MaxiCharger Single Charger

Installation and Operation Manual

V 1.0

UL Model

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Safety

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.

- Read and follow all warnings and instructions before installing and operating the charger.
- This charger should only be installed by a licensed electrician in accordance with all local codes and ordinances.
- This charger must be grounded through a permanent wiring system or an equipment-grounding conductor.
- Do not install or use this charger near flammable, explosive, harsh, or combustible materials, chemicals or vapors.
- Children should be supervised when around this charger.
- Do not insert fingers or foreign objects into the electric vehicle connector.
- Do not use the charger if the flexible power cord or EV cable is frayed, broken, or damaged, or if it fails to operate.
- Do not use the charger if the enclosure or the EV connector is frayed, broken or otherwise damaged, or fails to operate.
- Use 90 °C wire copper conductors or refer to local ordinances.
- Do not operate the charger outside its operating range.
- Incorrect installation and testing of the charger could potentially damage the vehicle's battery, components, and/or the charger itself.
- Handle the charger with care during transportation. Do not subject it to strong force or impact or pull, twist, tangle, drag or step on the equipment, to prevent damage to it or any components.
- Neutral must be bonded to Ground upstream at the transformer or panel for each separately derived system.

Les messages de sécurité ci-après couvrent les situations dont Autel a connaissance. Autel ne peut pas connaître, évaluer ou vous conseiller sur tous les dangers possibles. Vous devez être certain que toute condition ou procédure de service rencontrée ne compromet pas votre sécurité personnelle.

- Lisez et suivez tous les avertissements et toutes les instructions avant d'installer et d'utiliser la borne de recharge.
- Cette borne de recharge ne doit être installée que par un électricien agréé, conformément à tous les codes et règlements locaux.

- Cette borne de recharge doit être mise à la terre par un système de câblage permanent ou un conducteur de mise à la terre de l'équipement.
- N'installez ni n'utilisez cette borne de recharge à proximité de matériaux, de produits chimiques ou de vapeurs inflammables, explosifs, agressifs ou combustibles.
- Les enfants doivent être surveillés lorsqu'ils se trouvent à proximité de cette borne de recharge.
- N'insérez pas vos doigts ou des objets étrangers dans le connecteur du véhicule électrique.
- N'utilisez pas la borne de recharge si le câble d'alimentation flexible ou le câble VE est effiloché, cassé ou autrement endommagé, ou s'il ne fonctionne pas.
- N'utilisez pas la borne de recharge si le boîtier ou le connecteur VE est effiloché, cassé ou autrement.
- endommagé, ou s'il ne fonctionne pas.
- Utilisez des conducteurs en cuivre à 90°C ou consultez les réglementations locales.
- Ne faites pas fonctionner la borne de recharge en dehors de sa plage de fonctionnement.
- Une installation et un test incorrects de la borne de recharge peuvent potentiellement endommager la batterie du véhicule, ses composants et/ou la borne de recharge elle-même.
- Manipulez la borne de recharge avec précaution pendant le transport. Ne la soumettez pas à une force ou à un choc important, ne la tirez pas, ne le tordez pas, ne l'emmêlez pas, ne la traînez pas et ne marchez pas dessus, afin d'éviter de l'endommager ou d'endommager l'un de ses composants.
- Le neutre doit être relié à la terre en amont du transformateur ou du tableau pour chaque système dérivé séparément.

Content

1 Using This Manual

This manual describes the installation and use of the MaxiCharger Single Charger. Prior to installation, read through this manual to get familiar with the instructions of this charger to ensure a successful installation and smooth operations.

NOTICE

Illustrations used in this manual are only examples; the actual products or screens may differ.

1.1 Signal Word

DANGER

Indicates an imminently hazardous situation with a high risk level which, if the danger is not avoided, will cause death or serious injury.

DANGER

Indique une situation dangereuse imminente avec un niveau de risque élevé qui, si le danger n'est pas évité, causera la mort ou des blessures graves.

WARNING

Indicates a potentially hazardous situation with a moderate risk level which, if the warning is not obeyed, can cause death or serious injury.

AVERTISSEMENT

Indique une situation potentiellement dangereuse avec un niveau de risque modéré qui, si l'avertissement n'est pas respecté, peut causer la mort ou des blessures graves.

CAUTION

Indicates a potentially hazardous situation with a medium risk level which, if the caution is not obeyed, may cause minor or moderate injury or damage to the equipment.

ATTENTION

Indique une situation potentiellement dangereuse avec un niveau de risque moyen qui, si la prudence n'est pas respectée, peut entraîner des blessures mineures ou modérées ou des dommages à l'équipement.

NOTICE

Provides helpful information such as additional explanations, tips, and comments.

NOTE

Fournit des informations utiles telles que des instructions supplémentaires, des conseils et des commentaires.

1.2 Revision History

Version	Date	Descriptions
Version 1.0	2025.04	Initial version

2 General Introduction

This charger is designed to charge plug-in hybrid electric vehicles (PHEVs) or fully electric vehicles (EVs). It will provide you with reliable, intelligent, and scalable charging solutions.

This manual will instruct you how to install and use this charger.

Intended Use

This charger is intended for the AC charging of EVs. It is intended for both indoor and outdoor use.

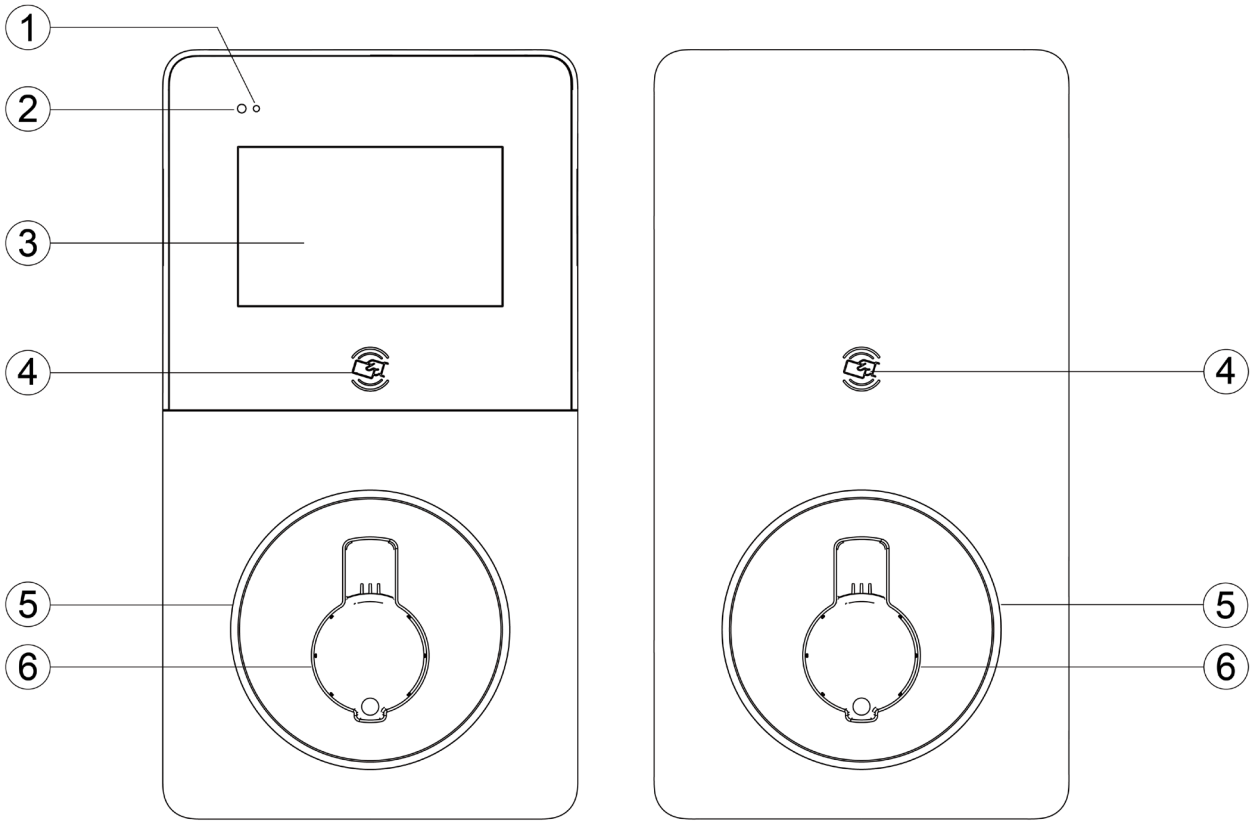
Models

Models	Descriptions
Model 1	Chargers with an LCD (liquid crystal display)
	Chargers with a digital tube display
Model 2	Chargers without a display

DANGER

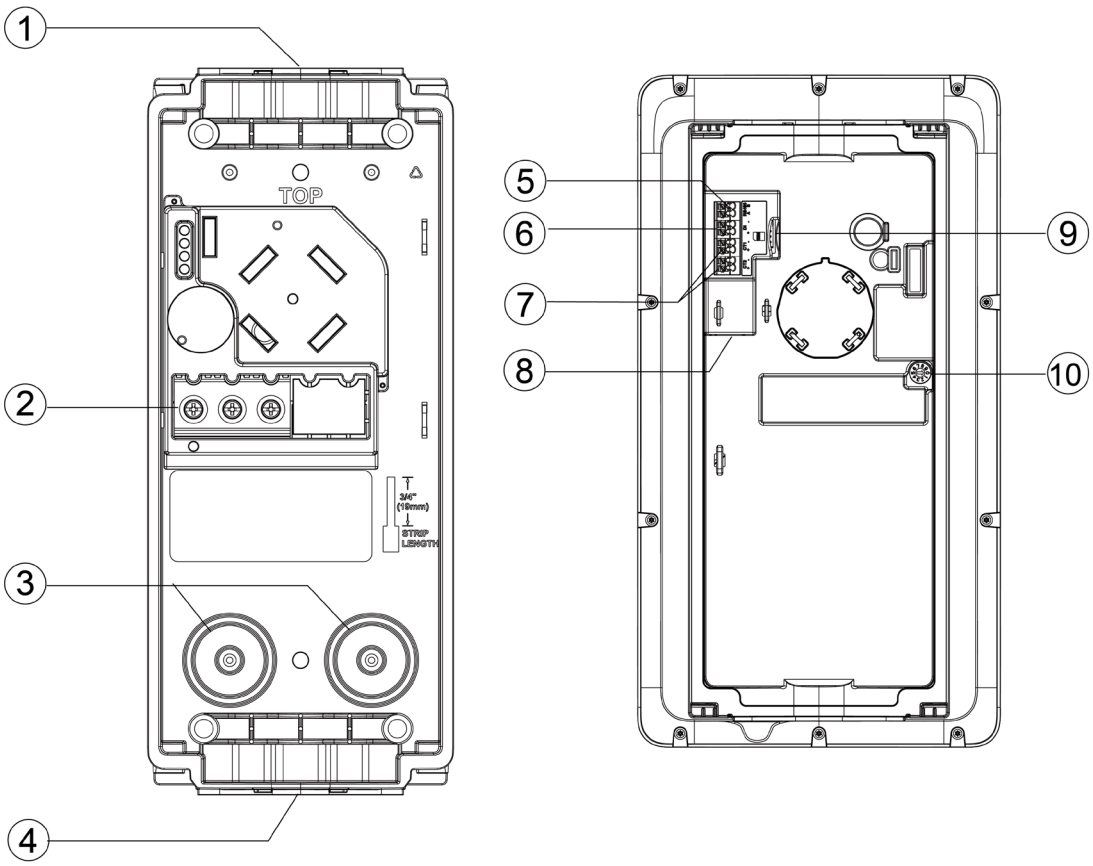
- If you use the charger in any way other than described in this manual or other related documents, possible death, injury and damage to property can occur.
- Use the charger only as intended.

2.1 Product Overview



Model 1 **Model 2**

1. Energy Pulse Output (Infrared Ray)
2. Ambient Light Sensor – Detects ambient brightness
3. Display
4. RFID Reader
5. LED Indicator
6. Holster



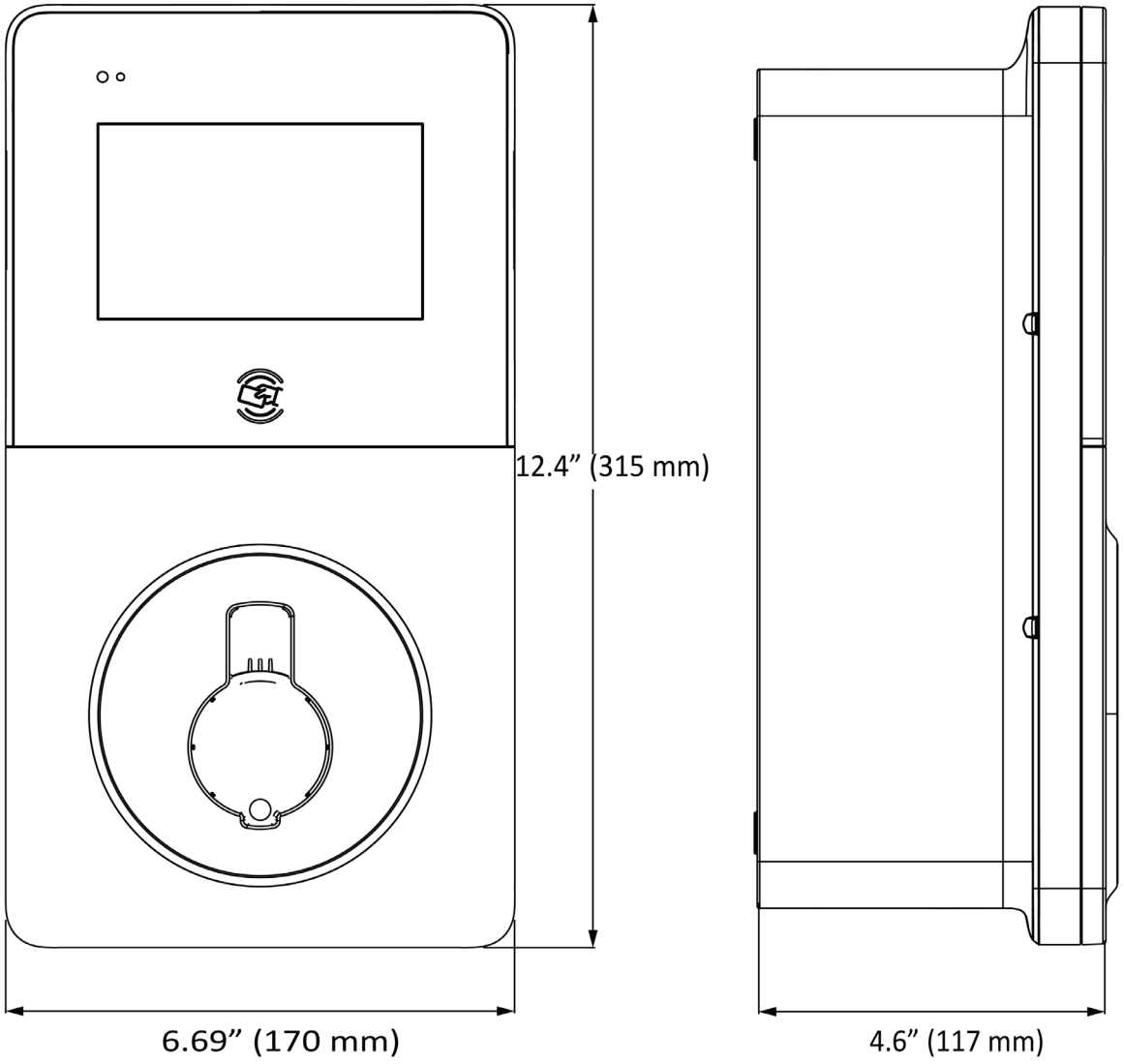
Wire Box **Charger Rear View**

1. Top Entries
2. AC Input Terminal Block
3. Rear Entries
4. Bottom Entry
5. RS485 Terminal
6. IO Terminal
7. CT Ports
8. Ethernet Port
9. SIM Card Socket
10. DIP Switch

NOTICE

The illustration of the rear view of the charger is only for reference; components differ among different chargers with different configurations.

2.2 Product Dimensions



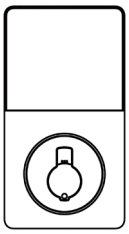
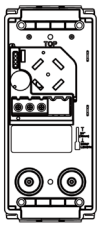
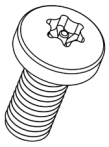
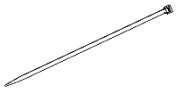
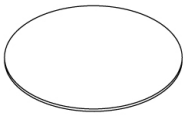
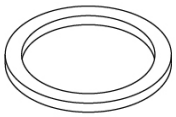
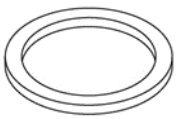
Front View **Side View**

NOTICE

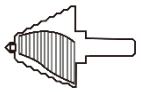
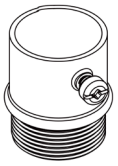
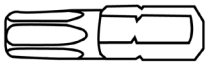
The dimensions of model 2 are the same as those of model 1; the illustrations here take model 1 as an example.

2.3 In the Box

Ensure that all parts are delivered according to the order. Check the packages for the following parts.

Main Unit 1 PC		Wire Box 1 PC		Self-tapping Screw ϕ1/5” (5 mm) x $1^{3}/_{5}$” (40 mm) 2 PCS	
Wall Anchor ϕ5/16” (8 mm) x $1^{3}/_{5}$” (40 mm) 2 PCS		Screw ϕ1/5” (5 mm) x 2/5” (10 mm) 2 PCS		T25 Torx Screwdriver 1 PC	
Zip Tie 2 PCS		Screw Plug (2 for spare use) 4 PCS		Sealing Ring (M27) 2 PCS	
Blind Sealing Plug 1 PC		Sealing Ring (M32) 1 PC		Quick Reference Guide 1 PC	
Packing List 1 PC					

2.4 Recommended Tools

Tape Measure		Marker	
Wire Stripper		Step Bit $1^1/_7$” (29 mm) or $1^3/_8$” (35 mm)	
Power Drill		Drill Bit 5/16” (8 mm)	
Torque Driver 18 lbf·in (2 Nm)		Phillips Bit (PH2)	
Multimeter		Conduit Fitting 3/4” or 1”	
Flathead Screwdriver		Torx Bit (TR25)	

NOTICE

The tools mentioned above are not included in the package. Ensure they are readily available prior to installation.

3 Installation

3.1 Electrical Design

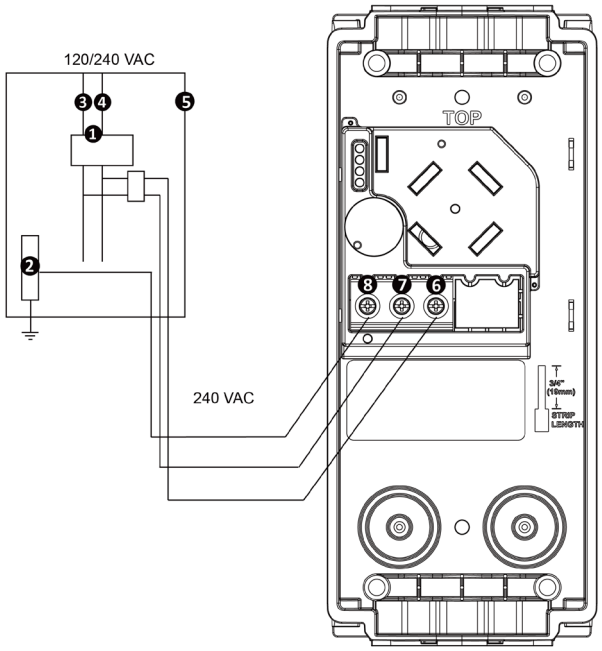
3.1.1 Upstream Wiring

Chargers are considered continuous load devices (EVs draw maximum load for long durations); therefore, electrical branch circuits must be sized at 125% of the load for North American installations, in accordance with National Electric Code (NEC) requirements. (For other regions, refer to local code.) For the MaxiCharger Single Charger whose maximum load is 50 A, Autel recommends that a 70 A circuit breaker be used.

Wiring must be sized in accordance with NEC requirements for continuous load devices. Typically, 4 – 6 AWG (13.3 – 21.2 mm^2) insulated electrical wire is used, depending upon the rating of the circuit and the distance between the electrical panel and the charger.

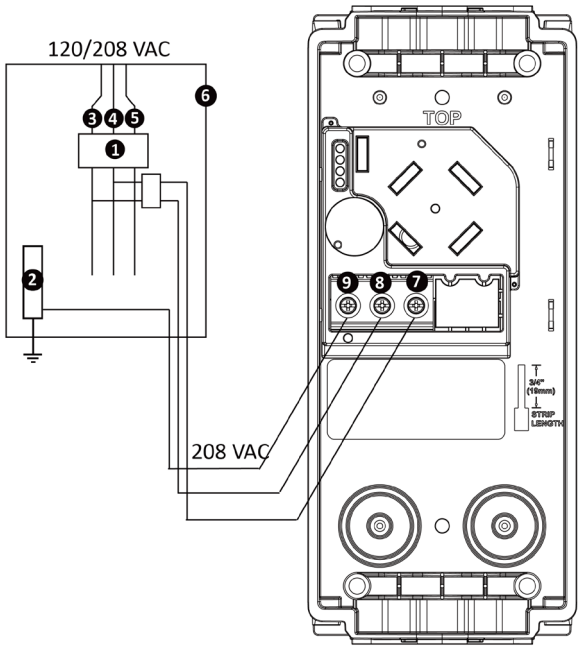
240 VAC Panel

1. Main Breaker
2. PE Bus
3. L1
4. L2
5. Local Service or Sub Panel
6. L2/N
7. L1
8. Ground/PE



208 VAC Panel

1. Main Breaker
2. PE Bus
3. L1
4. L2
5. L3
6. Local Service or Sub Panel
7. L2/N
8. L1
9. Ground/PE



3.1.2 Grounding Requirements

The charger must be connected to a grounded, metal, and permanent wiring system. An equipment-grounding conductor must be run with circuit conductors and connected to an equipment-grounding terminal or lead on the charger.

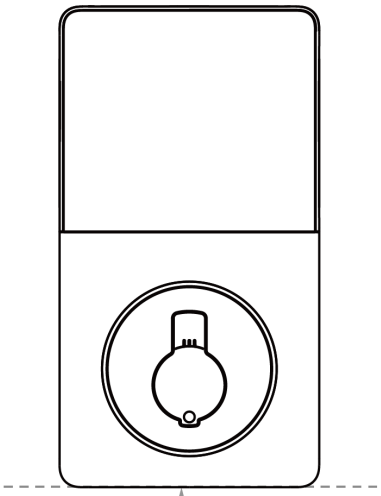
A grounding conductor, compliant with applicable codes, must be grounded at the service equipment or, when supplied by a separate system, at the supply transformer.

Neutral is not used to power the charger but must be properly connected to ground, at the panel transformer, to provide necessary voltage reference relative to ground.

3.2 Preparing for Installation

3.2.1 Installation Requirements

- Install the charger on a flat and vertical surface capable of supporting its weight (e.g., a finished wall or pedestal).
- Install the charger in a location that allows the charging cable to remain within its bending tolerance.
- Position the charger in a location where it is not vulnerable to being damaged.
- Ensure the electrical panel supports a 240 V dedicated circuit with a new, dedicated, and non-GFCI two-pole circuit breaker, in accordance with local codes and ordinances.
- See below for the installation height.



Recommended:
33.5-45.3” (850-1150 mm)

Minimum outdoor height: 23.6” (600 mm)
Minimum indoor height: 17.7” (450 mm)

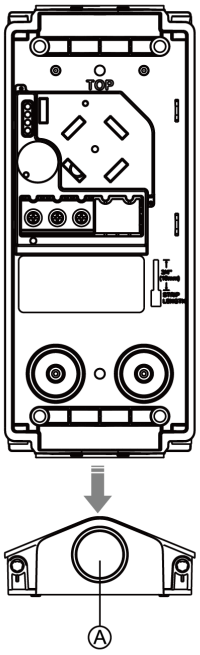
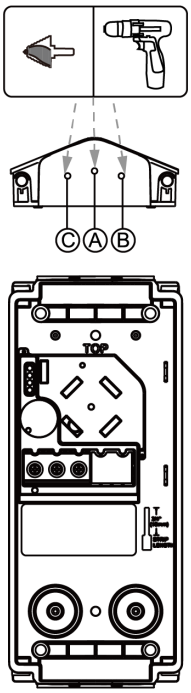
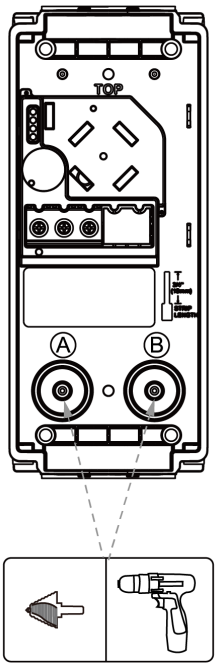
For ADA Accessibility: not higher than 35.6” (905 mm)

CAUTION

A supplement surge protection breaker must be installed at the service panel if the installation area experiences frequent thunderstorms.

3.2.2 Cable Entry Options

The recommended cable entry options are described below. The preparation work varies depending on the entry options.

Entry Options / Ways	Bottom Entry	Top Entry	Rear Entry
			
Way 1	**Hole A:** Power supply cable and data cable **Diameter of entry hole:** $\phi 1^{1}/_{7}$" (29 mm); can be extended to $\phi 1^{3}/_{8}$" (35 mm)	**Hole A:** Power supply cable and data cable **Diameter of entry hole:** $\phi 1^{1}/_{7}$" (29 mm); max $\phi 1^{3}/_{8}$" (35 mm) **Size of conduit:** 3/4"; 1" when the diameter of the entry hole is $\phi 1^{3}/_{8}$" (35 mm)	**Hole A:** Power supply cable and data cable **Diameter of entry hole:** $\phi 1^{1}/_{7}$" (29 mm); max $\phi 1^{3}/_{8}$" (35 mm) **Size of conduit:** 3/4"; 1" when the diameter of the entry hole is $\phi 1^{3}/_{8}$" (35 mm)
Way 2	Null	**Hole B:** Power supply cable **Hole C:** Data cable **Diameter of entry holes:** $\phi 1^{1}/_{7}$" (29 mm) **Size of conduits:** 3/4"	**Hole A:** Power supply cable **Hole B:** Data cable **Diameter of entry holes:** $\phi 1^{1}/_{7}$" (29 mm) **Size of conduits:** 3/4"

NOTICE

- The entry options mentioned above are only applicable to wall mounting. If you mount the charger on an ASP101 pedestal or CMS, please refer to the related installation guide.
- The recommended wire size of the power supply cable is 4 – 6 AWG (13.3 – 21.2 mm^2). Please only use 90 °C copper conductors or follow local regulations.
- For top entry or rear entry, use a power drill with the $1^1/_7$" (29 mm) step bit to drill two entry holes with a diameter of $1^1/_7$" (29 mm) or the $1^3/_8$" (35 mm) step bit to drill one entry hole with a diameter of $1^3/_8$" (35 mm).

3.3 Installing the Charger

DANGER

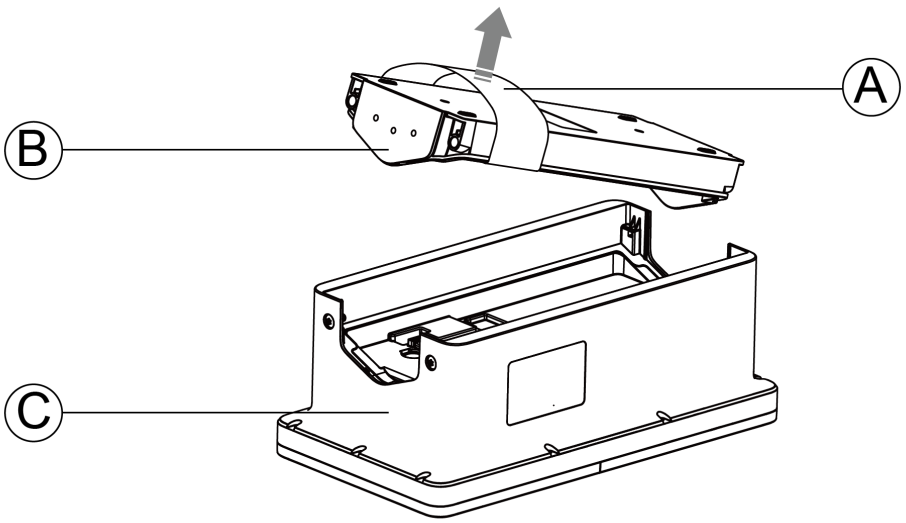
Risk of shock. Turn off the power to the outlet at the circuit breaker until the installation is completed.

NOTICE

It is suggested that the configuration be finished on the Autel Operation and Maintenance Platform before the installer installs the chargers. Refer to section *4.2.1* for more details.

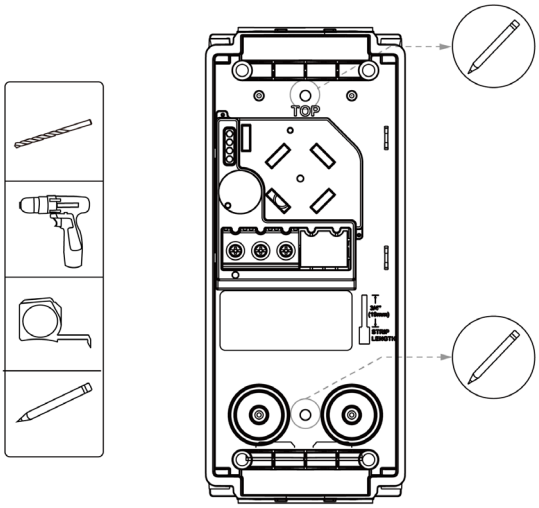
STEP 1

Pull the pull strap (**A**) upwards to detach the wire box **(B)** from the main unit **(C)**.



STEP 2

1. Drill two mounting holes on the wire box using a power drill with the drill bit being 0.24” (6 mm).
2. Place the wire box against the wall at a height of 33.5 – 45.3 inches (850 – 1150 mm).
3. Mark the two mounting holes on the wall using a marker and remove the wire box temporarily.

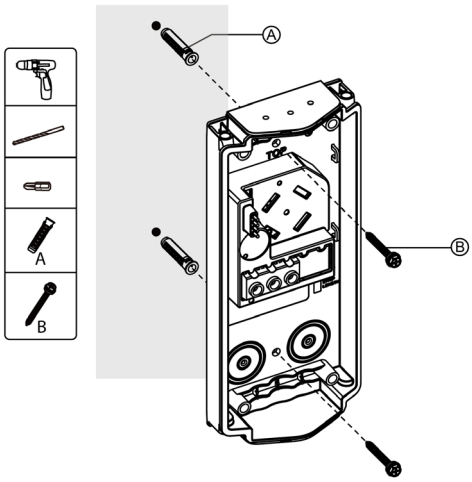


NOTICE

For top entry and rear entry, refer to section *3.2.2* and drill the entry hole or holes based on the real situation.

STEP 3

1. Drill the two mounting holes with a depth of 2” (50 mm) and a diameter of 5/16” (8 mm).
2. Tap the two wall anchors **(A)** into the holes.
3. Place the wire box against the wall, aligning with the two holes. Then insert and tighten the two ϕ1/5” (5 mm) x $1^{3}/_{5}$” (40 mm) self-tapping screws (**B**) using a power drill with the Phillips bit (PH2) to secure the wire box.



NOTICE

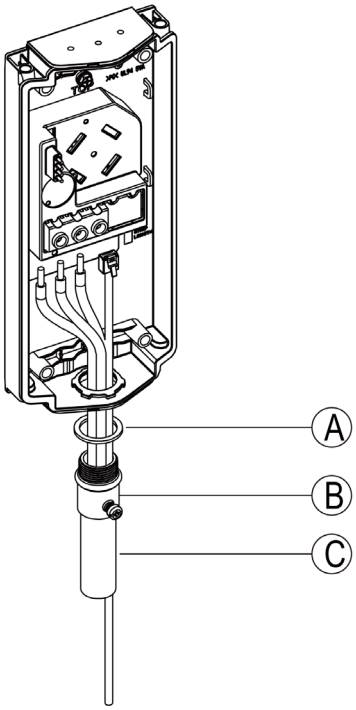
For rear entry, refer to the instructions on **Page 17** and route the power supply cable and data cable into the charger before securing it to the wall.

3.4 Cable Connection

Prepare conduits and conduit fittings in advance based on the real situation and use them as instructed. The instruction here is for the situation where the power supply cable and data cable enter the charger from the same entry hole.

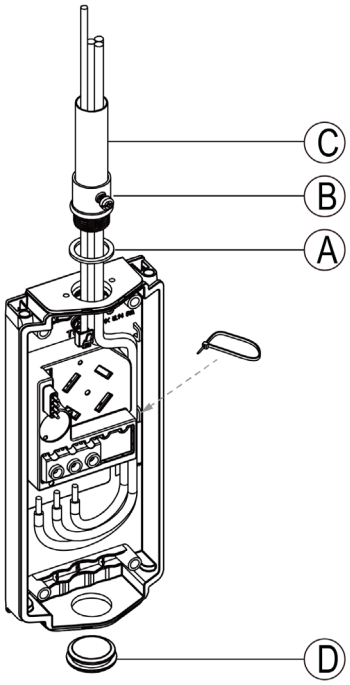
Bottom entry:

Route the power supply cable and data cable through the conduit **(C)**, the conduit fitting **(B)**, and the sealing ring **(A)** into the charger from the bottom.



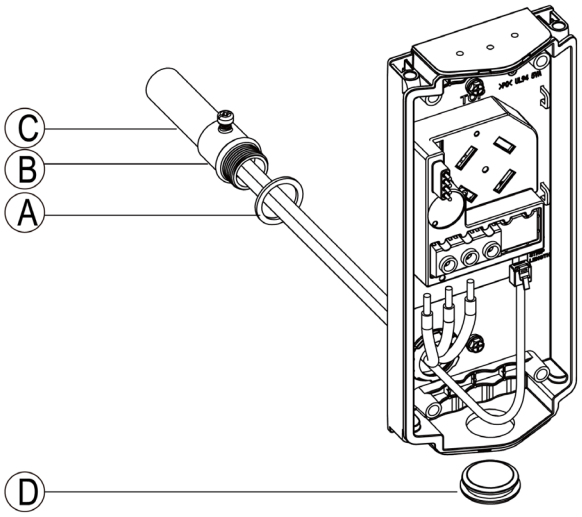
Top entry:

1. Route the power supply cable and data cable through the conduit **(C)**, the conduit fitting **(B)**, and the sealing ring **(A)** into the charger from the top.
2. Insert the blind sealing plug **(D)** to seal the entry on the bottom.



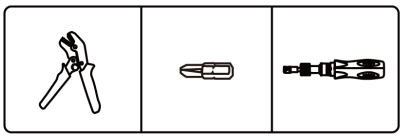
Rear entry:

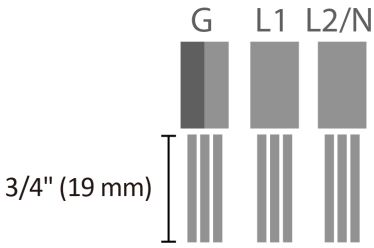
1. Route the power supply cable and data cable through the conduit **(C)**, the conduit fitting **(B)**, and the sealing ring **(A)** into the charger from the rear.
2. Insert the blind sealing plug **(D)** to seal the entry on the bottom.



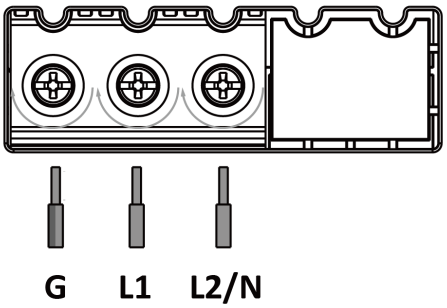
3.4.1 Power Cable Connection

1. Loosen the terminal screws using a Phillips screwdriver with a PH2 bit or a flathead screwdriver with the tip size being 1/4” (6 mm) x 0.035” (0.9 mm).
2. Strip the wires to 3/4 inch (19 mm) and push them into the holes.
3. Connect the wires (L1, L2, and Ground) according to the diagram and tighten each terminal screw to 18 lbf·in (2 Nm).
4. Use the zip tie to organize the cables (top entry only). See the table **above** for details.





18 lbf·in (2 Nm)

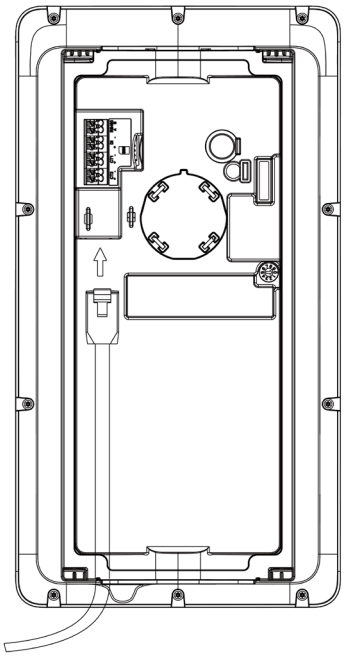


3.4.2 Internet Connection

This charger can be connected to the Internet via Ethernet, cellular network or Wi-Fi.

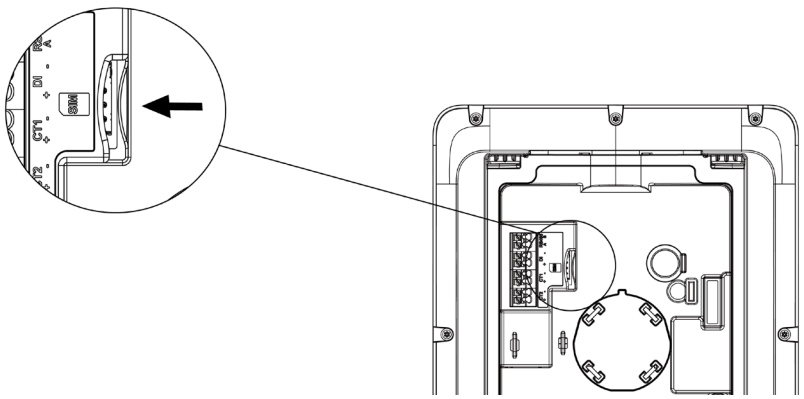
Ethernet Connection

Plug the Ethernet cable into the RJ45 port at the back of the main unit.



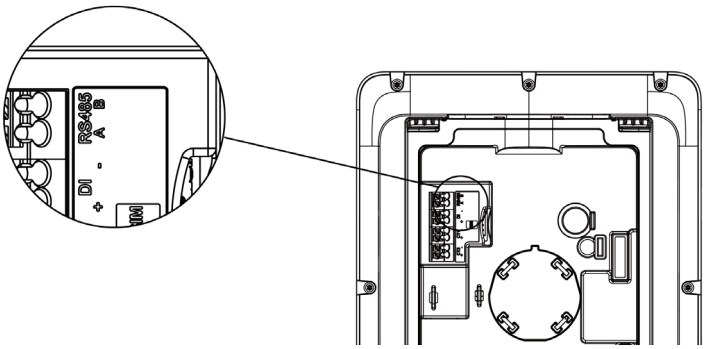
Cellular Network Connection (Optional)

Insert the SIM card to the card tray. Ensure the card is placed correctly.



3.4.3 RS485 Cable Connection (Optional)

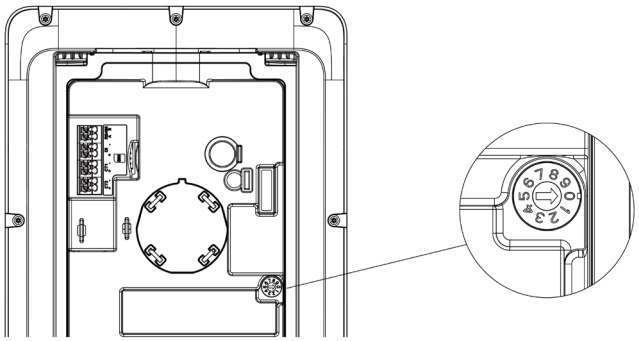
1. Use a flathead screwdriver to press and hold the buttons above the connector holes on the RS485 terminal block.
2. Connect the RS485-A wire to the port marked **A** and the RS485-B wire to the port marked **B**.



3.5 Adjusting the Rated Current (Optional)

The built-in DIP switch in this charger allows you to manually set a current lower than the maximum current when you install the charger on a circuit whose rating is lower than the maximum rating for the charger.

Locate the DIP switch on the back of the main unit. Then use a flathead screwdriver with the tip size being 1/8” (3 mm) x 1/40” (0.6 mm) to adjust the switch to the appropriate position according to the table below.



CAUTION

To reduce the risk of fire, only connect the charger to a circuit with a branch circuit over-current protection of 125% of the selected maximum amperage setting of the device in accordance with ANSI/NFPA 70 (US) CSA C22.1 (Canada).

Position	Amperage	Circuit Breaker Rating
0	16	20
1	16	20
2	24	30
3	32	40
4	40	50
5	48	60
6	50	70
7	50	70
8	50	70
9	50	70

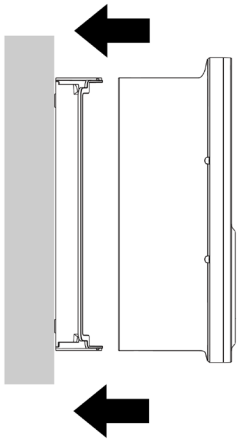
NOTICE

- When the DIP switch is at 0, the corresponding amperage is 16 A; when it is at 7, 8, and 9, the corresponding current is 50 A.
- The maximum current is limited by the power rating of a charger. For this model, the maximum current is 50 A.

3.6 Finishing Installation

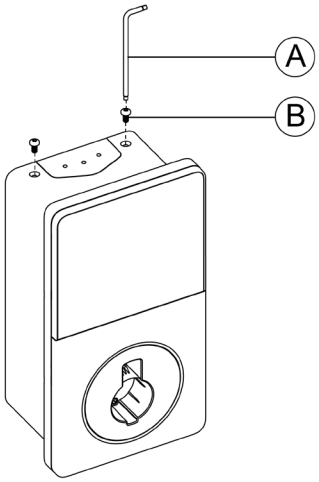
STEP 1

Push the main unit onto the wire box. Ensure they are securely attached.



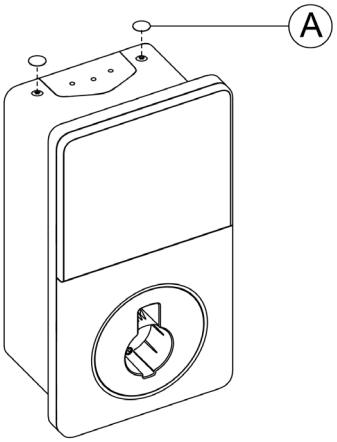
STEP 2

Install and tighten the two M1/5” (5 mm) x 2/5” (10 mm) screws (**B**) using the T25 Torx screwdriver (**A**) to secure the charger.



STEP 3

Install the two screw plugs (**A**). Ensure the contact pins fit the contacts in the main unit.



NOTICE

When pushing the main unit onto the wire box, fasten the bottom first and then the top. The installation is secure only when you hear two clicks from the bottom of the charger. After the installation, check the bottom to ensure the charger is free of leaks and gaps and that it is properly installed.

4 Operation

4.1 Powering On

- Ensure that the charger is installed according to the instructions in this manual.
- Ensure that all the screws are tightened to the correct torque after the wiring is completed and that there is no loosen screws at the terminal blocks.
- Ensure that there is no copper wire or debris left inside the charger before switching on the electrical power to the charger.
- Once all electrical connections are safely made, switch on the power to the circuit from the circuit breaker and wait for the power supply to come on. There will be a series of self-checks. Make sure that the charger works correctly and safely.

WARNING

Be careful when working with electricity.

4.2 One-stop Commissioning (For Commercial Use)

The commissioning of the chargers will be completed by the owner or the site operator, the installer, and the commissioning personnel. The steps are as follows.

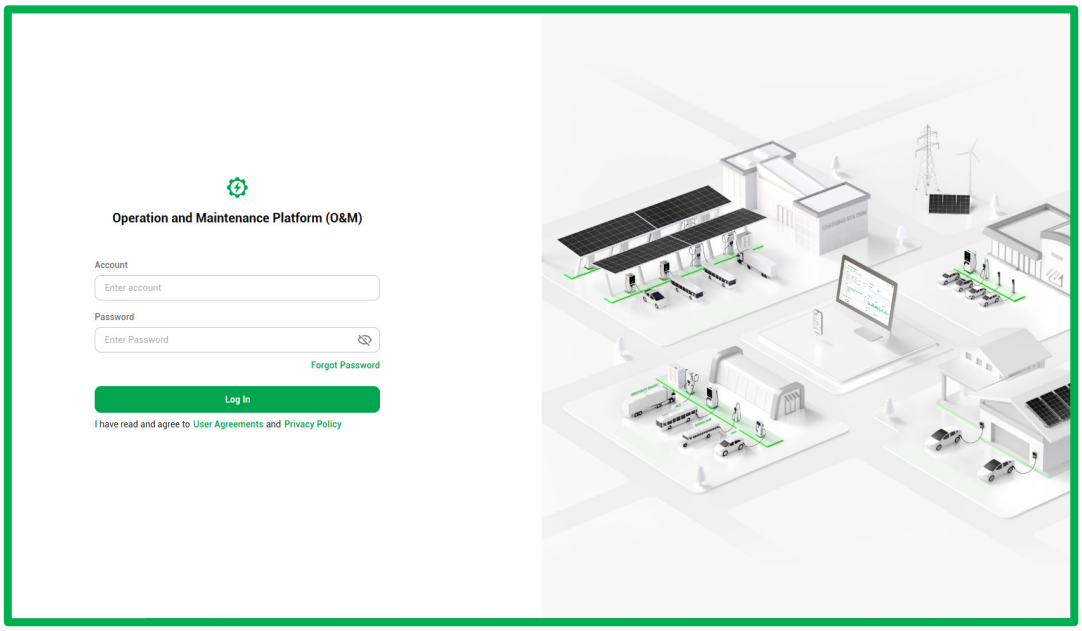
- The owner or the site operator adds the chargers, creates the site, configures the chargers and designates the installation ticket on the Autel Operation and Maintenance Platform (O&M).
- The installer installs the chargers and checks the installation.
- The commissioning personnel synchronizes the configuration to the chargers using the Autel Config app.

NOTICE

- The installer and the commissioning personnel can be two different people or the same person. Their role on the Autel Operation and Maintenance Platform (O&M) is **Installer**.
- The screenshots in this section are only for reference; the actual product may differ.

4.2.1 Configuration

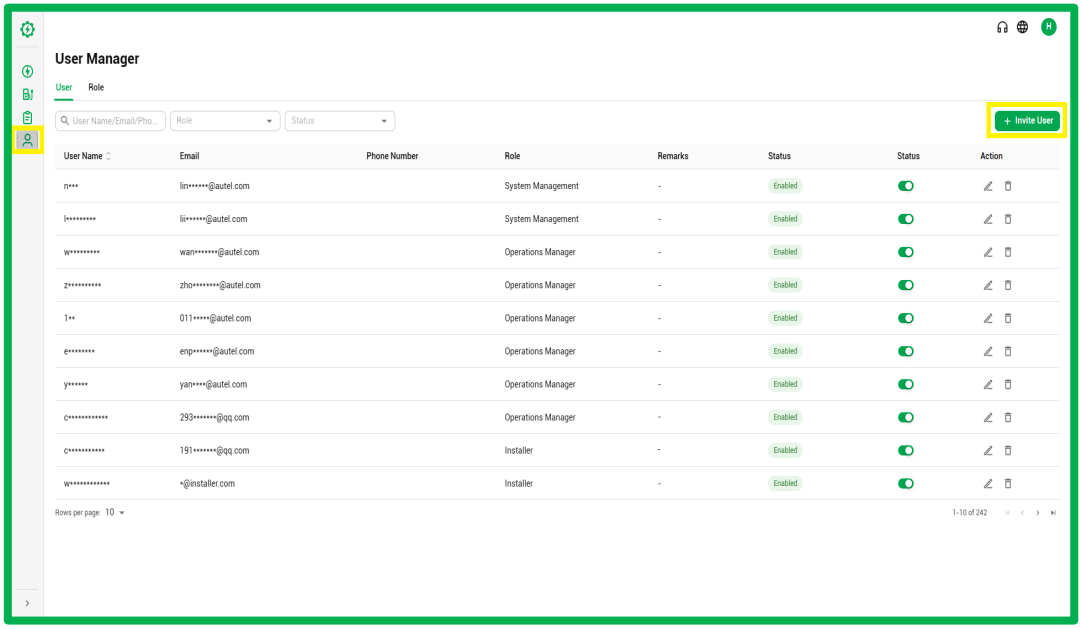
1. Log in to the Autel Operation and Maintenance Platform (O&M) by inputting the account and the password. The URL of the platform is https://omcb-us.autel.com/.

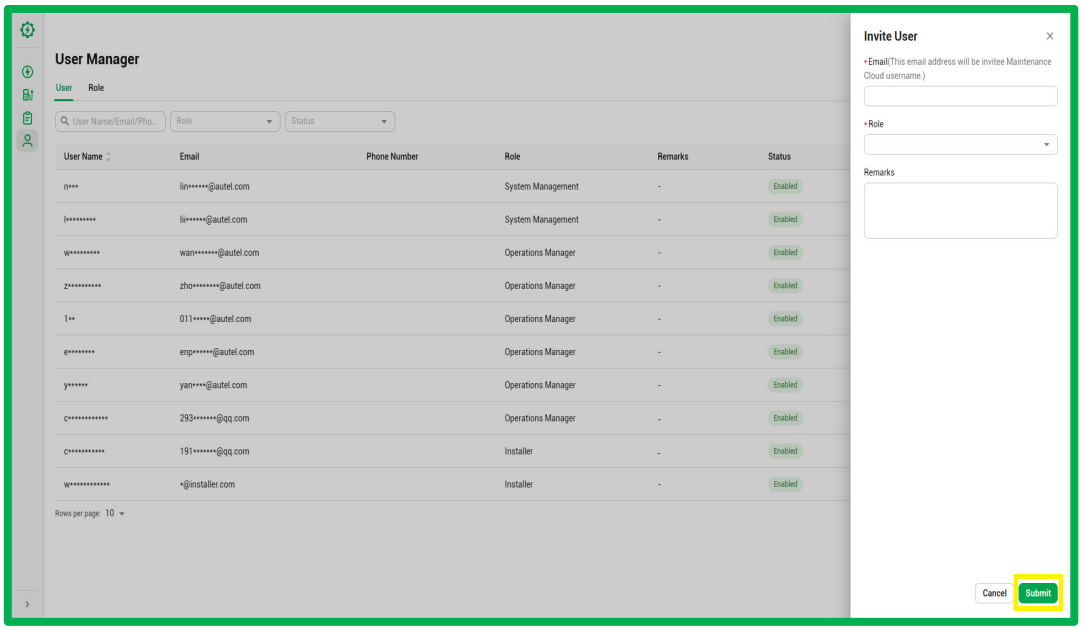


NOTICE

Autel will assign a merchant account to the customers whose purchase order can be checked in our system and send them an email where there is a link for them to set the password for their account. When the customers activate the merchant account, an email will be sent to the super administrators who can create their account and set the password via the link in the email. If you have any questions, contact Autel technical support or your local selling agent.

2. Click on the **+ Invite User** button on the User Manager screen, input the email of users that you want to invite and set their roles, and then click on the **Submit** button to proceed.

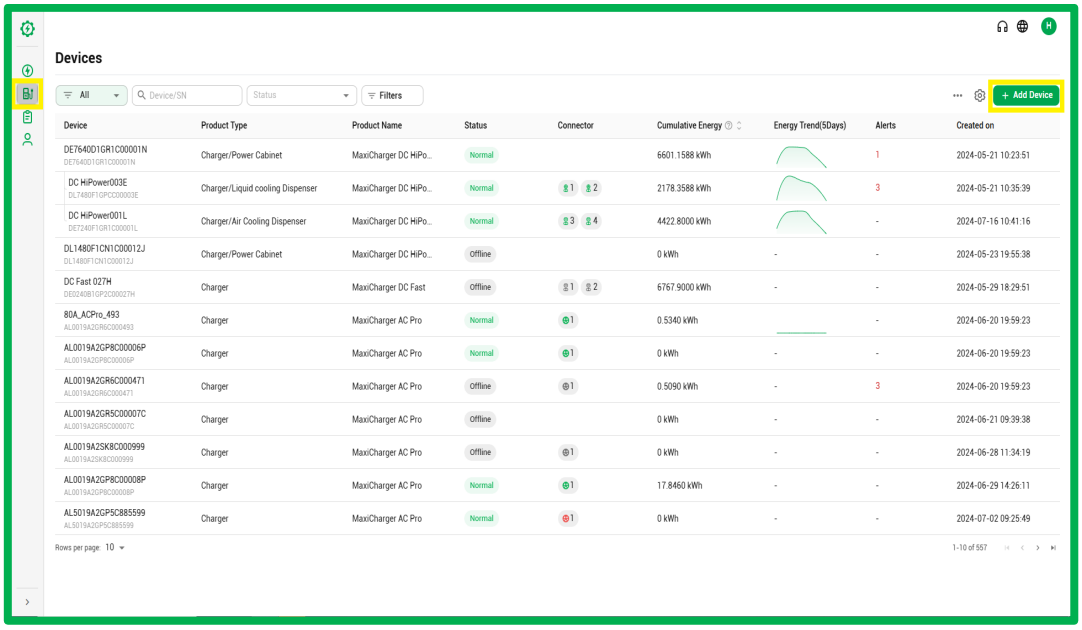


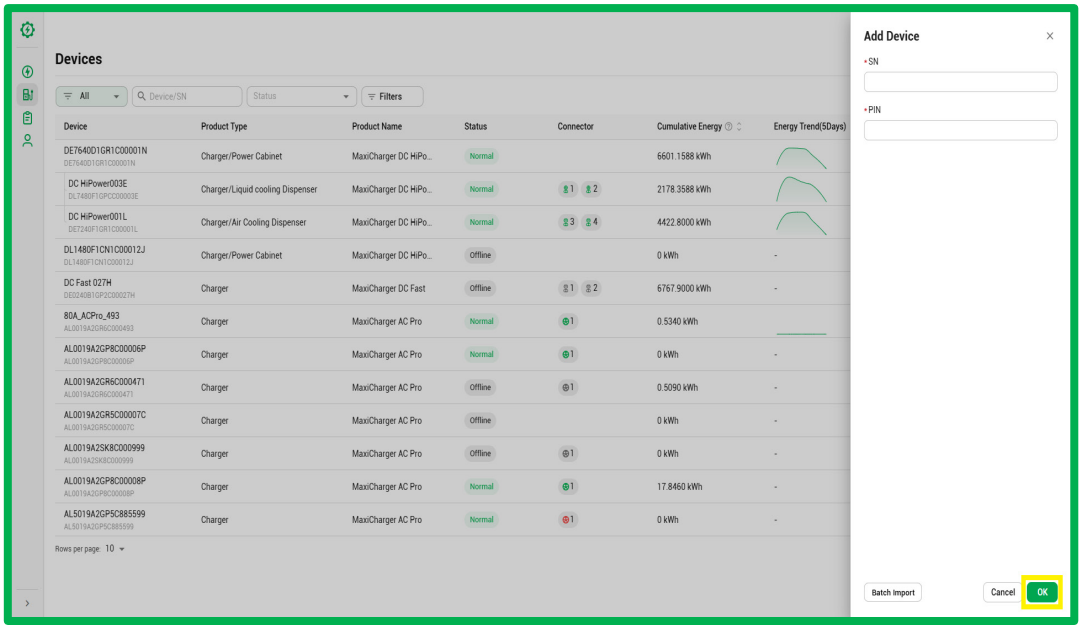


NOTICE

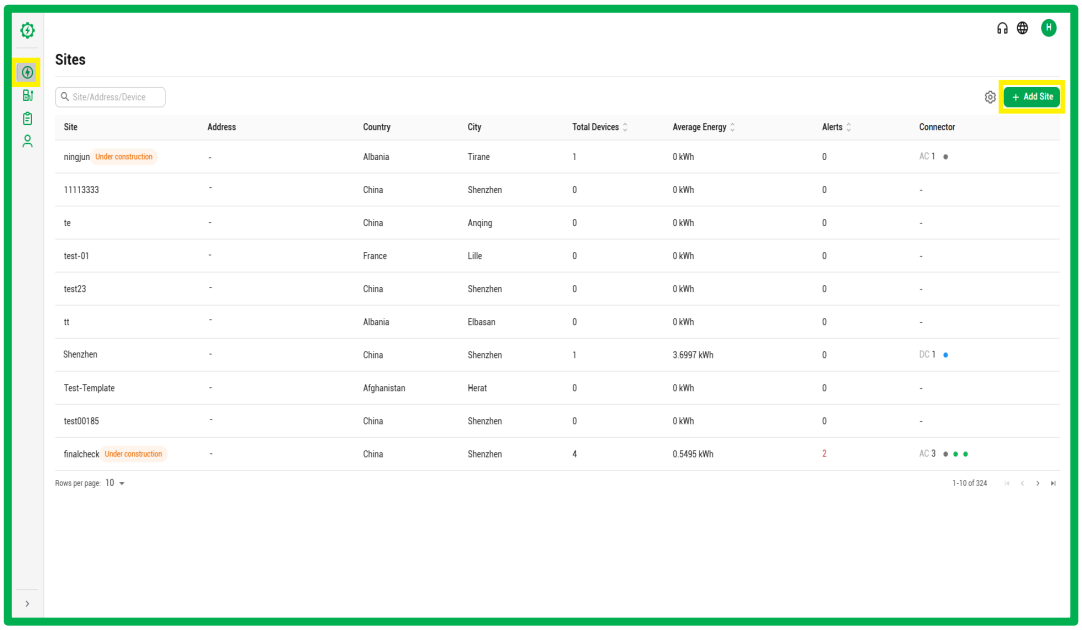
- The invitees need to activate their account in a timely manner via the link in the email sent to them after being invited. Otherwise, the owner or the site operator will not be able to assign the installation ticket to them.
- The email address left here will be the invitees' account for logging in to the Autel Config app and the password can be set via the link in the email.

3. Click on the **+ Add Device** button on the Devices screen, input the SN (serial number) and PIN of the devices that need to be configured to add them to the platform, and then click on the **OK** button to proceed. The SN can be found on the nameplate and the PIN can be found on the *Quick Reference Guide*.



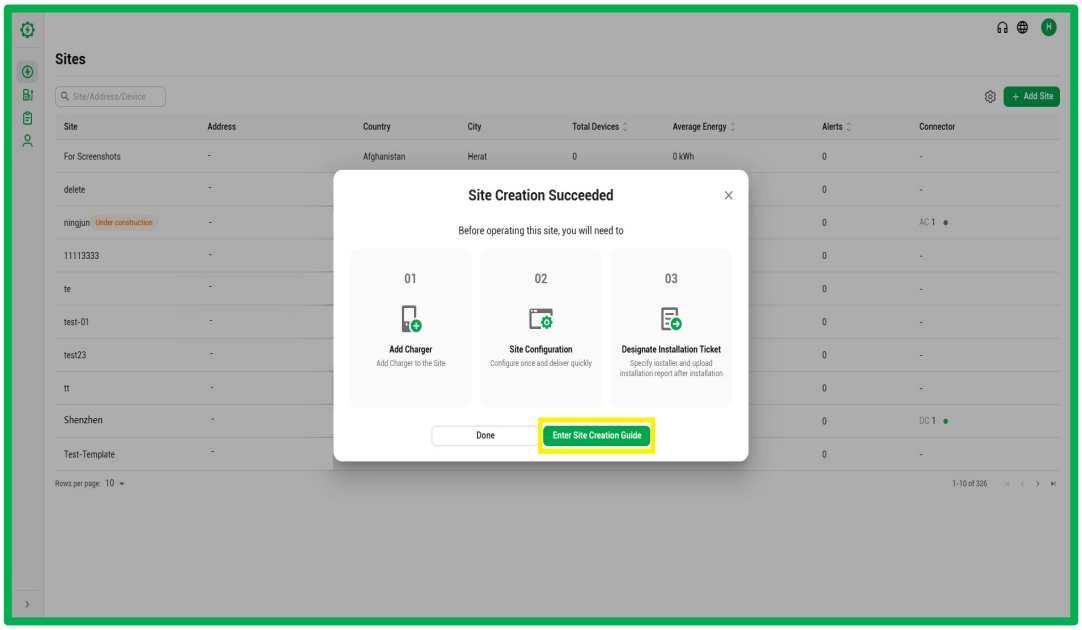


4. Click on the **+ Add Site** button on the Sites screen, input a name and select the region for the site, leave your name and email or phone number, and click on the **OK** button to create a site. Then click on **Enter Site Creation Guide** to proceed.

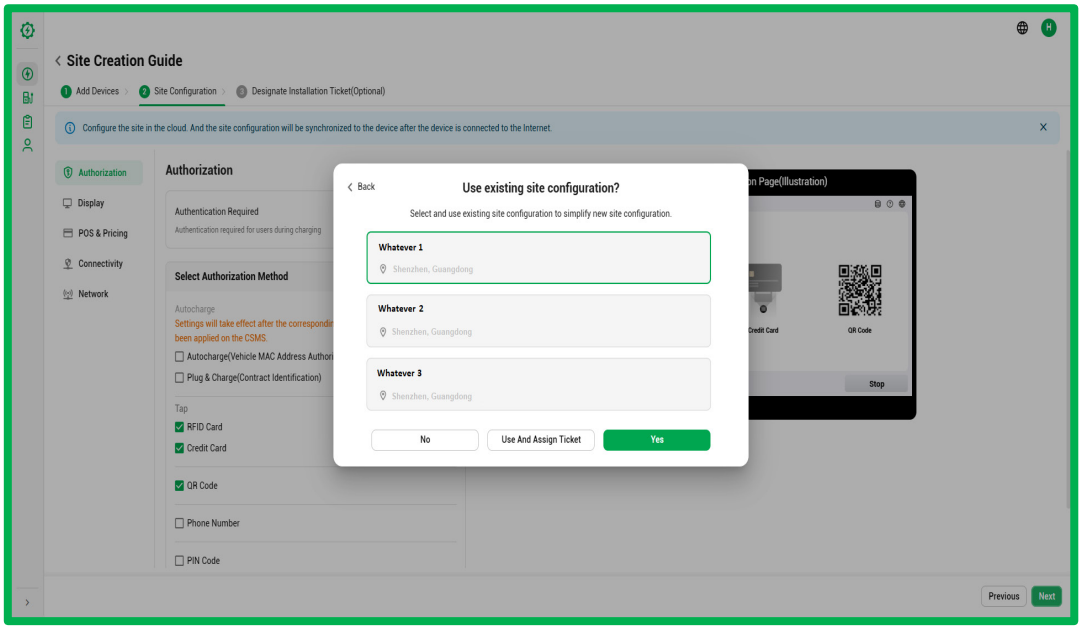


NOTICE

- You can choose to enter your phone number or email.
- If you choose to enter your email, you will receive notifications concerning the status of the installation ticket (confirmed or cancelled) and the installation work (started or completed).



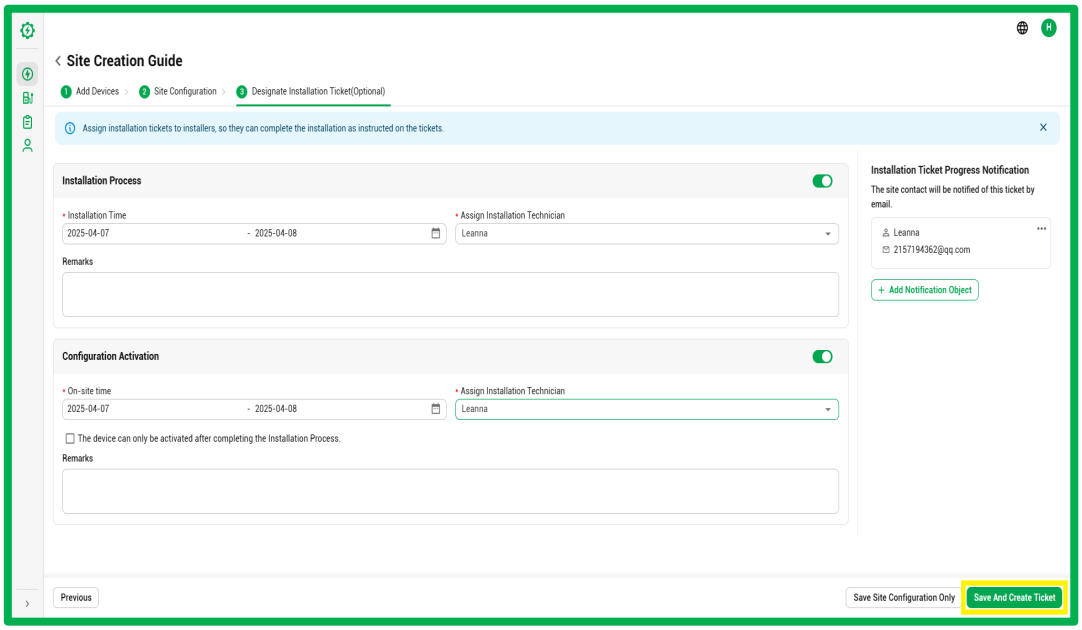
5. After entering the Site Creation Guide screen, add devices by selecting the devices that you need to configure. Next, conduct site configuration. For this, choose whether to use the existing site configuration or not. If you use the existing configuration, click on the **Use and Assign Ticket** button to assign the ticket directly or click on the **Yes** button and skip to the last step. If you don't, make such configurations as authorization, display, POS & Pricing, connectivity and Network for the devices.



NOTICE

The display configuration is available only when there are model 1 chargers in the site.

6. Select installation time and installation technician for **Installation Process** and on-site time and installation technician for **Configuration Activation**. The technicians that can be selected are users invited before. Click on **Save and Create Ticket** to assign the ticket.



NOTICE

Installation Process and **Configuration Activation** can be assigned to the same technician or two different technicians. If the two tasks are assigned to two different people, both of them should download and log in to the Autel Config app to complete their task separately. This manual does not offer instructions on conducting installation process.

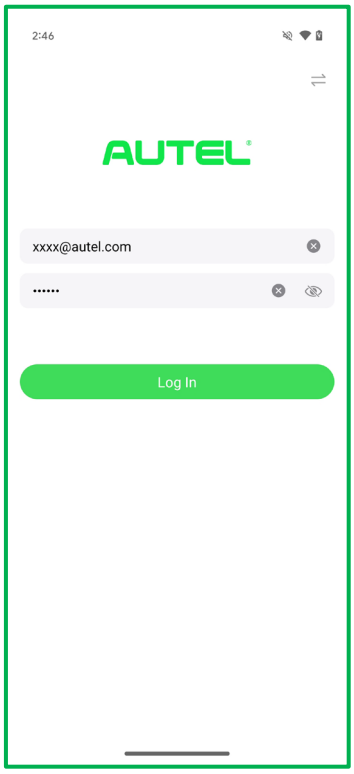
4.2.2 Commissioning

1. Scan the QR code below to download the Autel Config app to your mobile device from the Google Play or App Store.

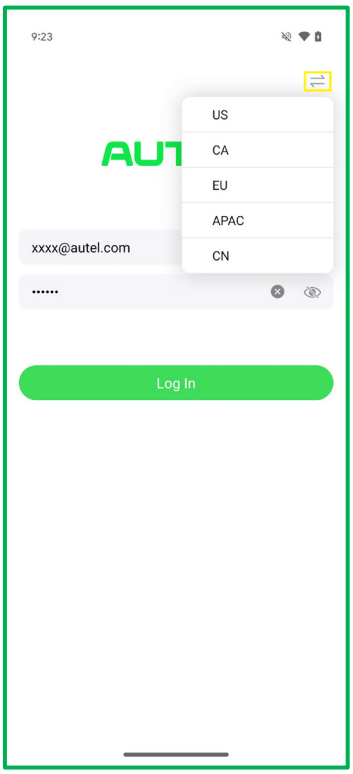
GET IT ON Google Play

Download on the App Store

2. Log in to the Autel Config app by inputting the account and password.



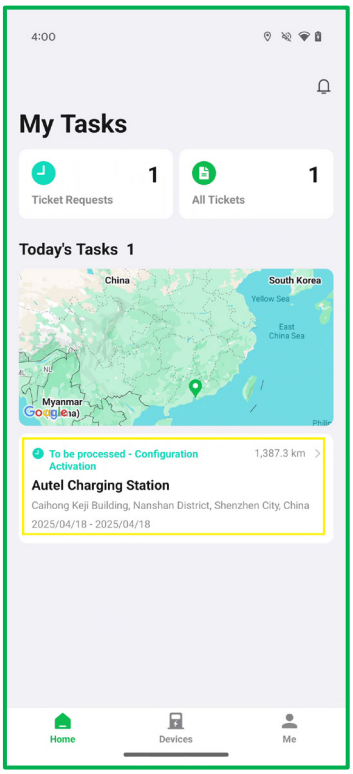
After logging into the app, switch the region manually if needed.



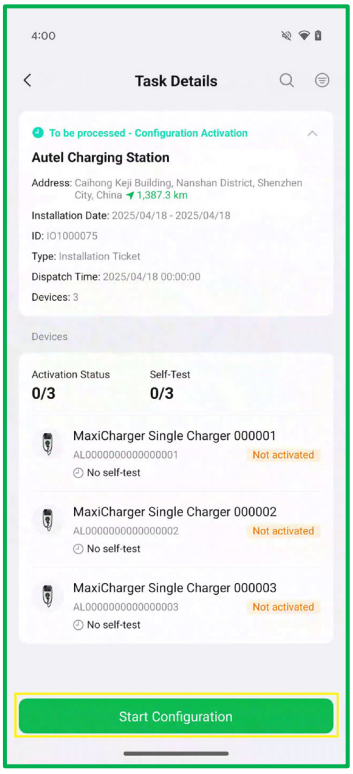
NOTICE

Make sure all devices and the Autel Config app are running the latest software versions.

3. On the My Tasks screen, click on the **Configuration Activation** task to check the task details.



4. On the Task Details screen, click on **Start Configuration** to proceed.



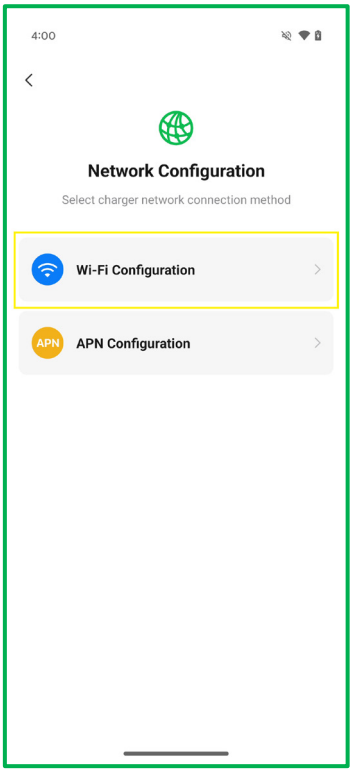
5. Click on the **Scan** button and scan the QR code on a device to synchronize the configuration.

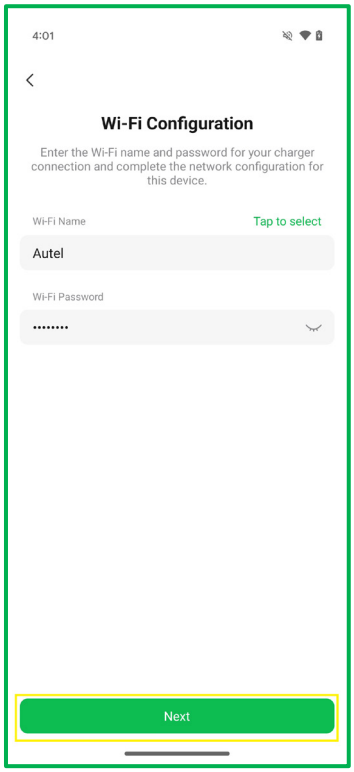
NOTICE

- For sites with SmartBox, scan the QR code on the body of a SmartBox first.
- For devices connected to the Internet via Wi-Fi or cellular card that needs APN configuration, scan the QR code to synchronize the configuration and activate them. For devices connected to the Internet via Ethernet or cellular card that does not need APN configuration, there is no need to scan the QR code with the Autel Config app because these devices will get activated automatically after being powered on.

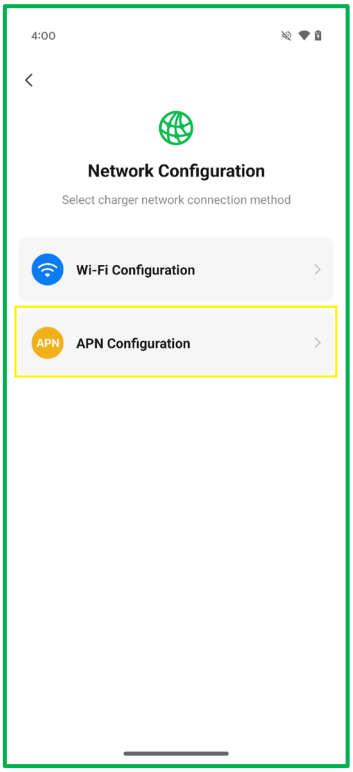
6. Configure the network for the device.

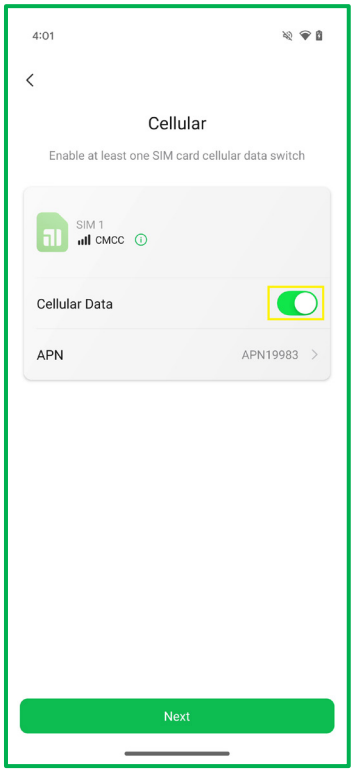
1) Select **Wi-Fi Configuration** and configure the Wi-Fi for the device by entering the Wi-Fi name and password. Then click on the **Next** button to proceed.





2) Select **APN Configuration** and enable the cellular data switch of the SIM card. Then click on the **Next** button to proceed.

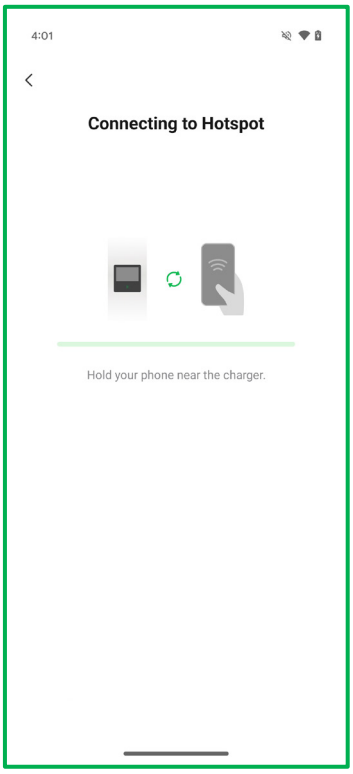




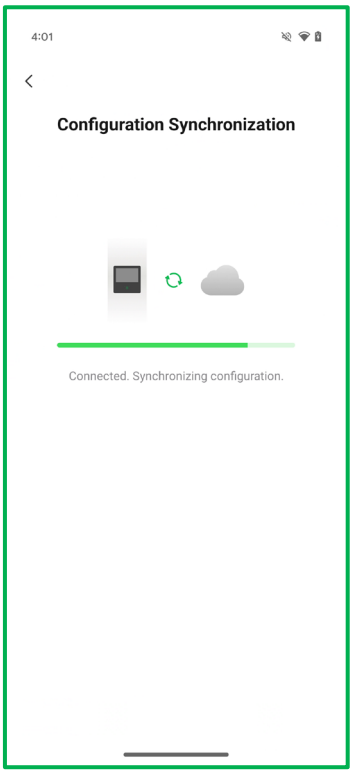
NOTICE

If the Wi-Fi or APN has been configured during the site creation and configuration, its name and password will be entered by default. A new Wi-Fi or a new APN can be set manually.

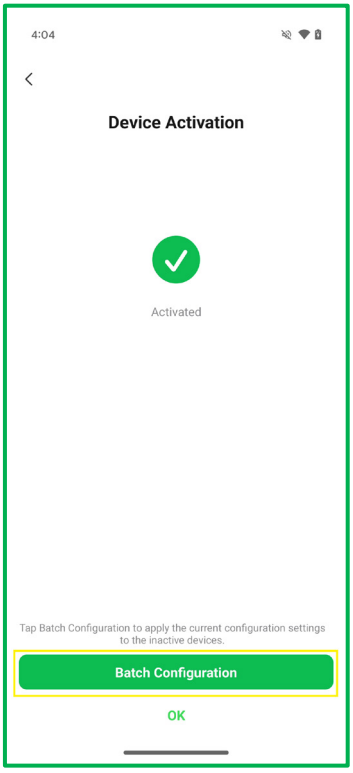
7. Hold your phone near the device to connect to its hotspot.



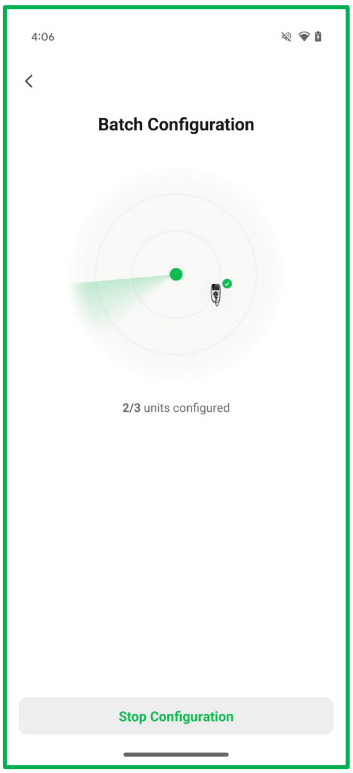
8. After your phone is connected to the hotspot of the device, the configuration will be synchronized to the device.



9. After the configuration is synchronized, the device will get activated. Tap **Batch Configuration** to apply the current configuration settings to the inactive devices.



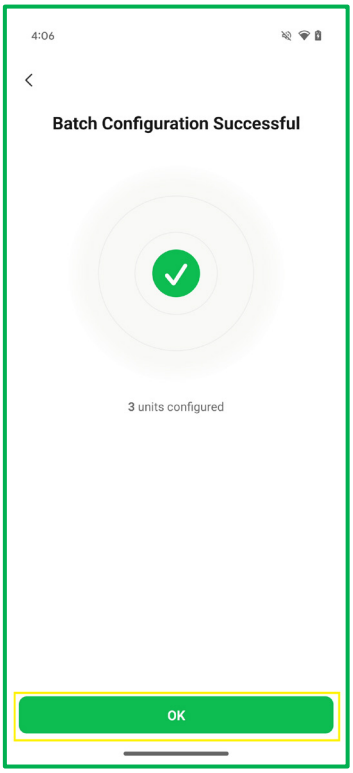
10. The batch configuration will be completed automatically. During the configuration process, the inactive devices will get activated and restart. You can check the process on the screen.

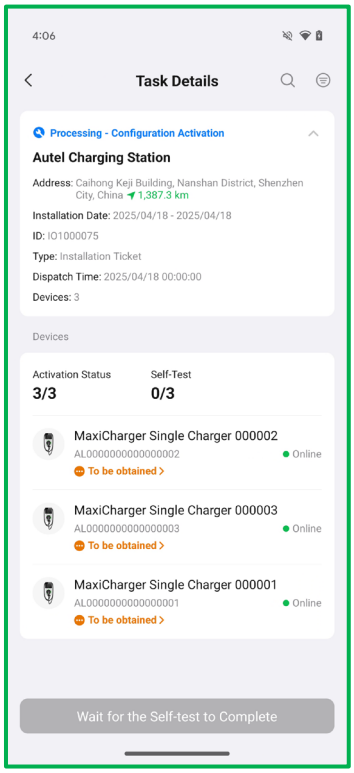


NOTICE

If it takes a long time to apply the current configuration settings to some inactive devices, you can click on **Stop Configuration** or the **<** icon on the upper left corner of the Batch Configuration screen to go back to the Task Details screen so that you can see which devices are not activated. Scan the QR code on the screen or body of the devices individually to apply the configuration settings.

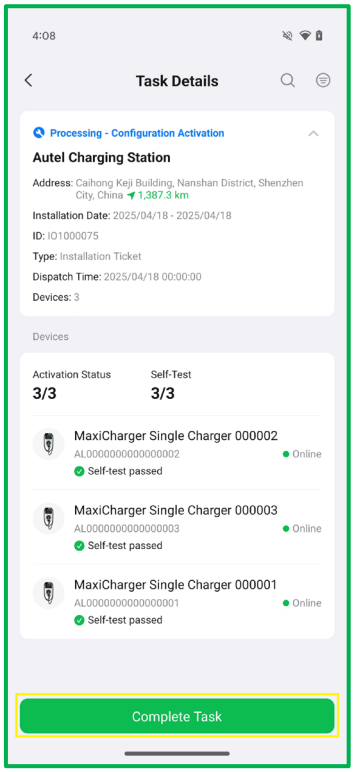
11. After the batch configuration is successful, click on the **OK** button to go back to the Task Details screen.



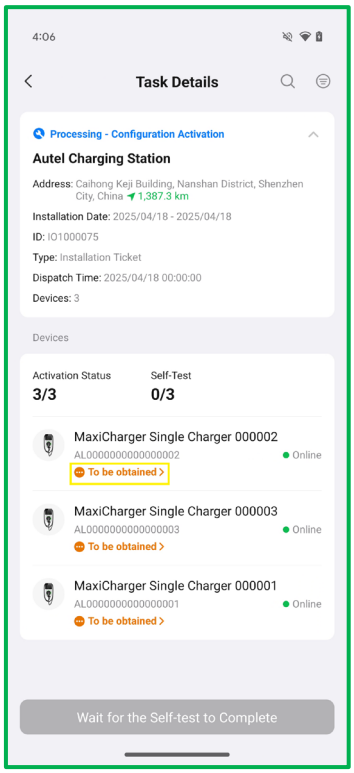


12. Wait for the self-test to complete.

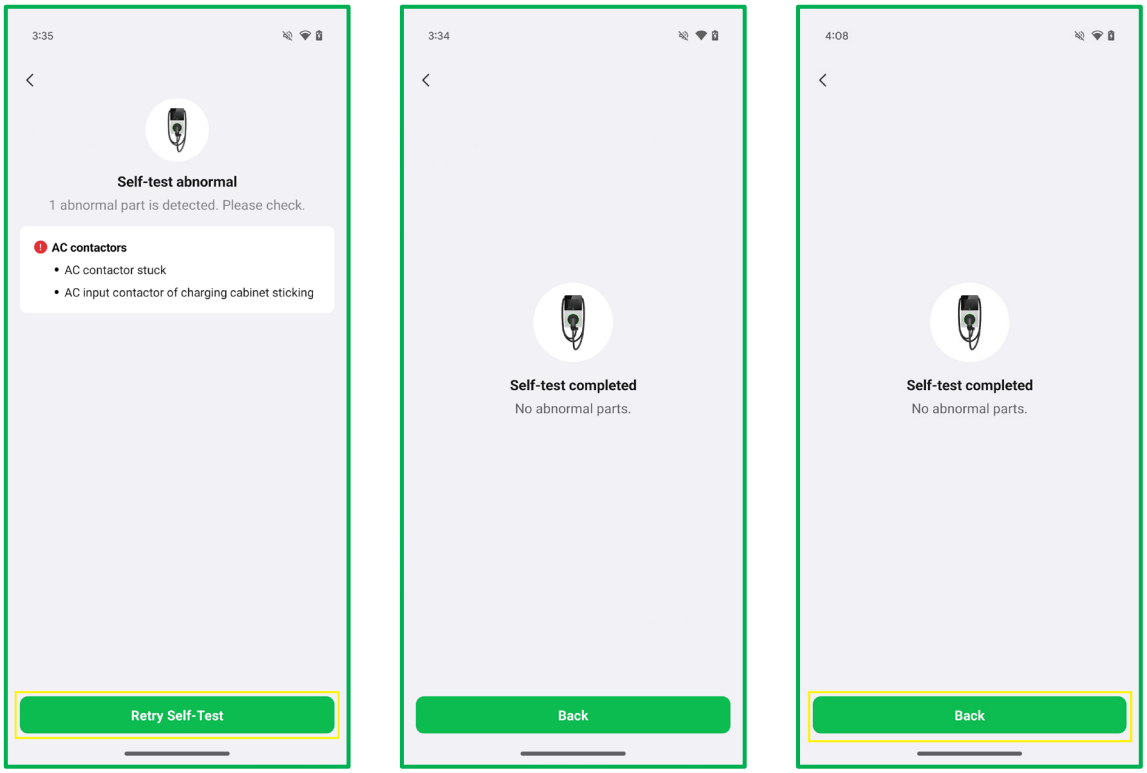
1) If all devices pass the self-test, click on **Complete Task** to end the task of Configuration Activation.



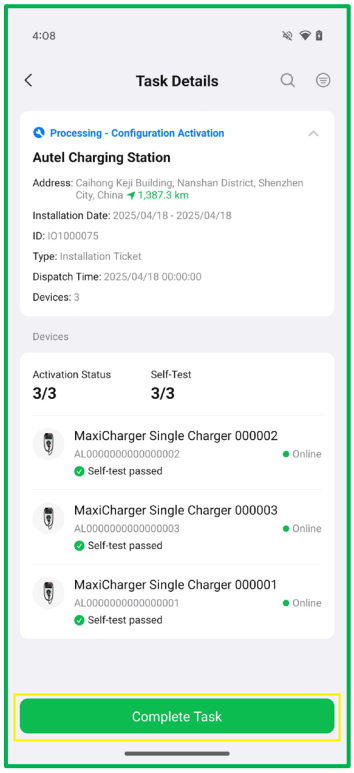
2) If the self-test is abnormal for some of or all of the devices, click on **Self-test abnormal** below the device's SN to check what is abnormal.



I. Check the abnormal parts shown on the screen and click on **Retry Self-test**. Then wait for the self-test to complete again. After the self-test is completed, click on **Back** to go back to the Task Details screen.



II. On the Task Details screen, click on **Complete Process** to end the task of Installation Process.



4.3 Adding the Charger (For Residential Use)

1. Scan the QR code below to download the Autel Charge app to your mobile device from the Google Play or App Store. For iOS users, you will be redirected to the App Store; for Android users, you will be redirected to the Google Play.

2. Open the Autel Charge app on your mobile device, and log in with your phone number or email. If you do not yet have an account, register with your phone number first.

3. Scan the QR code or manually enter the SN and PIN from the *Quick Reference Guide* to add the charger.

4. Follow the on-screen instructions to connect your charger via its hotspot and connect it to the Internet. Then choose a desired function to start.

NOTICE

The hotspot of the charger can be opened by tapping the button on the connector.

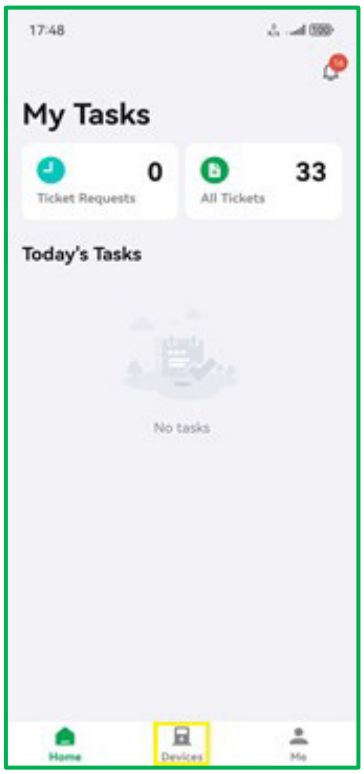
4.4 OCPP Settings

The OCPP parameters can be set via the Autel Config app.

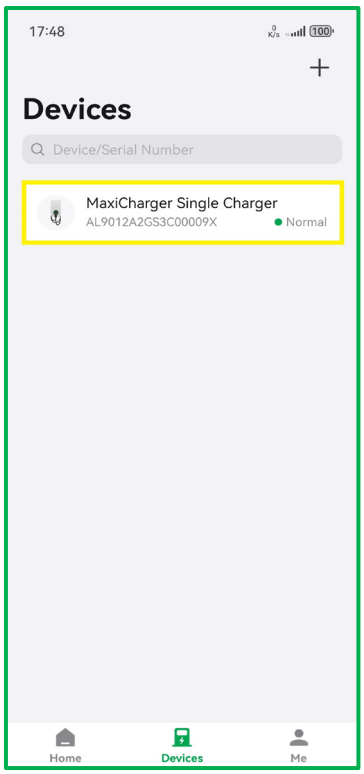
NOTICE

- The OCPP parameters should be set by an installation engineer.
- The screenshots in this section are only for reference. Please refer to the actual product.

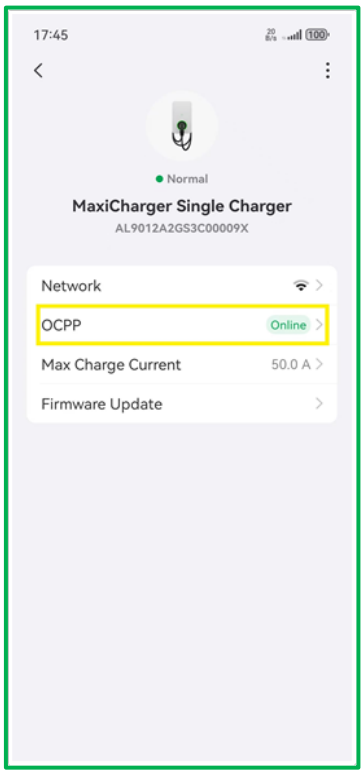
1. On the My Tasks screen, tap Devices to proceed.



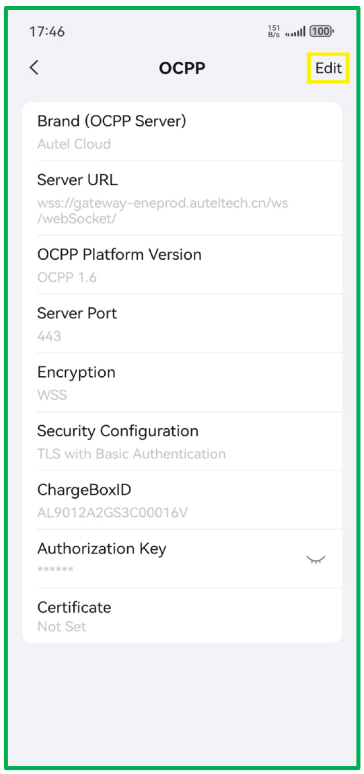
2. On the Devices screen, select the charger that needs OCPP settings.



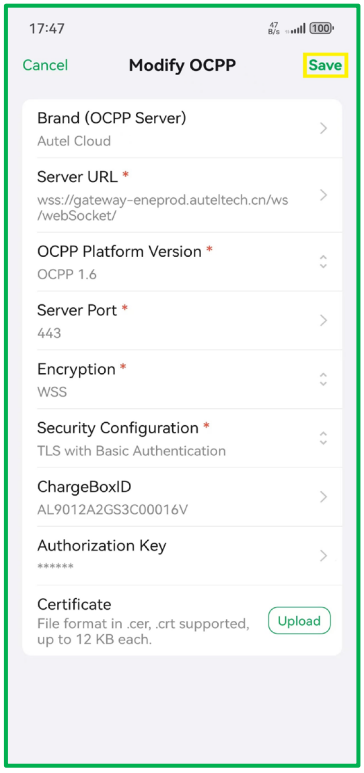
3. Tap **OCPP** to proceed.



4. On the OCPP screen, tap Edit on the upper-right of the screen.



5. Set the OCPP parameters under the guidance of the on-screen instructions. After the setting is completed, tap Save on the upper-right of the screen to save the settings.



NOTICE

Make sure the URL you type is correct and without space.

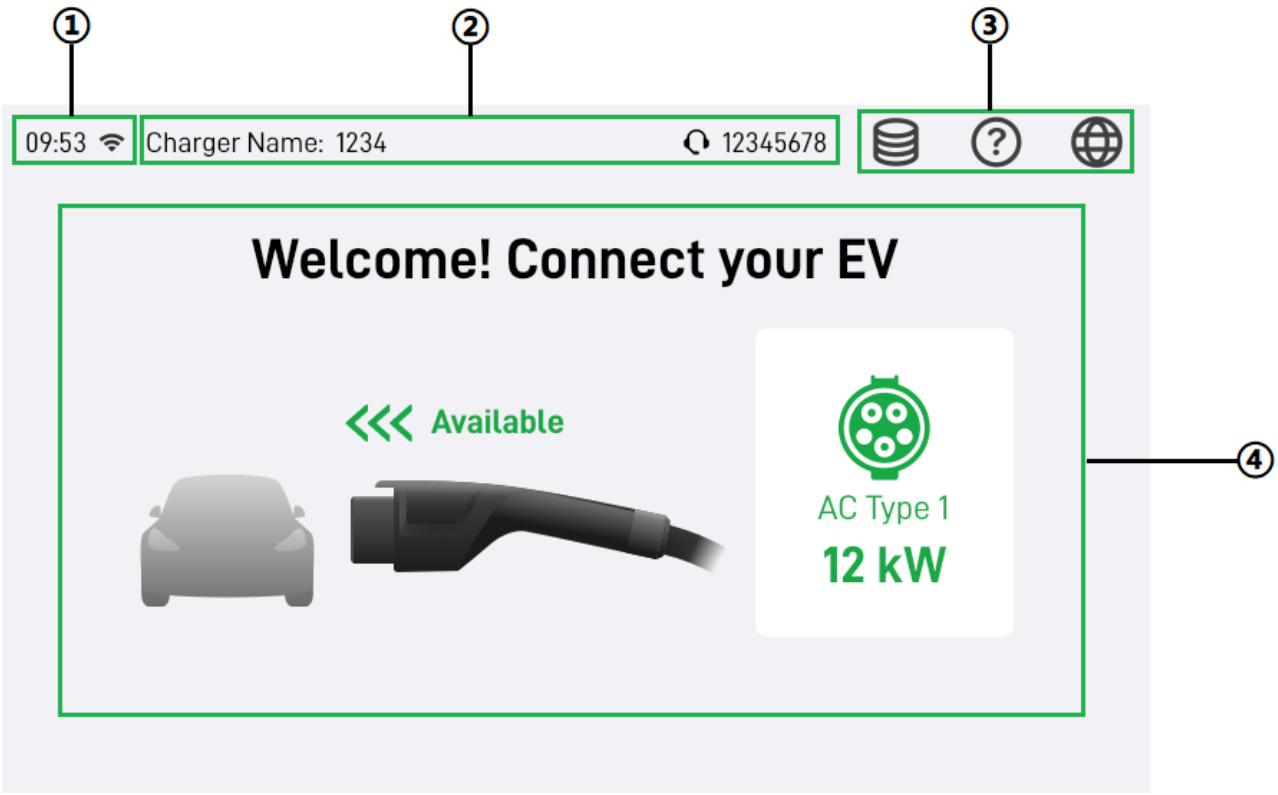
4.5 Display Descriptions

NOTICE

This section is only applicable to model 1. The images are subject to change; please refer to the actual product.

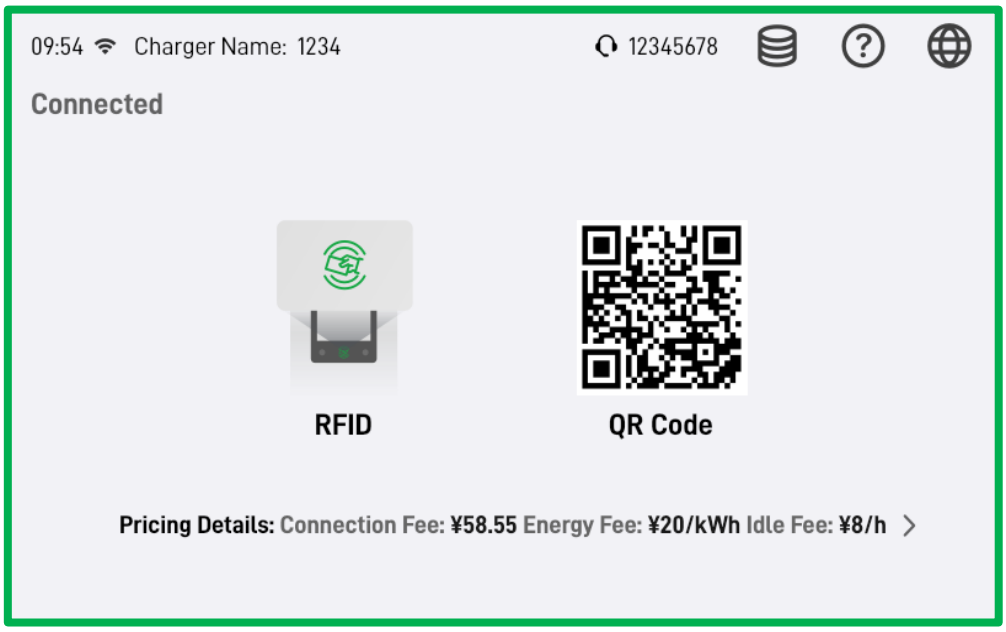
Chargers with an LCD

Standby Screen



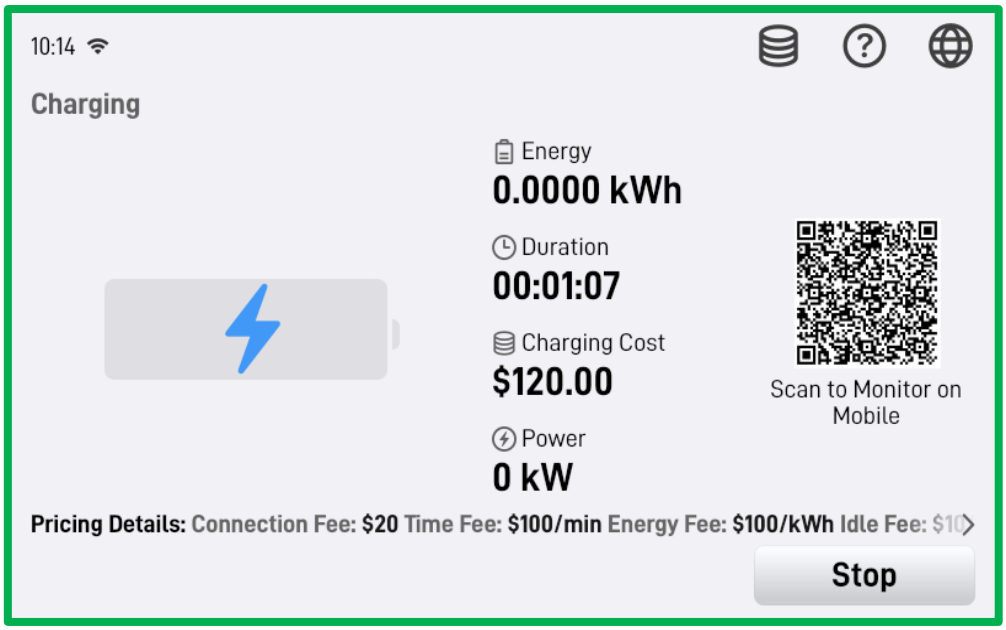
1. Time and Network icon – an x appearing at the lower corner of the Internet icon indicates the charger is not connected to the Internet
2. Charger name and Hotline
3. Pricing details, user guide, and languages
4. Main screen – demonstrates connector information

Authorization Screen



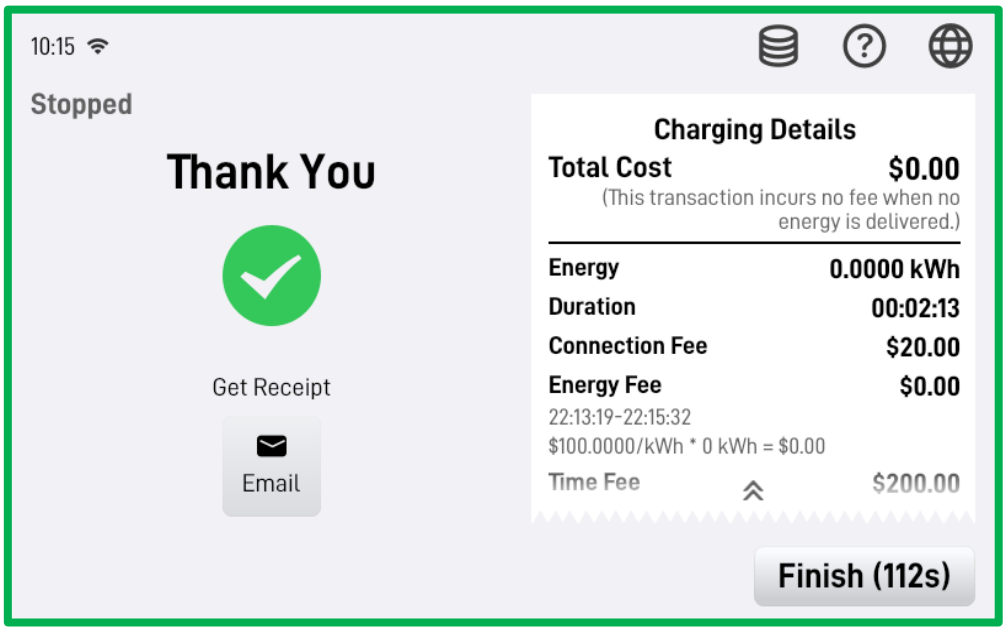
Choose a method (RFID card or QR Code) to authorize charging on the Authorization Screen.

Charging Screen



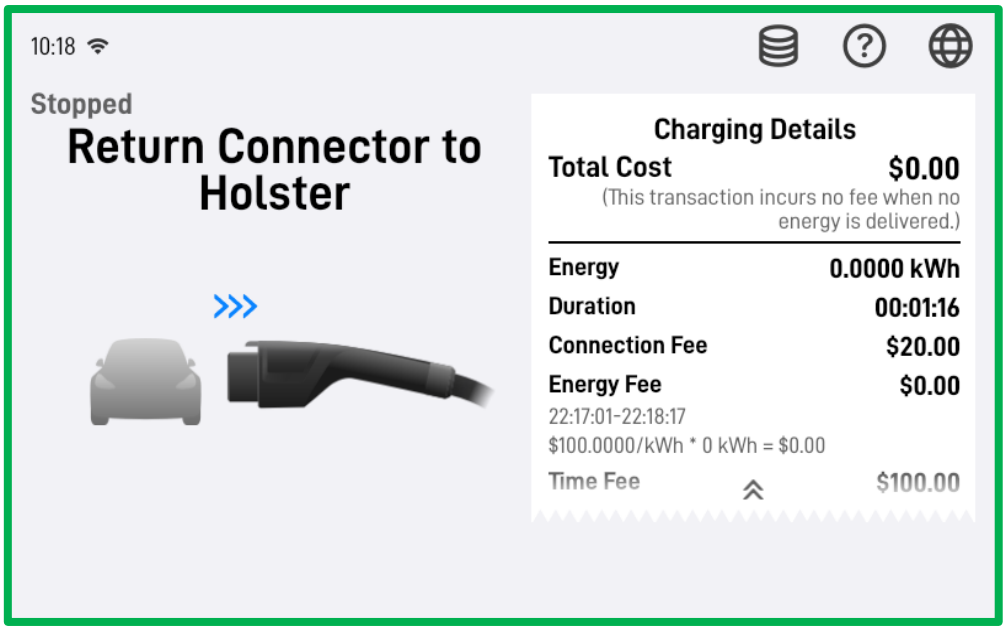
Once the connector is properly connected, the vehicle will establish communication with the charger and a charging session will start. During the session, the screen will display information such as energy, duration, charging cost, power, and pricing details.

Charging Stopped Screen



After a charging session is stopped, the screen will display the charging details.

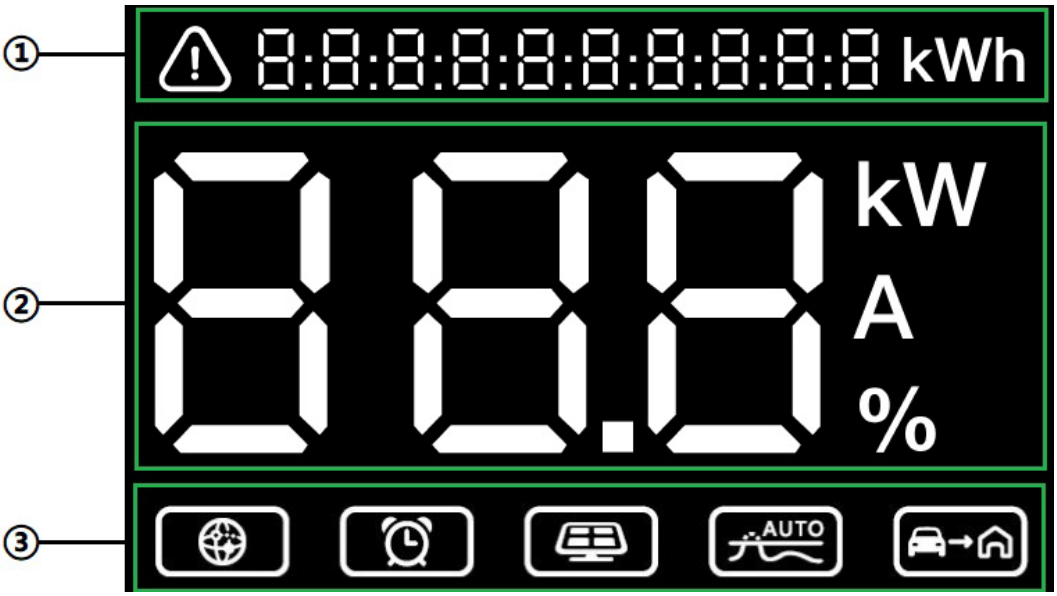
Returning Connector Screen



After finishing charging, return the connector to the holster.

Chargers with a digital tube display

The digital tube display includes three display areas: top, middle, and bottom. Details are as follows:



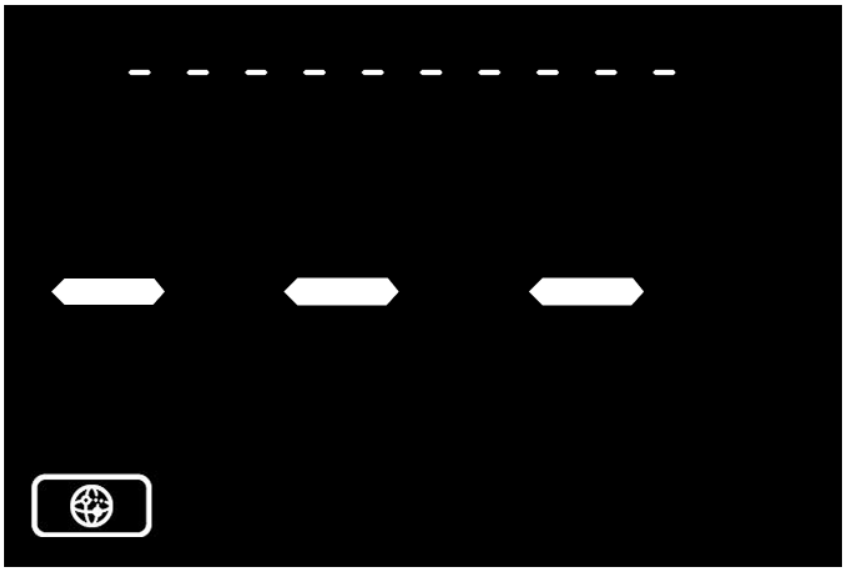
1. Energy, error code, or time
2. Current, power, or state of charge
3. Status indicators (see the table below for more details)

Descriptions of the Status Indicators at the Bottom (from left to right)

Indicator	Status	Description
Network Status Indicator	**Steady On**	The device is connected to the Internet.
	Steady Off	The device is not connected to the Internet.
Timing Status Indicator (Residential Model) **Reservation Status Indicator (Commercial Model)**	**Steady On**	The charging process is timed. (Residential model) Countdowns are proceeding in the reservation state. (Commercial model)
	Steady Off	➢ The connector is not connected to an EV. ➢ No scheduled charging is set.
PV Charging Status Indicator	**Steady On**	The full green charging mode or the green priority charging mode is configured.
	Steady Off	The full green charging mode and the green priority charging mode are not configured.
ALM / DLB Status Indicator	**Steady On**	The ALM mode or DLB mode is configured.
	Steady Off	The ALM mode or DLB mode are not configured.

Vehicle-to-Home (V2H) / Vehicle-to-Grid (V2G) Status Indicator	**Steady On**	The V2H mode or V2G mode is configured.
	Steady Off	The V2H mode and V2G mode are not configured.

Inactivated Screen



- Top display area: displays “-” in each number
- Middle display area: displays “- - -”
- Bottom display area: displays status indicator(s) based on the real situation

Standby Screen

- Top display area: displays time
- Middle display area: displays rated voltage
- Bottom display area: displays status indicator(s) based on the real situation

Charging Screens


00:00:00
50.0
A


0.0008 kWh
12.0
kW

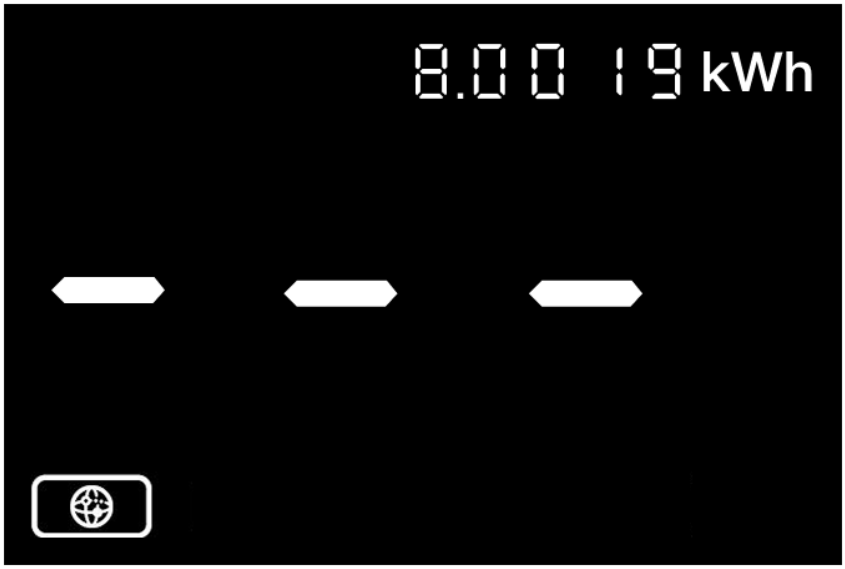

78.0019 kWh
12.0
kW

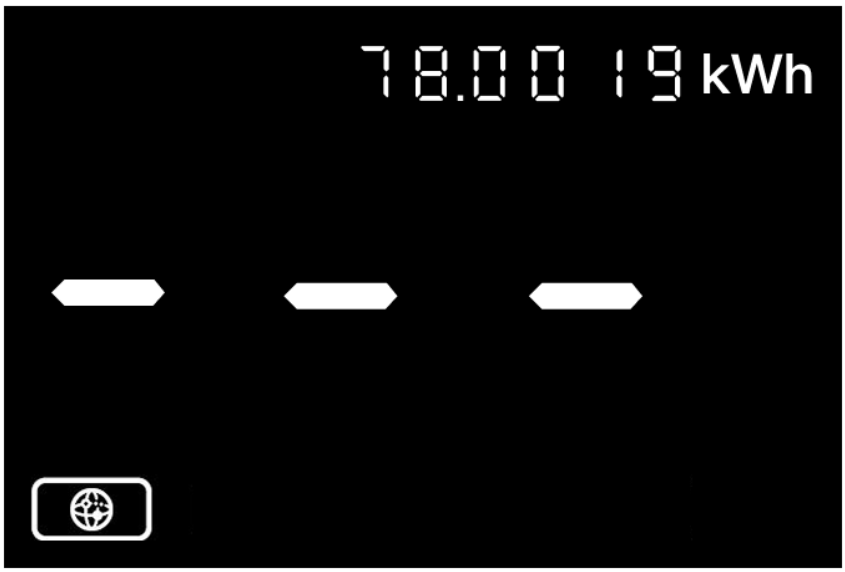
- Top display area: displays duration, charged energy in the current period, and total energy alternately, switching every 10 seconds
- Middle display area: displays current and power alternately, switching every 10 seconds
- Bottom display area: displays status indicator(s) based on the real situation

NOTICE

When the top display area displays duration, the middle display area will display current; when the top display area displays energy, the middle display area will display power.

Charging Stopped Screen





- Top display area: displays charged energy in the current period and total energy alternately, switching every 10 seconds
- Middle display area: displays “- - -”
- Bottom display area: displays status indicator(s) based on the real situation

4.6 Starting Charging

1. Remove the connector from the holster.
2. Plug the connector into an EV's charging port.
3. Choose one of the following ways to start a charging session:
   - Use the Autel Charge app by tapping **Start** on the Charging screen.
   - Tap your RFID card on the RFID reader.
   - If the Auto Start function is enabled in the Autel Charge app, the charger will automatically start charging once the connector is properly connected.
   - If you have set a charging schedule in the Autel Charge app, the charger will initiate a charging session automatically as scheduled.
   - If the charger has a display, tap on the touchscreen and authorize charging via QR code or RFID card.

NOTICE

Ensure that the EV is charging. If charging issues persist, try reconnecting the connector or contact Autel technical support.

4.7 Stopping Charging

NOTICE

- If the connector is unplugged from the EV during a charging session, the charger will automatically disconnect the power supply. This stops all charging operations.
- When the vehicle is fully charged, the charger will automatically disconnect the power supply.

1. To stop charging, choose any of the following ways:
   - Wait for the charging session to end and no further actions are required in the case of scheduled charging or Auto Start.
   - Tap the **Stop** button on the Charging Screen of the Autel Charge app.
   - Tap the RFID card on the RFID reader.
   - If the charger has a display, tap **Stop** on the Charging Screen.
2. Unplug the connector from the EV and return it to the holster.

4.8 LED Descriptions

LED Descriptions

Color	Light	Description
Yellow	**Solid Yellow**	➢ The charger is disabled after being activated. ➢ The charger is upgraded.
Green	**Solid Green**	The charger is available.
	Breathing Green	The charger is not activated.
	Flashing Green	The charger is being activated.
	Streaming Green	Batch configuration status.
Blue	**Solid Blue**	➢ The connector is plugged into an EV and the charger waits for authentication. ➢ An EV finishes charging and the connector waits for being removed from it.
	Breathing Blue	Charging status.
Red	**Solid Red**	➢ Malfunction status. ➢ The charger is unavailable.
Cyan	**Solid Cyan**	The charger has been reserved.
	Cyan light flashes three times.	The charger's hotspot is opened manually.

5 Troubleshooting

Item	Problems	Solutions
1	The charger is successfully added, 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.
2	The charging session does not start as scheduled.	Do not insert the connector into your EV charging port before setting up a charging schedule for the first time. Insert the EV charging cable after the schedule is set up.
3	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 276 V, 115 % of the rated voltage (240 V), contact local power grid company.
4	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 166.4 V, 80 % of the rated voltage (208 V), contact local power grid company.
5	Ground fault	Ensure the charger is grounded correctly.
6	Power failure	Ensure the switch to the circuit breaker is on.
7	Over-heating	➢ Check whether the EV charging cable is securely connected. ➢ Ensure the operating temperature is within the specified range on the product label. ➢ Stop charging. Restart charging until it is within the operation temperature range.
8	Residual current detected	Unplug the vehicle and plug in again. If the problem persists, contact customer support.

9	Bluetooth communication failure	➢ Ensure the Bluetooth is enabled on your mobile device and the charger is powered on and operating properly. ➢ Forget the charger in the Bluetooth settings on your mobile device and pair the charger to your device via Bluetooth again. ➢ If the problem persists, contact customer support.
10	Update failure via Bluetooth	➢ Make sure the charger is in idle status. ➢ Make sure the Bluetooth connection is working properly. ➢ If the problem persists, contact customer support.
11	Internet connection failure	➢ Try to connect another device to the same Internet, verifying the Internet connection is working properly. ➢ If the problem persists, contact customer support.

6 Specifications

Product Information	
Charging Mode	Mode 3
Input/Output Power Rating and Current	12kW (240V AC 50A) Output amperage adjustable via mobile app, from 6A to 50A, support 16A, 24A, 32A, 40A, 48A, 50A via the DIP switch
Input/Output Voltage	208/240V AC 50/60Hz
Input Power Connections	L1, L2, input power connections and Earth Ground, support high-leg delta wiring configuration
Input Cord	Hardwired
Connector Type	SAE J1772 or NACS
Charging Cable Length	19 ft. (6 m); 25 ft. (7.5 m)
Ground Fault Detection	20 mA CCID
Protection	Overcurrent, overvoltage, undervoltage, overtemperature, integrated surge protection
Card Reader	ISO 15693, ISO 14443 A/B, ISO 18092
Metering Accuracy	±1%, NTEP/CTEP Certified
Vehicle Communication	ISO 15118-2/20
Authentication Methods	PnC, Autocharge, RFID, Third-party apps
General Characteristics	
Enclosure Ratings	NEMA 3S, IK10
Operating Altitude	6561.7 ft. (2000 m)
Operating Temperature Range	–31 to +122 °F (–35 to +50 °C) (Derate when above 113 °F (45 °C))
Storage Temperature Range	–40 to +158 °F (–40 to + 70 °C)
Dimensions (H x W x D)	12.4” x 6.7” x 4.6” (315 x 170 x 117 mm)

Package Dimensions (H x W x D)	19.3” x 14.4” x 9.3” (490 x 365 x 235 mm)
Weight	Approx. 3kg
User Interface	
Status Indication	5-inch, 800 x 480 touch screen + Leds Digital tube + Leds
User Interface	Autel Charge APP, Autel Charge Cloud
Connectivity	4G Wi-Fi Ethernet RS485 (Modbus, expand smart energy meter, etc.) Wi-SUN
Communication Protocols	OCPP 1.6J, OCPP 2.0.1
Current Control Method	App, hardware DIP switch (Dial)
Software Update	
Software Update	OTA updates via web portal
Certification and Standard	
Safety Standards	UL 2594, UL2231-1, UL2231-2, UL 1998, CSA C22.2. NO.280
Codes and Standards	FCC Part 15 Class B, ENERGY STAR, OpenADR 2.0b, NEC Article 625
Lifespan	10 + years
Warranty	5 years: the charger body, backplate and all internal components 1 year: the display screen, charging cable and connector

7 Compliance

FCC regulatory conformance:

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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

RF Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IC regulatory conformance:

This device complies with CAN ICES-3 (B)/NMB-3(B).

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme à la norme CAN ICES-3 (B)/NMB-3 (B).

Cet appareil contient des émetteurs / récepteurs exempt (s) de licence qui sont conformes aux RSS exemptes de licence d'Innovation, Sciences et Développement économique Canada. Son fonctionnement est soumis aux deux conditions suivantes:

(1) Cet appareil ne doit pas provoquer d'interférences.

(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

RF Exposure

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d’ exposition aux rayonnements de la IC établies pour unenvironnement non contrôé. Cet équipement doit être installé et fonctionner à au moins 20cm de distance d’un radiateur ou de votre corps.

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