AS 48A Smart AC Charging Point (B cover)

User Manual

Introduction

Thank you very much for purchasing AutoBot 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

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.
- 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.
- 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.
- 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.

Services and Support

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1 Product Overview

1.1 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: LAN).
AS chargers share the same wallbox shell. The installation procedures for the four models (EAW-AS11W102-20, EAW-AS11W102-10, EAW-AS09P102-20, and EAW-AS09P102-10) are the same.

1.2 Models

Figure 1-2 Plug-in Version

Figure 1-3 Hardwire Version

1.3 Specifications

Table 1-1 AS Series Specifications

Item	Description	
AC Power Supply	L1 + L2 + PE	
Rated Power	EAW-AS11W102-20 EAW-AS11W102-10	11.52kW
	EAW-AS09P102-20 EAW-AS09P102-10	9.6kW
Rated Voltage	AC 240V, 60Hz	
Rated Current	EAW-AS11W102-20 EAW-AS11W102-10	48A
	EAW-AS09P102-20 EAW-AS09P102-10	40A
Input Cord	EAW-AS11W102-20 EAW-AS11W102-10	Hardwired

	EAW-AS09P102-20 EAW-AS09P102-10	Hardwired NEMA 6-50 plug NEMA14-50 plug
Charge System	Mode 3, Type 1	
Cable Length (Plug included)	25 feet (7.62 m)	
Charging Control	Smartphone app control RFID (Radio-frequency Identification) Plug-and-charge	
Display Screen	EAW-AS11W102-20 EAW-AS09P102-20	3.8-inch LCD screen
Indicator Lights	EAW-AS11W102-10 EAW-AS09P102-10	4 LEDs
Connectivity	Basis: Wi-Fi/Bluetooth Optional: , LAN	
Communication Protocol	OCPP 1.6J	
Protection	Over current protection, over voltage protection, under voltage protection, over temperature protection, leakage protection, unconnected PE ground protection, lighting protection	
RCD	20mA Ccid20	
Altitude	2000m	
Storage Temperature	-40°F - 185°C (-40°C - 85°C)	
Operation 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)	388 x 202 x 109 mm (13 x 8 x 4 in)	
Mounting	Wall-mounted or pole-mounted (mounting pole is optional)	
IP Code	IP55	

2 Installation

2.1 Included Mounting Parts & Required Tools

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

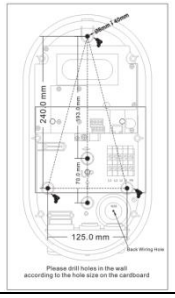
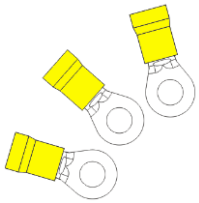
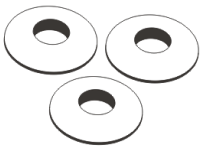
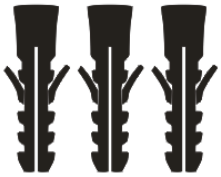
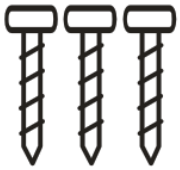
Drilling template 	Insulated cord end terminal 	Waterproof gaskets 
Wall anchors (8 x 40 mm) 	Screws (Φ5 x 40 mm) 	

Figure 2-1 Mounting Parts

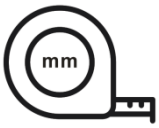
Measuring tape 	Electric drill	Hammer	Slotted screwdriver
Phillips head screwdriver	Wire stripper	Utility knife	Φ8mm drill bit

Figure 2-2 Tools Required for Installation

2.2 Installation

NOTE: Install your charger on a flat and vertical surface capable of handling the 13.2

lbs. (6KG) load of the charger.

2.2.1 Locate a wall stud or pole not more than 1.65” above a 240V outlet (EAW-AS09P102-20 and EAW-AS09P102-10) or if hardwiring (EAW-AS11W102-20 and EAW-AS11W102-10), the wiring will come through the bottom of the charger.

2.2.2 Attach the drilling template to the location where the charger will be installed.

2.2.3 Drill holes through the template with a drill, remove the template and insert the wall anchors into the holes.

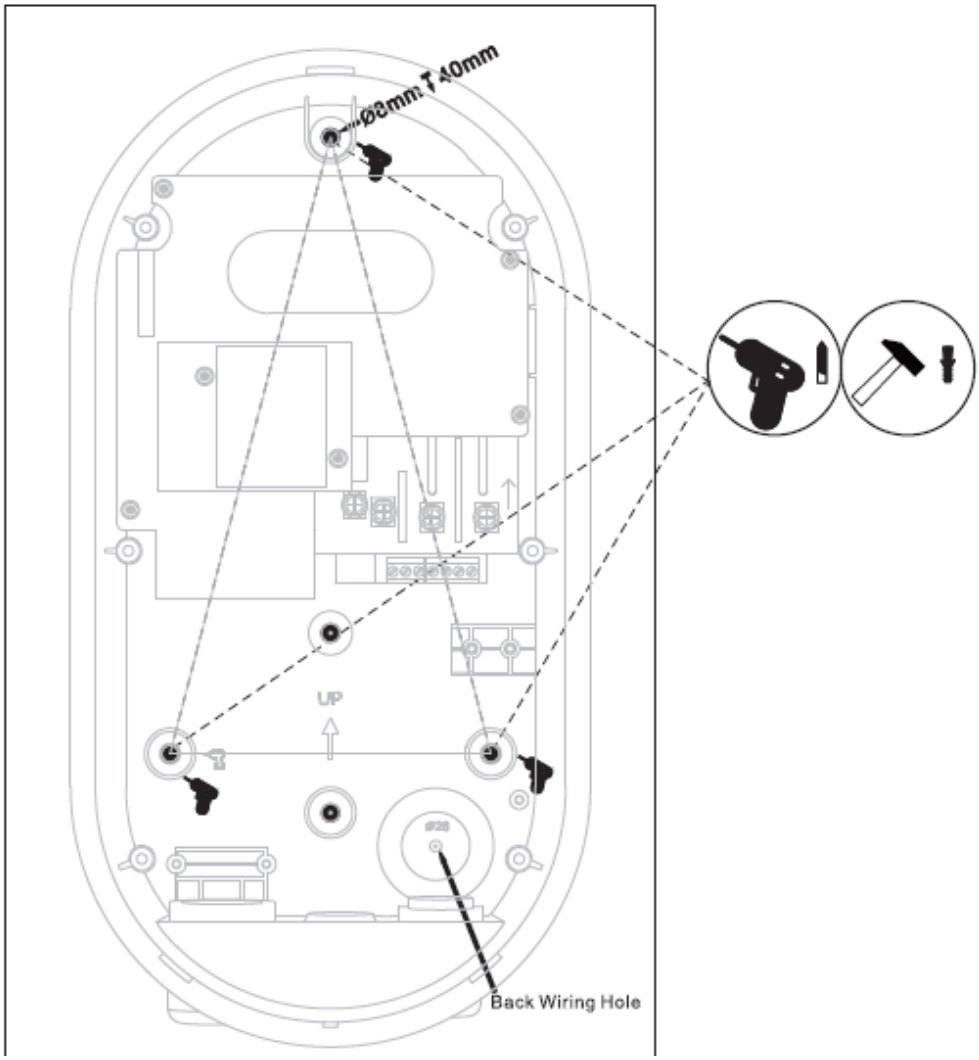


Figure 2-3 Drill holes for wall-mounted

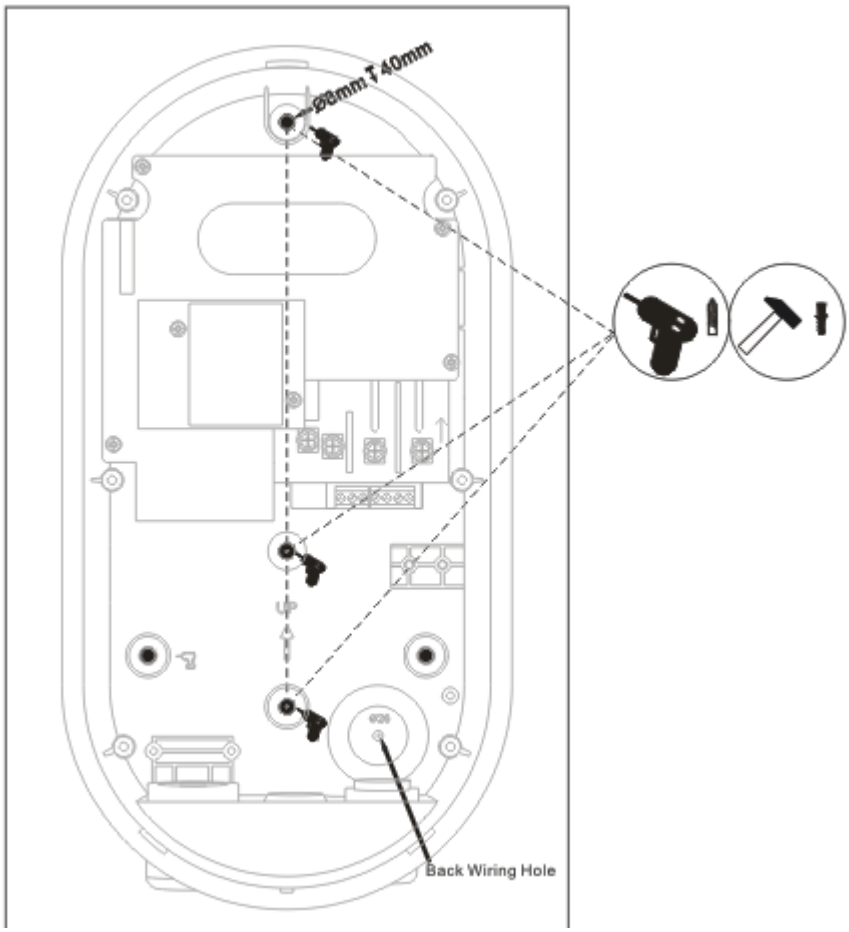


Figure 2-4 Drill holes for pole-mounted

2.2.4 User a screwdriver to carefully push the two barbs at the bottom of the equipment and remove the upper cover.

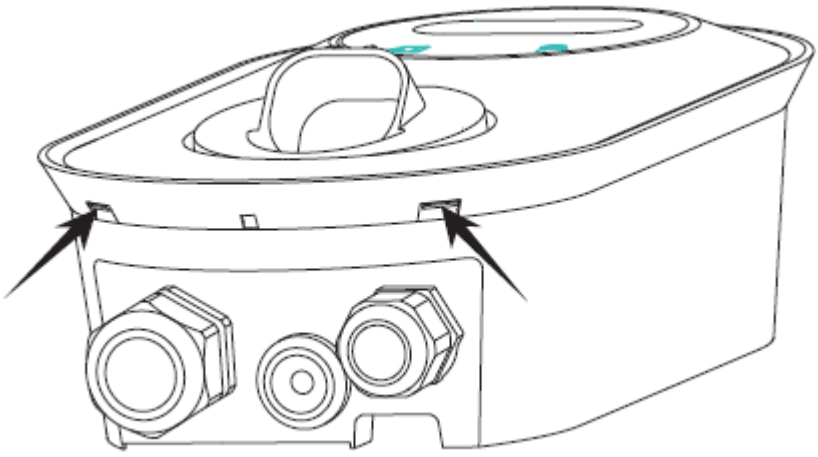


Figure 2-5 Unlock the upper cover

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

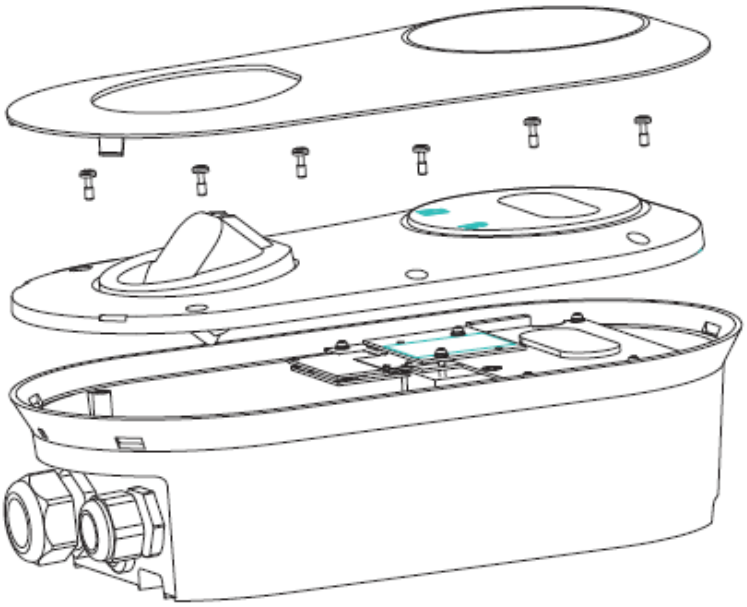


Figure 2-6 Remove the second cover

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

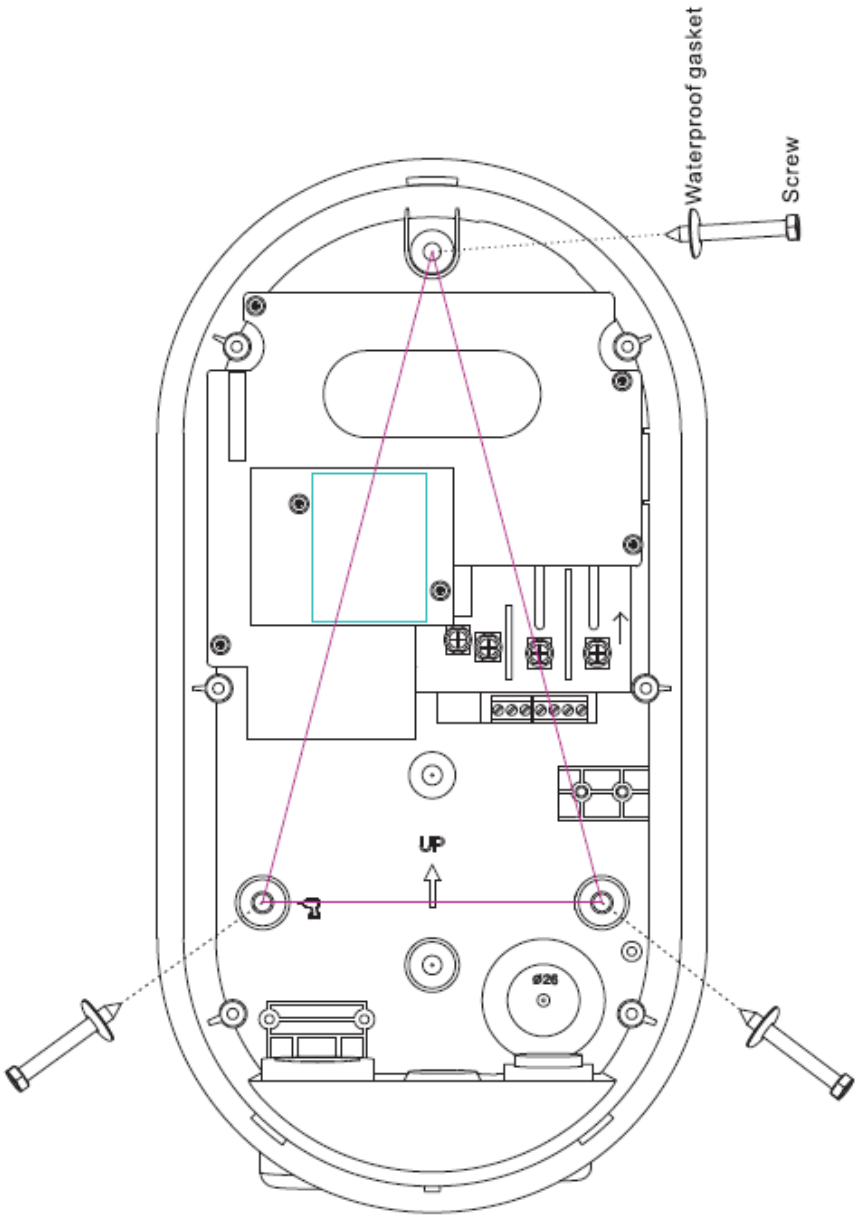
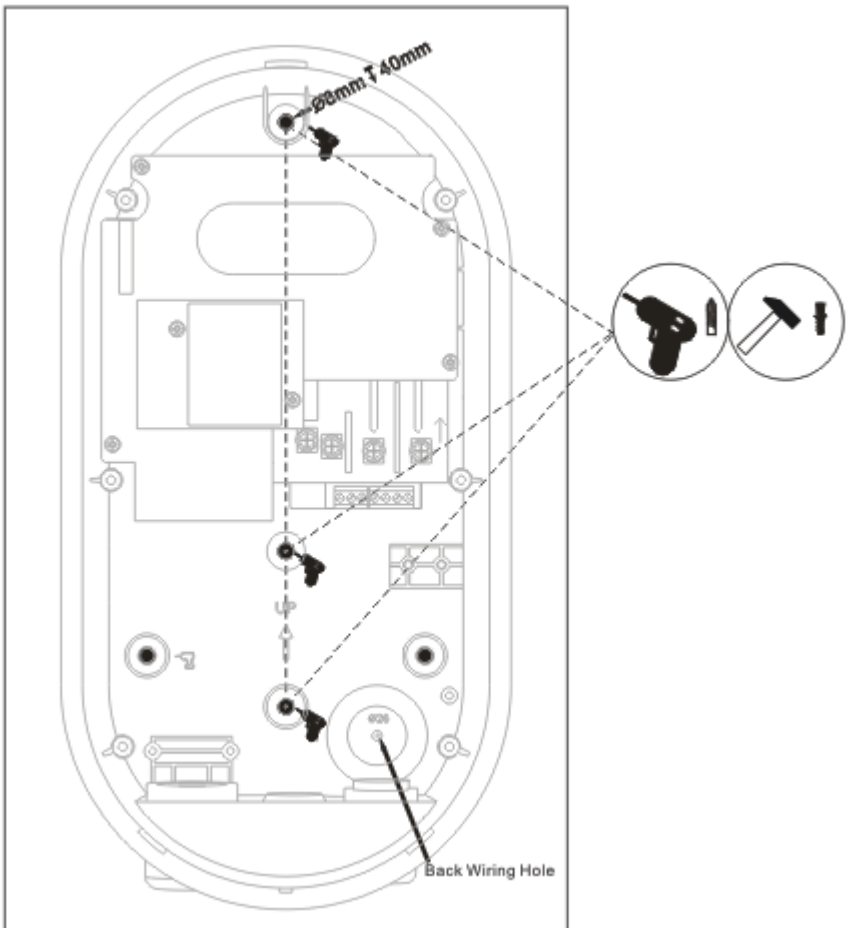


Figure 2-7 Fix the base box

2.2.7 Hardwired installation -- Skip if you have the plug-in version, i.e. EAW-AS09P102-20 and EAW-AS09P102-10.

NOTE: Use copper conductors with the maximum wire size of 6 AWG (16 mm²).

2.2.7.1 Insert the AC input cable into the back-wiring hole.



2. Strip the wires to 1/2" (12 mm).
3. Connect the wires (L1, L2, and PE) per the diagram and tighten each connector screw to 2 N·m (17.7 in·lbs).

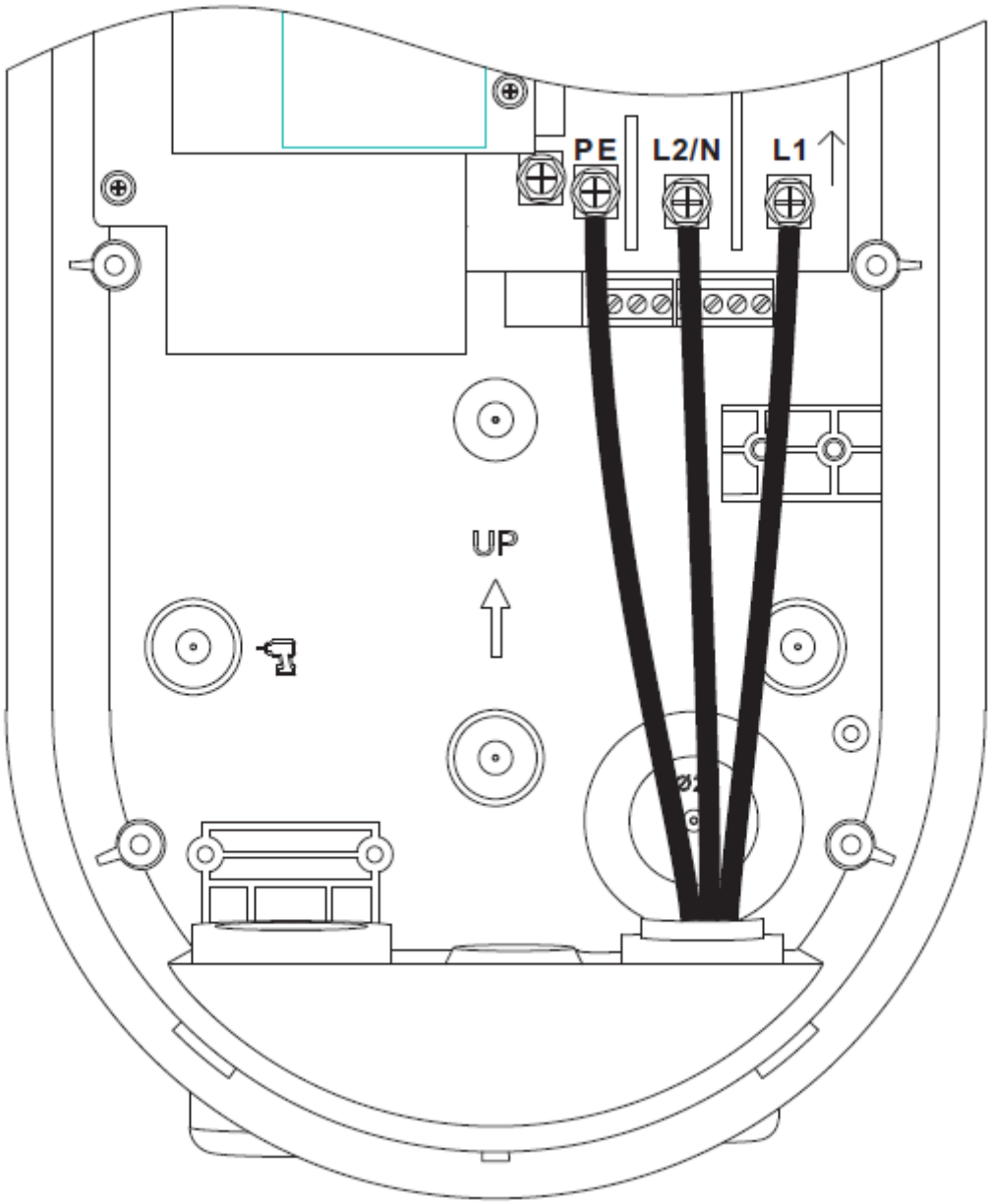


Figure 2-8 Wiring diagram

2.2.8 Screw the second cover back.

2.2.9 Buckle the upper cover.

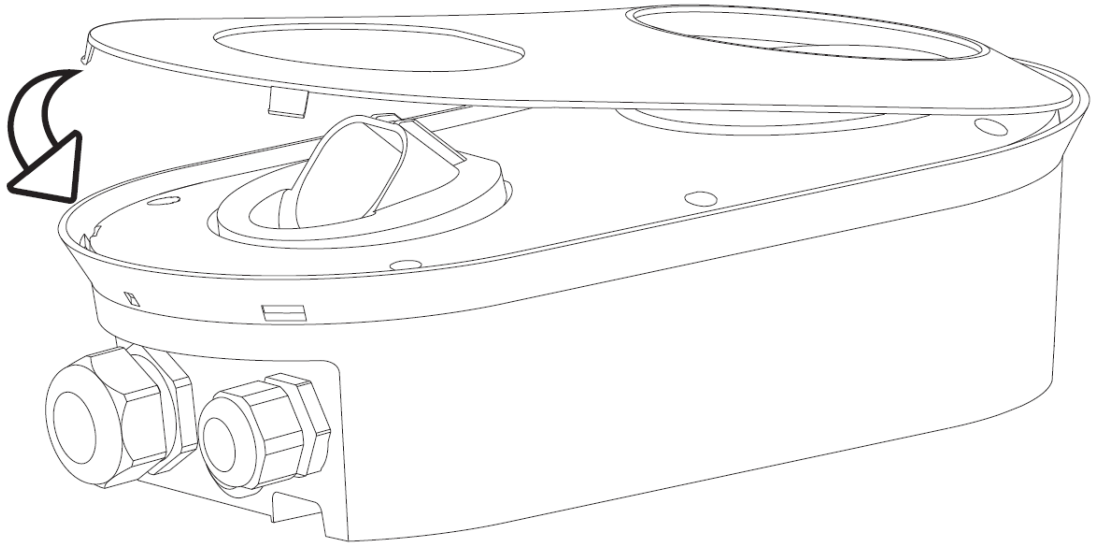


Figure 2-9 Reinstall the covers

3 Configuration

3.1 Install Autobot Charge App

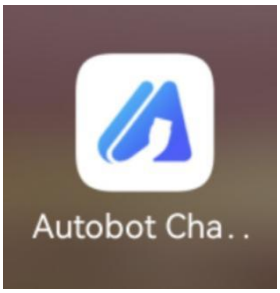


Figure 3-1 Autobot Charge app

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

3.1.2 Open the app, sign in or create an account with your phone number or email.

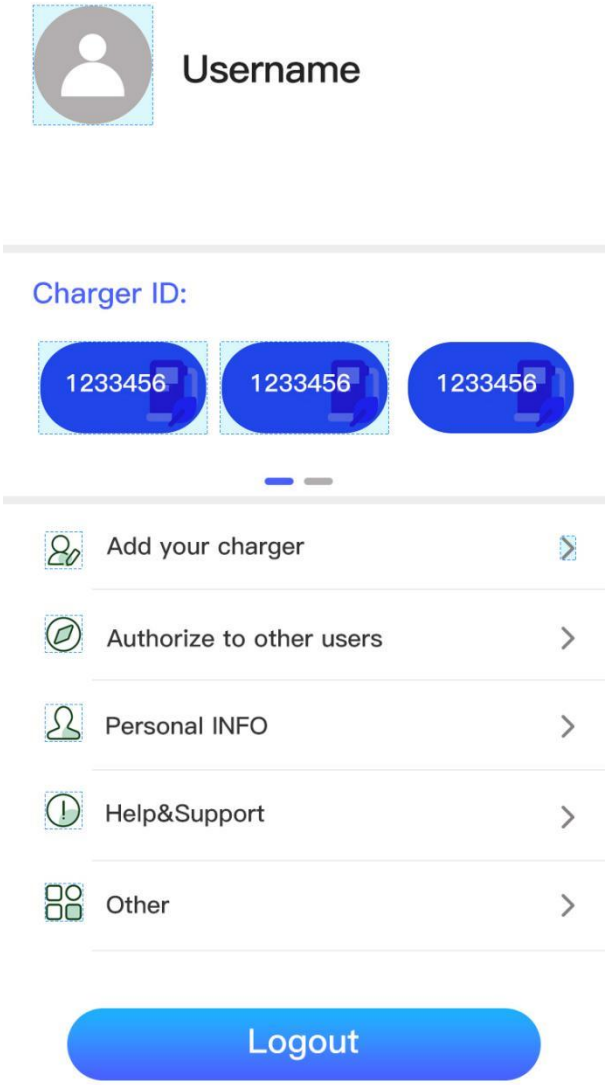


Figure 3-2 Sign in to the app

3.2 Add the Charger

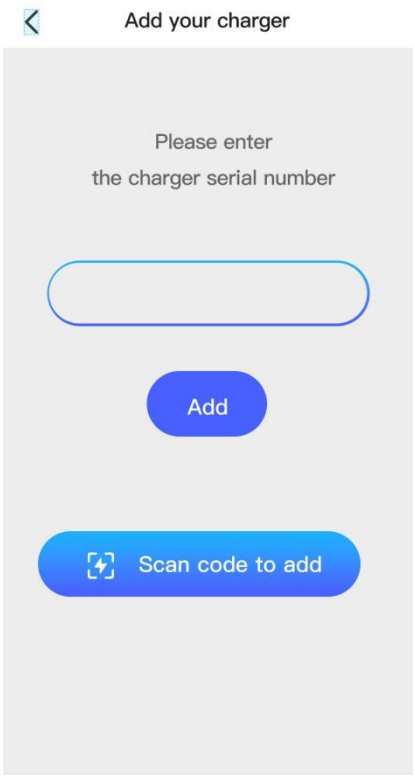


Figure 3-3 Device List Page

3.2.1 At the top left corner of the home screen, tap Personal.

3.2.2 Tap Add your charger.

3.2.3 Scan the QR code or enter the serial number and pin (default pin: 1234), which can be found on the wallbox, to add the charger.

3.3 Configure the Charger

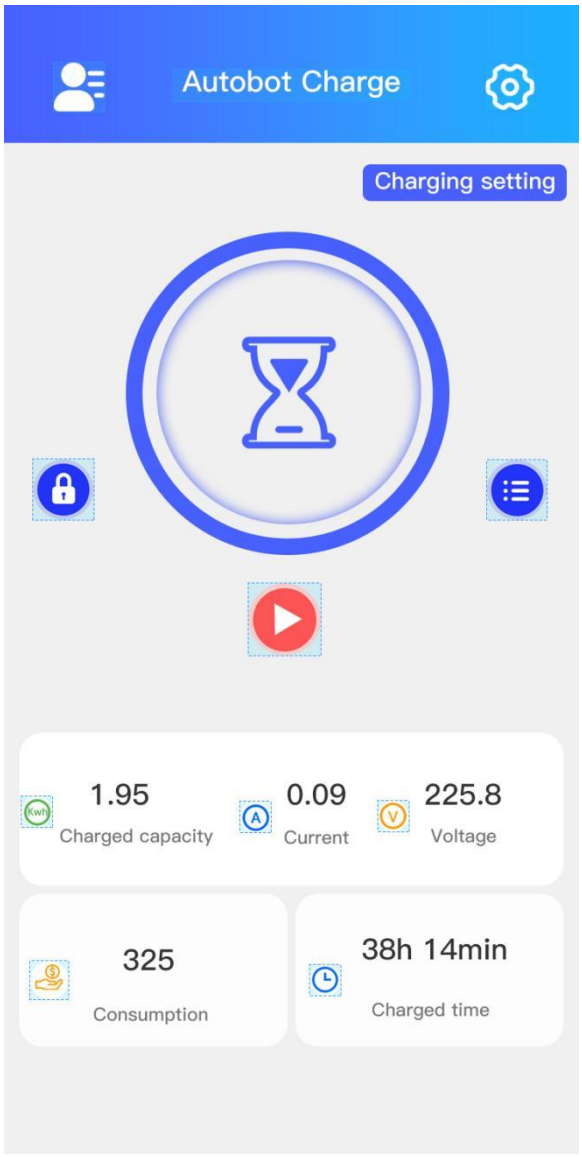


Figure 3-4 Configuration Page

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

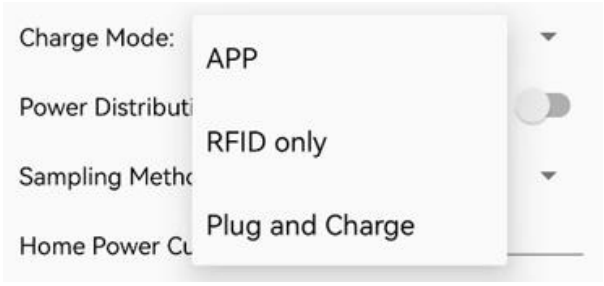


Figure 3-5 Charge Mode Options

- If you select APP Mode, go to 3.3.2 to configure network settings.
- If you choose RFID Only Mode or Plug and Charge Mode, you can directly start from

3.3.4.

3.3.2 Select from WiFi, , and LAN, and enter the relevant information.

Figure 3-6 Network settings

3.4.3 Configure the parameters related to the OCPP (Open Charge Point Protocol) connection.

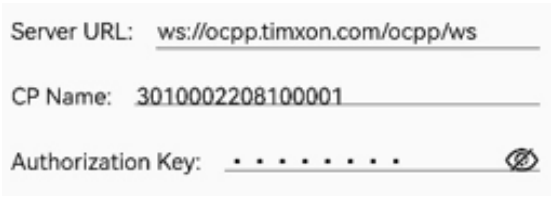


Figure 3-7 OCPP back end parameters

3.4.4 Limit the maximum charging current.

Figure 3-8 Maximum Current

3.4.5 Configure DLB (Dynamic Load Balancer).

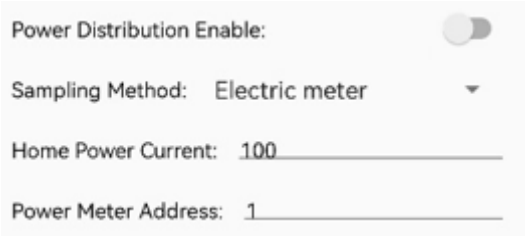


Figure 3-9 DLB parameters

If external CT (Current Transformer) clamps are installed to sample currents from the home grid, the DLB function can be enabled.

* Enabling Power Distribution Enable
* The Sampling Method item selects CT
* Home Power Current is set to a value smaller than the maximum distribution Current in the Home.

3.4.5.1 CT clamp

Figure 3-10 CT clamp

The CT clamp can measure current up to 120A.

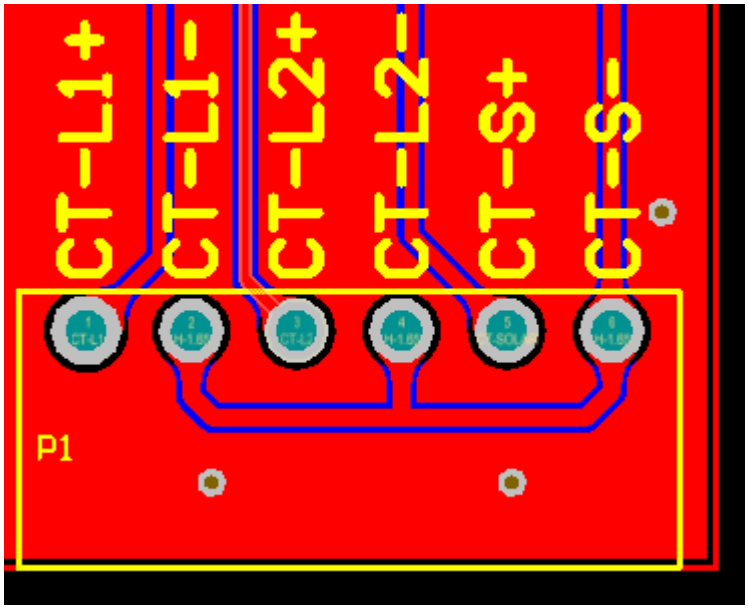


Figure 3-11 CT Clamps Connector

CT clamps installation instructions:

Please refer to Figure 3-11 and Figure 2-7 for the schematic diagram of the interface position of CT Clamps in the charge point.

Connect the CT1 clamp to L1, connect the black wire to CT-L1+, and connect the white wire to CT-L1-. The CT2 clamp is connected to L2, the black wire is connected to CT-L2+, and the white wire is connected to CT-L2-. The phase of the incoming line of the CT clamp is the same as that of the power supply line of the charging point. The CT3 clamp is connected to the output line of photovoltaic power generation, the black line is connected to CT-S+, and the white line is connected to CT-S-. The direction of the arrow of the CT clamp is the incoming line direction of the main power grid.

3.4.6 After the parameters are modified, click SET, then return to the previous page, click Disconnect, and APP will disconnect the Bluetooth connection. At this time, the charger will save the configuration and restart. After restarting, the new parameters will be applied.

4 Human-Machine Interface

4.1 LCD Display Cover

-- Applicable to the LCD display cover version (EAW-AS11W102-20 and EAW-AS09P102-20), skip to 4.2 if you are using a LED display cover version.

Figure 4-1 LCD display cover version

1 LCD 2 RFID reader
3 Touch Button 4 Connector

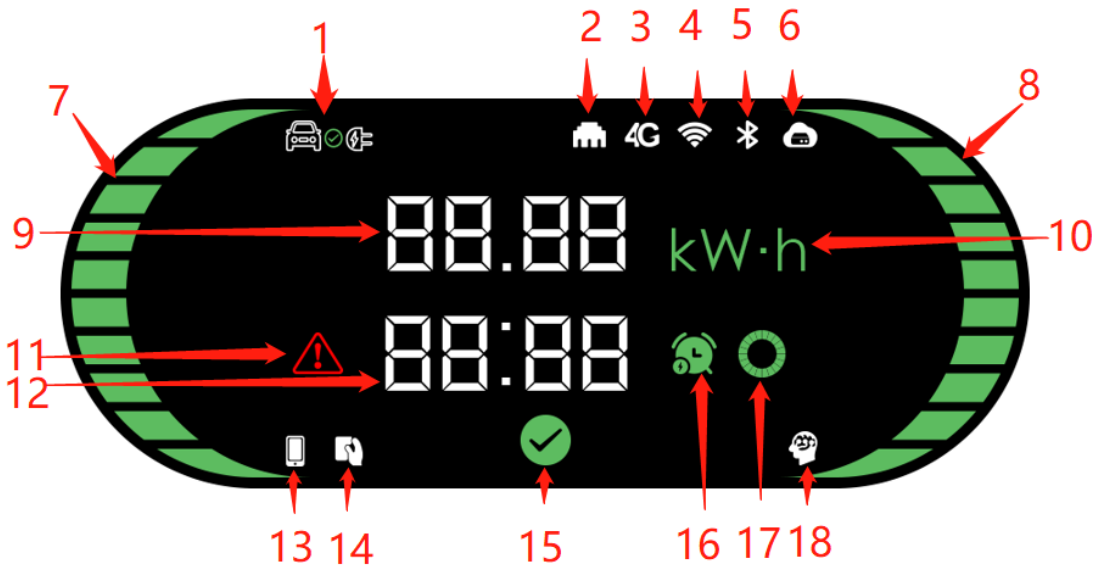
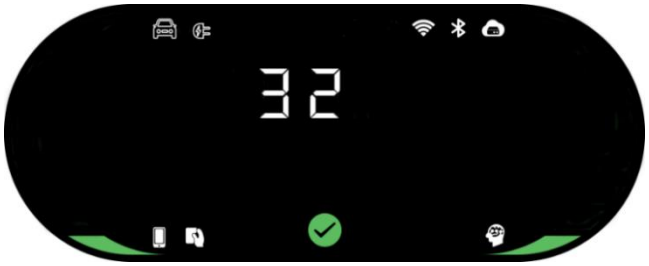
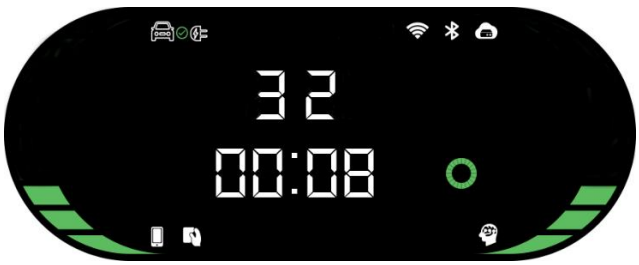
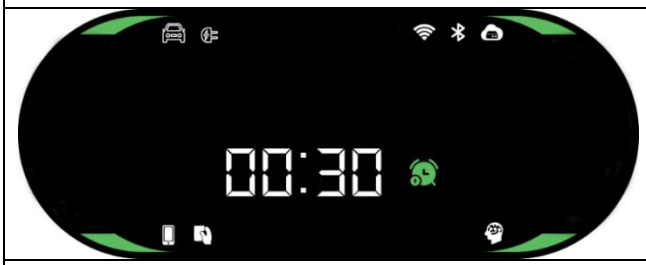
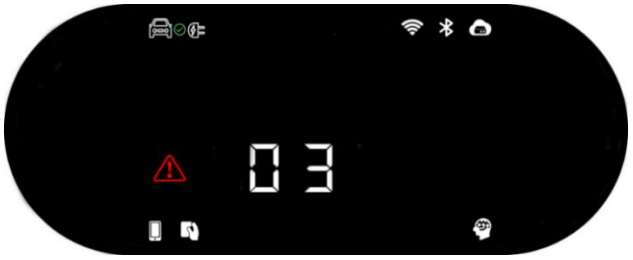


Figure 4-3 LCD Screen

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

Display	Status	Description
	Available	* Not connected to EV * Display rated current (A)
	Charging ready	* Charger is ready * Connected to EV * Display rated current (A) * Display time (minutes)

	Charging	* 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	* Charging paused * Display charging energy (kWh) * Display charging time (minutes) * Display a waiting indicator
	Charging ended	* Charging ended * Display charging energy (kWh) * Display charging time (minutes)
	Scheduled charging	* Scheduled charging * Display the scheduled time (minutes)
	Fault or Unavailable	* Fault * Display fault code. Refer to Troubleshooting for its meaning.

4.2 LED Display Cover

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

Figure 4-1 LED display cover version

1 LED 2 RFID reader
3 Touch Button 4 Connector

Table 4-1 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

5 Charging

During the charge session, do not disconnect the connector. There is a risk of damage to the connector or your EV charging port.

Never tough the power plug/connection with wet hands.

5.1 App Mode

5.1.1 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.

5.1.2 Stop charging

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

5.2 RFID Only Mode

5.2.1 Start charging

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

5.2.2 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.

5.3 Plug and Charge Mode

5.3.1 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.

5.3.2 Stop charging

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

6 Troubleshooting and Maintenance

6.1 Troubleshooting

Table 6-1 Troubleshooting

Error Code	Error Description	Troubleshooting Suggestions
1	Leakage	• 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	• Check whether the charging connector is correctly connected. • Check whether the OBC (On-board Charger) is normal.
3	Ground fault	• The charger is not grounded. Check the input power cable.
4	Over voltage or under voltage	• Check whether the input cable is property connected. • Check whether the voltage on the power input is too high or not sufficient. If yes, contact local power grid company.
5	Contactor welding or breaking	• Check whether the contactor connection is reliable.
6	Abnormal CP (Control Pilot)	• Check the charging connector and charging socket of your EV. • Disconnect and reconnect the charging connector.
7	Lock error	• Check whether the electronic lock connection is reliable.

6.2 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.
a) 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.
b) Check whether the equipment is properly grounded and safe.
c) Check whether there are potential safety hazards like flammable, explosive, harsh or combustible materials around the charger. If present, clear the materials.
d) Check for debris or damage inside or around the cable and connector. If present, remove debris and/or contact a qualified personnel for help.
e) Check for loose connections. If present, unplug the cable and re-insert it.

7 Warranty

AutoBot 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 AutoBot 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.
If you have any questions, please contact us via email.

8 Support

Email us at cs@rockhomelife.com for technical support.

FCC Warnning:

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 againstharmful interference in a residential installation. This equipment generates, uses and can radiateradio frequency energy and, if not installed and used in accordance with the instructions, maycause harmful interference to radio communications. However, there is no guarantee thatinterference will not occur in a particular installation. If this equipment does cause harmfulinterference to radio or television reception, which can be determined by turning the equipmentoff and on, the user is encouraged to try to correct the interference by one or more of thefollowing 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.