

# Orange Gen 2 Outlet User manual



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Revision 1.0

Part numbers this

User Manual is intended for:

910610 and 910520

# Important Safety Information

Read this first

Read all instructions before using this product. Save these instructions for future reference. The latest version of the manual and installation guide is available on [www.orangecharger.com](http://www.orangecharger.com)

This manual contains important instructions for Orange Outlet that must be followed during installation, operation, and maintenance. Please review all warnings and cautions before installing and using Orange Outlet.



**WARNING:** When using electrical products, basic precautions should always be followed.

## Instructions pertaining to a risk of fire or electric shock



**WARNING:** Do not install or use Orange Outlet near flammable, explosive, harsh, or combustible materials, chemicals, or vapors.



**WARNING:** Turn off power and lock-out, tag-out at the circuit breaker before installing or cleaning Orange Chargers (Outlet or EVSE).










## Warnings





**WARNING:** This product can expose you to one or more chemicals known to the State of California to cause cancer.






**WARNING:** This product should be supervised when used around children.

-  **WARNING:** Orange Outlet must be grounded through a permanent wiring system or an equipment-grounding conductor.
-  **WARNING:** Use the outlet only within specified operating parameters.
-  **WARNING:** Do not use Orange Outlet if it is defective, appears cracked, frayed, broken, or otherwise damaged, or fails to operate.
-  **WARNING:** Do not attempt to disassemble, repair, tamper with, or modify Orange Outlet. It is not user-serviceable. Contact Orange support for any repairs or modifications.
-  **WARNING:** When transporting Orange Outlet, handle it with care. Do not subject it to strong forces, impacts, pulls, drag, or step on Orange Outlet to prevent damage to any components.
-  **WARNING:** Do not touch Orange Outlet contact terminals with fingers, or sharp metallic objects, such as wires, tools, or needles.
-  **WARNING:** Do not insert fingers or foreign objects into any part of Orange Outlet.
-  **WARNING:** Do not forcefully fold or apply pressure to Orange Outlet or damage it with sharp objects.
-  **WARNING:** The use of the Orange Outlet may affect or impair the operation of any medical or implantable electronic device, such as an implantable cardiac pacemaker or an implantable cardioverter-defibrillator. Check with your electronic device manufacturer about the effects of charging on such devices before using Orange Outlet.

-  **WARNING:** This product must be grounded. If it should malfunction or break down, the grounding path provides a path of least resistance for electric current to reduce the risk of electric shock.
-  **WARNING:** Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you need clarification on whether the product is properly grounded.

## Cautions

-  **CAUTION:** Do not use a private power generator as a power source of Orange Outlet.
-  **CAUTION:** Incorrect installation and testing of Orange Outlet could damage the device and components. Any resulting damage is excluded from the Orange Outlet Limited Warranty.
-  **CAUTION:** Do not operate Orange Outlet in temperatures outside the operating range of -22° to 122° (-30° to 50°).

## Part Numbers covered in Manual

Product Number	Product Name	Receptacle/Plug	Voltage
910520	Outlet Level 1	NEMA 5-20	110-120V
910620	Outlet Level 2	NEMA 6-20	208-240V

The Orange Outlet is a compact, smart EV charging outlet designed to make electric vehicle charging accessible, efficient, and cost-effective for multifamily properties, workplaces, and other shared spaces. Engineered to deliver reliable charging without the need for complex or costly infrastructure, the Orange Outlet provides an adaptable solution that meets the unique needs of EV drivers and property owners alike.

Available in two variants—Level 1 and Level 2—the Orange Outlet offers versatile charging options. The Level 1 outlet (110-120V) provides a convenient solution for lower energy needs, ideal for topping off daily commutes. The Level 2 outlet (208-240V) delivers faster charging speeds and is perfect for drivers who require a quicker recharge. Both options can charge most EVs within 6-8 hours, accommodating the daily needs of 98% of drivers.

Equipped with smart connectivity through OrangeNet, the Orange Outlet enables seamless management of charging sessions, energy rates, and access control via the Orange OS Platform. This platform provides property managers with valuable insights and control, making it easy to manage EV charging across multiple units and properties.

## Starting a Charging Session

To use the Orange Outlet, begin by downloading and setting up the Orange Charger mobile app from the iOS or Android app store. Ensure that you've created an account or signed in.

In the app, select 'Scan QR Code' and point your camera at the QR code on the Orange Outlet. Once scanned, you'll see the electricity rate based on the property's pricing plan. To start a charging session, plug your compatible EV charger into the Orange Outlet, then connect the SAE J1772 plug or an approved adapter

Unless you've scheduled a delayed start for charging, your vehicle will immediately begin requesting a charge through the connected cable. Within a few seconds, the green "Charging" light on the Orange Outlet will turn on, indicating that charging is in progress.

Once charging is complete, the green light on the Orange Outlet will turn off, though the session will remain active for up to 48 hours in case your vehicle requires additional charge. To end the session, disconnect the plug and stop the session in the app.

## Orange OS Platform

The Orange OS Platform is the software solution provided by Orange Charger, allowing users to manage essential features such as access controls, energy rates, and payment transactions for Orange Outlets. To use the Orange Outlet, it must first be registered in the Orange OS Platform.

To set up an account, the owner or operator (organization) responsible for the Orange Outlet should contact Orange Charger at [support@orangecharger.com](mailto:support@orangecharger.com) to initiate account creation. Once registered, the Orange OS Platform allows easy management and monitoring of the outlet's activity, ensuring seamless access and rate control for users.

The Orange OS Platform operates under the Orange Terms of Service, available at [orangecharger.com](https://orangecharger.com)

## OrangeNet and Connectivity

Orange Outlets are designed to function independently of a building's networking infrastructure, such as the WiFi network. Built into every Orange Outlet, OrangeNet is a proprietary networking technology that combines custom-designed LTE, WiFi, and BLE with Orange's own software.

OrangeNet creates a self-healing mesh network, enabling all Orange devices within a reasonable range (typically up to 100 feet in unobstructed spaces like parking garages) to connect. As long as at least one Orange device has minimal LTE connectivity, this mesh allows all connected Orange Outlets to transmit charging data ensuring uninterrupted service for users.

Even if network connectivity is temporarily unavailable, OrangeNet's robust design ensures drivers can still initiate or end charging sessions via the Orange Charger mobile app, provided they've set up an account. Unlike standard OCPP chargers, Orange Outlets enable reliable charging without requiring constant connectivity on the driver's phone, ensuring a dependable charging experience.



## Low Connectivity Environments

While OrangeNet is designed to work with minimal connectivity, for optimal system performance, there might be situations where either additional Orange Chargers would be recommended to be placed, or the use of one or multiple OrangeNet Extender/s might be required in order to have the minimum network connectivity level to have near-real time data communication and enable Over The Air (OTA) firmware updates. OrangeNet Extenders are independent of the building's network and simply need to be mounted in a location that has a minimum connectivity performance level and can be line powered. Typically this is near the entrance to parking garages.

## Commissioning

Orange Chargers typically commission themselves automatically as long as there is a connection path directly via LTE, or via the OrangeNet mesh network. In certain circumstances, the Orange Charger mobile application might be needed to commission the Charger if no network connection is available please email [support@orangecharger.com](mailto:support@orangecharger.com)

## Firmware Updates

Firmware updates will be automatically applied to Orange Chargers to continuously improve the product and user experience. Orange Chargers require an active OrangeNet connection in order to update firmware, if a Charger is not able to connect to the Orange cloud, please contact Orange support at [support@orangecharger.com](mailto:support@orangecharger.com) for assistance with diagnosing any connectivity challenges.

## Power Outages

If there is a power outage while an Orange Charger is charging a vehicle, charging should automatically resume within 1 to 3 minutes after power restoration. If the charging session does not automatically resume, it will require the user to go to the Charger and restart the charging session.

## Using Orange Outlets

To use an Orange Outlet, it must be commissioned to the Orange OS Platform. Once the Outlet is commissioned, a user will need to download the Orange Charger mobile application from the iOS or Android app stores. Once a user has created and logged into their Orange Charger account on the mobile application, they can follow the instructions to scan the QR code on the Outlet to start or stop charging sessions.

Most common OEM or aftermarket mobile connectors with a NEMA 5-15/5-20 or NEMA 6-20 outlets, will be able to utilize the Orange Level 1 (NEMA 5-20) or Orange Level 2 (NEMA 6-20) Outlets.

If an adapter or mobile connector is needed by a driver, please visit:

[orangecharger.com/solutions/roles/drivers](https://orangecharger.com/solutions/roles/drivers)

or contact:

[support@orangecharger.com](mailto:support@orangecharger.com)

## Circuit Breaker Rating / Maximum Output

For the NEMA 5-20 Outlet PN: 910520

For maximum power output, install a standard single-pole 20 amp circuit breaker. If the outlet is installed outside or outdoors, use a standard single-pole 20 amp GFCI circuit breaker.

For the NEMA 6-20 Outlet PN: 910620

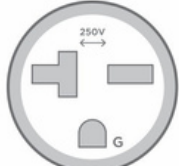
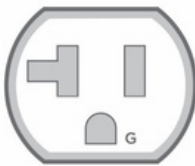
Install a standard double pole 20 amp circuit breaker for maximum power output. If the outlet is installed outside or outdoors, use a standard double pole 20 amp GFCI circuit breaker.

## Automated Load Management

Each Orange Outlet is equipped with software-based automated load management, which limits the continuous current to 16A, regardless of the attached load's request. This feature ensures efficient and safe operation, preventing any outlet from exceeding its set current limit.

This capability allows two Orange Outlets to share a single 40-amp circuit, as each outlet will draw only 16A continuously and includes built-in circuit protection. However, the distance between outlets sharing a common load should be assessed and verified by a certified electrician or engineer to ensure safe installation.

## Outlet Technical Specifications



Part	910520	910620
NEMA Configuration	NEMA 5-20	NEMA 6-20
Voltage (Voltage AC)	110/120	208/240
Frequency (Hz)	50 to 60Hz	
Continuous Current (A)	16	
Max Current (A)	20	
Peak Overcurrent (A)	25 (1000ms)	
Over Voltage (Voltage AC)	285	
Dimensions	125.5 x 125.5 x 37 mm (5.75 x 5.75 x 1.25 in) (LxWxH)	
Temperature Range	Operating Environment: -20°C to 50°C	
Humidity	0-90% relative humidity	
Plastic	Polycarbonate, UL-94 V-0 Flame Rating	
Max Wattage (kW)	2.4	4.8
Input Wire Gauge to Outlet (AWG/mm2)	12 AWG / 2.05mm	12 AWG / 2.05mm
Connectivity	OrangeNet (Cellular, WiFi, BLE)	
EV Platform	Requires Orange OS Platform for Usage	
Agency Approvals	<a href="#">Intertek UL-916</a>	
Warranty	3 Year Manufacturing	



## Circuit Breaker Rating / Maximum Output


For maximum power output, install a standard double pole 20 amp circuit breaker.

Product	Voltage	Breaker Amps	Operating Amperage	Nameplate Power (kW)	Power Output (kW)	PowerShare Minimum
Orange Level 1 Outlet	120	1P 20A	16	2.4	1.9	n/a
Orange Level 2 Outlet	208 /240	2P 20A	16	4.8	3.8	3.8

## Grounding connections

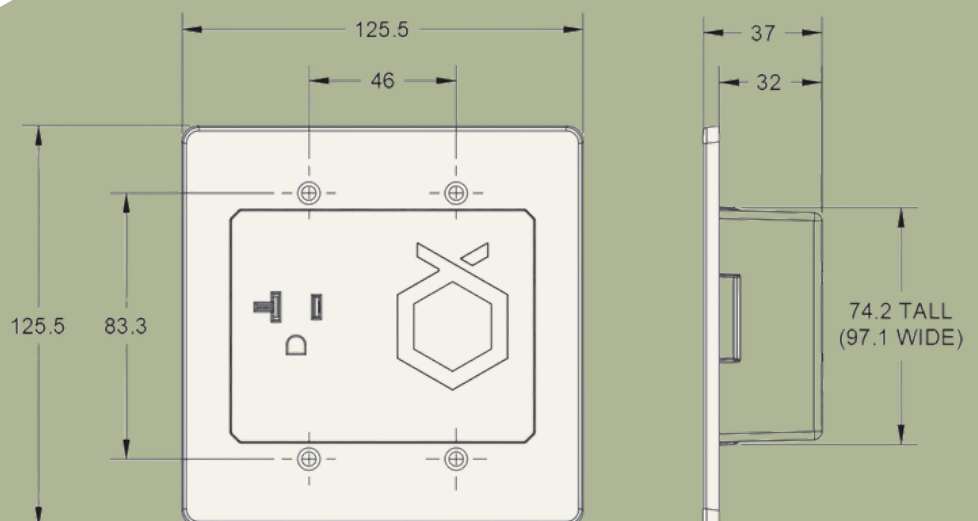
The Orange Outlet requires a secure path to grounding equipment to function safely. Without proper grounding, the outlet will trigger a fault during a ground assurance test. An equipment grounding conductor must be routed with the circuit conductors and connected to the equipment-grounding terminal in the outlet's wire box. Ensure that the ground (PE) wire is sized according to local electrical codes and standards.

## Installation

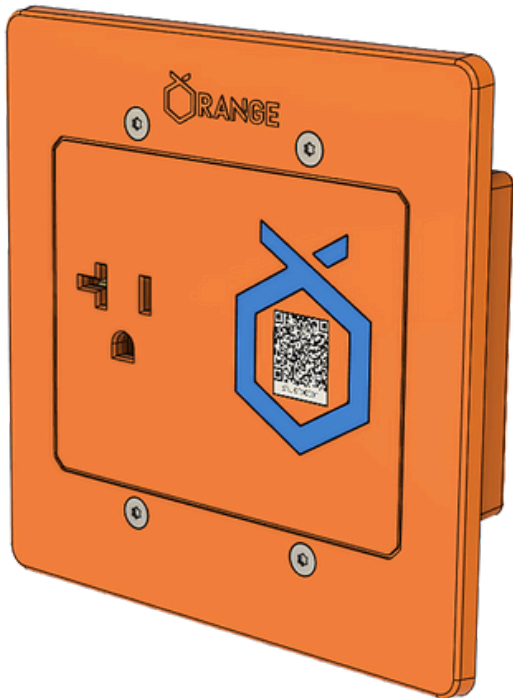
 **WARNING:** Always de-energize the circuit you are working on before performing any electrical work, installation, or maintenance.

## Product Dimensions

All units in millimeters  
NEMA 5-20 unit shown



In the box

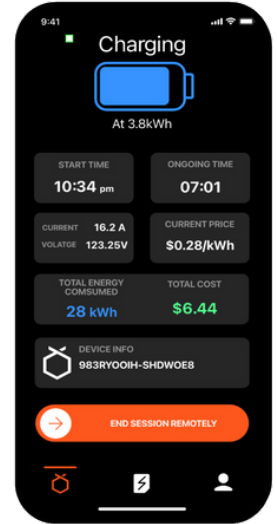


One Orange Outlet (x1)

12-10 AWG WAGO  
Connectors (x3)



Documentation (Online)  
Scan QR code



iOS or Android with  
Orange Charger  
mobile app

T10 Torx  
Screwdriver or Bit



Cover Fasteners (x4)

## Installation Considerations

Outlet may be installed in most two-gang electrical boxes made from non-metallic materials. If a metal box is used, connectivity may be reduced.

Ensure the outlet fits the electrical box being used, including sufficient depth for the hookup wires (2.5" minimum depth recommended)

Installation requirements differ for indoor and outdoor settings. Outdoor installations may require an in-use weather cover if exposed to damp, wet, or other environments. Confirm requirements with applicable codes before installation.

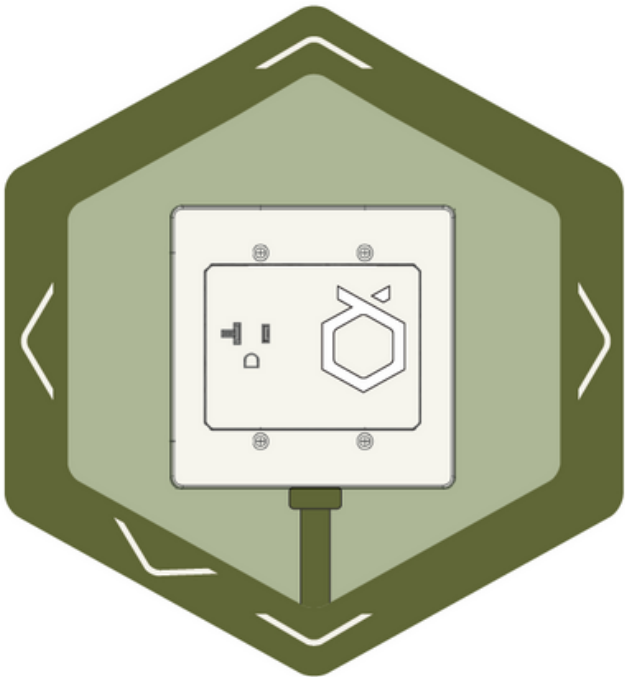
Installation Considerations

Installation Height

Install Height (Top of Box) - Maximum height (indoor and outdoor): 60 in (1.52m) -  
Recommended height: 48 in (~1.15m) -  
Minimum outdoor height: 32 in (0.6m) -  
Minimum indoor height: 32 in (0.45m)

Check your local ADA requirements

Please follow all National Electric Code (NEC) requirements for your local electrical code and building codes. If you don't know your local codes, please contact a certified C-10 electrician to perform the installation.

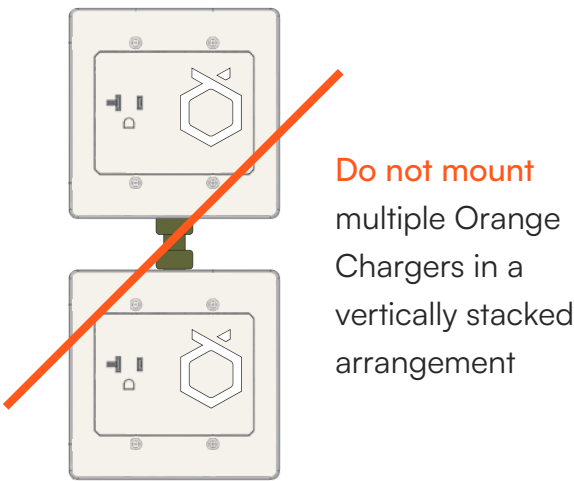


Install Clearance Requirements

Install the Orange Outlet in a location with ample clearance on all sides to allow for easy access and possible additional cable management.

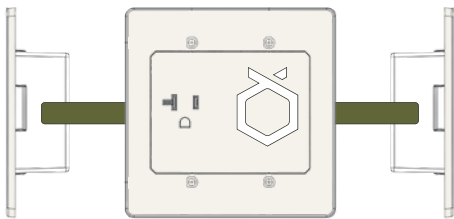
Install Arrangement Best Practices

We do not recommend installing Orange Outlets above each other so the charging cables do not tangle/interfere with each other. We recommend installing Orange Outlets next to each other if on a column with enough clearance between each unit.




Recommend Minimum Outlet Clearance

	Inches (in)	Millimeter (mm)
Front	24	609
Left Side	12	304
Right Side	12	304
Top	12	304
Bottom	24	609



Do mount multiple Orange Chargers horizontally aligned

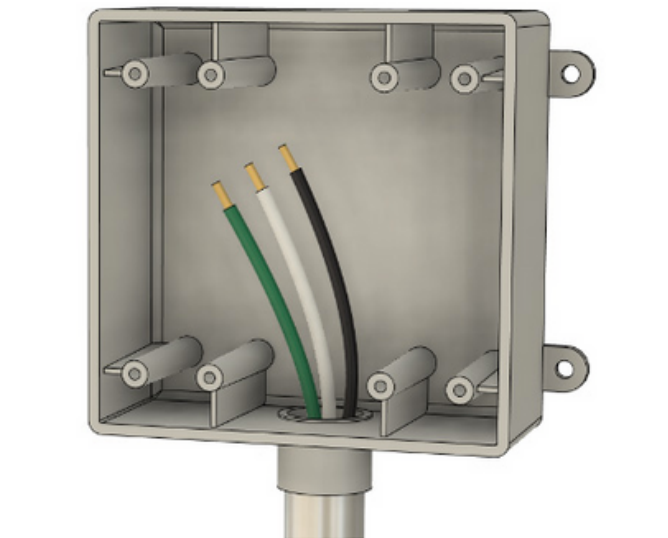
Installation Instructions

 **WARNING:** Always de-energize the circuit you are working on before performing any electrical work, installation, or maintenance. Be sure to lock-out and tag-out the circuit/panel.

Step 1: Preparing To Install

Prepare a 2-gang electrical box with the correct wire based on the Outlet version you install. Please see Table #129 for version wire colors and follow proper electrical requirements.

Please ensure the electrical box meets all local electric codes for the 120V or 240V receptacle. Always use 12 AWG or larger wire sizes for all 3 conductors to the Orange Outlet.



Step 2: Install Outlet Into 2 Gang Box

You can find a list of tested and approved double-gang boxes and weather covers at <https://orangecharger.com/outlet-installation-instructions>

Using the supplied WAGO connectors, you can connect the wires based on the product type you are installing. The Orange Outlet Level 1 (110/120V) version has black, white, and green wires. The Orange Outlet Level 2 (208/240V) version has black, white, and red wires. Note on sources from a 3-phase panel, the Live 2 wire might be blue instead of red.

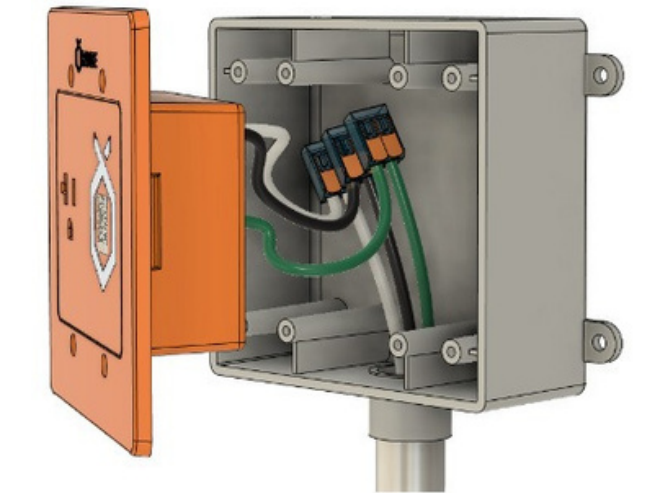


Table 129

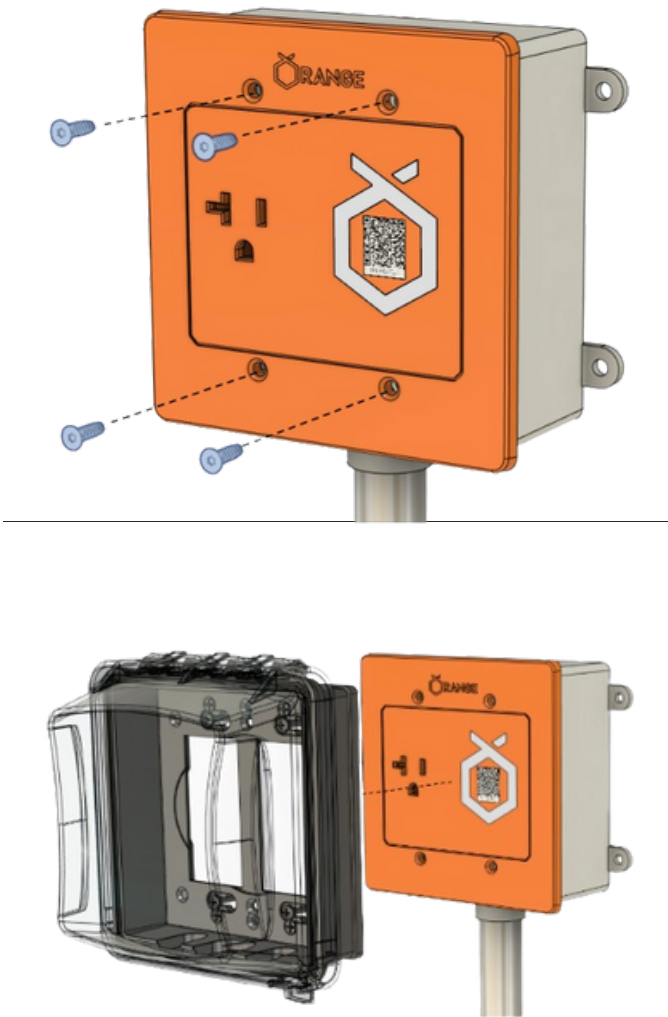
Version	NEMA 5-20 (110V/220V)	NEMA 6-20(208V/240V)
Black Wire	Live 1	Live 1
White Wire	Neutral	No Neutral
Red Wire	X	Live 2
Green Wire	Ground	Ground

Step 2: Install Outlet Into 2 Gang Box (cont)

Once you have followed the instructions and stripped the proper length of wire as marked on the side of the WAGO connector and made sure all connections are correct and secure, you can push the Orange Outlet into the 2 Gang box.

Use the 4 screws provided to attach the Outlet to a 2-gang box, and make sure you follow proper torque requirements as shown below to not damage the Outlet.

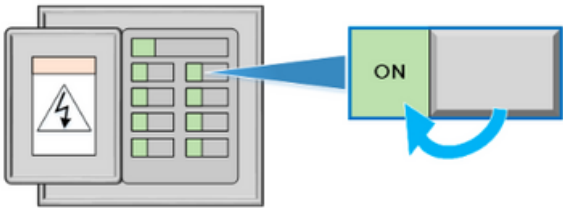
Outdoor installations may require an in-use weather cover if exposed to damp, wet, or other environments. Confirm requirements with applicable codes before installation. For weather covers that have been tested with the Orange Outlet, please reach out to support.



Enclosure Thread Type	Fastener	Maximum Torque (Nm)	Maximum Torque (in-lb)
Unthreaded (common for plastic)	6-19 Screws (T10 Torx head, included)	0.9	8
Threaded	6-32 Screws (not included)	0.9	8

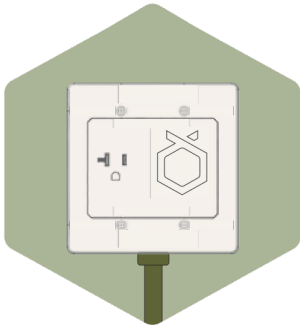
Step 3: Energise Outlet

After completing the installation, you can return to the breaker panel, remove lock-out, tag-out and energize the circuit breaker. If everything was connected properly, you should know the LED ring should turn on and be white. Note if there is not a connection path to the Orange cloud, one of the leaves on the Outlet will be blue. Refer to the OrangeNet Connectivity Troubleshooting Guide if the LED ring fails to turn white.



## LED Status

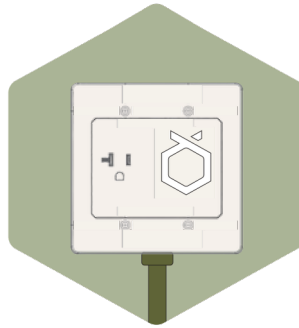
The Orange LED Logo gives useful information about the current state of any Orange Outlet.



### No LEDs On

#### Power Issue

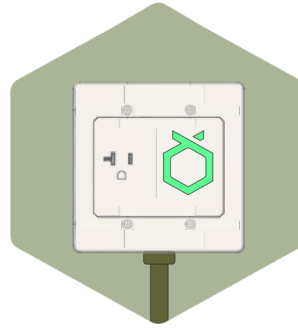
There is no power to the unit. Check the breaker panel and ensure all circuits are correctly installed. If the breaker is not the issue, please contact Orange or a locally certified electrician.



### White

#### Standby

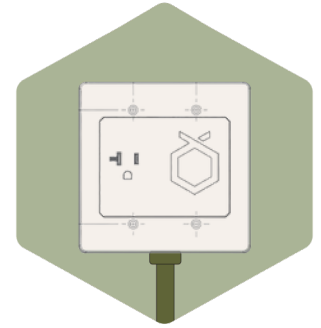
The unit is powered on, connected to the cloud, and ready for use, but it is not currently charging.



### Green

#### Active session

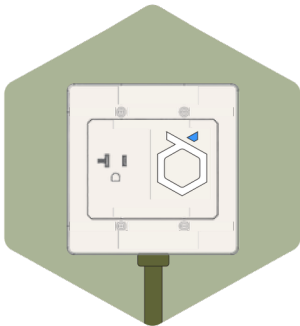
Indicates that an active session is in progress, and the unit is currently unavailable.



### Green / Spinning

#### Charging

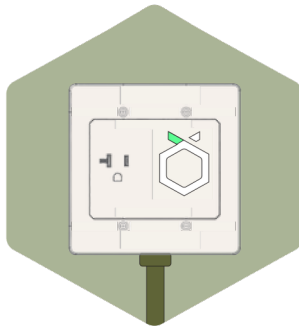
The LED spins green when energy is flowing during an active charging session.



### White Blue Right stem

#### Network error

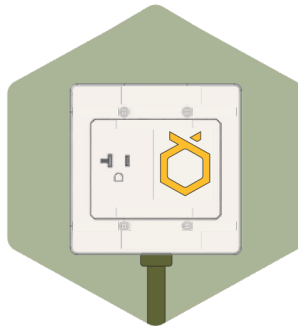
There is no cloud connectivity. The charger may still function locally but will not be remotely controllable. Check connectivity, locate the device via Bluetooth (BLE), and attempt a reset. If the issue persists, contact support.



### Green Left stem White

#### Relay status

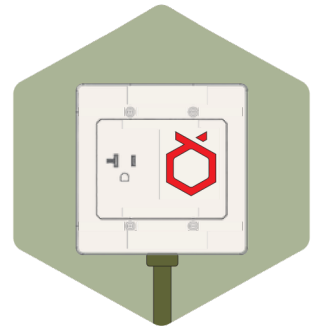
Indicates the relay is stuck on. The green illuminated leaf signals that the outlet is live.



### Yellow

#### Device is unhealthy

This could occur if it hasn't synced to the cloud in a long time or if a non-safety warning has been triggered. The device cannot be used in this state. Please contact support for assistance.



### Red

#### Warning errors

The device will not charge. If the issue persists please contact support.



## Orange Device Limited Warranty

This Orange Device Limited Warranty (“Warranty”) sets forth the warranty terms applicable to outlets, EVSEs and/or other devices (“Orange Devices” or “Orange Device”) manufactured and sold by Orange Charger Inc. (“Orange”) that are designed to be installed and used at authorized EV charging locations and to connect to and interact with the web-based software platform provided by Orange (the “Orange OS”).

COVERAGE UNDER THIS WARRANTY IS LIMITED TO THE OWNER OF THE ORANGE DEVICE (“OWNER”) AND ONLY WHERE THE ORANGE DEVICE HAS BEEN INSTALLED AT AN EV CHARGING LOCATION AUTHORIZED BY ORANGE THAT IS OWNED OR OPERATED BY THE OWNER (“AUTHORIZED LOCATION”). THIS WARRANTY IS ONLY VALID FOR THE FIRST PURCHASE OF AN ORANGE DEVICES IN THE UNITED STATES FROM ORANGE OR A RESELLER AUTHORIZED BY ORANGE.

COVERAGE UNDER THIS WARRANTY FOR AN ORANGE DEVICE BEGINS ON THE EARLIER OF (A) THIRTY DAYS AFTER SHIPMENT OR (B) THE DATE WHEN THE ORANGE DEVICE IS FIRST INSTALLED AT AN AUTHORIZED LOCATION AND ACTIVATED FOR USE WITH THE ORANGE OS (THE “WARRANTY START DATE”).

Limited Warranty. Subject to the exclusions and limitations described below, Orange warrants to the Owner of an Orange Device that the Orange Device, when installed and used at an Authorized Location and used normally and in accordance with the user documentation for the Orange Device published and made available by Orange (“Documentation”), will be substantially free from defects in materials and workmanship for a period of 36 months from the Warranty Start Date (the “Warranty Period”). If an Orange Device is returned to Orange during the Warranty Period in accordance with the terms and conditions of this Warranty, and Orange determines that the Orange Device is eligible for and covered by the Warranty, then Orange will

either (i) repair the Orange Device; (ii) replace the returned Orange Device or (iii) refund the original purchase price in return for the Orange Device, at Orange’s sole discretion. Repairs may be made with reconditioned or remanufactured parts and Orange Device units may be replaced with refurbished units. Additionally, if the Orange Device or a component incorporated within it is discontinued, end-of-life, out of stock or otherwise unavailable, Orange may, at its sole discretion, replace the Orange Device or component with a similar product or component. Repaired or replaced Orange Devices are covered under this Warranty only until the end of the Warranty Period for the originally purchased Orange Device. Under no circumstances will the original Warranty Period be extended as a result of an Orange Outlet being repaired or replaced under this Warranty. The remedies set forth in this section are Owner’s sole and exclusive remedies for breach of this Warranty.

Exclusions. This Warranty does not cover any defect, damage or malfunction directly or indirectly caused by, due to, or resulting from:

- normal wear and tear (including, without limitation, general appearance or damage to paint, including chips, scratches, dents, and cracks);
- accidents, abuse, negligence, or misuse;
- lack of or improper or unauthorized installation, testing, repair or maintenance;
- improper storage or transportation;
- failure to follow Documentation;
- use other than the permitted or intended use of the Orange Device, such as use at a location or than an Authorized Location or other than in accordance with its Documentation;
- modification or alteration of the Orange Device or any component other than by Orange or an authorized representative of Orange;
- any technology, equipment, hardware, software, or materials other than the Orange Device, such as faulty or damaged electrical wiring or connections, external electrical faults, junction boxes, circuit breakers, receptacles or other power outlets;
- acts of God and other forces beyond Orange’s reasonable control, such as internet or power outages, wars, riots,

terrorism, labor disputes, fires, earthquakes, floods, extreme environmental conditions or other events of “force majeure”;

- failure to contact Orange upon discovery of a defect covered by this Warranty;
- any other cause other than a defect in materials or workmanship.

### **Return Process**

Orange Devices must be returned during the applicable Warranty Period and in accordance with Orange’s standard RMA procedures, and warranty claims will be processed in accordance with those procedures. Please contact [support@orangecharger.com](mailto:support@orangecharger.com) for the RMA procedures. The Owner will be responsible for all shipping costs for Orange Devices that are returned and determined by Orange to be ineligible or not covered by this Warranty.

### **Orange Repairs**

This Warranty may be voided, or coverage may be excluded, if any maintenance, service, or repairs for the Orange Device is performed by a party other than Orange or an authorized party acting on Orange’s behalf during the Warranty Period.

### **Ownership**

When an Orange Device is replaced[JM1] [BS2] or a refund is given, the Orange Device that is replaced or for which they refund is given must be returned to Orange and become Orange’s property. Any replacement for an Orange Device provided under this Warranty becomes the property of the Owner.

### **Disclaimer of Warranties**

EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY AND EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ORANGE DISCLAIMS AND EXCLUDES ALL REPRESENTATIONS, WARRANTIES AND CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF TITLE, NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ANY WARRANTIES IMPLIED BY ANY COURSE OF PERFORMANCE, USAGE OF TRADE, OR COURSE OF DEALING.

### **Limits of Liability**

TO THE MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW, ORANGE WILL NOT BE LIABLE UNDER ANY LEGAL OR EQUITABLE THEORY IN CONNECTION WITH THIS WARRANTY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, EXEMPLARY OR CONSEQUENTIAL DAMAGES OF ANY KIND WHATSOEVER.

TO THE MAXIMUM EXTENT PERMITTED UNDER APPLICABLE LAW, ORANGE’S AGGREGATE LIABILITY ARISING OUT OF OR RELATED TO THIS WARRANTY WILL NOT EXCEED THE ORIGINAL PURCHASE PRICE OF THE ORANGE DEVICE.

THE EXCLUSIONS AND LIMITATIONS OF THIS SECTION APPLY EVEN IF ANY REMEDY FAILS OF ITS ESSENTIAL PURPOSE.



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3495 Edison Way  
Menlo Park, CA 94025

[orangecharger.com](https://orangecharger.com)

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