



Orange Outlet Manual
20 Amp Smart Electric Vehicle Charging Outlet

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Published Sep, 17th, 2022

Revision 1.5

Part Numbers This User Manual Is Intended for:

105520-0-A, 105620-0-A, 115520-0-A, 115620-0-A

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IMPORTANT SAFETY INSTRUCTIONS


Read all instructions before using this product. Save these instructions for future reference. A PDF copy of these instructions can be found at the URL: (ADD LATER)

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


 **WARNING:** When using electric products, basic precautions should always be followed, including the following.


INSTRUCTIONS RELATING TO THE 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 at the circuit breaker before installing or cleaning Orange Outlet.


WARNINGS


 **WARNING:** This product can expose you to one or more chemicals that are 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 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 concerning the effects that charging may have on such electronic devices before using Orange Outlet.


 **WARNING:** This product must be earthed. If it should malfunction or break down, earthing provides a path of least resistance for electric current to reduce the risk of electric shock.

 **WARNING:** Improper connection of the equipment-earthing conductor is able to result in a risk of electric shock. Check with a qualified electrician or serviceman if you doubt whether the product is properly earthed.

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 potentially damage the device and components. Any resulting damage is excluded from the Orange Outlet Limited Warranty.

 **CAUTION:** Do not operate Orange Outlet in temperature outside the operating range of -22 °F to 122 °F (-30 °C to 50 °C).

Part Number Covered in Manual

Network/Plug Style	NEMA 5-20	NEMA 6-20
WiFi	105620-0-A	105620-0-A
Cellular	115520-0-A	115620-0-A

Circuit Breaker Rating / Maximum Output

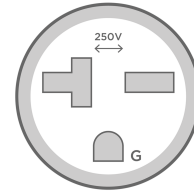
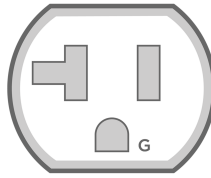
For the NEMA 5-20 Outlet PN: 105520-0-A or 115520-0-A

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: 105620-0-A or 115620-0-A.

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.

Product Specifications



Part Number	105520-0-A	115520-0-A	105620-0-A	115620-0-A
NEMA Configuration	NEMA 5-20		NEMA 6-20	
Voltage (Voltage AC)	125		240	
Frequency (Hz)	50 to 60Hz			
Max Current (A)	20			
Peak Overcurrent (A)	25 (100ns)			
Over Voltage (Voltage AC)	264			
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 (kWh)	1.92		3.8	
Wire Gauge (AWG / mm²)	12 / 2.05		12 / 2.05	
Connectivity	WiFi	Cellular	WiFi	Cellular
Agency Approvals	Intertek UL-916			
Warranty	3 Year			

Circuit Breaker Rating / Maximum Output

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

Voltage	Circuit breaker (amps) - GFCI	Max output (amps)	Power output at 240 volts (kW)
240	20	16	3.84

120	20	16	1.92
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Grounding Connections

Orange Outlet must have a ground path back to the main equipment earthing point on site. Without a proper ground connection, the Orange Outlet will fault during a ground assurance test. An equipment grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal in the wire box. Install a ground (PE) wire sized according to the local electrical code.

Power Outages

If there is a power outage while Orange Outlet is charging a vehicle, charging will automatically resume within 1 to 3 minutes after power restoration. The Outlet will display a blue light on the Logo to indicate that it is communicating with the cloud and waiting to resume charging. Alternatively, pressing the touch sensor on the logo for 5 seconds will cause the Outlet to restart.

Firmware Updates

Firmware updates will be automatically applied to the Orange Outlet to improve the user experience and introduce new features. Orange outlet connector to Wi-Fi or Cellular and uses a Bluetooth network when necessary to access the most recent firmware update.

Using Orange Outlet

One uses Orange Outlet like any standard outlet, by plugging the EVSE equipment to charge a vehicle into the outlet and using the mobile application to scan the QR code and initiate a charge. (We will have a link here in the future to download the Mobile App on all Major Platforms.)

Features

Access to convent low-cost electricity. Simple payment management and energy tracking. Easy property management features to minimize operational costs for property owners.

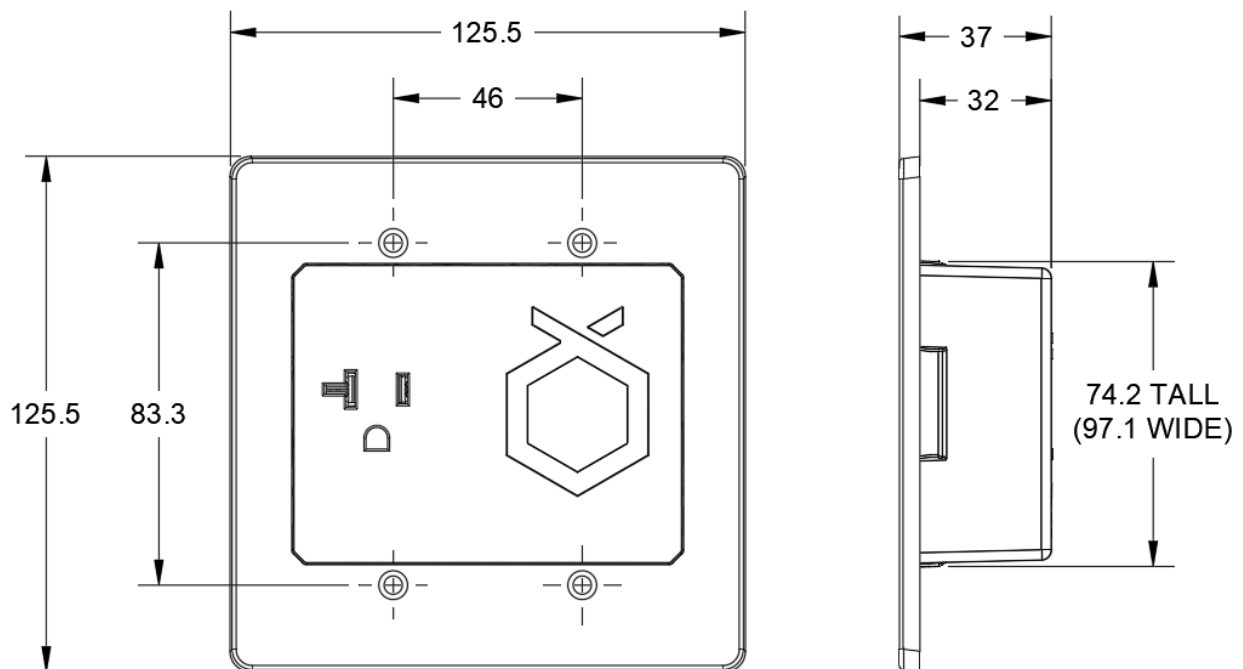
Connectivity

Orange Outlet comes in two connectivity options, Wifi or Cellular, in most cases we recommend installing cellular connectivity devices if you are not the owner and operator of an on-premise WiFi network with high reliability.

Limited LTE Access

In situations where LTE connectivity is limited, like underground parking garages Orange Outlets have the ability to relay information on their own mesh-like local network and find a unit that has the best connectivity to transmit data over.

Physical Dimensions

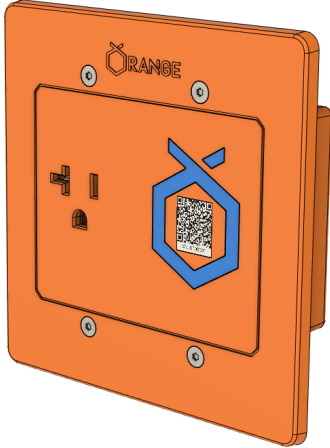

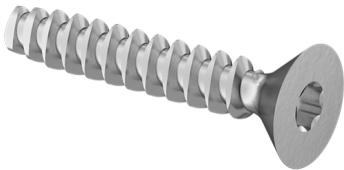



ALL UNITS IN MILLIMETERS
NEMA 5-20 VERSION SHOWN



Installation

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

In the Box

 <p>An orange square outlet cover plate with a central blue hexagonal cutout. The word "ORANGE" is printed at the top. There are four screws around the perimeter.</p>	 <p>A clear plastic WAGO connector with an orange top. It is labeled "WAGO 221" and "12AWG".</p>
<p>One Orange Outlet (x1)</p>	<p>12AWG WAGO Connectors (x3)</p>
 <p>A silver-colored Torx screw with a wide, flat head.</p>	 <p>An icon representing two overlapping sheets of paper.</p>
<p>Cover Fasteners (x4)</p>	<p>Documentation Papers (Online) SCAN QR CODE</p>

Required Tools (Not Included)

 <p>A blue-handled Torx screwdriver with a silver-colored shaft.</p>	 <p>An icon of a smartphone.</p>
<p>T10 Torx Screwdriver or Bit</p>	<p>Smartphone With Orange Mobile App</p>

Installation Considerations

- Outlet may be installed in most two gang electrical boxes made from non-metallic materials.
- Ensure the outlet fits the electrical box being used, including sufficient depth for the hookup wires (2.5" minimum depth recommended)
- Install requirements for indoor and outdoor are different:
 - Outdoor installations may require an in-use weather cover if they are exposed to damp, wet or other exposed environments. Confirm requirements with applicable codes before operation.

Installation Height

Install Height

- Maximum height (indoor and outdoor): 60 in (1.52 m)
- Recommended height: ~45 in (~1.15 m)
- Minimum outdoor height: 24 in (0.6 m)
- Minimum indoor height: 18 in (0.45 m)

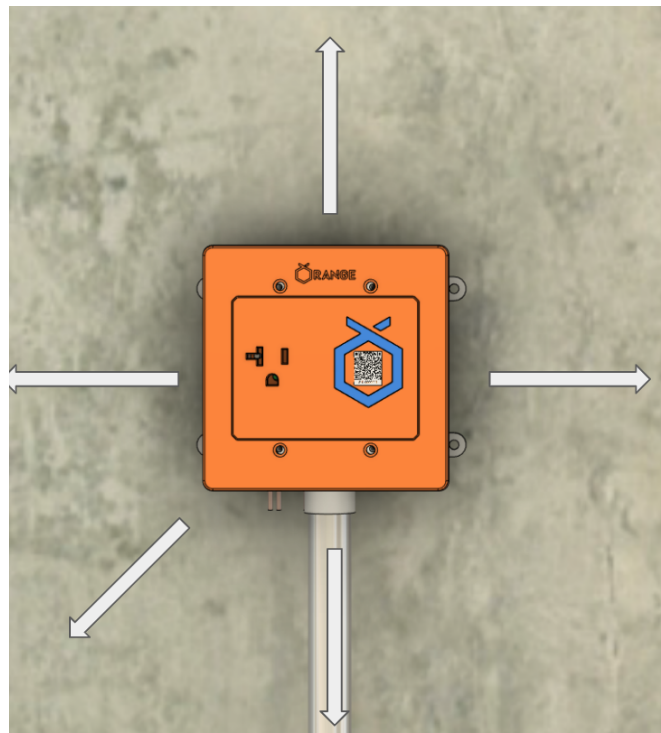
Please follow all National Electric Code (NEC) requirements for your local electrical code and building codes. If you don't know your local codes, please contact a certified C-10 electrician to perform the installation.

Maximizing Signal Reception

For cellular and Wifi connections please check the mobile app during installation to see if its signal strength is above 30% signal.

Signal reception is negatively affected by metallic enclosures, ensure that a non-metallic enclosure is used.

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.

Recommend Minimum Outlet Clearance

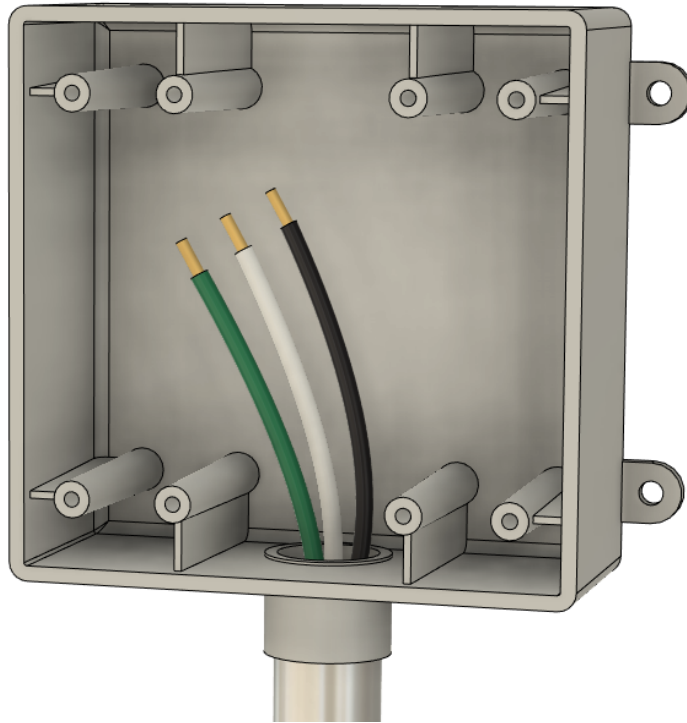
	Inches (in)	Millimeter (mm)
Front	24	609
Left Side	12	304
Right Side	12	304
Top	12	304
Bottom	24	609

INSTALLATION INSTRUCTIONS

 **STEP 0:** WARNING: Always de-energize the circuit you are working on before performing any electrical work, installation, or maintenance.

Step 1: Preparing For Install

Prepare a 2-gang electrical box with the correct wire based on the Outlet version you are installing. Please See Tabel #129 for version wire colors and follow proper electrical requirements.



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

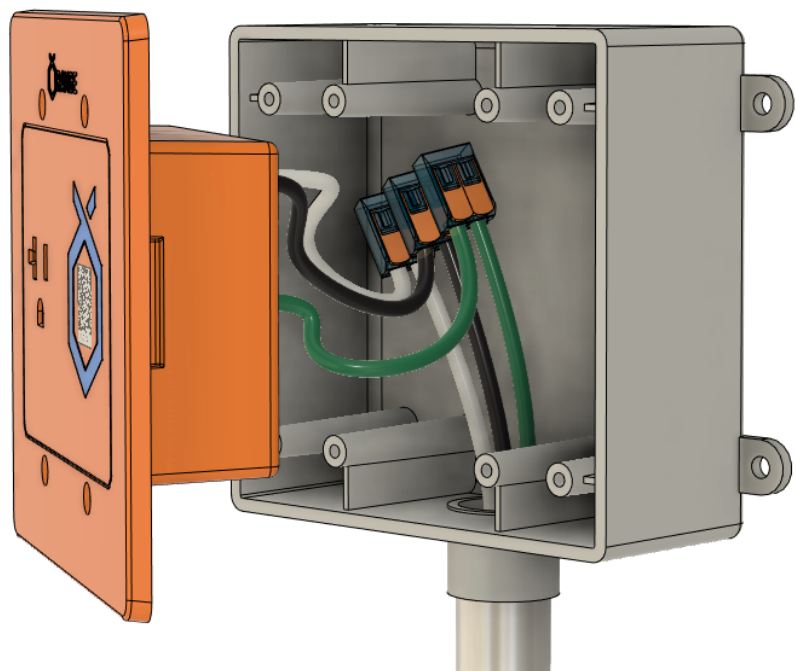
Step 2: Install Outlet Into 2 Gang Box

You can find a list of tested and approved 2gang boxes and weather covers at <https://orangecharger.com/outlet-installation-instructions>

Using the supplied WAGO connectors you can now connect the wires based on the product type you are installing. All Orange Outlets have a black and green wire and for 120V versions a white wire or for 240V versions a red wire. Match those to the table below.

Version	NEMA 5-20	NEMA 6-20
Black Wire	Live 1	Live 1
White Wire	Neutral	x
Red Wire	x	Live 2
Green Wire	Ground	Ground

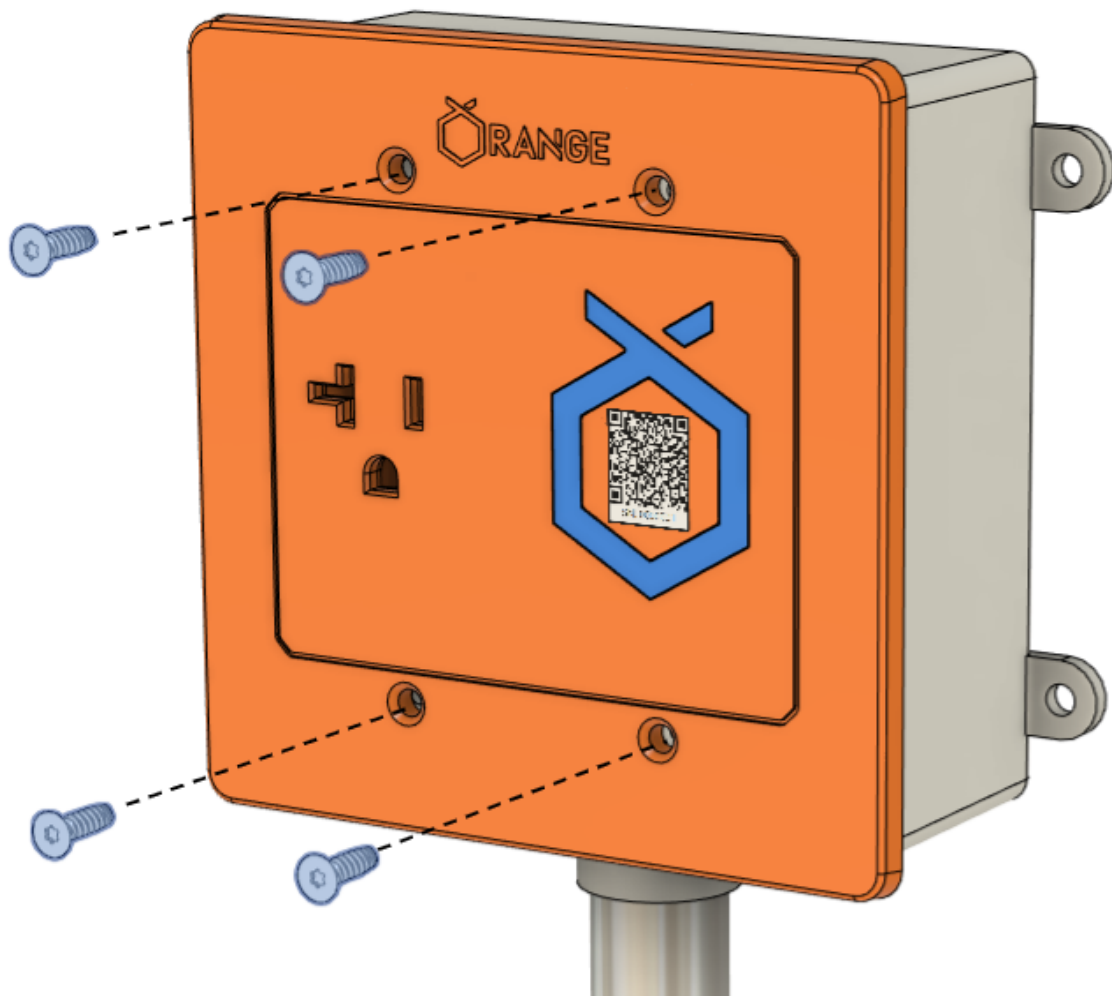
Table #129



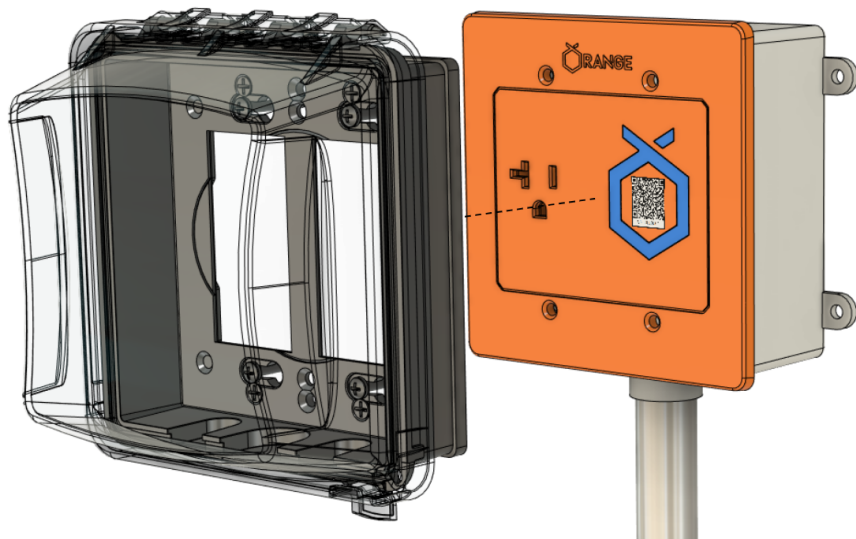
Once you have followed the instructions and stripped the proper length of wire as marked on the side of the WAGO connector, and made sure all connections are correct and secure you can push the Orange Outlet into the 2 Gang box.

Use the 4 screws provided to attach the Outlet to a 2 gang box, and make sure you follow proper torque requirements.

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



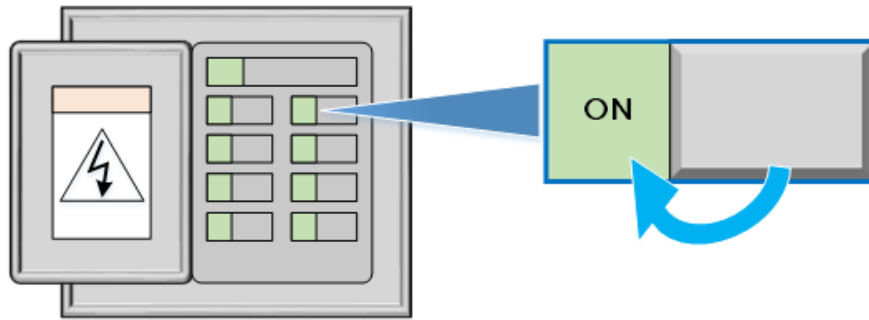
⚠ Outdoor Use Please Consult NEC Codes in Your Region.



Outdoor installations may require an in-use weather cover if they are exposed to damp, wet, or other exposed environments. Confirm requirements with applicable codes before operation.

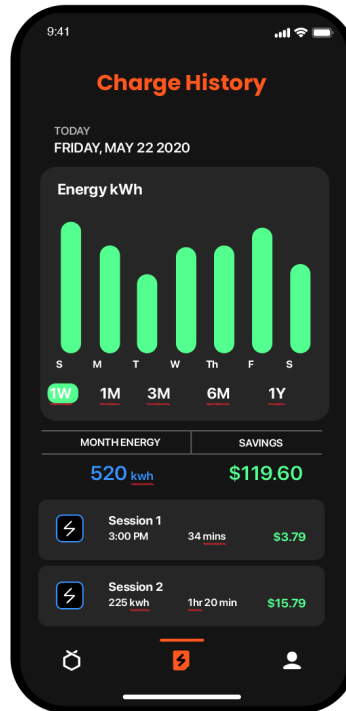
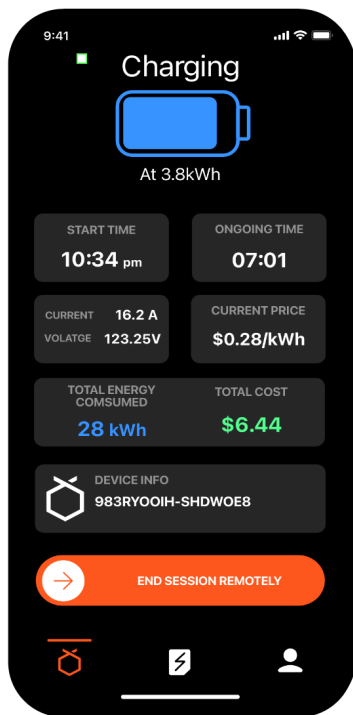
Step 3: Energise Outlet

After completing the installation, you can return to the breaker panel to energize the circuit breaker. If everything was connected properly, you should know the LED ring should turn on and breathe deep blue. This way takes 2-5 minutes for a cellular connection to be made.



Step 4: Commission Software

Next, download the Model App to complete the setup of the outlet and connect the payment service to your property.



9:41

SESSION DETAILS

JESALFHEWNIOUF-DHKAJDF-SKJHFKJAHDFKJDA

Device	Va738dhdnqoq9d8
Date	Sep 2nd 2021
Start time	5:23 pm
End time	7:52 am
Total Time	14:29:29

FEE RATE	FEE TOTAL
5 c/kWh	\$2.25

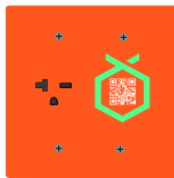
CHARGE	TOTAL COST
45 kWh	\$11.25

TOTAL COST
\$13.50

EMAIL RECEIPT

LED Status

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



Charging

Outlet is working as expected,
you getting power and we are logging it.



Standby

Not charging, connected to power,
connected to cloud, ready to do stuff!



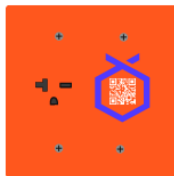
Sleeping

Not charging, connected to power,
not connected to cloud, ready to do stuff.
Will take longer to connect to cloud.
Saves power!



Warning Message

Not charging, not connected to cloud, not ready to do stuff!
There seems to be something wrong, please open app and connect to BLE
and reset it and see error message. If that fails contact support.



Network Error

Everything works, but the devcie has lost connection to cloud.
Please check conectivity, find devcie on BLE and try resting.
If all fails contact suport.



Crashed Error

Will Not Charge! Check user manual for trouble shooting tips.
If all esle fails contact suport. This could be serious, so please ask for help!

No LEDs On, **POWER ISSUE**. Check breaker panels and make sure all circuits are properly installed. Please contact Orange or a locally certified electrician if the breaker is not the issue.

WARRANTY

Subject to the exclusions and limitations described below, the Orange Outlet Limited Warranty covers the refund, repair, or replacement necessary to remedy any manufacturing defects in an Orange Charger's manufactured and supplied Outlet or that occur under normal personal use for a period of 36 months, or a period of 36 months for normal commercial use*. *For warranty claims specific to Orange Outlet, "commercial use" means Outlets used for purposes other than charging at a residential home for daily personal use, which includes, but is not limited to, charging at hotels, offices, parking lots, and complexes (including apartment, condominiums and other multi-family or unit dwellings), and retail and other locations that allow (including by being listed online or publicly) for pay-for-use charging, or are located where users other than the owner could reasonably obtain access to the Orange Outlet

This Orange Outlet Limited Warranty does not cover any damage or malfunction directly or indirectly caused by, due to, or resulting from, normal wear or deterioration, abuse, misuse, negligence, accident, lack of or improper installation, use, maintenance, storage, or transport, including, but not limited to, any of the following:

Failure to follow the instructions, operation, maintenance, and warnings published in the documentation supplied with your Orange Outlet;

External factors, including but not limited to, objects striking the Orange's connector or, faulty or damaged electrical wiring or connections, external electrical faults, junction boxes, circuit breakers, receptacles or other power outlets, the environment or an act of God, including, but not limited to, fire, earthquake, water, lightning, and other environmental conditions;

General appearance or damage to the paint, including chips, scratches, dents, and cracks;

Failure to contact Orange Charger upon discovery of a defect covered by this Orange Outlet Limited Warranty;

Any repair, alteration, or modification to the Orange Outlet or any part, or the installation or use of any parts or accessories, made by a person or facility not authorized or certified to do so; and

lack of or improper installation, repair, or maintenance, including the use of non-genuine Orange accessories or parts.

Although Orange Charger does not require you to perform all maintenance, service or repairs with through an Orange repair facility, this Orange Outlet Limited Warranty may be voided, or coverage may be excluded due to lack of or improper maintenance, service, or repairs.

Orange authorized repair facilities have special training, expertise, tools, and supplies concerning Orange products and, in certain cases, may employ the only persons, or be the only facilities authorized or certified to work on Orange products. Orange strongly recommends that you have all maintenance, service, and repairs done through an Orange authorized repair facility in order to avoid voiding or having coverage excluded under this Orange Outlet Limited Warranty.

LIMITS OF LIABILITY

This Orange Outlet Limited Warranty is the only express warranty made in connection with your Orange Outlet. Implied and express warranties and conditions arising under applicable local laws, federal statute or otherwise, in law or in equity, if any, including, but not limited to, implied warranties and conditions of merchantability or merchantable quality, fitness for a particular purpose, durability, or those arising by a course of dealing or usage of trade, or any warranties against latent or hidden defects, are disclaimed to the fullest extent allowable by your local law, or limited in duration to the term of this Orange Outlet Limited Warranty. To the fullest extent allowable by your local law, the performance of necessary repairs and/or replacement of new, reconditioned, or remanufactured parts by Orange Charger for the covered defects is the exclusive remedy under this Orange Outlet Limited Warranty or any implied warranties. To the maximum extent permissible under your local law, liability is limited to the reasonable price for repair or replacement of the applicable Orange Outlet, not to exceed the manufacturer's suggested retail price. The replacement may be made with parts of like kind and quality, including non-original manufacturer's parts, or reconditioned or remanufactured parts, as necessary.

This Orange Outlet Limited Warranty covers only parts and factory labor necessary to repair but does not include any on-site labor costs related to uninstalling, reinstalling, or removing the repaired or replacement Outlet equipment. Parts repaired or replaced, including replacement of an Orange Outlet, under this Orange Outlet Limited Warranty are covered only until the applicable warranty period of this Orange Outlet Limited Warranty ends, or as otherwise provided by applicable law. Under no circumstances will the original warranty period be extended as a result of your Orange Outlet being repaired or replaced.

OrangeCharger shall not be liable for any defects under this Orange Outlet Limited Warranty that exceed the fair market value of the applicable Orange Outlet at the time immediately preceding the discovery of the defect. In addition, the sum of all benefits payable under this Orange Outlet Limited Warranty shall not exceed the price you paid for the applicable Orange Outlet.

Orange Charger does not authorize any person or entity to create for it any other obligations or liability in connection with this Orange Outlet Limited Warranty. Subject to local laws and regulations, the decision of whether to repair or replace a part or to use a new, reconditioned or remanufactured part will be made by Orange Charger, at its sole discretion. Orange Charger may occasionally offer to pay some or all of the cost of certain repairs that are not covered by this Orange Outlet Limited Warranty, either for specific models or on an ad hoc, case-by-case basis. Orange Charger reserves the right to do the above at any time without incurring any obligation to make a similar payment to other Orange Charger equipment owners.

To the maximum extent permissible under local law, Orange Charger hereby disclaims any and all indirect, incidental, special, and consequential damages arising out of, or relating to, the Orange Outlet, including, but not limited to, transportation to and from an Orange Charger Authorized Service Center, loss of the Orange Outlet or adapter, loss of time, loss of income, loss of use, loss of personal or commercial property, inconvenience or aggravation, emotional distress or harm, commercial loss (including but not limited to lost profits or earnings), bus fares, vehicle rental, service call charges,

gasoline expenses, lodging expenses, damage to tow vehicles, and incidental charges such as telephone calls, facsimile transmissions, and mailing expenses.

The above limitations and exclusions shall apply whether your claim is in contract, tort (including negligence and gross negligence), breach of warranty or condition, misrepresentation (whether negligent or otherwise), or otherwise at law or in equity, even if Orange Charger is advised of the possibility of such damages or such damages are reasonably foreseeable.

Nothing in this Orange Outlet Limited Warranty shall exclude, or in any way limit, Orange Charger's liability for death or personal injury solely and directly caused by Orange Charger's negligence, or that of its employees, agents, or subcontractors (as applicable), fraud or fraudulent misrepresentation, or any other liability to the extent the same is proven in a court of competent jurisdiction in a final non-appealable judgment and may not be excluded or limited as a matter of local law.

Change Log

~~Published April 30th, 2021~~

Revision 1.0

Published Dec 12th, 2021

Revision 1.1

Published Jun 10th, 2022

Revision 1.2

Published July 5th, 2022

Revision 1.3

Published Aug 1st, 2022

Revision 1.4

Published Sep 17st, 2022

Revision 1.5