

# **ELECTRIC VEHICLE CHARGER**

## **MaxiCharger AC Wallbox**

Installation Manual



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## **!** IMPORTANT

Before operating or maintaining this unit, please read this manual carefully, paying extra attention to the safety warnings and precautions.

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### **For Services and Support:**

**Web:** [www.sevadis.com](http://www.sevadis.com)

**Tel:** [+44 \(0\)330 058 7144](tel:+44(0)3300587144)

**Email:** [customerservice@sevadis.com](mailto:customerservice@sevadis.com)

For technical assistance in all other markets, please contact your local selling agent.

## Safety Information

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For your own safety and the safety of others, and to prevent damage to the device and vehicles upon which it is used, it is important that the safety instructions presented throughout this manual be read and understood by all persons operating or coming into contact with the device.

## Safety Messages

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Safety messages are provided to help prevent personal injury and equipment damage. All safety messages are introduced by a single word indicating the hazard level.

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### DANGER

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

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### WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

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## Safety Instructions

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The safety messages herein cover situations Autel is aware of. Autel cannot know, evaluate or advise you as to all of the possible hazards. You must be certain that any condition or service procedure encountered does not jeopardize your personal safety.

### SAFETY WARNINGS

- Read all the instructions before you use this device.
- Do not install or use the device near flammable, explosive, harsh, or combustible materials, chemicals, or vapors.
- Turn off power at the circuit breaker before installing or cleaning the device.
- This device should be supervised when used around children.

- This device must be grounded through a permanent wiring system or an equipment-grounding conductor.
- Use the device only within the specified operating parameters.
- Do not use the device if it is defective, appears cracked, frayed, broken or otherwise damaged, or fails to operate.
- Do not use the device if the flexible power cord or EV cable is frayed, broken, or otherwise damaged, or if it fails to operate.
- Do not attempt to disassemble, repair, tamper with or modify the device.
- Handle the device with care during transportation. Do not subject it to strong force or impact, pull, twist, tangle, drag or step on the device, to prevent damage to it and any of its components.
- Do not insert fingers or foreign objects into any part of the device.

### CAUTION

- Do not use private power generators as a power source for charging.
- Incorrect installation and testing of the device could potentially damage the vehicle's battery, components, and/or the device itself.
- Do not operate the device in temperatures outside its operating range.

# CONTENTS

<b>SAFETY INFORMATION</b> .....	ii
<b>SAFETY MESSAGES</b> .....	ii
<b>SAFETY INSTRUCTIONS</b> .....	ii
<b>1 USING THIS MANUAL</b> .....	1
CONVENTIONS .....	1
<b>2 GENERAL INTRODUCTION</b> .....	3
2.1 PRODUCT OVERVIEW .....	4
2.2 OPTIONS .....	7
2.3 SPECIFICATIONS .....	9
<b>3 INSTALLATION</b> .....	11
3.1 PREPARE FOR INSTALLATION .....	11
3.2 MECHANICAL INSTALLATION .....	12
3.3 POWER SUPPLY WIRING .....	19
<b>4 TROUBLESHOOTING AND SERVICE</b> .....	23
4.1 TROUBLESHOOTING TABLE .....	23
4.2 SERVICE .....	26
<b>5 COMPLIANCE INFORMATION</b> .....	27
<b>6 WARRANTY</b> .....	28

# 1 Using This Manual

This manual contains device usage instructions.

Some illustrations shown in this manual may contain modules and optional equipment that are not included in your system. Contact your sales representative for availability of other modules and optional tools or accessories.

## Conventions

The following conventions are used.

### Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

Example:

- Tap **OK**.

## Notes and Important Messages


### Notes

A **NOTE** provides helpful information such as additional explanations, tips, and comments.

Example:

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### **NOTE**

The VIN description (such as location) can be acquired by tapping the question mark () beside the "VIN" or View VIN Guidelines on the Scan VIN screen.

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## **Important**

**IMPORTANT** indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

Example:

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### **! IMPORTANT**

All contents of the product may be deleted during the process of repair. You should create a back-up copy of any contents of your product before delivering the product for warranty service.

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## **Hyperlink**

Hyperlinks or links that take you to other related articles, procedures, and illustrations are available in electronic documents.

## **Illustrations**

Illustrations used in this manual are only examples; the actual product(s) or screens may vary.

# 2 General Introduction

The MaxiCharger AC wallbox is designed to charge an electric vehicle (hereinafter called EV). Our chargers provide you with safe, reliable, fast, and smart charging solutions.

This manual will instruct you how to install this charger.

## **Intended Use**

The MaxiCharger is intended for the AC charging of EVs. It is intended for both indoor and outdoor use.

- Residential
- Commercial
- Workplace
- Vehicle Workshop

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## **DANGER**

1. If you use the equipment in any way other than described in this manual or other related documents, possible death, injury and damage to property can occur.
  2. Use the equipment only as intended.
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## **NOTE**

This manual is for both tethered and socket chargers. The illustrations in this manual use the socket version as an example.

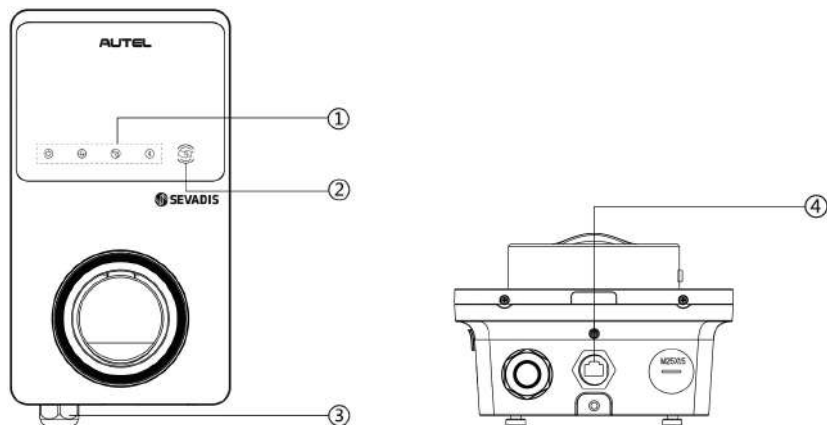
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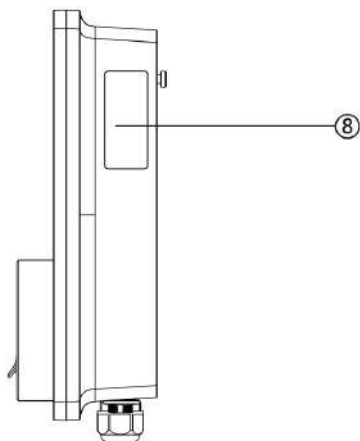
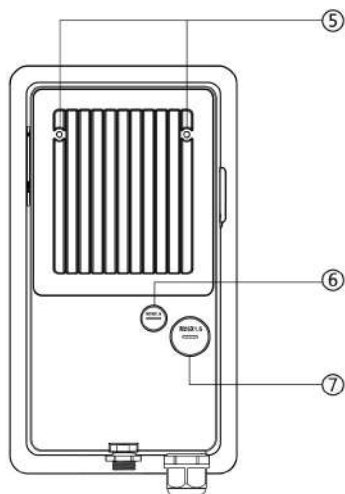
## 2.1 Product Overview

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### MaxiCharger AC Wallbox



1. LED Indicators (from left to right):
  - Power LED
  - Internet Connection LED
  - Charging LED
  - Bluetooth Connection LED
2. RFID Reader
3. AC Input Cable Gland
4. RJ45 Ethernet Port



- 5. Mounting Screws
- 6. Rear Entry Signal Conduit Plug
- 7. Rear Entry Power Conduit Plug
- 8. Product Label

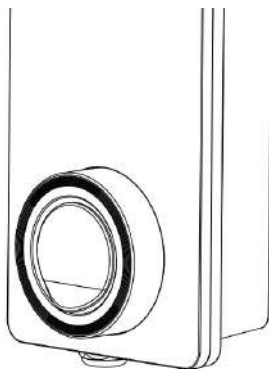
## LED Description

LED	Description
<b>Power LED</b>	<ul style="list-style-type: none"><li>● <b>Solid Green:</b> The MaxiCharger is on.</li><li>● <b>Off:</b> The MaxiCharger is off.</li><li>● <b>Flashing Yellow:</b> Data is being transmitted and/or firmware is upgrading.</li><li>● <b>Solid Yellow:</b> Firmware upgrade has failed.</li><li>● <b>Solid Blue:</b> Data transmission has failed; will turn solid green in five seconds (see above).</li></ul>
<b>Internet Connection LED</b>	<ul style="list-style-type: none"><li>● <b>Solid Green:</b> The MaxiCharger is connected to the Internet via Wi-Fi, LAN or cellular network.</li><li>● <b>Off:</b> The MaxiCharger is not connected to the Internet.</li></ul>
<b>Charging LED</b>	<ul style="list-style-type: none"><li>● <b>Solid Blue:</b> An EV is connected.</li><li>● <b>Flashing Blue:</b> An EV is charging as scheduled.</li><li>● <b>Flashing Cyan:</b> The charger is reserved.</li><li>● <b>Flashing Green:</b> An EV is charging.</li><li>● <b>Solid Orange:</b> A recoverable error has occurred.</li><li>● <b>Solid Green:</b> An EV is fully charged.</li><li>● <b>Off:</b> No EV connected.</li><li>● <b>Solid Red:</b> An irrecoverable error has occurred. (Please contact support.)</li></ul>
<b>Bluetooth Connection LED</b>	<ul style="list-style-type: none"><li>● <b>Flashing Green:</b> The MaxiCharger is connected to a mobile device via Bluetooth.</li><li>● <b>Flashing Blue:</b> The MaxiCharger is connected to VCI (Vehicle Communication Interface) via Bluetooth.</li><li>● <b>Flashing Cyan:</b> The MaxiCharger is connected to a mobile device and a VCI device simultaneously via Bluetooth.</li><li>● <b>Off:</b> The MaxiCharger is not connected via Bluetooth.</li></ul>

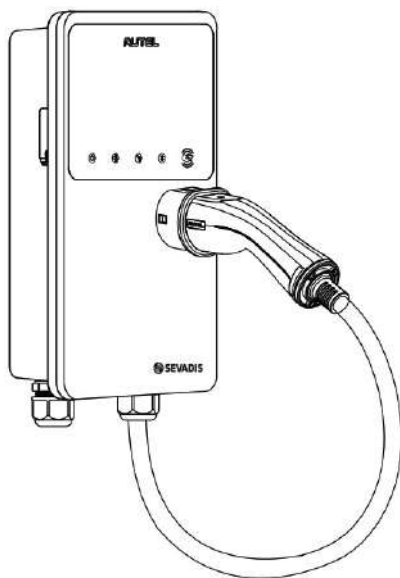
## 2.2 Options

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### Socket, Type 2

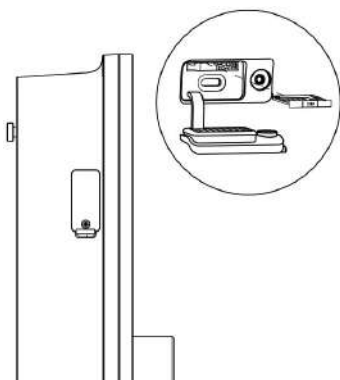


### Tethered, Type 2



## SIM Card Socket

(Available on chargers with 4G function.)



## 2.3 Specifications

	Item	Description
<b>Product Information</b>	Charging Type	Mode 3 charging
	Input/Output Power Rating and Current	Single-phase up to 7.4 kW/32 A Three-phase up to 22 kW/32 A
	Protection	The charger has an integrated Type A AC 30 mA and DC 6 mA RCD.
	Input/Output Voltage	230 V $\pm$ 10%, single phase 400 V $\pm$ 15%, three phase 50 Hz
	Network Type	TT, TN, and TNCS
<b>General Characteristics</b>	IP and IK Rating	Tethered version: IP65; IK08 Socket version: IP54; IK08
	Operating Altitude	2,000 m
	Operating Temperature Range	-40 °C to + 55 °C
	Storage Temperature Range	-40 °C to + 85 °C
	Mounting	Wall or floor using a pedestal
	Dimensions (H x W x D)	Tethered: 336 x 187 x 85 mm Socket: 336 x 187 x 115 mm

	Item	Description
<b>User Interface</b>	Status Indication	LED App
	User Interface	Autel Charge app
	Connectivity	<ul style="list-style-type: none"> <li>● 4G</li> <li>● Bluetooth</li> <li>● Wi-Fi</li> <li>● Ethernet</li> </ul>
	Communications Protocols	OCPP 1.6J
	User Authentication	<ul style="list-style-type: none"> <li>● App</li> <li>● RFID card</li> <li>● QR code</li> </ul>
<b>Software Update</b>	Software Update	<ul style="list-style-type: none"> <li>● OCPP 1.6J</li> <li>● App</li> <li>● Web portal</li> </ul>
<b>Certifications and Standards</b>	Safety Standards	IEC/EN 61851-1, EN 62311, EN 62479, IEC/EN 62955
	Certifications	CE, TUV to BSI 7671, UKCA
	Warranty	36 months

# 3 Installation

## 3.1 Prepare for Installation

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### 3.1.1 Preliminary Requirements

- All required permits have been acquired in accordance with the local regulations.
- The AC input cable is available.
- There is **no voltage** on the AC input cable throughout the installation procedure.

### 3.1.2 Unpack the Charger

1. Open the box.
2. Remove the charger from the box.
3. Remove all packaging material from the charger.
4. Make sure that all parts are delivered according to the order.
5. Inspect the charger and the parts for installation for damage. If you find damage or the parts are not consistent with the order, contact your local dealer.

### 3.1.3 Prepare for Installation

- Install the charger on a flat and vertical surface capable of supporting its weight (e.g. a finished brick or concrete wall, a pedestal, etc.). The maximum weight of a charger is about 6 kg (13 lbs.).
- Install the charger in a location that allows the charge cable to remain within its bending tolerance.
- The recommended installation height is between 700 and 1500 mm (28 and 59 inches).
- Position the charger in a location where it is not vulnerable to being damaged.





















## 3.2 Mechanical Installation

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### **!** IMPORTANT

1. Prior to installation, ensure that you have all the tools and parts required for the installation. Refer to section 3.2.1 or the *Packing List*.
  2. The charger should only be installed by personnel who are trained and qualified to work on electrical systems.
  3. The packaging does not necessarily include all the tools required.
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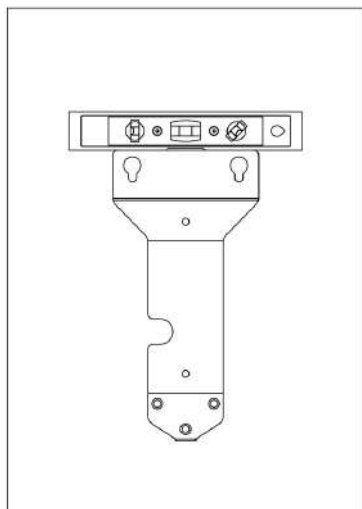
### 3.2.1 Parts and Tools

<b>Charging Station</b>		<b>Wall Dock</b>	
<b>Screw (M6 x 50)</b> 2 PCS		<b>Screw (M5 x 12)</b>	
<b>Wall Plug (8 mm)</b> 2 PCS		<b>Charge Card</b> 2 PCS	
<b>Cable Sealing Ring (M25)</b>		<b>Cable Sealing Ring (M16)</b>	
<b>Waterproof Ethernet Cable Gland</b>		<b>Screwdriver (type T25)</b>	
<b>Screwdriver (type T10)</b>		<b>Cable Holder (only for the tethered version)</b>	
<b>Pedestal (optional)</b>		<b>Cable Holder (optional, together with the pedestal)</b>	
<b>Spirit Level or Ruler (not included)</b>		<b>Drill (not included)</b>	
<b>Screwdriver PH2 (not included)</b>		<b>Marker or pencil (not included)</b>	

## 3.2.2 Install the Charger

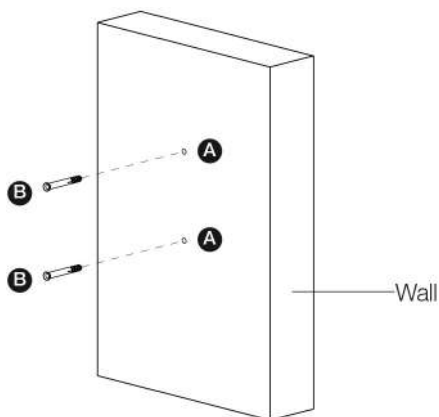
### STEP 1

1. Place the wall dock on the wall and level it using a spirit level or a ruler.



**Figure 3-1 Levelling the Wall Dock**

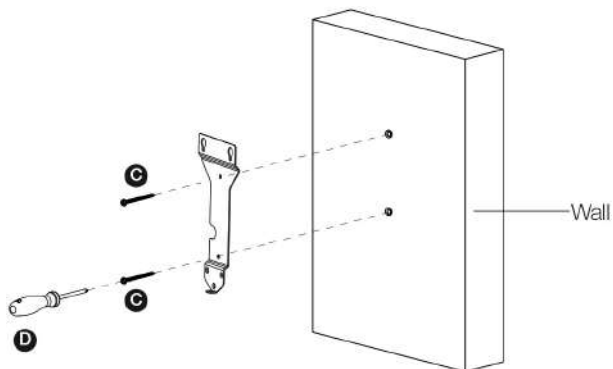
2. Mark the two lower mounting holes (A) with a marker or pencil and drill two 8 mm holes.
3. Insert two 8 mm diameter wall plugs (B) into the lower mounting holes.



**Figure 3-2 Inserting the Wall Plugs**

## **STEP 2**

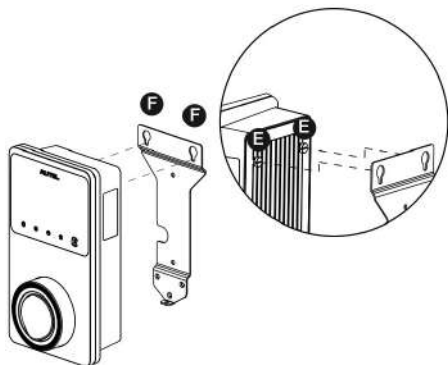
1. Attach the wall dock to the mounting location by screwing two M6 x 50 screws (C) into the lower mounting holes.
2. Tighten the two M6 x 50 screws using the screwdriver type PH2 (D).



**Figure 3-3 Attaching the Wall Dock**

### STEP 3

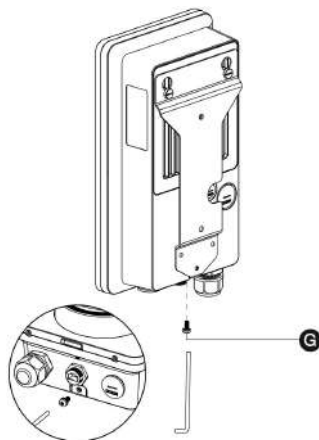
Attach the charger to the wall dock by inserting the two protruding screws (E) on the back of the charger into the two upper mounting holes (F) and slide the charger downwards.



**Figure 3-4 Attaching the Charger**

### STEP 4

Screw the included M5 x 12 screw (G) into the hole at the bottom of the charger and tighten the screw to secure the charger using the screwdriver type T25.



**Figure 3-5 Securing the Charger**

## STEP 5

The charger can be connected to the Internet by Ethernet connection, Wi-Fi or a SIM card.

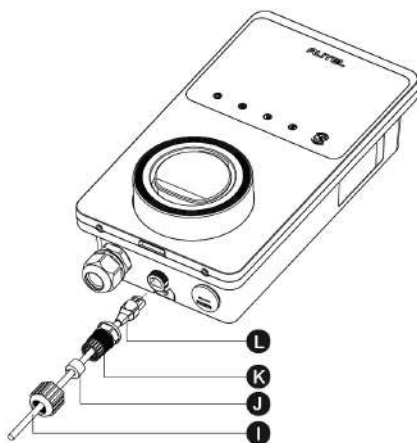
1. To connect via Ethernet cable, put the RJ45 plug of the Ethernet cable into the RJ45 port (H) at the bottom of the charger.



**Figure 3-6 Plugging the RJ45 Cable**

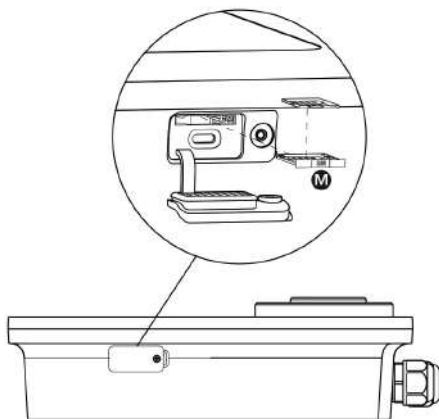
Before connecting the Ethernet cable, we recommend you connect the Ethernet cable to the waterproof Ethernet cable gland first.

- To connect the provided waterproof Ethernet cable gland:
  - 1) Put the Ethernet cable with RJ45 plug (I) through the nut (J) and the waterproof cap (L) (leave some space between them).
  - 2) Connect the sealing ring (K) via its opening to the Ethernet cable and insert it into the waterproof cap.
  - 3) Screw the nut into the waterproof cap and make sure they are securely fastened.



**Figure 3-7 Connecting the Waterproof Ethernet Cable Gland**

2. To connect via a SIM card, remove the SIM card cover by first unscrewing the M3 x 10 screw using the screwdriver type T10. Then, eject the SIM card tray (I) using the screwdriver and place the card into it. Make sure that the card is inserted correctly. Reinstall the SIM card cover by following procedures above in reverse order.



**Figure 3-8 Inserting the SIM Card**

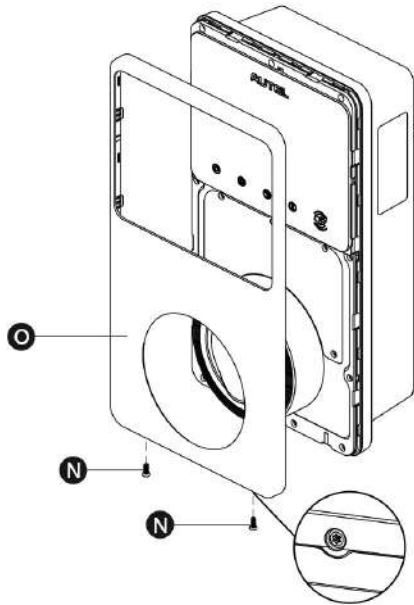
Switch on the electrical power to the charger.

## 3.3 Power Supply Wiring

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### 3.3.1 Remove the Covers

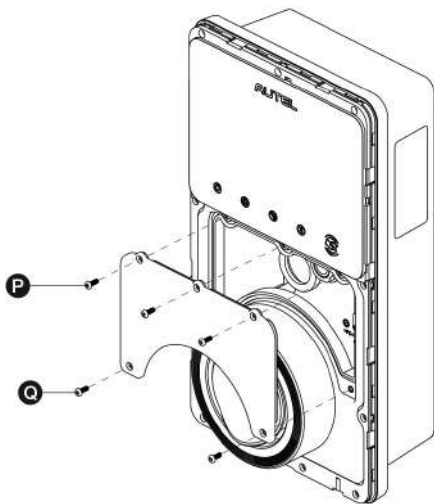
1. Remove the two screws (N) at the bottom of the charger with the screwdriver type T10 to remove the maintenance cover (O).



**Figure 3-9 Removing the Maintenance Cover**



2. Unscrew the five screws (P) to remove the inner cover (Q).



**Figure 3-10 Removing the Inner Cover**

### **3.3.2 Insert the AC Input Cable**

1. Strip the wires to 10 mm.
2. Put the AC input cable through the inlet hole.

### **3.3.3 Connect the AC Input Cable, Single-phase**

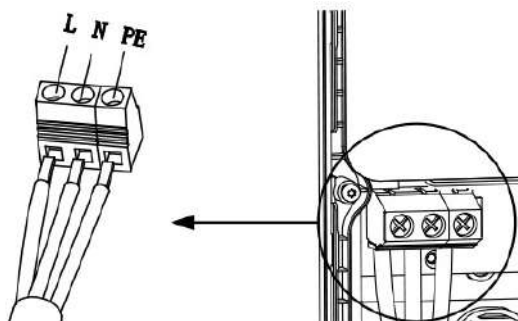
1. Loosen the screws.
2. Insert the cable connector into the terminal block.
3. Connect the below wires:
  - Earth (PE, green/yellow striped)
  - Neutral (N, blue)
  - AC input wire (L, brown)
4. Tighten the screws to the correct torque.

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**NOTE**

The wires (PE, N, L, etc.) are specified on the terminal box.

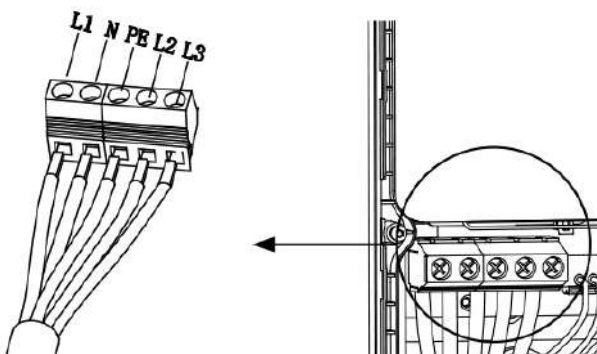
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**Figure 3-11 Single-phase Wiring**

### **3.3.4 Connect the AC Input Cable, Three-phase**

1. Loosen the screws.
2. Insert the cable connector into the terminal block.
3. Connect the following wires:
  - L1 (Brown)
  - Earth (PE, green/yellow striped)
  - Neutral (N, blue)
  - L2 (Black)
  - L3 (Grey)
4. Tighten the screws to the correct torque.



**Figure 3-12 Sample Three-phase Wiring**

### **3.3.5 Reinstall the Covers**

1. Reinstall the inner cover by tightening the five screws to the right torque.
2. Reinstall the maintenance cover by tightening the two screws at the bottom of the charger.

# 4 Troubleshooting and Service

## 4.1 Troubleshooting Table

Item	Problems	Solutions
1	I do not need the 485 communications cables to the distribution box.	Use the electrical tape to coil the 485 communications cables respectively.
2	The charger is successfully bound, but the Bluetooth connection fails.	Check whether the QR code on the charger is consistent with the QR code on the Quick Reference Guide. If so, make sure the Bluetooth is enabled on your mobile device; if not, contact customer support.
3	The charge session does not start as scheduled.	The EV charge cable cannot be inserted into the EV charge port when scheduling the charge for the first time. Insert the EV charge cable after the schedule is set up.
4	The charge card is lost.	Go to <i>Me &gt; My Charger &gt; Charge Card</i> to delete your card to avoid fraudulent use. Five charge cards can be bound to your account at most.
5	Over-voltage	Use the multimeter to check whether the voltage on the power input is too high. If the result is above 0.01 V, contact local power grid company.

Item	Problems	Solutions
6	Under-voltage	Use the multimeter to check whether the voltage on the power input is not sufficient. If the result is below 0.01 V, contact local power grid company.
7	Missing phase	Check the wires in the distribution box. If two wires are connected together accidentally, separate the wires.
8	Inputs incorrectly wired: possibly Line and Neutral are inverted	Correct the wiring.
9	Ground fault	Make sure the charger is earthed correctly.
10	Power failure	Make sure the switch to the circuit breaker is on.
11	Over-heating	<ul style="list-style-type: none"> <li>● Check whether the EV charge cable is securely connected.</li> <li>● Ensure the operating temperature is within the specified range on the product label.</li> <li>● Stop charging. Restart charging in half an hour.</li> </ul>
12	Residual current detected	Unplug the vehicle and plug in again. If the problem persists, contact your local representative.
13	Abnormal pilot voltage	Unplug the vehicle and plug in again.
14	Contactor fault	Contact your local representative.

Item	Problems	Solutions
15	Over current	Unplug the vehicle and plug it again.
16	Pilot fault	Use an Autel diagnostics tool to scan fault, and contact the vehicle manufacturer to clear fault.
17	No Proximity Pilot (PP) connection or PP fault	<ul style="list-style-type: none"> <li>● Examine the connection of the EV charge cable.</li> <li>● Ensure both EV charge cables are not broken or frayed.</li> <li>● If the problem persists, contact your local representative.</li> </ul>
18	E-lock failure	<ul style="list-style-type: none"> <li>● Examine the connection of the EV charge cable.</li> <li>● If the problem persists, contact your local representative.</li> </ul>
19	Power relay fault	Contact a qualified electrician.
20	Bluetooth module communication failure	Contact your local representative.
21	Update failure via Bluetooth	Contact your local representative.
22	Internet connection fails	Contact your local representative.
23	Home power system only supports single-phase. How to connect the power supply wiring?	Connect the L1, N, and PE wires to the charger's terminal block as specified. Wiring to the distribution box is the same.

## 4.2 Service

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If you cannot find solutions to your problems with the aid from the table above, please contact our technical support.

### SEVADIS

- **Website:** [www.sevadis.com](http://www.sevadis.com)
- **Phone:** 0330 058 7144
- **Email:** [customerservice@sevadis.com](mailto:customerservice@sevadis.com)
- **Address:** Granville House, Unit E, The Heights Business Park, Ibstone Rd, Stokenchurch High Wycombe, HP14 3BG

### AUTEL

- **Website:** [evcharging.autel.com](http://evcharging.autel.com)
- **Address:** Adalperostraße 82, 85737 Ismaning, Germany

# 5 Compliance Information

The product is in conformity with the following standards and/or other normative documents:

EN 301 489-1 V2.2.3

EN 301 489-3 V2.1.1

EN 301 489-17 V3.2.4

EN 301 489-52 V2.1.1

EN 300 328 V2.2.2

EN 300 330 V2.1.1

EN 301 908-1 V13.1.1

EN 301 908-2 V13.1.1

EN 301 908 -13 V13.1.1

EN 301 511 V12.5.1

EN 50663

EN 50665

BS EN IEC 61851-1

EN IEC 61851-1

IEC 61851-21-2

EN IEC 61851-21-2



# 6 Warranty

## Limited Three Years Warranty

Autel Intelligent Technology Corp., Ltd. (the Company) warrants to the original retail purchaser of this equipment that should this product or any part thereof during normal usage and under normal conditions be proven defective in material or workmanship and results in product failure within three-year period from the date of purchase, such defect(s) will be repaired, or replaced (with new or rebuilt parts) with Proof of Purchase, at the Company's option, without charge for parts or labor directly related to the defect(s).

The Company shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the device. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.

### **This warranty does not apply to:**

1. Products subjected to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;
2. Products whose mechanical serial number or electronic serial number has been removed, altered or defaced;
3. Damage from exposure to excessive temperatures or extreme environmental conditions;
4. Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the Company;
5. Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts;
6. Products damaged from external causes such as fire, dirt, sand, battery leakage, blown fuse, theft or improper usage of any electrical source.

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**! IMPORTANT**

All contents of the product may be deleted during the process of repair. You should create a back-up copy of any contents of your product before delivering the product for warranty service.

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Granville House, Unit E, The Heights Business Park,  
Ibstone Rd, Stokenchurch,  
High Wycombe HP14 3BG