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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 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.

### 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.
- **If any specifications or regulations mentioned in this manual contradict with your local rules, refer to your local rules.**

### 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.

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# 1 Using This Manual

This manual describes the installation and use of the MaxiCharger AC Wallbox Home. Prior to installation, read through this manual to be familiarized with the instructions of this MaxiCharger to ensure a successful installation and smooth operations.

## 1.1 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:

---

#### **NOTE**

The images and illustrations depicted in this manual may differ slightly from the actual ones.

---

## **Important**

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

Example:

---

### **ⓘ IMPORTANT**

The charger should only be installed by personnel who are trained and qualified to work on electrical systems.

---

## **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 and use 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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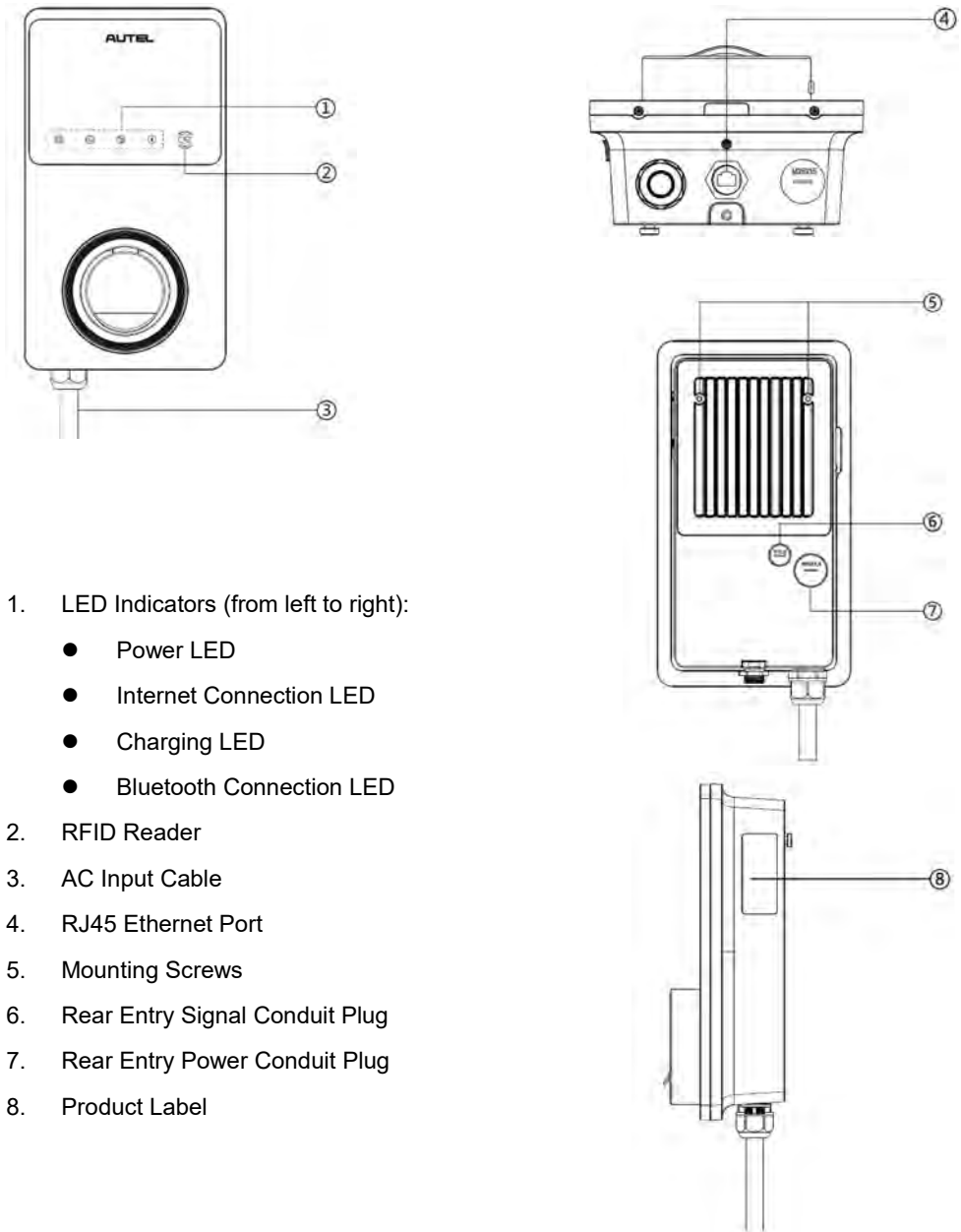
## NOTE

1. This manual is for cable, socket, and shutter models. The illustrations in this manual use the socket version as an example.
  2. The images and illustrations depicted in this manual may differ slightly from the actual ones.
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## 2.1 Product Overview

### 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
4. RJ45 Ethernet Port
5. Mounting Screws
6. Rear Entry Signal Conduit Plug
7. Rear Entry Power Conduit Plug
8. Product Label

## LED Description

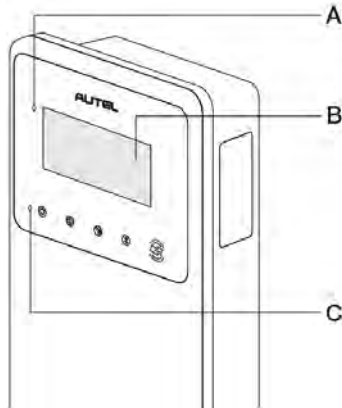
| LED  | Description   |
|--|---|
| <p style="text-align: center;"><b>Power LED</b></p>                | <ul style="list-style-type: none"> <li>● <b>Solid Green:</b> The charger is on.</li> <li>● <b>Off:</b> The charger is off.</li> <li>● <b>Flashing Yellow:</b> Data is being transmitted and/or firmware 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>  |
| <p style="text-align: center;"><b>Internet Connection LED</b></p>  | <ul style="list-style-type: none"> <li>● <b>Solid Green:</b> The charger is connected to the Internet.</li> <li>● <b>Off:</b> The charger is not connected to the Internet.</li> <li>● <b>Flashing Green:</b> The charger has joined the DLB (Dynamic Load Balancing) network.</li> </ul>   |
| <p style="text-align: center;"><b>Charging LED</b></p>             | <ul style="list-style-type: none"> <li>● <b>Solid Blue:</b> An EV is connected.</li> <li>● <b>Flashing Blue:</b> A schedule is active.</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> A charge session has ended.</li> <li>● <b>Off:</b> No EV connected.</li> <li>● <b>Solid Red:</b> An irrecoverable error has occurred. (Please contact support.)</li> </ul> |
| <p style="text-align: center;"><b>Bluetooth Connection LED</b></p> | <ul style="list-style-type: none"> <li>● <b>Flashing Green:</b> The charger is connected to a mobile device via Bluetooth.</li> <li>● <b>Flashing Blue:</b> The charger is connected to VCI (Vehicle Communication Interface) via Bluetooth.</li> <li>● <b>Flashing Cyan:</b> The charger is connected to a mobile device and a VCI device simultaneously via Bluetooth.</li> <li>● <b>Off:</b> The charger is not connected via Bluetooth.</li> </ul>  |

## 2.2 Options

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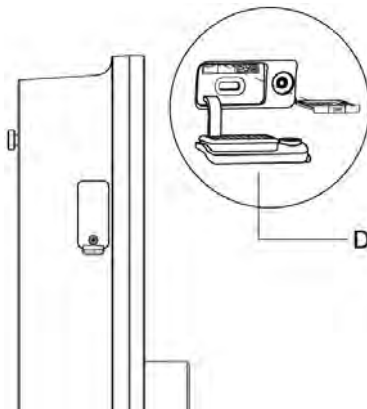
### Display

- A. Ambient Light Sensor — detects ambient brightness
- B. Display
- C. Energy Pulse Output (Infrared Ray)



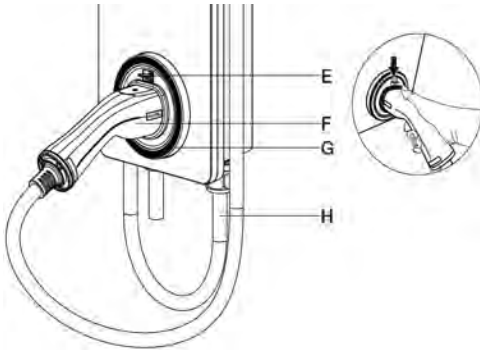
- D. SIM Card Socket

(Available on chargers with 4G function.)

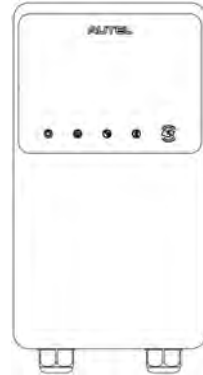


## Cable Model

- E. Charging Handle Safety Lock — **Press to release charging handle from its cradle**
- F. Charging Handle, Type 2
- G. Cradle
- H. EV Charge Cable



(With holster)



(Without holster)

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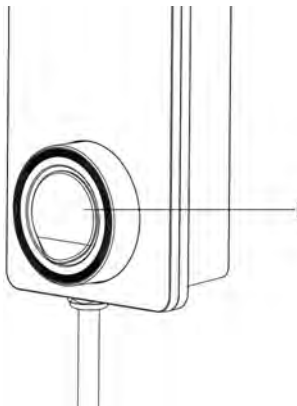
### NOTE

- Drape the EV charge cable over the top of the MaxiCharger and dock the connector in its holster when not in use. See the figure above.
- The maximum length of the EV charge cable is 7.5 meters.

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## Socket/Shutter Model

- I. Socket/Shutter, Type 2



## 2.3 Description of the Display

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### ⓘ IMPORTANT

This section is only applicable to chargers with a display.

---

#### Function Buttons

| Button       | Description                                   |
|--------------|---|
| Cost Details | Tap to view the charging cost.                |
| Language     | Tap to choose your language for the charger.  |
| Stop         | Tap to stop a charge session.                 |
| OK           | Tap to confirm the information on the screen. |
| Back         | Tap to return to the previous screen.         |

### 2.3.1 Boot Screen



The display shows the Boot screen while the charger starting up.

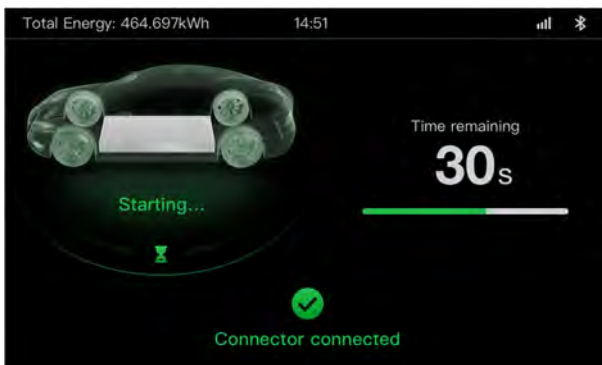
## 2.3.2 Standby/Authorization Screen



1. Top screen — displays total delivered energy, time, signal strength, and Bluetooth connection
2. Middle screen — provides two authorization methods: QR code or RFID card
3. Bottom screen — tap to view the charging costs and choose your language

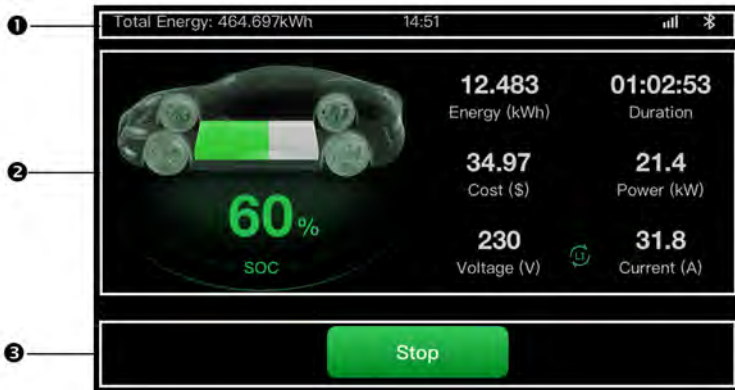
The display shows the Standby/Authorization screen when the charger is in idle status, indicating that the charger is ready for use. When this screen appears, choose an authorization method (QR code or RFID card) to start a charge session.

## 2.3.3 Preparing to Charge Screen



## 2.3.4 Charging Screen

The Charging screen appears during the charge session.



1. Top screen
2. Main Charging screen — shows the real-time charging progress, the SOC value, and other charging information including energy, duration, current cost, power, voltage, as well as current per phase.
3. Stop button — tap to stop the charge session

## 2.3.5 Transaction Details Screen

When the charge session ends, the Transaction Details screen will appear.

Tap the **OK** button to confirm your transaction details.



## 2.3.6 Device Information Screen

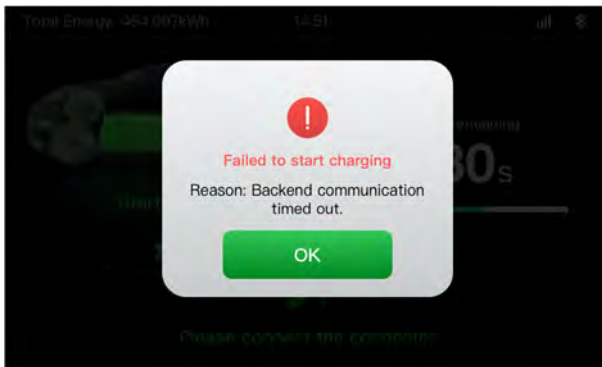


The actual Device Information screen may differ.

## 2.3.7 Error Screen

The display shows different error messages depending on the error type.

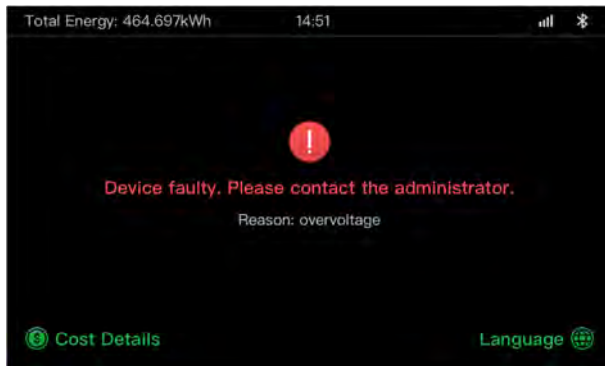
The charger fails to start a charge session:



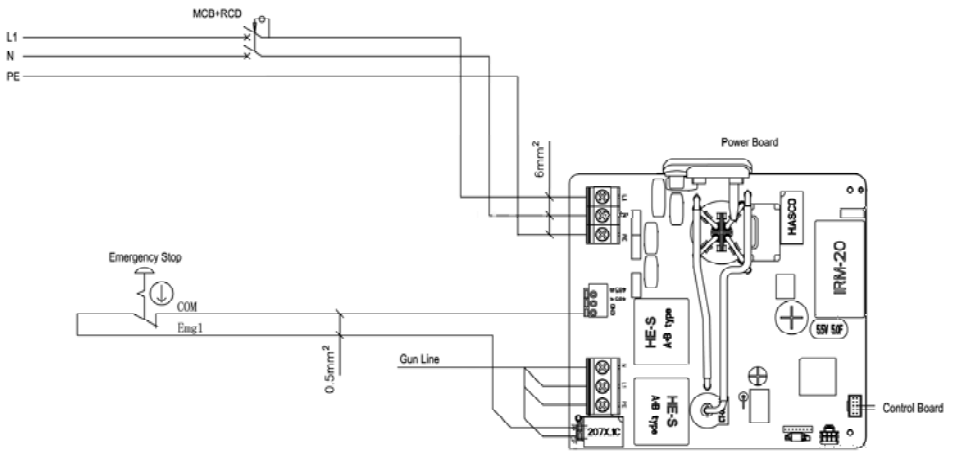
Tap the **OK** button to confirm the message.



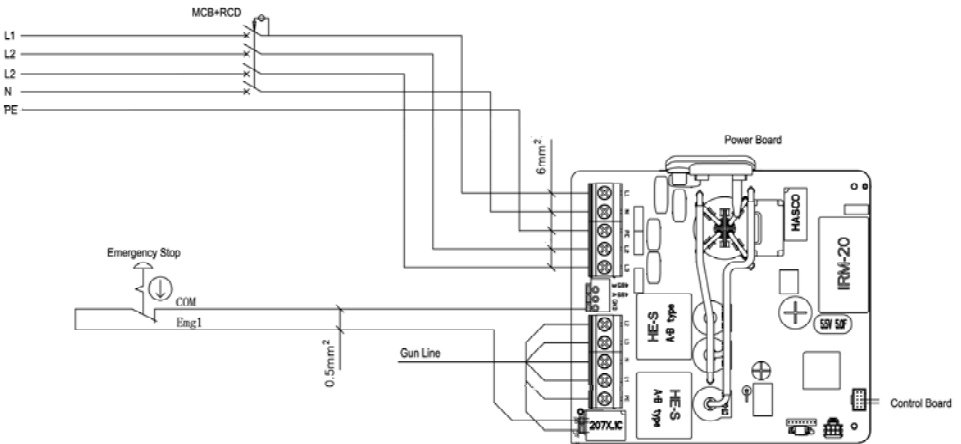
An error has occurred with the charger. Contact Autel support.



## 2.4 Wiring Diagram for the MCB, RCD, and Emergency Stop



**Figure 2-1 MCB + RCD + Emergency Stop View (for 7.4 kW device)**



**Figure 2-2 MCB + RCD + Emergency Stop View (for 11/22 kW device)**



**Figure 2-3 Connection Diagram**

The actual connection among the MCB, RCD, emergency stop, and the charger are as shown above. This diagram applies to 7.5 kW, 11 kW, and 22 kW models.

1. MCB + RCD
2. Emergency Stop

## 2.5 Specifications

|                                | Item                                  | Description  |
|--------------------------------|---------------------------------------|--|
| <b>Product Information</b>     | Charging Type                         | Mode 3 charging  |
|                                | Input/Output Power Rating and Current | <ul style="list-style-type: none"> <li>● Single-phase: 7.4 kW/32 A</li> <li>● Three-phase: 11 kW/16 A</li> <li>● Three-phase: 22 kW/32 A</li> </ul>            |
|                                | Protection                            | Over-current, over-temperature, over-voltage, under-voltage, ground fault including DC residual current protection, integrated surge protection                |
|                                | Earth (Ground) Fault Protection       | 30 mA AC and 6 mA DC   |
|                                | Input/Output Voltage                  | <ul style="list-style-type: none"> <li>● 230 V <math>\pm</math>15%, single phase</li> <li>● 400 V <math>\pm</math>15%, three phase</li> <li>● 50 Hz</li> </ul> |
|                                | Network Type                          | TT, TN   |
| <b>General Characteristics</b> | IP and IK Rating                      | Cable model: IP65; IK08<br>Socket/shutter model: IP54; IK08  |
|                                | Operating Altitude                    | 2,000 m  |
|                                | Humidity                              | < 95 % RH, non-condensing  |
|                                | 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)                | Cable: 336 x 187 x 85 mm<br>Socket/shutter:<br>336 x 187 x 115 mm  |

|                                     | <b>Item</b>              | <b>Description</b>   |
|-------------------------------------|--------------------------|--|
| <b>User Interface</b>               | Status Indication        | LED<br>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,<br>EN 62479, IEC/EN 62955  |
|                                     | Certifications           | <ul style="list-style-type: none"> <li>● CE</li> <li>● TUV</li> <li>● TR 25:2016 (ICS 43.120)</li> </ul>         |
|                                     | Warranty                 | 36 months  |

**Table 2-1 Cable Specifications**

|  | <b>Parameter</b> | <b>Specification</b>                   |
|--|------------------|--|
| <b>AC Input Cable (Three phase, 32 A)</b>  | Wire size        | Cross-section: 5 x 6 mm <sup>2</sup>   |
|  | Length           | 1800 mm                                |
|  | Strip length     | 12 mm                                  |
|  | Outside diameter | 17.8 mm                                |
| <b>AC Input Cable (Three phase, 16 A)</b>  | Wire size        | Cross-section: 5 x 2.5 mm <sup>2</sup> |
|  | Length           | 1800 mm                                |
|  | Strip length     | 12 mm                                  |
|  | Outside diameter | 14.6 mm                                |
| <b>AC Input Cable (Single phase, 32 A)</b> | Wire size        | Cross-section: 3 x 6 mm <sup>2</sup>   |
|  | Length           | 1800 mm                                |
|  | Strip length     | 12 mm                                  |
|  | Outside diameter | 14.6 mm                                |
| <b>RS485 cable</b>                         | Wire size        | Cross-section: 3 x 0.5 mm <sup>2</sup> |

**Table 2-2 Supplementary Specifications**

| Category                    | Item              | Description   |
|-----------------------------|-------------------|---|
| <b>MCB+RCD</b>              | Power Rating      | <ul style="list-style-type: none"> <li>● Single-phase: 7.4 kW, 30 mA</li> <li>● Three-phase: 11/22 kW, 30 mA</li> </ul>                             |
|                             | Protection        | Over-current, over-voltage, under-voltage, over-temperature, ground fault including DC residual current protection, and integrated surge protection |
|                             | Voltage           | <ul style="list-style-type: none"> <li>● Single-phase: 230 V AC</li> <li>● Three-phase: 400 V AC</li> </ul>   |
|                             | Single-phase Type | <ul style="list-style-type: none"> <li>● MCB: GSB2-63M/2 C50</li> <li>● RCD: VIGI-63/2 30 mA</li> </ul>   |
|                             | Three-phase Type  | <ul style="list-style-type: none"> <li>● MCB: GSB2-63M/4 C50</li> <li>● RCD: VIGI-63/4 30 mA</li> </ul>   |
| <b>Module Cover Surface</b> | Power Rating      | <ul style="list-style-type: none"> <li>● Single-phase: 7.4 kW</li> <li>● Three-phase: 11/22 kW</li> </ul>   |
| <b>Emergency Stop</b>       | Specification     | Available for 7.4 kW, 11 kW, and 22 kW devices.   |

**Table 2-3 Parts Manufacturer and Model**

| <b>Item</b>                         | <b>Manufacturer</b>                         | <b>Model</b>                         |
|-------------------------------------|---|--------------------------------------|
| Emergency stop                      | Schneider Electric Industries SAS           | XALK178<br>Type : DC 12              |
| Distribution box for 11/22 kW model | Ensto Finland Oy                            | MODAB81PN<br>(Size : 238x231x113 mm) |
| Distribution box for 7 kW model     | Ensto Finland Oy                            | MODAB41PN<br>(Size : 166x231x113 mm) |
| Circuit breaker for 11/22kW model   | Tianshui 213 Electrical Apparatus Co., LTD. | GSB2-63M/4 C50                       |
| Circuit breaker for 7 kW model      | Tianshui 213 Electrical Apparatus Co., LTD. | GSB2-63M/2 C50                       |
| RCD for 11/22 kW model              | Tianshui 213 Electrical Apparatus Co., LTD. | VIGI-63/4 30 mA                      |
| RCD for 7 kW model                  | Tianshui 213 Electrical Apparatus Co., LTD. | VIGI-63/2 30 mA                      |

Typically, the 6 mm<sup>2</sup> insulated electrical wire is used. If it contradicts with your local rules, refer to your local rules.



## 2.6 Product Model

The MaxiCharger AC Wallbox model is a code that consists of seven parts:

Maxi U W - XX - YY - L - M - ZZ

I II III IV V VI VII

| Code Part | Description               | Value  | Meaning of Value                                      |
|-----------|---------------------------|--------|---|
| <b>U</b>  | Basic model designation   | EU AC  | EU AC series  |
|           |                           | EU1 AC | EU1 AC series   |
| <b>W</b>  | power                     | W7     | 7 kW  |
|           |                           | W11    | 11 kW   |
|           |                           | W22    | 22 kW   |
| <b>XX</b> | Vehicle connection method | BC3    | vehicle connector with 3-meter cable without holder   |
|           |                           | BC5    | vehicle connector with 5-meter cable without holder   |
|           |                           | BC7    | vehicle connector with 7.5-meter cable without holder |
|           |                           | C3     | vehicle connector with 3-meter cable                  |
|           |                           | C5     | vehicle connector with 5-meter cable                  |
|           |                           | C7     | vehicle connector with 7.5-meter cable                |
|           |                           | S      | Socket-outlet (Not for 11kW models)                   |
|           |                           | H      | shutter-outlet (Not for 11kW models)                  |
| <b>YY</b> | Wireless function         | 4G     | 4G function embedded                                  |
|           |                           | Blank  | Standard type   |
| <b>L</b>  | LCD panel function        |        |   |
| <b>M</b>  | MID function              |        |   |
| <b>ZZ</b> | color                     | DG     | Dark grey   |
|           |                           | WH     | White   |
|           |                           | RG     | Rose gold   |
|           |                           | SV     | Silver  |
|           |                           | B      | Black   |

# 3 Installation

## 3.1 Prepare for Installation

---

### 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 the packaging material from the charger.
4. Make sure that all the parts are delivered according to the order.
5. Inspect the charger and the parts 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.

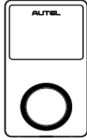












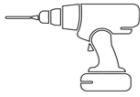



## 3.2 Mechanical Installation

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### ⚠ IMPORTANT

1. DO NOT install your charger in hazardous areas.
  2. 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*.
  3. The charger should only be installed by personnel who are trained and qualified to work on electrical systems.
  4. The packaging does not necessarily include all the tools required.
-

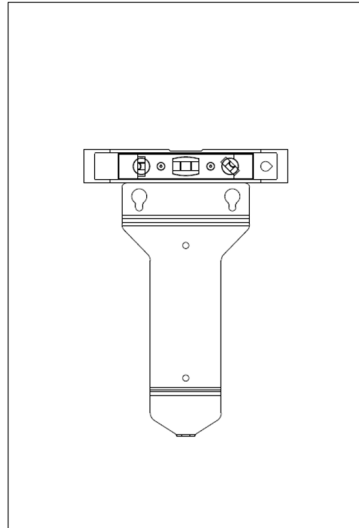
### 3.2.1 Parts and Tools

|  |   |   |   |
|--|---|---|---|
| <p><b>Charging Station</b></p>                     |    | <p><b>Wall Dock</b></p>                       |    |
| <p><b>Screw (M6 x 50)</b><br/>2 PCS</p>            |    | <p><b>Screw (M5 x 12)</b></p>                 |    |
| <p><b>Wall Plug (8 mm)</b><br/>2 PCS</p>           |    | <p><b>Charge Card</b><br/>2 PCS</p>           |    |
| <p><b>Cable Sealing Ring (M25)</b></p>             |    | <p><b>Cable Sealing Ring (M16)</b></p>        |    |
| <p><b>Waterproof Ethernet Cable Gland</b></p>      |    | <p><b>Screwdriver (type T25)</b></p>          |    |
| <p><b>Screwdriver (type T10)</b></p>               |    | <p><b>Cable Holder (optional)</b></p>         |    |
| <p><b>Pedestal (optional)</b></p>                  |   | <p><b>Drill (not included)</b></p>            |  |
| <p><b>Spirit Level or Ruler (not included)</b></p> |  | <p><b>Marker or Pencil (not included)</b></p> |  |
| <p><b>Screwdriver (PH2) (not included)</b></p>     |  |   |   |

## 3.2.2 Install the Charger

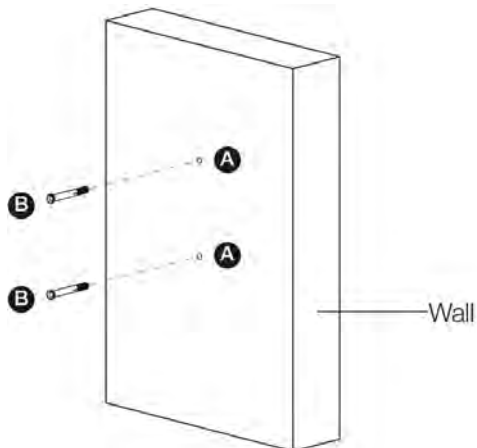
### STEP 1

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**

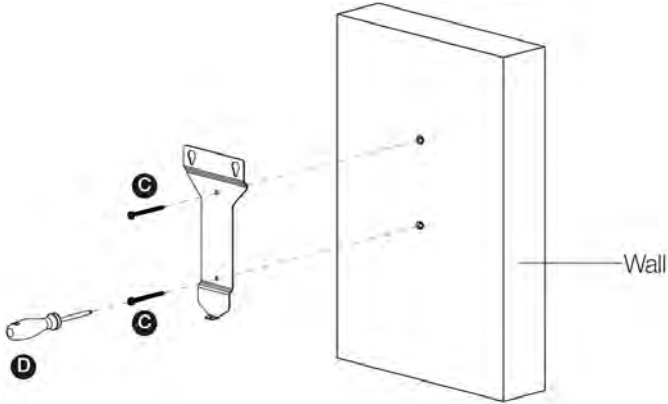
2. Mark the two lower mounting holes (A) with a marker or pencil and drill two 8 mm holes.
3. Insert two 8 mm diameter wall plugs (B) into the lower mounting holes.



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

## STEP 2

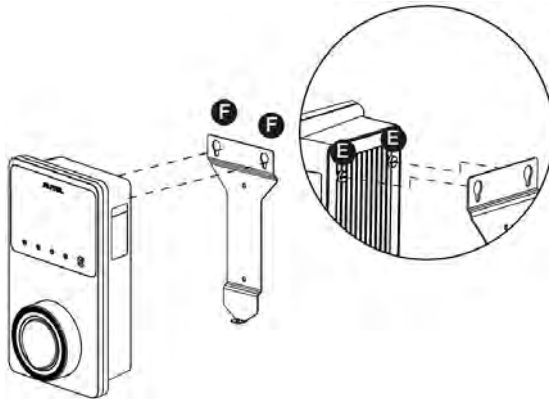
1. Attach the wall dock to the mounting location by screwing two M6 x 50 screws (C) into the lower mounting holes.
2. Tighten the two M6 x 50 screws using the type PH2 screwdriver (D, not included in the package).



*Figure 3-3 Attaching the Wall Dock*

## STEP 3

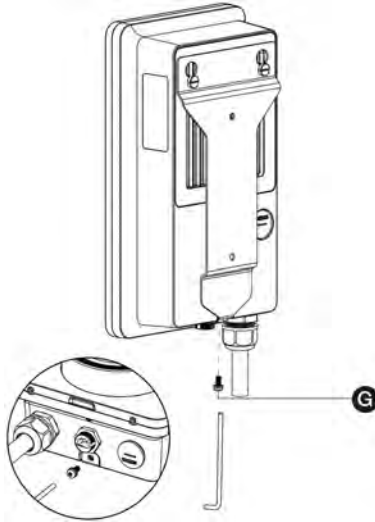
Attach the charger to the wall dock by inserting the two protruding screws (E) on the back of the charger into the two upper mounting holes (F) and slide the charger downwards.



*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 type T25 screwdriver.



**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.

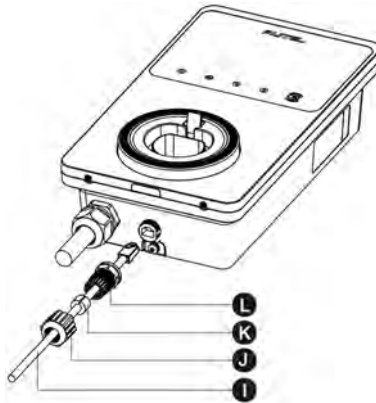
1. To connect via the Ethernet cable, put the RJ45 plug of the Ethernet cable into the RJ45 port (H) at the bottom of the charger.



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

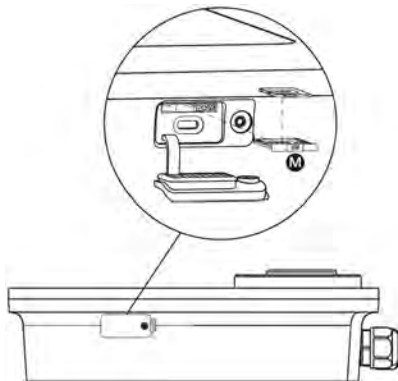
Before connecting the Ethernet cable, we recommend you connect the Ethernet cable to the waterproof Ethernet cable gland first.

- 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 type T10 screwdriver. 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 the procedures above in reverse order.



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

## STEP 6

Switch on the electrical power to the charger.

### 3.3 Power Supply Wiring

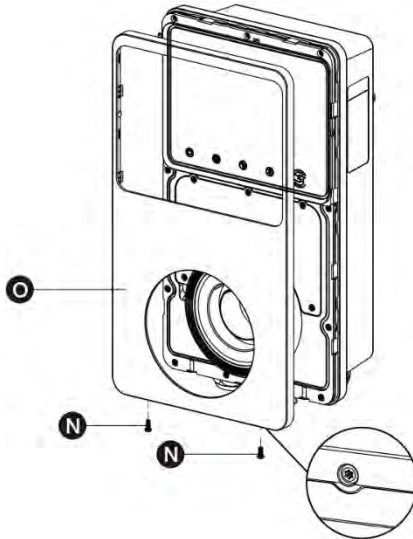
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#### ⚠ IMPORTANT

- Consult your local electrical codes for the correct wire size, based on the environment, the conductor type, and the rating of the charger.
  - Ensure that all the screws are tightened to the correct torque after the wiring is completed, and that there are no loose screws at the terminal blocks.
  - Ensure there is no copper wire or debris left inside of the charger before switching on the electrical power to the charger.
- 

#### 3.3.1 Remove the Covers

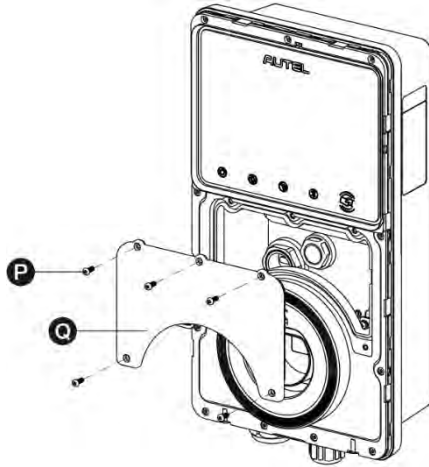
1. Remove the two screws (N) at the bottom of the charger with the type T10 screwdriver to remove the maintenance cover (O).



*Figure 3-9 Removing the Maintenance Cover*



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



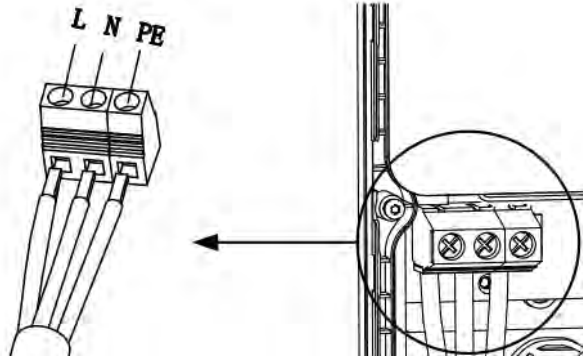
**Figure 3-10 Removing the Inner Cover**

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

1. Strip the wires to 12 mm.
2. Loosen the lower-left cable gland, insert the AC input cable through the inlet hole, and pre-fix the cable gland.

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

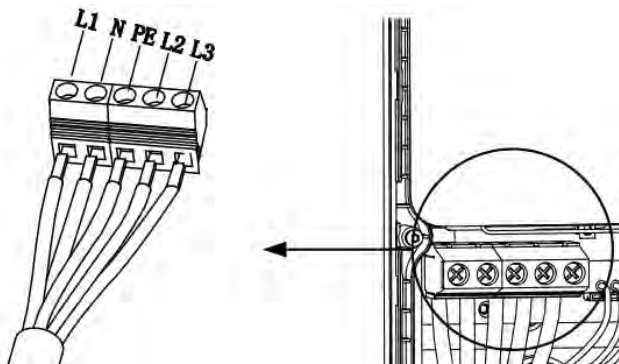
1. Loosen the screws at the terminal block.
2. Insert the cable connector into the terminal block.
3. Connect the below wires as specified:
  - Earth (PE, green/yellow striped)
  - Neutral (N, blue)
  - AC input wire (L, brown)
4. Tighten the screws to 2 N·m (17.7 in·lbs) and fix the cable gland.



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

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

1. Loosen the screws at the terminal block.
2. Insert the cable connector into the terminal block.
3. Connect the following wires as specified:
  - L1 (Brown)
  - Earth (PE, green/yellow striped)
  - Neutral (N, blue)
  - L2 (Black)
  - L3 (Grey)
4. Tighten the screws to 2 N·m (17.7 in·lbs) and fix the cable gland.



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

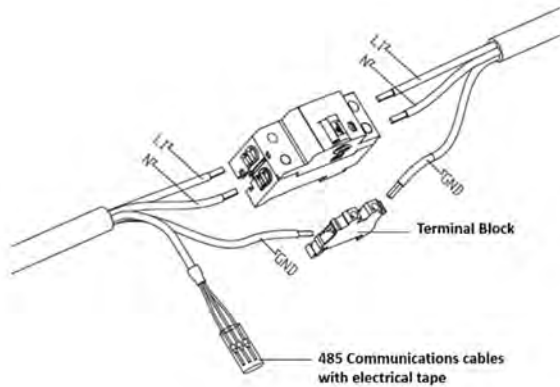
### 3.3.5 Reinstall the Covers

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.

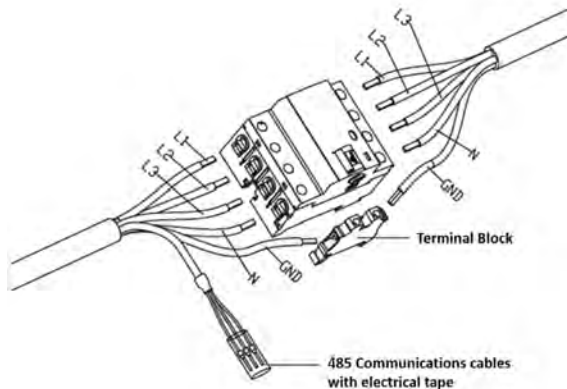
### 3.3.6 Distribution Box Wiring

Procedures above complete the power supply wiring to the charging station. In order to complete the power supply wiring to the distribution box, connect the wires as specified on the terminal block.

If your charger has the 485 communications cables and you do not need them, coil them with electrical tape respectively. See diagrams below for single-phase and three-phase wiring.



**Figure 3-13 Distribution Box Wiring for Single-phase**



**Figure 3-14 Distribution Box Wiring for Three-phase**

### 3.4 Protective Device

| Devices   | Specifications  |
|---|---|
| Dedicated upstream protection device(s)   | Options: <ul style="list-style-type: none"> <li>● RCD (Type A minimum) + MCB</li> <li>● RCBO (Type A minimum)</li> </ul>  |
| Upstream overcurrent protection breaker, such as RCBO or MCB (The breaker serves as the main disconnect switch to the charger.) | Breaker rating: <ul style="list-style-type: none"> <li>● 40 A for a 32 A rated charger</li> <li>● 20 A for a 16 A rated charger</li> </ul> Tripping characteristics: type C |
| Upstream residual-current device (RCD)  | Minimum Type A, with a rated residual operation current of maximum 30 mA<br>(Internal to charger is DC fault current monitoring > 6 mA.)                                    |

 **NOTE**

The breaker value depends on the diameter and the length of the cable, the charger rating, and the environmental parameters (for the electrician to decide).

The Autel MaxiCharger has the internal 30 mA AC and 6 mA DC leakage current detection, which is equivalent to Type B RCD function and meets IEC-61851 standards.

In some countries, local standards may require external protection devices. Check your local standards accordingly. External RCD+MCB or RCBO are also recommended as below:

- 7 kW: 30 mA Type A RCBO 230 V/40 A
- 11 KW: 30 mA Type A RCBO 400 V/20 A
- 22 kW: 30 mA Type A RCBO 400 V/40 A

Otherwise, comply with local regulations.

# 4 Operation

## 4.1 Energize the Charger

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Close the breaker that supplies the power to the charger, and wait for the power supply to come on. There will be a series of self-check starts, making sure that the charger works correctly and safely. If a recoverable error is detected, the charging LED illuminates orange; if the error cannot be recovered, it illuminates red.

---

### Warning

Be careful when you work with electricity.

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## 4.2 Start Charging

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### Caution

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

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### 4.2.1 Cable Models

1. Remove the charging handle from the cradle of the charger.
2. Insert the charging handle into the charge port on your EV.
3. Choose from the following four ways to start a charge session:
  - Tap your RFID card on the RFID reader.
  - Use the Autel Charge app by tapping **Start** on the Charge screen.
  - If you have set a charging schedule in the Autel Charge app, the charger will initiate a charge session automatically as scheduled.
  - If the Plug-and-charge function is enabled in the Autel Charge app, the charger will automatically start charging once the charging handle is properly connected.

### 4.2.2 Socket/Shutter Models

1. Insert your charging handle into the charge port on your EV and the charger socket outlet.
2. Choose from the following four ways to start a charge session:
  - Tap your RFID card on the RFID reader.
  - Use the Autel Charge app by tapping **Start** on the Charge screen.

- If you have set a charging schedule in the Autel Charge app, the charger will initiate a charge session automatically as scheduled. (Scheduled charging case.)
- If the Plug-and-charge function is enabled in the Autel Charge app, the charger will automatically start charging once the charging handle is properly connected. (Plug-and-charge case.)

---

#### NOTE

Ensure your EV is charging. The charging LED on the charger should be flashing green. If you suspect the vehicle is not charging properly, try reconnecting the charge cable or contact the local dealer for support.

---

## 4.3 Stop Charging

---

#### NOTE

If you disconnect the EV charge cable during the charge session, the charger automatically disconnects the power supply. This stops all charging operations.

---

### 4.3.1 Cable Models

1. To stop charging, you can choose either of the following two ways:
  - Wait for the charge session to end and no further actions are required in the case of scheduled charging or plug-and-charge.
    - The charging LED will light solid green.
    - The Autel Charge app displays that your vehicle is fully charged.
    - If the charger has a display, it will show that your vehicle is fully charged.

---

#### NOTE

When your vehicle is fully charged, the charger will automatically disconnect the power supply.

---

- End the charge session by tapping your RFID card on the RFID reader again or via the Autel Charge app by tapping **Stop** on the Charge screen.
2. Remove the charging handle from the vehicle charge port and return it to the cradle of the charger.

### 4.3.2 Socket/Shutter Models

1. To stop charging, you can choose either of the following two ways:
  - Wait for the charge session to end and no further actions are required in the case of scheduled charging or plug-and-charge.

- The charging LED will light solid green.
- The Autel Charge app displays that your vehicle is fully charged.
- If the charger has a display, it will show that your vehicle is fully charged.

---

 **NOTE**

When your vehicle is fully charged, the charger will automatically disconnect the power supply.

---

- End the charge session by tapping your RFID card on the RFID reader again or via the Autel Charge app.
2. Remove the charging handle from the charger socket outlet and the EV charge port.

# 5 Troubleshooting and Service

## 5.1 Troubleshooting Table

| Item | Problems   | Solutions  |
|------|--|--|
| 1    | If the 485 communications cables are not needed 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 greater than or equal to 115 % of the rated voltage (276 V), contact local power grid company.          |
| 6    | Under-voltage  | Use the multimeter to check whether the voltage on the power input is not sufficient. If the result is less than or equal to 70 % of the rated voltage (161 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.   |



| Item | Problems   | Solutions  |
|------|--|--|
| 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.   |
| 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>  |

| Item | Problems  | Solutions  |
|------|---|--|
| 19   | Power relay fault   | Contact a qualified electrician.   |
| 20   | Bluetooth module communication failure  | <ul style="list-style-type: none"> <li>● Make sure the Bluetooth is enabled on your mobile device and the charger is powered on and operating properly.</li> <li>● Forget the charger in the Bluetooth settings on your mobile device and pair the charger to your device via Bluetooth again.</li> <li>● If the problem persists, contact your local representative.</li> </ul> |
| 21   | Update failure via Bluetooth  | <ul style="list-style-type: none"> <li>● Make sure the charger is in idle status.</li> <li>● Make sure the Bluetooth connection is working properly.</li> <li>● If the problem persists, contact your local representative.</li> </ul>   |
| 22   | Internet connection fails   | <ul style="list-style-type: none"> <li>● You may use another device to connect to the same Internet, checking whether the Internet connection is working properly.</li> <li>● If the problem persists, contact your local representative.</li> </ul>   |
| 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.  |

## 5.2 Service

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

### AUTEL

- **Website:** [www.autelenergy.com](http://www.autelenergy.com)
- **Phone:** +49 (0) 89 540299608 (Monday-Friday, 9:00AM-6:00PM Berlin Time)
- **Email:** sales.eu@autel.com; support.eu@autel.com
- **Address:** Landsberger Str. 408, 4. OG, 81241 München, Germany

# 6 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

EN 50470-1

EN 50470-3

TR 25:2016 (ICS 43.120)