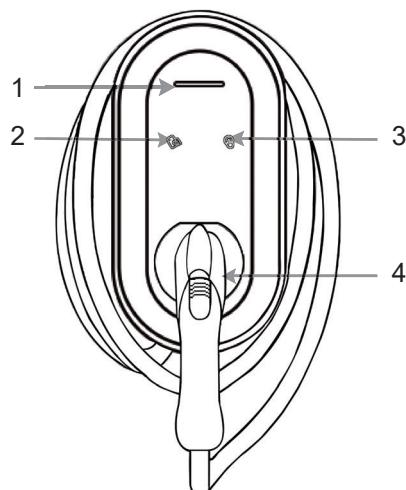


1. EV connection	7. Left status bar	13. Mobile app control
2. LAN	8. Right status bar	14. RFID reader
3. 4G	9. Energy, power/rated current	15. Available indicator
4. Wi-Fi	10. Energy/Power unit	16. Reservation time indicator
5. Bluetooth	11. Fault indicator	17. Waiting indicator
6. CMS	12. Time or fault code	18. Smart charger indicator

Display	Status	Description
	Available	<ul style="list-style-type: none"> * Not connected to EV * Display rated current (A)
	Charging ready	<ul style="list-style-type: none"> * Charger is ready * Connected to EV * Display rated current (A) * Display time (minutes)
	Charging	<ul style="list-style-type: none"> * Charging in progress * Display charging power (kW) and charging energy (kWh) in turn * Display charging time (minutes) * The left and right status bars indicate charging
	Charging paused	<ul style="list-style-type: none"> * Charging paused * Display charging energy (kWh) * Display charging time (minutes) * Display a waiting indicator
	Charging ended	<ul style="list-style-type: none"> * Charging ended * Display charging energy (kWh) * Display charging time (minutes)
	Scheduled charging	<ul style="list-style-type: none"> * Scheduled charging * Display the scheduled time (minutes)
	Fault or Unavailable	<ul style="list-style-type: none"> * Fault * Display fault code. Refer to Troubleshooting for its meaning.

LED Display Cover

Applicable to the LED display cover version (EAW-AS11W102-10 and EAW-AS09P102-10)



1. LED 2. RFID reader 3. Touch Button 4. Connector

LED description

LED	Description
Solid yellow	APP Mode: Not connected to EV and not connected to the app
Solid blue	APP Mode: Not connected to EV but connected to the app RFID or Plug & Charge Mode: Not connected to EV
Flashing blue	Connected to EV
Slow flashing blue	A schedule is active
Glowing green	Charging in progress
Flashing green	Charging ended
Solid red	Unavailable
Fast flashing red	Firmware update in progress
Red flashing once	Error: error code 1
Red flashing twice	Error: error code 2
Red flashing 3 times	Error: error code 3
Red flashing 4 times	Error: error code 4
Red flashing 5 times	Error: error code 5
Red flashing 6 times	Error: error code 6
Red flashing 7 times	Error: error code 7
Red flashing 8 times	Error: error code 8

Charging



DANGER

- During the charge session, do not disconnect the connector. There is a risk of damage to the connector or your EV charging port.
- Never touch the power plug/connection with wet hands.

App Mode

1. Start charging

- Remove the connector from the holster.
- Plug the connector into your EV charging port.
- The LED will light blue or the LCD screen shows ready, tap Start on the app.

2. Stop charging

- Tap Stop on the app.
- Carefully remove the connector from EV and stow the cable in the cable holster.

RFID Only Mode

1. Start charging

- Remove the connector from the holster.
- Plug the connector into your EV charging port.
- Tap the RFID card on the RFID reader.

2. Stop charging

- Tap the RFID card on the RFID reader again.
- Carefully remove the connector from EV and stow the cable in the cable holster.

Plug and Charge Mode

1. Start charging

- Remove the connector from the holster.
- Plug the connector into your EV charging port. The charger will automatically start charging once the connector is properly connected.

2. Stop charging

- Press the Touch button.
- Carefully remove the connector from EV and stow the cable in the cable holster.

Troubleshooting and Maintenance

Troubleshooting

Error Code	Error Description	Troubleshooting Suggestions
1	Leakage	<ul style="list-style-type: none">• Disconnect the leakage/over-current protection, switch off the distribution box immediately.• Check whether the charger's output cable is damaged or has low-impedance ground or short circuit.• After troubleshooting the above problems, power on the charger again. If the problem still exists, contact customer support.
2	Over current	<ul style="list-style-type: none">• Check whether the charging connector is correctly connected.• Check whether the OBC (On-board Charger) is normal.

3	Ground fault	<ul style="list-style-type: none"> The charger is not grounded. Check the input power cable. In case of a single live wire, make sure that the L and N wires are not wired in reverse.
4	Over voltage or under voltage	<ul style="list-style-type: none"> Check whether the input cable is properly connected. Check whether the voltage on the power input is too high or not sufficient. If yes, contact local power grid company.
5	Relay welding or breaking	<ul style="list-style-type: none"> Power off and restart the charger. If the problem still exists, contact customer support
6	Abnormal CP (Control Pilot)	<ul style="list-style-type: none"> Check the charging connector and charging socket of your EV. Disconnect and reconnect the charging connector.
7	Over temperature	<ul style="list-style-type: none"> Check the surroundings. Ensure that the charger is installed in a location without nearby heating devices and where the ambient temperature is below 50°C (122°F).
8	Diode missing	<ul style="list-style-type: none"> No vehicle diode detected, please confirm that the vehicle boot circuit is correct.

Maintenance

To ensure long-term stable operation of the equipment, the equipment does require some basic, common sense maintenance. The exterior maintenance can be performed by the user. All other service must be conducted by qualified personnel. It is recommended to perform a maintenance every month depending on the environment.

- To avoid accumulation of debris/dust/dirt on or around the unit, wipe surfaces with a soft cloth dampened with water, or for harder to remove marks, use an alcohol based cleaner.
- Check whether the equipment is properly grounded and safe.
- Check whether there are potential safety hazards like flammable, explosive, harsh or combustible materials around the charger. If present, clear the materials.
- Check for debris or damage inside or around the cable and connector. If present, remove debris and/or contact a qualified personnel for help.
- Check for loose connections. If present, unplug the cable and re-insert it.

Warranty

EVSElink offers a limited 3-year wallbox warranty and 1-year plug and cable warranty from the date of purchase of the equipment.

The limited warranty does not apply to, and EVSElink will not be responsible for, any defect in or damage to the charger: (1) that has been misused, neglected, tampered with, altered, or otherwise damaged, either internally or externally; (2) that has been improperly installed, operated, handled or used, including use under conditions for which the product was not designed, use in an unsuitable environment, or use in a manner contrary to the User Manual or applicable laws or regulations; (3) that has been subjected to fire, water, generalized corrosion, biological infestations, acts of God, or input voltage that creates operating conditions beyond the maximum or minimum limits listed in the specifications; or (4) that has been subjected to incidental or consequential damage caused by defects of other components of the electrical system.

Q1. What size circuit breaker do I need for my EVSElink charger?

EVSElink charger doesn't have a circuit breaker built-in. To reduce the risk of fire, make sure to connect your charger to a circuit with a branch circuit overcurrent protection of 125% of the selected max amperage setting of the device in accordance with local codes and ordinances. So if you have the 40A version of EVSElink charger, you'll need a 50A breaker, and if you have the 48A version, a 60A breaker will be needed.

Q2. Can I use EVSElink Charger without Wi-Fi?

Yes, you can use the included RFID card to start and stop charging if you cannot access Wi-Fi. After setup, if your network is down or disconnected, EVSElink charger will still charge your car on schedule. If you need to charge sooner, use the RFID card to start charging your vehicle right away.

Q3. Should I unplug my charger when not in use?

It is recommended to leave your charger plugged in even when it is not in use. If the charger is powered off, you won't be able to access the following features:

- Remote control of the charger via the EVSElink Charge app such as scheduled charging, reminders, remote start.
- Automatic OTA software update
- Energy tracking and records

Q4. Why does charger keep charging my car during non-scheduled hours?

In order to prevent some models that do not support scheduled charging from entering deep sleep mode during the non-scheduled period and cannot be woken up when it is time for charging, EVSElink charger will charge your car to keep it awake at a very low charging rate.

Q5. Can I track my energy usage for each session?

Yes. The EVSElink Charge mobile app can show a real time energy usage in kWh. Also, you can go to Record to find all your charging records with energy details.

Q6. What if I want to convert the charger from hardwire to plug-in?

The maximum current for the hardwire version is 48 A. You need to manually adjust the limit to 40 A if you want to convert it to plug-in. Please refer to Plug-in to Hardwire and push Key 2 to the opposite side.