

Evr-Green DC

Electric Vehicle Charging Station for Public Use

CAT. NO: CPDCF

Installation Guide

for Standalone and Paired Stations



chargepoint+[™]
Express 250
DC Fast Charging Station

IMPORTANT SAFETY INSTRUCTIONS: SAVE THESE INSTRUCTIONS



WARNING:

- 1. Read and follow all warnings and instructions before installing and operating the ChargePoint® Charging Station.** Install and operate only as instructed. Failure to do so may lead to death, injury, or property damage, and will void the Limited Warranty.
- 2. Only use licensed professionals to install your ChargePoint charging station and adhere to all national and local building codes and standards.** Before installing the ChargePoint® charging station, consult with a licensed contractor, such as a licensed electrician, and use a trained installation expert to ensure compliance with local building and electrical codes and standards, climate conditions, safety standards, and all applicable codes and ordinances. Inspect the charging station for proper installation before use.
- 3. Always ground the ChargePoint charging station.** Failure to ground the charging station can lead to risk of electrocution or fire. The charging station must be connected to a grounded, metal, permanent wiring system, or an equipment grounding conductor shall be run with circuit conductors and connected to the equipment grounding terminal or lead on the Electric Vehicle Supply Equipment (EVSE). Connections to the EVSE shall comply with all applicable codes and ordinances.
- 4. Install the ChargePoint charging station on a concrete pad using a ChargePoint approved method.** Failure to install on a surface that can support the full weight of the charging station can result in death, personal injury, or property damage. Inspect the charging station for proper installation before use.
- 5. This charging station is not suitable for use in or around hazardous locations, such as near flammable, explosive, or combustible materials.**
- 6. Do not use this product if the enclosure, EV cable, or the EV connector is broken, cracked, open, or shows any other indication of damage.**
- 7. Do not put fingers into the electric vehicle connector.**



Important: Under no circumstances will compliance with the information in this manual relieve the user of his/her responsibility to comply with all applicable codes or safety standards. This document describes the most commonly-used installation and mounting scenarios. If situations arise in which it is not possible to perform an installation following the procedures provided in this document, contact ChargePoint, Inc. **ChargePoint, Inc. is not responsible for any damages that may result from custom installations that are not described in this document or for any failure to adhere to installation recommendations.**

Product Disposal

To comply with Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), devices marked with this symbol may not be disposed of as part of unsorted domestic waste inside the European Union. Enquire with local authorities regarding proper disposal. Product materials are recyclable as marked.



No Accuracy Guarantee

Commercially reasonable efforts were made to ensure that the specifications and other information in this manual are accurate and complete at the time of its publication. However, the specifications and other information in this manual are subject to change at any time without prior notice.

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Symbols Used in This Document

This guide and product use the following symbols:



DANGER: Risk of electric shock.



WARNING: Risk of personal harm or death.



CAUTION: Risk of equipment or property damage.



Important: Crucial step for installation success.



Read the manual for instructions.



Ground/protective earth.

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Prepare for Installation 1

This document describes how to install a ChargePoint® Express 250 DC fast charging station. An Express 250 can be installed to operate by itself (called “Standalone”) or to share power with one other Express 250 for higher throughput (called “Paired”).



Important: You must be a licensed electrician and complete an online training course to become a ChargePoint certified installer. **If you do not complete installation training, you cannot access the ChargePoint Network to complete pinpointing and station setup.**

To complete online training and become a certified installer, refer to ChargePoint University at: chargepoint.com/installers or chargepoint.com/eu/installers

Access ChargePoint documents online for each phase of the project:

Document	Content	Audiences
<i>Express 250 Data Sheet</i>	Full station specifications	Site designer, installer, and station owner
<i>Express 250 Site Design Guide</i>	Civil, mechanical, and electrical guidelines to scope and construct the site	Site designer or engineer of record
<i>Concrete Mounting Template Guide</i>	Onsite instructions for installing the CMT with anchor bolts and conduit placement	Site construction contractor
This document	Anchoring, wiring, and powering on	Installer
<i>Express 250 Operations and Maintenance Guide</i>	Operation and preventative maintenance	Station owner or facility manager
Full set of Field Replacement Guides	Component replacement procedures	Station owner or third party servicer



CAUTION: Do not install the charging station in inclement weather. If you must complete the installation in rain or wind, you must use a weather-proof shelter that covers all boxes and components.



CAUTION: Do not use power tools during installation or servicing. Over-torquing can damage the equipment.

Note: For all charging station specifications other than dimensions and weights, refer to the *Express 250 Data Sheet* found online at chargepoint.com/support/guides.

For assistance, go to chargepoint.com/support and find your region's technical support number.

Installing the Express 250 requires two people and takes approximately 3-4 hours. This time estimate does not include the time needed to pull DC and Ethernet cable for a Paired installation if it is not already done. Paired installation also requires contacting a ChargePoint support technician to perform any required software updates and configuration.

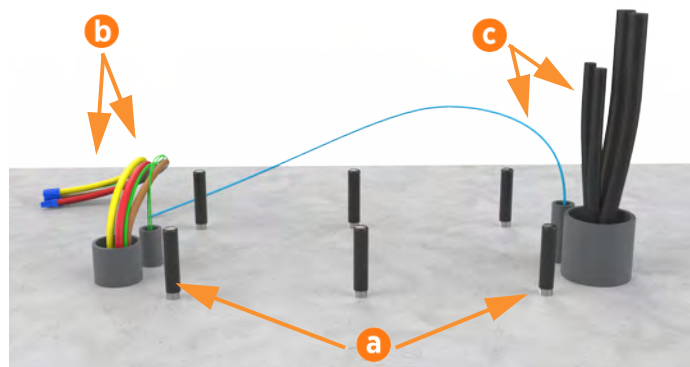


Important: Always ensure that the installation complies with all applicable codes.

Check Site Readiness

The Express 250 is installed on a concrete pad. Details on how to prepare this pad are described in the *Express 250 Site Design Guide*.

All installations require anchor bolts (a). Standalone installations only require the two conduit stub-ups on the left side, for AC wiring and shunt trip wiring (b). Paired installations also require the wiring shown on the right: DC wiring and Ethernet communication (c).



Important: Only the four corner anchor bolts are required for station stability. Newer charging stations are designed to only use the four corner anchor bolts. If the site is already designed with six anchor bolts, removing the middle bolts is not required. Always use the leveling nuts on three corner bolts to level the system, then complete torquing instructions for all four corner nuts as described in a later section.

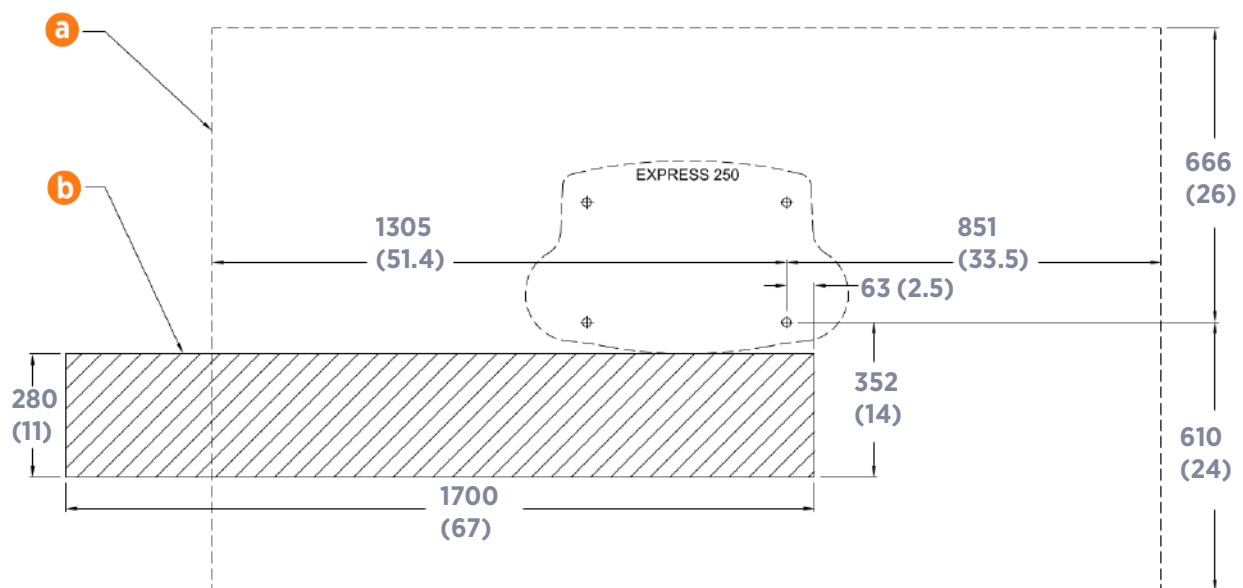


WARNING: If not installed correctly, the ChargePoint® Charging Station may pose a fall hazard, leading to death, personal injury, or property damage. Always use the provided Concrete Mounting Template shown pre-installed here, or a ChargePoint-approved surface mounting solution, to install the ChargePoint® Charging Station. Always install in accordance with applicable codes and standards using licensed professionals. Non-approved installation methods are performed at the risk of the contractor and void the Limited One-Year Parts Exchange Warranty.

Before beginning work, check that the site meets these civil and mechanical requirements outlined below, as illustrated in the following image. Measurements are in mm (in):

- The concrete pad is ready and the concrete is fully cured and level.
- The concrete pad either has a site drawing approved by a structural engineer for this specific site, OR conforms to these specifications:
 - At least 305 mm (12 in) deep (or deep enough to be 305 mm (12 in) below the frost line)
 - At least 1296 mm (51 in) on each side
- Walls, fences, or slopes do not prevent water from draining from the pad.
- The concrete mounting template (CMT) is installed in the concrete pad, 50.8 mm (2 in) below the concrete surface, with anchor bolts in place in the CMT.
- The AC conduit (max 50.8 mm/ 2 in trade size) and shunt trip conduit (max 19.1 mm/ ¾ in size) are positioned correctly in the CMT and cut down to 76.2 mm (3 in) above grade.
- Paired only: The DC conduit (max 76.2 mm/ 3 in trade size) and Ethernet conduit (max 19.1 mm/ ¾ in size) are positioned correctly in the CMT and cut down to 76.2 mm (3 in) above grade.
- The service clearance of open space (not necessarily at system grade) extends a minimum of 610 mm (24 in) beyond the station in front, 1276 mm (50 in) total front to back, 2156 mm (84.8 in) side to side centered on the station, and 305 mm (12 in) above the station (image callout a).
- The front of the station has 352 mm (14 in) of space at grade from the front right anchor, extending 1700 mm (67 in) to the left, without any permanent obstructions (bollards, wheel stops, etc) (b).
- Charging station sites are positioned so that each station is centered on a parking space (unless curbside), with the front of the station facing the vehicle. (This maximizes cable reach.)
- The charging station is at least 305 mm (12 in) from any wall as its rear clearance. Stations positioned back to back are no closer than 610 mm (24 in) shared clearance.

If the site does not meet these basic requirements, contact ChargePoint before continuing.



- Enough space is available around the installation pad to use a forklift and other lifting equipment, unpack crates, remove packing materials, and allow two people to freely move throughout the area.



Important: Remove any concrete that is not level with the rest of the surface, or you cannot level the Express 250. Use a grinder or a hammer and chisel to remove any bumps in the concrete.

Also ensure that these electrical requirements are in place:

- The appropriate circuit protection, and metering is in place at the installation site.
- A grounding conductor that complies with local codes is properly grounded to earth at the service equipment or, when supplied by a separate system, at the supply transformer.
- A correctly rated, dedicated breaker is installed for each station, per this table:

Nominal Voltage	Max AC Current	Breaker Size
400 V (EU)	96 A	125 A
480 V (N. America)	80 A	100 A (125% continuous load required for N. America)

- Breakers have shunt trip capability if the site drawing calls for shunt trip wiring.
- All necessary electrical infrastructure has been completed per local codes and ChargePoint specifications for 3-phase power plus ground, with properly sized wire at the station. (Neutral is not required for system operation.)

Voltage Rating	Temperature Rating	Maximum Conductor Size for Terminals
EU non-armored: 600/1000 V	90°C	35 mm ²
EU armored: 600/1000 V	90°C	35 mm ² multi-core
N. America: 600 V	90°C	2 AWG

- Cellular signal strength is consistently strong to allow installation and station operation. Use a cellular signal detection device (such as a Snyder, Octopus, or similar) to ensure the signal is -85 dBm or better. (Note that these numbers are negative, so -70 dBm is stronger than -85 dBm, and -90 dBm is weaker.) If the signal is below -85 dBm, install multi-carrier, multi-band repeaters to boost signal strength. Repeaters are often required for installations in underground garages or enclosed parking structures.
- **Paired only:** All four DC copper conductors are installed between stations as follows:

Voltage Rating	Temperature Rating	Maximum Conductor Size for Terminals	Insulation Type
EU non-armored: 600/1000 V	90°C	120 mm ²	XLPE
EU armored: 600/1000 V	90°C	120 mm ² 4-core	XLPE
N. America: 1000 V	90°C	4/0 AWG	XHHW-2

- **Paired only:** Outdoor rated Ethernet Cat5e or Cat6 cable, without terminations, is pulled between the two stations with 3050 mm (10 ft) of service loop at each end.

For any questions about site specifications, refer to the *Express 250 Data Sheet* and *Express 250 Site Design Guide*.



Important: The Express 250 charging station is tested to IEC 61000-4-5, Level 5 (6 kV @ 3000 A) standards. In geographic areas that experience frequent thunderstorms, supplemental surge protection must be installed at the service panel.

Check Express 250 Shipping Crates

Each Express 250 ships in at least two crates. Ensure you have all crates at the installation site.

Contents	Max. Shipped Dimensions	Max. Shipped Weight*
Express 250 Charging Station	1270 x 1104.9 x 2438.4 mm (50 x 43.5 x 96 in)	494 kg (1089 lb)
Power Module crate: holds 1 Power Module	901.7 x 571.5 x 368.3 mm (35.5 x 22.5 x 14.5 in)	49.9 kg (110 lbs)

*Includes the weight of the crate - for the weight of the component, see the *Express 250 Data Sheet*



Important: Always transport and store the Express 250 in its original packaging. Use appropriate lifting equipment (forklift, crane and lifting straps, etc). Ensure the load rating of all lifting equipment is adequate for the weight of the crated Express 250 as shown above.

Express 250 Charging Station Crate



Important: Leave components in the shipping crate until needed. When removing, protect them from damage (such as scratches) by placing them flat on a blanket or tarp, face up. Do not stand up cover panels, as they may be knocked or blown over. Cover charging connectors to prevent damage or ingress.

1. Express 250 main body
 - a. Swing arms
 - b. Touchscreen
 - c. Charging connectors (in bin for shipment)
 - d. Forklift handles and crane lift guides (removed during installation)

2. Rear cover panels (x3)

3. Area light bar

4. LED display

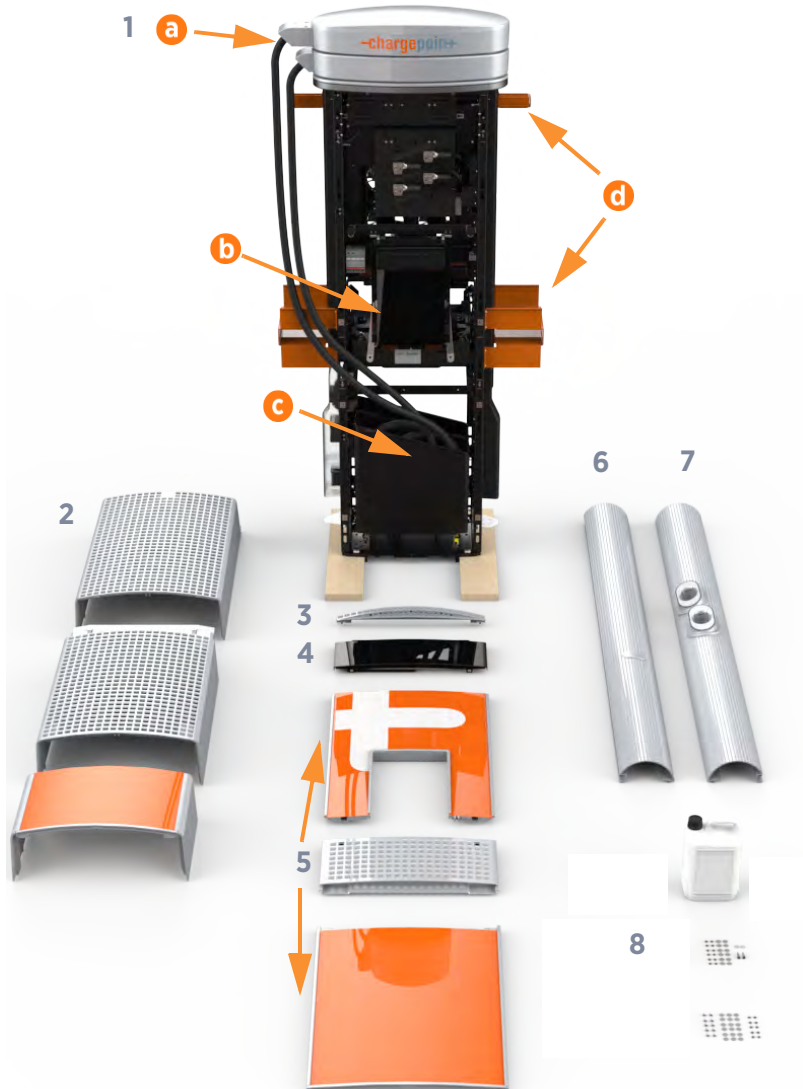
5. Front cover panels (x3)

6. Left extrusion

7. Right extrusion

8. Installation kit:

- 16 mm (5/8 in) -11 nuts (x12)
- 16 mm (5/8 in) washers (x12)
- M5x8 T25 Torx screws (x10)
- M5 washers (x10)
- Plastic caps (x2, 2 extra)
- M5 x 10 T25 Torx shoulder screws with retained washers (x2, 2 extra)
- Duct seal compound
- EMI shields (x2) (not shown)
- Propylene glycol coolant (the coolant label references its Safety Data Sheet if needed)
- Ethernet connector that accommodates up to 6 mm (0.24 in) OD jacketed Cat5e or Cat6 cable (for Paired installations only)
- Dielectric grease (for Paired installations only)
- Labels for panel breakers (for Paired installations only)
- Rodent guard bracket grommets for DC (x1 73 mm (2 7/8 in) OD, x1 22 mm (7/8 in) OD) (for Paired installations only)



ChargePoint also provides a tool kit (not shown):

- T20 Torx security driver
- T25 Torx security driver
- T27 Torx security driver
- Wago driver
- Coolant funnel
- 2.5 cm x 183 cm (1 in x 6 ft) lifting straps
- Printed Installation Guide

Power Module Shipping Crate

Each Power Module crate holds one Power Module each. It also contains a fastener kit that includes:

- Ground stud brackets (x2)
- M5x6 mounting screws (x8)

These brackets are only needed for Power Module replacements in older stations. New charging station installations can ignore these parts.



CAUTION: Always rest a Power Module flat on the ground until it is being installed. Power Modules are not stable in any other position. Images of Power Modules standing with the handles on top are only to illustrate the proper installation position.

Bring Tools and Materials

In addition to the tools and materials provided by ChargePoint in product crates, an approved installer needs:

- Lifting equipment (forklift or crane)
- Lockout/tag out equipment
- Step ladder
- Cut-resistant gloves
- Safety glasses
- Head-mounted flashlight
- Torque wrenches capable of 4 to 95 Nm (3 to 70 ft-lbs)
- 10 mm (3/8 in) deep socket wrench
- 18 mm (11/16 in) wrench
- 24 mm (15/16 in) wrench (x2)
- 8 mm (5/16 in) nut driver
- 10 mm (3/8 in) nut driver
- 5 mm (3/16 in) hex driver
- #2 Phillips screwdriver with long handle
- Cellular signal detection device, such as a Snyder, Octopus, or similar
- Standard electrical equipment such as wire cutter, wire stripper, and cable ties
- Level
- Isopropyl wipes
- Wire brush
- If not already installed for this site, and if applicable, shunt trip wiring: size 0.08 to 2.5 mm² (28 to 14 AWG), fine stranded or solid
- If not already installed for this site, AC and ground conductors with these specifications:

Voltage Rating	Temperature Rating	Maximum Conductor Size for Terminals
EU non-armored: 600/1000 V	90°C	35 mm ²
EU armored: 600/1000 V	90°C	35 mm ² multi-core
NA: 600 V	90°C	2 AWG

If this is a Paired installation, the certified installer also needs these tools and materials:

- Cable puller or fish tape (if not already completed on site)
- DC conductors (x4):

Voltage Rating	Temperature Rating	Maximum Conductor Size for Terminals	Insulation Type
EU non-armored: 600/1000 V	90°C	120 mm ²	XLPE
EU armored: 600/1000 V	90°C	120 mm ² 4-core and cable gland sized to local code (such as Cablecraft CCG-CW50 or similar)	XLPE
NA: 1000 V	90°C	4/0 AWG	XHHW-2

- **NOTE:** 95 mm² (3/0 AWG) is sufficient for most sites unless ambient temperatures are $\geq 40^{\circ}\text{C}$ per regional code (ASHRAE Table D101 Summer Dry Bulb Temperature for North America or IEC 60364-5-54 in Europe)
- 2 positive and 2 negative conductors; 1 positive and 1 negative in each direction
- USA/Canada: Copper only, minimum current carrying capacity 160 A
- EU/UK: Rated at 1000 V conductor to conductor (+/-500 V conductor to ground, LV), copper only, minimum current carrying capacity 160 A
- DC cable run must be continuous, with no joints or splices
- Consult site drawings for site-specific conductor size and length (*Express 250 Site Design Guide* provides conductor size calculation examples for reference)
- Leave 61 cm (2 ft) of each conductor above grade at each end
- DC lugs (x4): lug specifications are:
 - Silver plated copper compression lug (2-hole specified for North America); tin plated is acceptable if used with dielectric grease
 - Holes for an M6 (1/4 in) stud at 19 mm (3/4 in) stud hole spacing
 - Maximum width 30 mm (1.18 in)
 - **NOTE:** 95 mm² (3/0 AWG) is sufficient for most sites unless ambient temperatures are $\geq 40^{\circ}\text{C}$ per regional code (ASHRAE Table D101 Summer Dry Bulb Temperature for North America or IEC 60364-5-54 in Europe)
 - North America lug size: 3/0 or 4/0 AWG
 - Example UK/EU lugs for average conductor size are Weidmuller 1494410000 120 mm² or similar
 - Contact ChargePoint if the installer requires lugs for 3/0 (kit 99-002644-01) or 4/0 (kit 99-002645-01) conductors

-
- DC cable lug crimper and die that is compatible with lug size and brand (**NOTE:** The lug die and crimp tool must match the lug manufacturer. Always review the lug manufacturer's instructions for compatibility)
 - Multimeter with toner attachment, such as Fluke 117 or similar
 - Ethernet wiring for DC:
 - Minimum of CAT5e or better
 - Outdoor or plenum rated wiring
 - Maximum run length of 100 m (328 ft)
 - Leave 3.2 m (10.5 ft) of wire above grade at each end
 - Field crimp using straight-through pattern 568B
 - Ethernet crimper
 - Ethernet crimp tester capable of testing for correct 568B (split pair) pattern, such as a Klein Tools VDV526-052 VDV LAN Scout Jr. Tester or similar
 - Permanent marker
 - Torque paint pen

Secure Anchors and AC Wiring 2

This section describes how to receive and anchor a new Express 250 charging station, and wire the AC conductors. These steps are the same for both Standalone and Paired installations.

Prepare the Express 250 for Mounting

Note: The Express 250 is equipped with both forklift handles and crane lift guides to move and mount the Express 250. Lifting straps, supplied with the crate, can be used for either configuration.



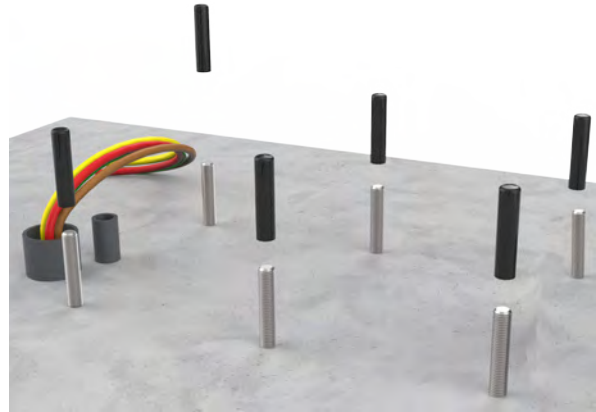
Important: Only the four corner anchor bolts are required for station stability. Newer charging stations are designed to only use the four corner anchor bolts. If the site is already designed with six anchor bolts, removing the middle bolts is not required. Always use the leveling nuts on three corner bolts to level the system, then complete torquing instructions for all four corner nuts as described in a later section.



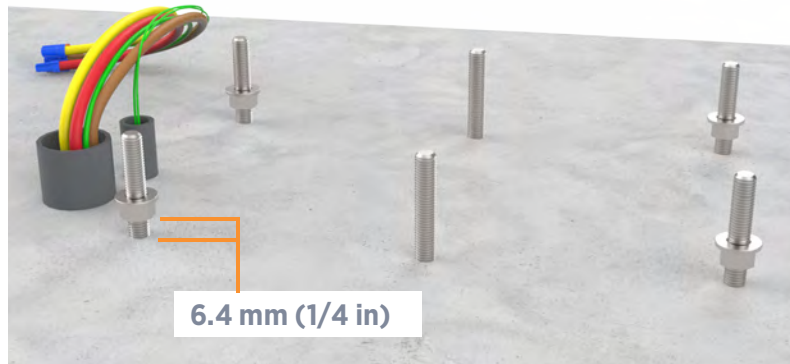
Important: If you are replacing an Express 200, skip Step 1. The Express 200 adapter must be removed as described in [Removing the Express 200 Adapter \(page 55\)](#) prior to Step 2.

1. Ensure all four AC and DC conduit stub-ups (if applicable) are trimmed to a height within reach of the adjustable rodent guard brackets: a minimum of 60 mm (2.4 in) from the ground, maximum 160 mm (6.3 in). If the site is using armored cable, strip the outer jacket to within the same height.
2. Ensure no bell ends are left on any conduit after all wires are pulled. Bell ends can interfere with station placement.

3. Remove the plastic caps from all mounting bolts on the concrete installation pad.
4. Use a wire brush to clean out threads if any concrete is on the upper bolts.



5. Place a leveling nut and washer on each of the four corner bolts.
6. Leave approximately 6.4 mm (1/4 in) between the bottom of the leveling nuts and the concrete. Check nut positions relative to each other with a level.



WARNING: THE CRATE IS HEAVY AND CAN CAUSE INJURY OR DEATH IF DROPPED. DO NOT STAND OR MOVE BENEATH THE CRATE AS IT IS BEING TILTED. TAKE PRECAUTIONS AGAINST THE CRATE TIPPING OR SLIDING.



7. Retrieve the lifting straps from either the toolkit or the main crate. If there is no separate toolkit: rest the crate in a stable position and unlatch the lid. Retrieve the lifting straps just inside and securely re-fasten the lid.
8. Transport the crate close to the installation site. If using a forklift, position the forks at least 762 mm (30 in) apart to assist with stability.

9. If the crate is horizontal:
 - a. Thread the lifting straps through the 25 mm (1 in) lifting holes in the left and right skids of the crate (a).
 - b. Fasten the other ends of the straps to an appropriately-rated forklift or crane.
 - c. Using the forklift or crane, carefully tilt the crate up until vertical. Use the lifting straps to stabilize the crate and prevent it from tipping.
10. Once the crate is vertical, unlatch the lid and set it aside.
11. Remove the wooden braces that secure the Express 250 in the crate.



Note: In early versions of the crate, one top swing arm brace is secured with 8 screws (4 per side) from the outside of the crate. If needed, remove this brace using a #2 Phillips screwdriver.

12. Remove the foam pad from the ceiling of the crate and the foam packaging from the top of the swing arms.

Note: For crane access, or for extra room while forklifting, remove the top screws and top panel of the crate.
13. Loosen (but do not remove) the wingnuts holding the boards that secure the charging station base. Slide the support boards away from the charging station.



WARNING: The Express 250 has a high center of gravity. Take care to prevent tipping when moving the Express 250.

14. Using either a forklift or crane, remove the Express 250 from its crate. Move it to its mounting location and keep it elevated:
 - Using an overhead crane: Thread the supplied lifting straps through the forklift handles, then through the crane lift guides at the top. DO NOT put the straps through the crane lift guides only.
 - Using a forklift: Insert the forklift blades inside the forklift handles. Position the blades approximately 70 cm (27.5 in) apart (inside to inside), and the bottom of the blades approximately 114 cm (45 in) above ground. These measurements vary depending on the type of forklift used.

Note: If a wall is located behind the installation pad, ensure the forklift blades do not protrude far enough to hit the wall when moving the Express 250 onto the pad.

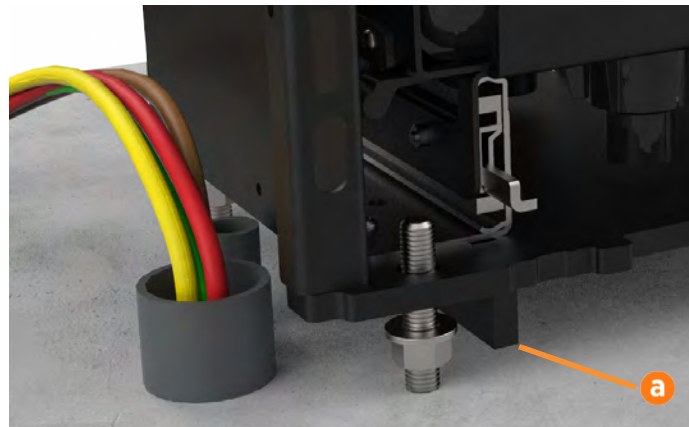


Important: To protect the charging connectors from damage, keep them wrapped throughout the installation process.

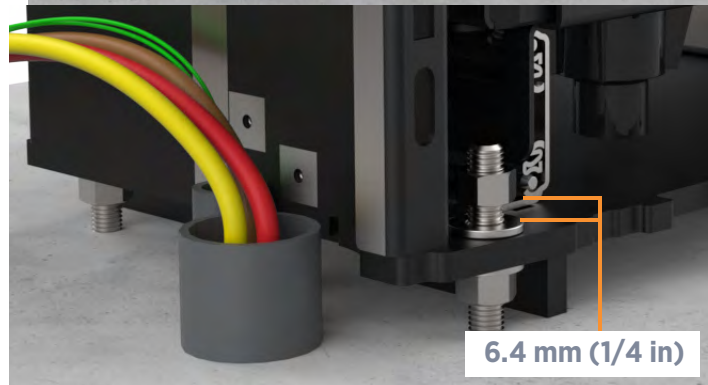
Mount and Secure the Express 250

1. While the Express 250 is elevated, use a 24 mm (15/16 in) hex wrench to remove the bolts and wooden stands from the bottom of the charging station.
2. Lift the Express 250 over the mounting bolts on the installation pad, ensuring the bolts align with the corresponding holes in the bottom of the Express 250. Move the service wiring out of the way to ensure it is not pinched or trapped.
3. Lower the Express 250 onto the anchor bolts.

Note: The Express 250 should rest on the leveling nuts and washers, not on the rails (a). The purpose of the rails is to ensure the Express 250 is installed a minimum height from the concrete, allowing the front and rear panels to sit flush with the concrete surface.



4. Install a washer and nut onto each of the four corner mounting bolts to secure the Express 250. For easier leveling, leave a 6.4 mm (1/4 in) gap between the bottom of these top nuts and the baseplate of the frame.
5. Remove the lifting equipment from the installation area.



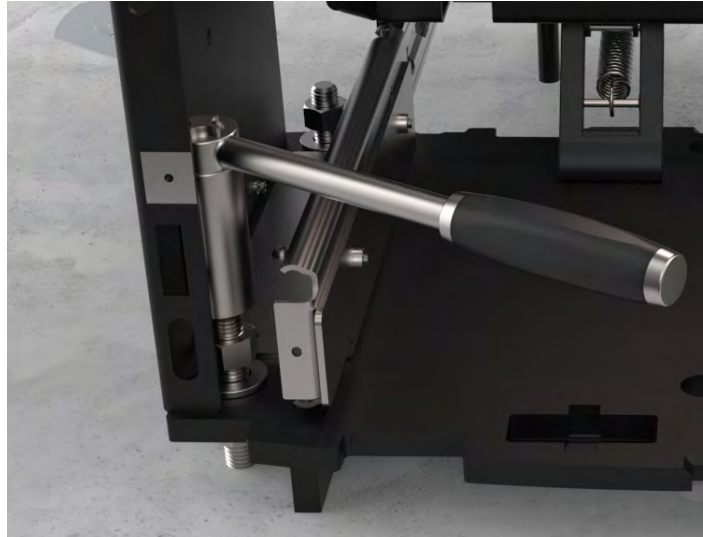
6. Using a level on all four sides, adjust three of the bottom corner leveling nuts as needed to ensure that the Express 250 is both horizontally and vertically level.
7. When level, tighten leveling top nuts by hand. Then raise the remaining (non-leveling) lower nut by hand-turning until flush against the Express 250's frame.



8. Tighten the final top nut by hand. Torque all top nuts to 94.9 Nm (70 ft-lbs).

Note: For easier access to the nuts, press down on the Power Module yellow release latch and slide the tray out.

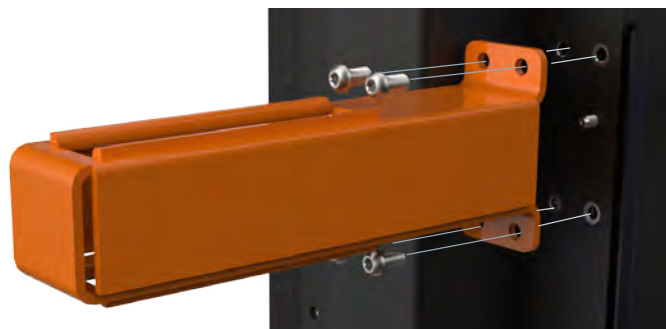
9. Using a level, re-check the vertical and horizontal alignment to ensure the tightening of the nuts did not cause the Express 250 to shift. Make any adjustments to ensure the Express 250 is level while all nuts are tightly secured.



10. Use the supplied T27 Torx driver to remove the right and left forklift handles from each side of the Express 250.



11. Use the supplied T27 Torx driver and the step ladder to remove the right and left crane lift guides near the top of each side of the Express 250.



12. Remove the HDPE plastic shipping bag from the Express 250 and recycle it.



Connect the AC Wiring



DANGER: RISK OF SHOCK. Before performing this procedure, disconnect the power to the Express 250 at the service panel. Keep power off for this circuit until all cover panels are correctly reinstalled and the work scope is completed. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR LOSS OF LIFE.



CAUTION: Ensure a grounding conductor that complies with local codes is properly grounded to earth at service equipment or, when supplied by a separate system, at the supply transformer.

1. Follow standard practice and local code to de-energize the applicable circuit and lock out/tag out the disconnect before proceeding. Use a multimeter to test that power is off.
2. If not already done, pull service wiring through the conduit in the installation pad as described in the *Express 250 Site Design Guide*.



Important: The AC terminal block on the Express 250 accepts 35 mm² (2 AWG) wires only. If using a larger gauge wire to accommodate a long run, reduce the wire size at the local external disconnect.

3. Remove the AC wiring cover on the left side of the Express 250 by pressing on its sides and sliding it downward. Pivot the bottom away from the Express 250 frame.
4. Measure the length needed to extend the wiring from the conduit opening to the Express 250's terminal block (approximately 61 cm/2 ft). Trim the excess wire.



CAUTION: Installing the rodent guard brackets as described below protects the system against pest ingress from under the station or along the wiring. Pest ingress in AC and DC terminal areas can damage the system and/or result in system downtime. Rodent guard bracket installation is required.

5. For North America and other regions using *conduit*:

a. Use a T25 Torx to loosen the two M5 screws attaching the rodent guard bracket to the charging station.

b. Route the AC wiring bundle through the larger rodent bracket grommet and the ferrite stack.

Note: If the cable's bend radius does not allow it to thread through the ferrite mounting, use a T25 Torx to temporarily remove the mounting from the station. Immediately reinstall it once the conductors are in place.

c. Route the shunt trip wiring only through the smaller rodent bracket grommet, not through the ferrite stack.

d. Slide the rodent guard bracket down to leave no gap above the conduit openings. Tighten the T25 screws on the adjustable rodent guard bracket to secure it in place. Multiple screw holes are available to fasten the bracket at different heights.

e. Skip to step 7.



6. For the UK and other regions using *armored cable*:

a. Use a T25 Torx to loosen the two M5 screws attaching the rodent guard bracket to the charging station.

b. Remove the larger grommet in the rodent guard bracket, to avoid interference with the cable gland.

c. Use the smallest cable gland appropriate for the AC conductor size. The bracket can support up to a CW63 size gland.

d. Install the lower cable gland half on the armored cable, below the rodent guard bracket.

e. Route the AC wiring bundle through the rodent guard bracket grommet and the ferrite stack.

Note: If the cable's bend radius does not allow it to thread through the ferrite mounting, use a T25 Torx to temporarily remove the mounting from the station. Immediately reinstall it once the cable is in place.

f. Route the shunt trip wiring only through the smaller grommet in the rodent guard bracket, not through the ferrite stack.

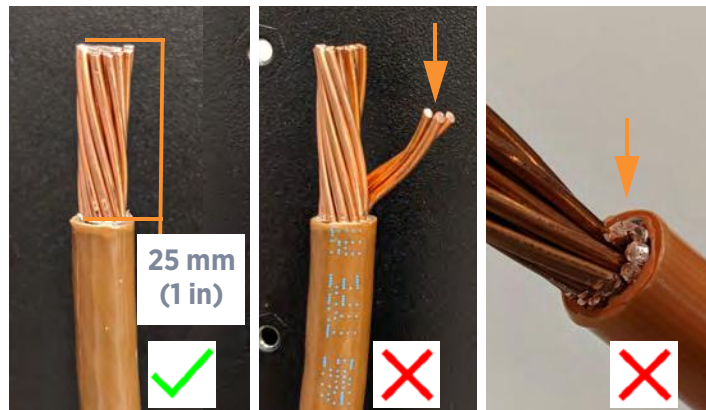


g. Complete installation of the cable gland. Once secure, tighten the T25 screws on the adjustable rodent guard bracket to secure it in place. Multiple screw holes are available to fasten the bracket at different heights.

7. Strip each wire end 25 mm (1 in).



CAUTION: Stripping the wire **less** than 25 mm (1 in) can prevent the Wago port from adequately securing the wire. **This can cause arcing or a similar electrical hazard that could result in property damage, injury, or death.**



8. Bundle the strands of each wire tightly. DO NOT remove strands to fit the wire into the terminal.

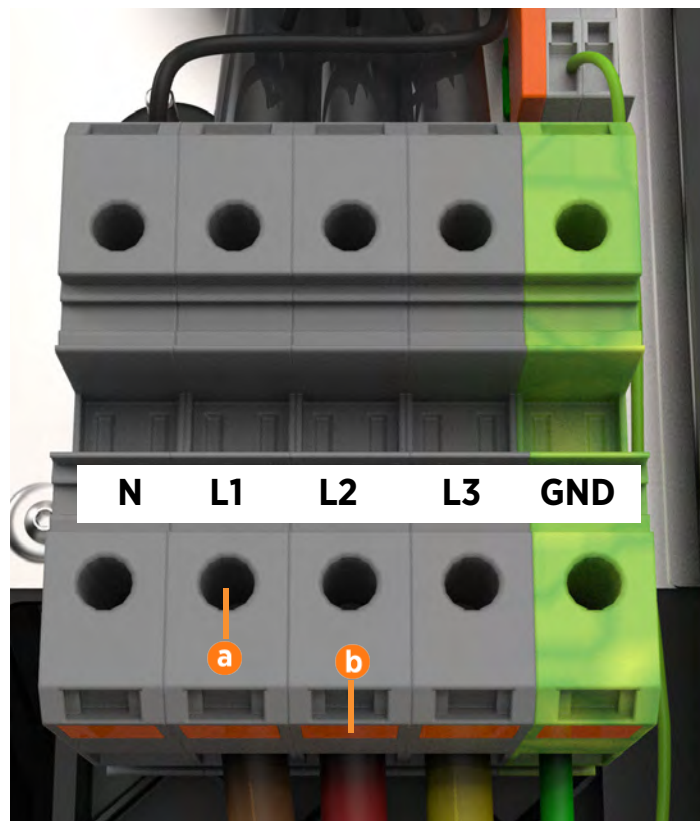


CAUTION: Ensure the exposed wires are tightly bundled with no loose strands. Loose or missing strands **can cause arcing or a similar electrical hazard that could result in property damage, injury, or death.**

9. Connect the L1, L2, L3, and GND (protective earth) service wiring to the terminal block. Check local code to see if Neutral is needed. Neutral connection is not required for service equipment operation and the terminal is provided for convenience only.

To connect each wire:

- Fully insert the supplied Wago tool into the Wago port (a) and rotate the tool firmly counter-clockwise 90° to open the connector.
- Lock the connector in the open position by firmly pressing the orange button below it (b).
- Insert the wire fully until it hits the connector's back stop.
- Insert and rotate the Wago tool counter-clockwise again to close the connector. The connector clicks as it closes onto the wire and the orange button is released.



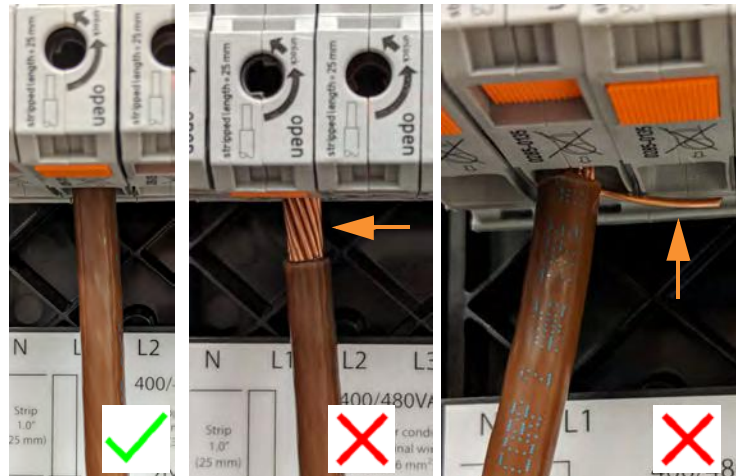


Important: Ensure the L1, L2, and L3 cables are installed in the correct order. Incorrect installation creates a phase rotation error later in the process. Phase rotation must be counter-clockwise.

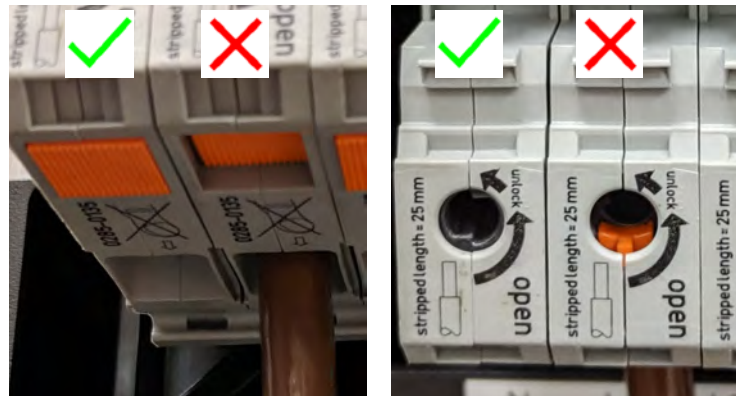
10. Inspect the wiring and Wago terminals before proceeding:
- Ensure no copper is exposed below the terminal.
 - Verify that all strands were fully inserted into the terminal, without being bent back.



CAUTION: Ensure NO copper is exposed below the terminal once installed.



- Verify that all Wago connectors are fully closed. A fully closed connector has an orange button in the flush (released) position, and shows no orange in the tool port.
- Confirm each wire is held securely inside its connector by performing a pull-push test.



11. For each of the two shunt trip terminals above the AC terminal block, use a screwdriver to open the locking tab and insert the shunt trip wiring from the smaller conduit. (Only one wire is shown in the example.) Shunt wires are interchangeable. Release the terminal tab and confirm each wire is held securely by performing a pull-push test.
12. Use cable ties to bundle the wires in one or two places.
13. Use the supplied duct seal compound to completely seal all AC openings against pest ingress:
- The inside of the conduit opening
 - Within the rodent guard bracket openings for wiring
 - Around the edges of the rodent guard bracket where it will meet the extrusion



Important: The conduit opening must be sealed to protect the wiring from the environment.

14. Install the AC wiring cover.

- a.** Tilt the narrow end of the cover under the side panel.
- b.** Slide the tabs near the bottom of the cover into the slots on the Express 250. Squeeze the sides of the wiring cover as you guide these tabs into the slots.
- c.** Slide the wiring cover upward until the tabs click into place.



Pair the Charging Stations 3

This section describes the steps needed to install labels, connect the DC conductors, and connect Ethernet communication if the charging station is being paired.

If the Express 250 is being installed as a Standalone station, skip this section and continue to [Install Cover Panels \(page 29\)](#).

Install New Labels

1. Identify the ratings label area at the rear of the charging station, just under the charging cable swing arms.
2. Peel the backing and the protective front strip from the new ratings label. Affix the ratings label over the top of the existing ratings. The new label reflects the updates in charging station capacity.
3. Identify the two charging stations to be paired. For each pair, check site plans to see which charging station is designated Station 1 and which is Station 2. If the plans do not define it, designate them now.
4. Affix the AC disconnect labels in the site's main language to the disconnect responsible for AC power to this charging station and the disconnect for its Paired partner.
5. Using permanent marker, write in the last three numbers of both Paired stations' serial number (found next to the ratings) on each disconnect label, so that future technicians know which disconnect to power off for service. This is especially important for sites with multiple pairs of charging stations.



DANGER: RISK OF SHOCK. Power must be disconnected at the service panel to BOTH Express 250 paired charging stations when servicing. FAILURE TO CORRECTLY MARK THIS FOR FUTURE TECHNICIANS CAN RESULT IN SERIOUS INJURY OR LOSS OF LIFE.



Important: Disconnect numbers must be written in permanent marker. Normal ballpoint pen ink does not stay legible on the label.

Install DC Cables

The wiring on the DC side (the right side of the charging station) is only connected for Paired installations. Do not connect this wiring for Standalone installations.



DANGER: RISK OF SHOCK. Leave the power disconnected at the service panel to BOTH Express 250 charging stations to be paired. Keep power off for both circuits until all cover panels are correctly installed and the work scope is completed. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR LOSS OF LIFE.

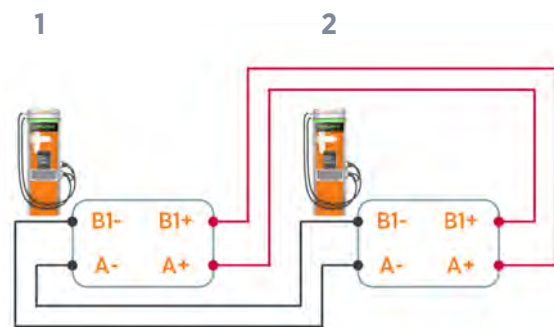


Important: The DC terminal blocks on the Express 250 can accept up to 120 mm² (4/0 AWG) maximum wire size. Check site plans and local code for site-specific requirements.

1. Remove the plastic DC wiring cover on the right side of the Express 250 by pressing on its sides and pulling it outward.



2. If not already done, label each end of each DC conductor to aid installation as follows:
 - “Station 1 A+” on one end and “Station 2 B1+” on the other end
 - “Station 1 A-” on one end and “Station 2 B1-” on the other end
 - “Station 1 B1+” on one end and “Station 2 A+” on the other end
 - “Station 1 B1-” on one end and “Station 2 A-” on the other end





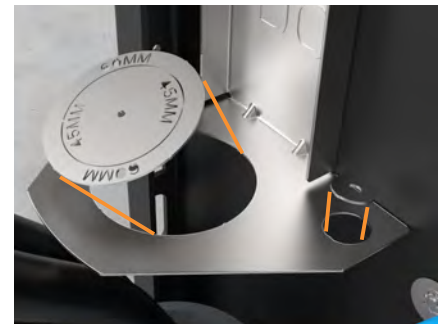
CAUTION: Be sure to connect positive to positive, and negative to negative, on the same wire. Do not reverse the polarity.

3. If not already done, pull DC conductors through the DC conduit and Ethernet wire through the communications conduit in the installation pad, as described in the *Express 250 Site Design Guide*.
4. Use the multimeter and toner attachment to test each DC conductor for continuity. If any errors are found, adjust the conductor labels.
5. Measure the length needed to extend the DC conductors from the conduit opening to the Express 250's terminal blocks (approximately 61 cm/2 ft at each end). Do not trim wires closely yet.



CAUTION: Installing the rodent guard brackets as described below protects the system against pest ingress from under the station or along the wiring. Pest ingress in AC and DC terminal areas can damage the system and/or result in system downtime. Bracket installation is required.

6. Use a flathead screwdriver to push out both punch-out discs in each DC rodent guard bracket.



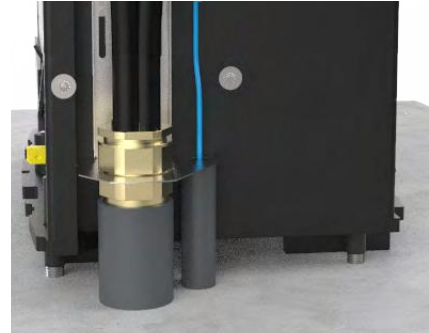
7. For North America and other regions using *conduit*:
 - a. Install the included grommets into both bracket holes, to protect wiring from the edges of the metal bracket.
 - b. Route the conductors through the larger bracket hole.

Note: If the cable bend radius does not allow them to thread through the rodent guard bracket, use a T25 Torx to temporarily remove the bracket from the charging station. Immediately reinstall it once the cables are in place.

- c. Route the Ethernet wire through the smaller bracket hole.
- d. Pull enough Ethernet wire to reach the port (approximately 317.5 cm/ 125 in at each end).
- e. Use a T25 Torx to loosen the two M5 screws attaching the rodent guard bracket to the charging station. Slide the bracket down to leave no gap above the conduit openings. Secure the T25 screws.
- f. Strip the DC wiring outer jackets as needed for wire management.



8. For the UK and other regions using *armored cable*:
 - a. Install the included small grommet into the smaller bracket hole, to protect the Ethernet wiring from the edges of the metal bracket. Do not install the larger grommet, to prevent interference with the cable gland.
 - b. Use the smallest cable gland appropriate for the DC conductor size. The bracket can support up to a CW63 size gland.
 - c. Use a T25 Torx to loosen the two M5 screws attaching the rodent guard bracket to the charging station.
 - d. Install the lower cable gland half on the armored cable, below the rodent guard bracket.
 - e. Route the DC wires through the rodent guard bracket.



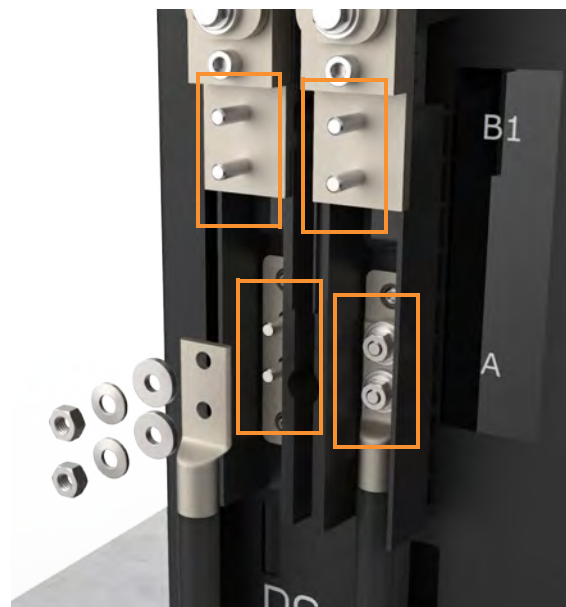
Note: If the cable bend radius does not allow them to thread through the bracket, use a T25 Torx to temporarily remove the bracket from the charging station. Immediately reinstall it once the cables are in place.

- f. Route the Ethernet wire through the smaller hole in the bracket.
- g. Pull enough Ethernet wire to reach the port (approximately 317.5 cm/ 125 in at each end).
- h. Use a T25 Torx to loosen the two M5 screws attaching the rodent guard bracket to the charging station. Slide the bracket down to leave no gap above the conduit openings.
- i. Complete installation of the cable gland. Tighten the T25 screws on the bracket to secure it in place.



Important: Begin cutting, crimping lugs, and landing the DC conductors on one station only as described below, then cut and crimp lugs for the other station. Trimming and crimping for lugs on both sides at once can create misalignments from wire movement within the conduit.

9. Complete these steps for Station 1:
 - a. Measure the height of the A and B1 terminals. Trim the corresponding conductors to length.
 - b. Field-crimp the end of each DC wire with a compression lug that meets the lug specifications in Section 1, [Bring Tools and Materials \(page 8\)](#). Use the directions found with the crimp tool. If required, heatshrink or tape the crimp area to meet local code.
 - c. Remove the installed washers and nuts from the DC A terminal blocks and keep them for installation use.
 - d. Apply a thin coating of the specified dielectric grease on each lug.
 - e. Land the DC lugs on the terminal blocks. Land the A lugs on the bottom terminal blocks, and the



B lugs on the top B1 terminal blocks. Fasten each lug in this order: terminal block, lug, M6 flat washer, M6 Belleville washer with the cup facing the station, 10 mm M6 nut.

f. Use a 10 mm (3/8 in) nut driver to torque DC lugs to 5.5 Nm (48.7 in-lbs). Mark all DC connections with a paint pen.

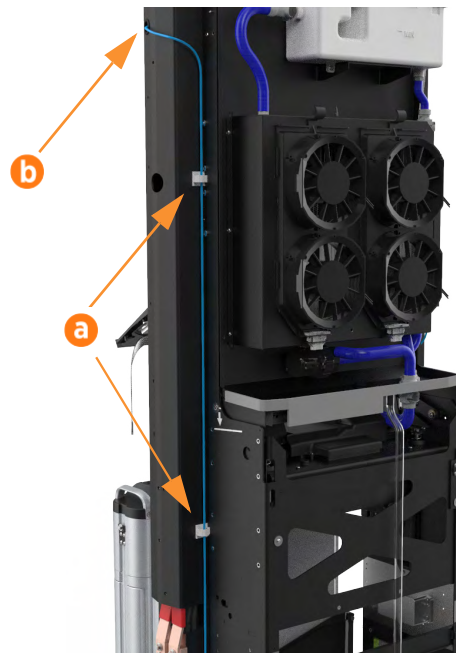


CAUTION: Do not under- OR over-torque the DC fasteners. Excess torque, even with hand tools, can damage the terminal blocks.

10. Complete the above steps for Station 2.

Install the Ethernet Wiring

1. Measure the length needed to extend the Ethernet wiring from the conduit opening, up the side of the frame, and into the Express 250's Station Management Unit, located on a rail under the touchscreen (approximately 317.5 cm/ 125 in). Trim the excess wire.
2. Route the Ethernet wire up the rear side of the frame, through the plastic P-clips (a), and into the top wiring hole (b).



3. Route the Ethernet wire across the charging station from right to left between the auxiliary power supply and the contactor assembly. Zip tie the Ethernet wire to the existing cable bundle at each corner (c).
4. Route the Ethernet wire down behind the touchscreen adjustment bar.
5. With hand pressure, swing the bottom of the touchscreen out to a 45 degree angle (d).

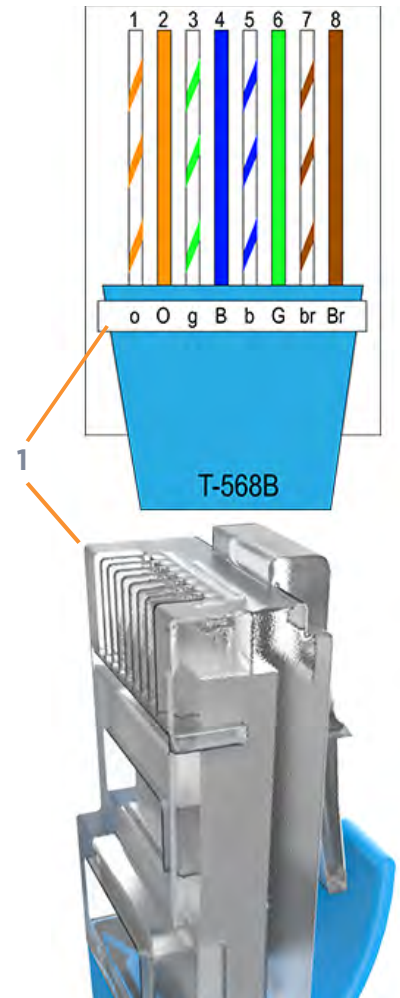


Important: The bottom edge and corners of the touchscreen are sharp. Take care when moving underneath the raised screen.

6. Re-measure the distance to the “Ethernet” port of the Station Management Unit (e) and trim excess wire.

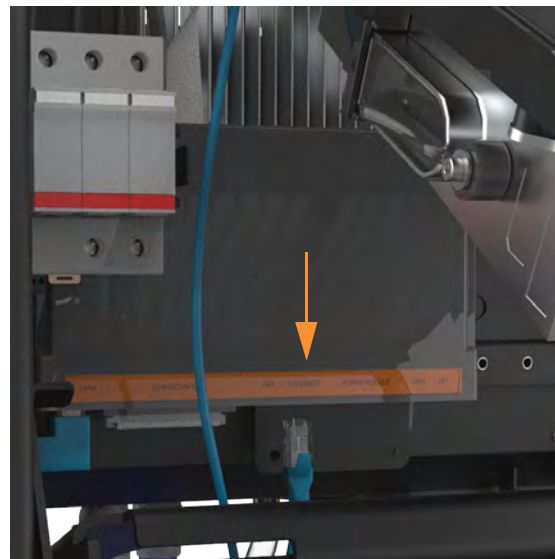


7. Strip the end of the Ethernet insulation.
8. Crimp the Ethernet wire in a straight-through pattern into RJ45 connectors at both ends. Note the location of Pin 1 relative to the clip in the image, and the order of the blue and green wires in the pattern.
9. Test the Ethernet wire for functionality.



10. Plug the Ethernet wire into the **Ethernet** port of the Station Management Unit.

Note: It is easier to access the Ethernet port if the Power Module mechanism handle is temporarily in the down position.



-
11. Use the duct seal compound included in the crate to completely seal all DC openings against pest ingress:
 - a. The inside of the conduit opening
 - b. Within the rodent guard bracket openings for wiring, to pad any sharp edges and block ingress
 - c. Around the edges of the rodent guard bracket where it will meet the extrusion



Important: The conduit opening must be sealed to protect the wiring from the environment.

12. Install the DC wiring cover on the left side of the Express 250 by pressing on its sides and pushing it inward.

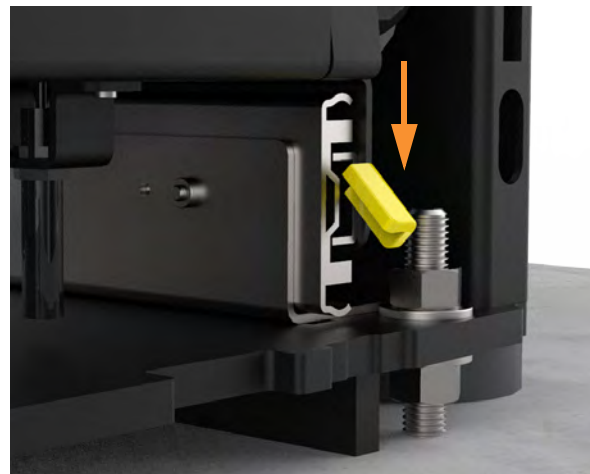


Install Cover Panels 4

This section describes how to correctly attach all cover panels. This is required to prevent any electrical shock hazard before powering on the charging station. These steps are the same for both Standalone and Paired installations.

Install the Left Extrusion

1. At the bottom right corner of the Express 250, press and hold the yellow release latch while pulling the Power Module tray out of the station.
2. Carefully lift the charging cables/connectors out of the Power Module tray and rest them gently on a padded surface out of the way.
3. Slightly tilt the left extrusion and slide its top edge under the bottom edge of the area light bar. Align the holes in the extrusion with the guide pins on each side of the Express 250's frame. This temporarily holds the extrusion in place.

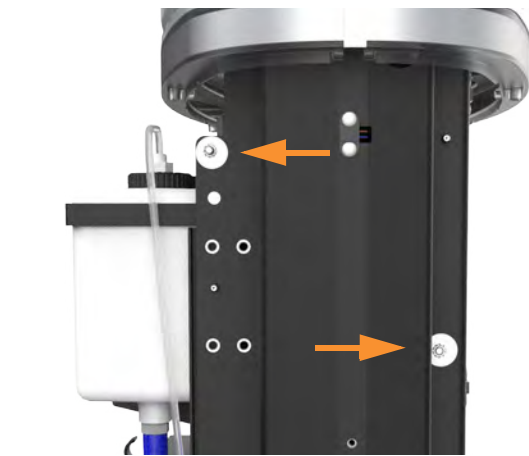


- Using one hand, hold the extrusion and loosely secure the top two captive screws using the supplied T25 Torx driver.

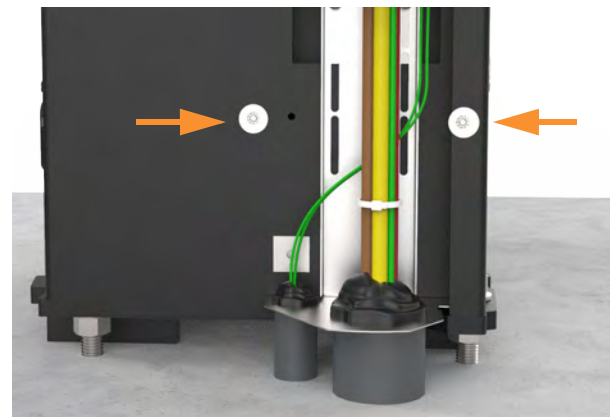
Note: The step ladder is needed to reach the top screws.



Note: The top and middle screws are asymmetrical.



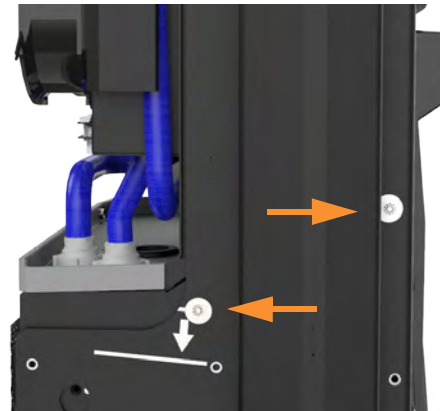
- Use the supplied T25 Torx driver to loosely secure the bottom two screws next. The Power Module holders must not be inside the charging station to have access to the bottom screws.



6. Use the supplied T25 Torx driver to loosely secure the middle two screws, just above the Power Module mechanism.

Note: Access to the middle screws is easier with the Power Module mechanism handle in the closed (down) position.

7. Tighten all left extrusion screws.



Connect the Right Extrusion's Holster Light Cables

1. Locate the P-clip mounted to one of the holsters (top or bottom holster varies by product version).
2. Remove the P-clip hardware from the extrusion holster:
 - Generation 1, attached with screw: use a T25 Torx driver to remove the screw and all its components. Carefully note the order of the components.
 - Generation 2, attached with nut (shown): Use an 8 mm nut driver to remove only the nut and the P-clip.
3. Identify the holster light cable hanging from the right side of the dispenser.
4. Insert the shielded holster cable into the opening in the P-clip to complete the ground path.



5. Connect the shortest cable to the top holster.
6. Connect the next-longest cable to the bottom holster.

Note: If there is a third, longer cable, bundle it to avoid pinch points during installation. The third cable is not currently used.



Important: Check that these connections are correctly seated, or the system will not operate.

7. Reinstall the P-clip hardware stack:
 - Generation 1: holster, star washer, ground cable lug, P-clip with light power cable routed through, M5 T25 screw head.
 - Generation 2: holster stud, P-clip with light power cable routed through, nut. Torque the nut to 5.5 Nm (48.7 in-lbs).



Install the Right Extrusion

1. Slightly tilt the right extrusion and slide its top edge under the bottom edge of the area light bar. Align the holes in the extrusion with the guide pins on each side of the Express 250's frame.



- Using one hand, hold the extrusion and loosely secure the top two captive screws using the supplied T25 Torx driver.

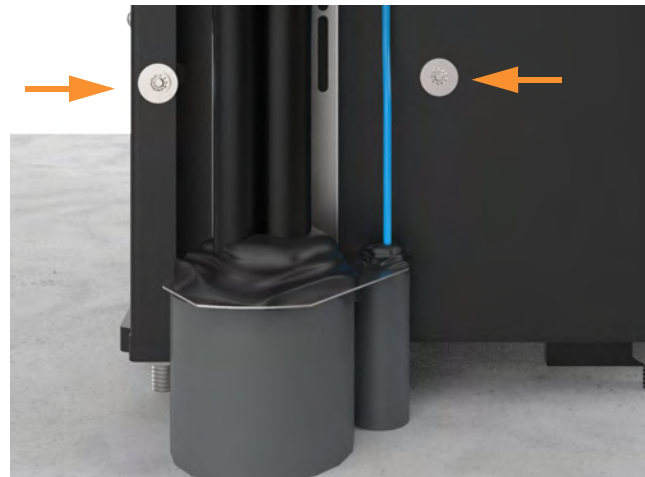
Note: The step ladder is needed to reach the top screws.



Note: The top and middle screws are asymmetrical.



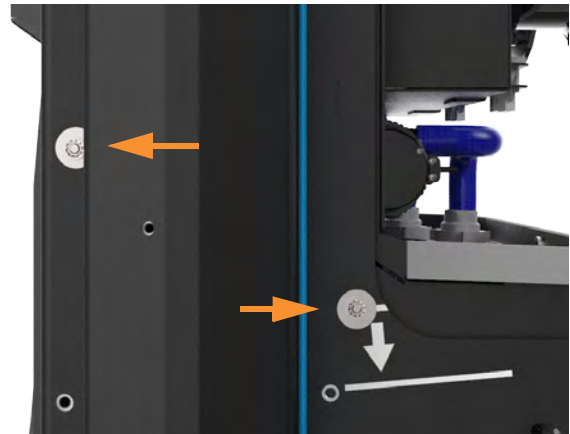
- Use the supplied T25 Torx driver to loosely secure the bottom two screws next. The Power Module holders must not be inside the charging station to have access to the bottom screws.



4. Use the supplied T25 Torx driver to loosely secure the middle two screws, just above the Power Module mechanism.

Note: Access to the middle screws is easier with the Power Module mechanism handle in the closed (down) position.

5. Tighten all right extrusion screws.



6. Secure each holster to the frame using a T25 Torx to fasten a supplied rubberized washer and M5 shoulder screw.
7. Align a supplied plastic cap over each holster opening and snap it into place.



Install the Power Modules and EMI Shields



CAUTION: Power Modules are 45 kg (98.5 lb) each. Two people are needed to install or replace a Power Module.



CAUTION: Always rest a Power Module flat on the ground until it is being installed. Power Modules are not stable in any other position. Images of Power Modules standing up with the handles on top are only to illustrate the proper installation position.

1. Tilt both Power Module holders down to the ground and rest them on their kickstands (highlighted).

Note: The kickstands must rest on a surface that is level with the bottom of the Express 250.



2. Install the rear Power Module first. Using two people, lift the Power Module by its top handles and gently slide it into its holder with its connections facing outward (a). Once the Power Module is positioned partially inside its holder, fold the handles down to slide it in completely.



Note: If only one Power Module is being installed, it must be installed in the rear holder (b).

3. Repeat the step for the second Power Module if applicable.
4. Lift each Power Module to the upright position one at a time.



5. If not already done, remove the safety caps from the coolant ports.



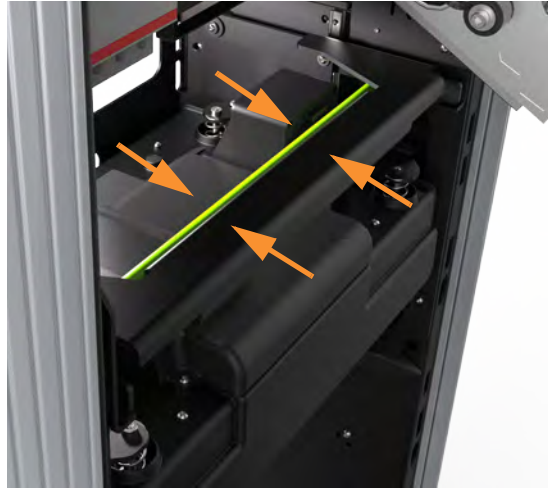
6. With hand pressure, swing the bottom of the touchscreen out to a 45 degree angle.



CAUTION: The bottom edge and corners of the touchscreen are sharp. Take care when moving underneath the raised screen.



- Using two hands, squeeze the Power Module mechanism's release bar against the flange. Raise the bar to fully raise the Power Module mechanism upward to the lock position. This ensures enough clearance for the Power Modules to slide under the mechanism.



- At the bottom right of the Express 250, press and hold the yellow release latch while pushing the Power Module tray into the station until it locks into place.



-
9. Using two hands, squeeze the Power Module mechanism's release bar and lower it halfway to check alignment with the ports and guide posts.



10. Lower the Power Module mechanism until you hear a click as the mechanism locks into place. Ensure the mechanism is fully engaged with all Power Module connectors. The ridges on the Power Module's top edge should not be visible. If the mechanism does not engage, raise it again and push the Power Modules to the back of the station to realign, then try again.



Important: Do not apply excessive force.

11. Identify the places on the front and back of the frame that show silver grounding locations instead of the normal black of the frame.



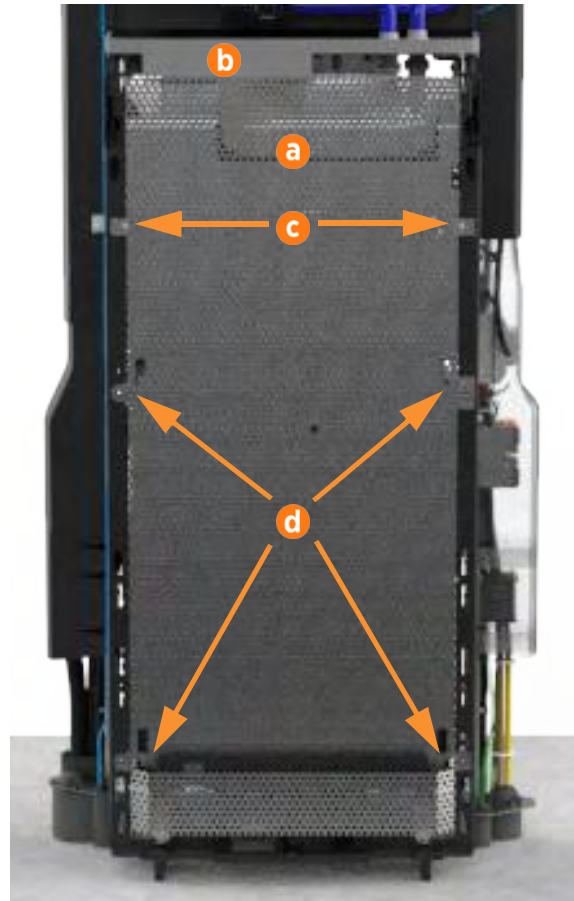
CAUTION: The metal EMI shield edges can be sharp. Take care when moving and installing the shields.

12. Position the rear EMI shield (a) over the closed Power Module holder, the drain hose, and the cooling controller cover (b). Ensure the cutout on the long edge is on the right side, leaving the sensor wire clear.

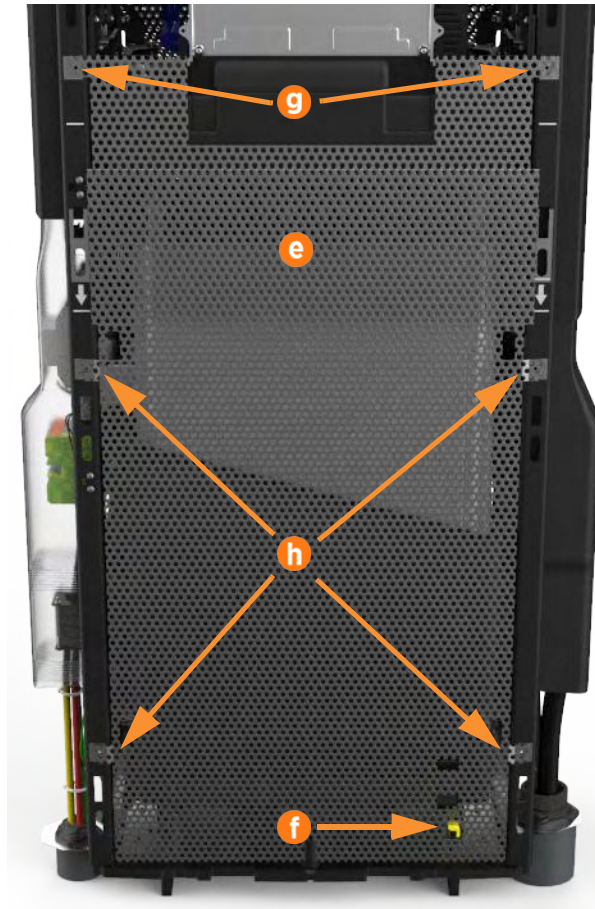


CAUTION: If the top edge of the EMI shield risks contact with the wiring below the cooling controller or the drain hose, pad the edge of the shield with electrical or duct tape to prevent abrasion.

13. Remove the two T20 screws (c) that align with the top EMI shield tabs. Discard the star washers beneath them, if present.
14. Use isopropyl wipes to clean the frame grounding locations and both sides of the rear EMI shield tabs.
15. Reinstall the T20 screws with an M5 flat washer from the installation kit to secure the top tabs of the shield on each side.
16. Use a T25 Torx, an M5 screw, and an M5 washer to attach the rear EMI shield to each middle and bottom grounding location on the rear of the frame (d). Torque to 4 Nm (35 in-lbs).



17. Use isopropyl wipes to clean the frame grounding locations and both sides of front EMI shield tabs.
18. Remove the two T25 screws and washers that align with the top front EMI shield tabs (g).
19. Position the front EMI shield (e) over the closed Power Module holder, ensuring the bottom cut-out is positioned over the yellow release latch (f).
20. Reinstall the T25 screws and washer to secure the top tabs of the shield (g) on each side.
21. Use a T25 Torx, an M5 screw, and an M5 washer to attach the front EMI shield to each middle and bottom grounding location on the front of the frame (h). Torque to 4 Nm (35 in-lbs).



Fill the Coolant Reservoir

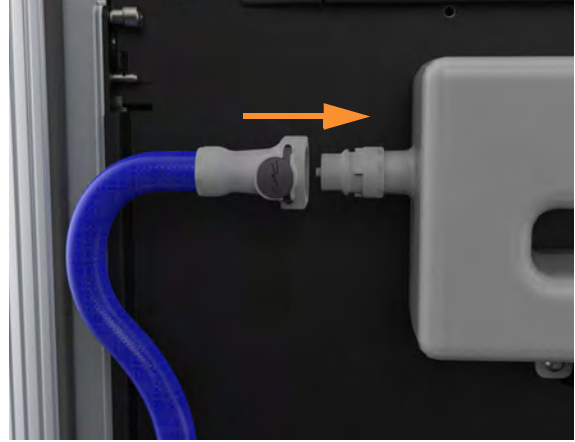
The Express 250 is shipped with an empty coolant reservoir. Coolant and a funnel are included with the product. Most coolant lines are already connected to the reservoir with quick connect fittings, except the ones shown below.

Note: Always fill the coolant reservoir after installing the Power Modules, which are part of the coolant path. Filling the reservoir first does not allow full station coolant levels.

1. Attach the quick connect line on the right side of the coolant reservoir. The line audibly clicks when connected.



2. Attach the quick connect line on the left side of the coolant reservoir.



3. Using a step ladder if needed, unscrew the reservoir cap.
4. Use the funnel to fill the reservoir to the marked Max line with coolant.
5. Replace the reservoir cap.



6. Cut and remove the three zip ties that secure the fan trays during shipment.



Install the Rear Cover Panels



Important: When installing the rear panels, take special care to ensure that each panel is correctly positioned. Failure to do so can prevent station operation.



Important: Small gauge wiring routed on the sides of the frame could be sheared if caught by panel tabs. Ensure wiring is cleared from guide holes when installing bottom and middle rear panels.

1. Using two hands, one on each side of the lower rear panel, align the guide tabs (inset image) on the lower rear panel to the matching slots on the Express 250. Squeeze the sides of the panel inward to fit the tabs into place in the C-channel, inside the watertight gasket. Carefully push the panel down.



Note: The charging station has guide marks on the frame, to show initial and final cover locations.



- Using two hands, align the guide tabs on the panel to the matching slots on the enclosure frame. Squeeze the sides of the panel inward to fit the tabs into place in the C-channel, inside the watertight gasket. Carefully push the panel down.

Note: Newer cover panels do not have signs on the rear panels, only the front panels.



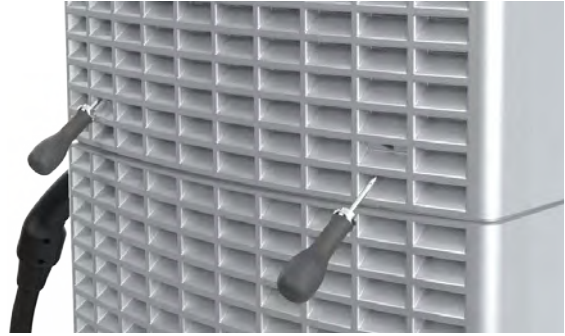
- Using two hands, hold the top rear panel at an angle and slide into place beginning with the top edge. Squeeze the sides of the panel inward to fit the tabs into place in the C-channel, inside the watertight gasket.

Note: This panel is easier to install with two people.

- Using the supplied T25 Torx driver, loosely secure the top of the top rear panel to the enclosure frame with the two screws.



-
5. Using a T25 Torx, tighten the two hidden captive screws located in the panel's vents, 2 squares up and 2 squares over from each bottom corner.
 6. Use the T25 Torx driver to tighten the top two screws.



Install the Front Cover Panels

1. Align the guide tabs on the front bottom panel to the matching slots on the Express 250's frame, and slide the panel down carefully.

Note: Ensure the panel installation does not tear or break the gaskets on the inner edges of the side extrusions.



2. On the middle vent panel, route both proximity wires under the sheet metal edge, to hang in front of the panel on the right side (as you face the front of the charging station).



3. Align the guide tabs on the middle vent panel to the corresponding slots on the Express 250's frame. Ensure the lower sign is correctly captured as you carefully push the middle panel down until it is fully seated.



Important: The fins on the back surface of the middle vent panel are sharp. Take care when handling the panel.

4. Remove the packaging tape and material from the touchscreen.
5. Connect the proximity sensor wires on the middle vent panel to the corresponding connectors on the bottom of the touchscreen: left wire to left port and right wire to right port.
6. Route any excess wiring through the wire management rings under the touchscreen, to prevent it being pinched in the panels.

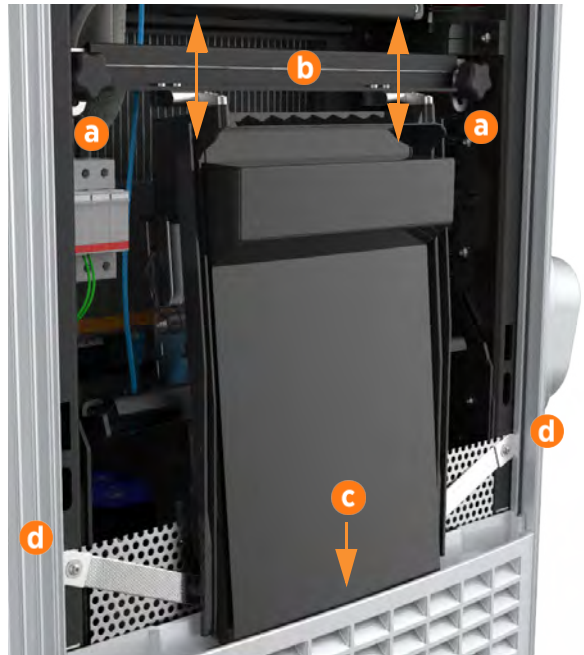


7. With hand pressure, swing the touchscreen down. Loosen both retention knobs (a), allowing the touchscreen beam (b) to slide up vertically. Re-tighten the knobs at the highest position.
8. Tilt the bottom of the touchscreen inside the slot in the middle vent panel, aligning the notch in the center of the bottom edge (c) to the guide ridge inside the panel slot.
9. Keeping pressure on the edge of the touchscreen to properly seat it inside the panel, loosen the knobs to lower the screen again. Re-tighten the knobs to secure it.
10. Use a T25 Torx driver, an M5 screw, and an M5 washer to attach each end of the touchscreen ground strap to the frame (d). Torque to 4 Nm (35 in-lbs).
11. Using two hands, align the guide tabs on the front upper panel with the corresponding slots. While pushing the panel into place, push the bottom edge and its sign inward to position them inside the groove in the middle vent panel and engage the edge of the sign. Carefully push the panel down until it is firmly seated.



Important: Ensure all five communication cables at the top of the Express 250 are not captured by this front upper panel, and are easily accessible.

Note: This panel is easier to install with two people.



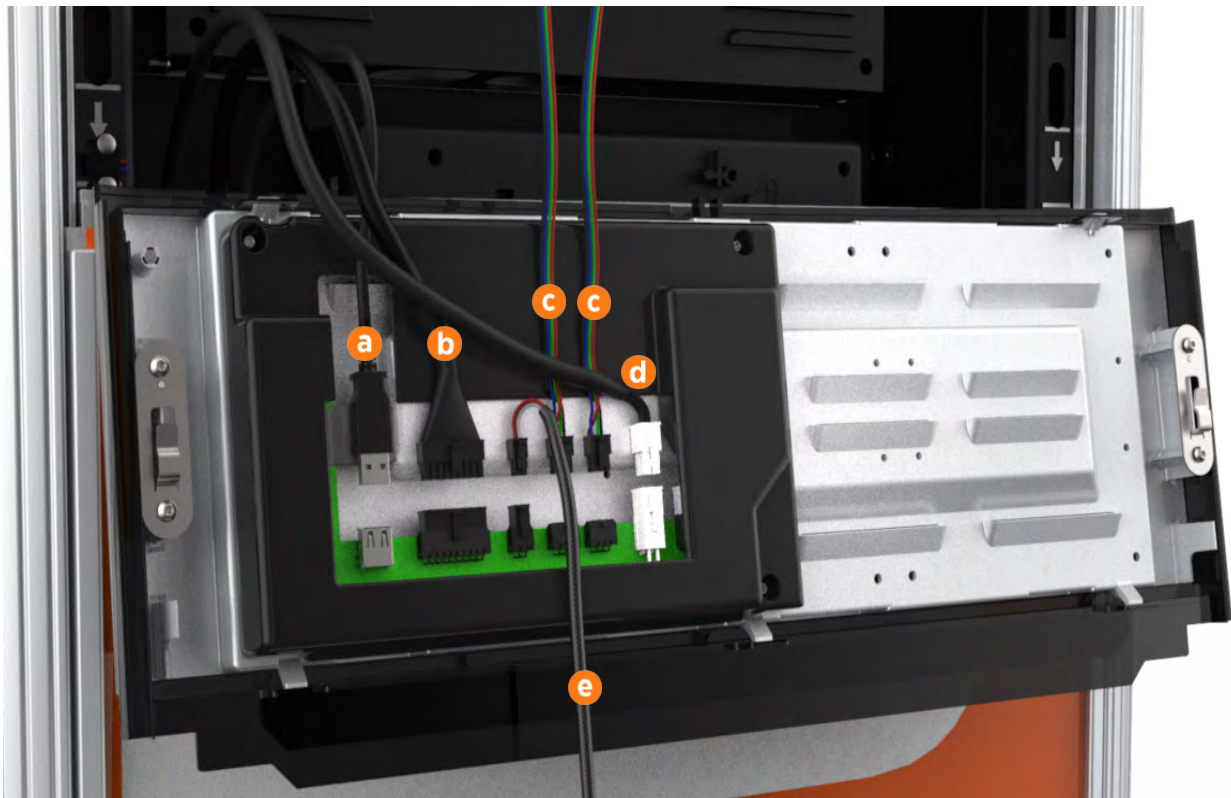
Install the LED Display and Area Light Bar

1. Unpack the LED display from its shipping box. While holding the LED display near the opening at the top of the Express 250, connect its five cables to their corresponding connectors on the back of the display (each connector is keyed to fit only into its matching port):
 - a. Communications cable (USB-A)
 - b. Holster light cable
 - c. Area light cable (x2)
 - d. Power cable (24 V)



Important: Before continuing, ensure all five cables are properly connected. Do not allow the LED display to hang from the cables once they are connected.

Leave the area light bar cable (e) loose.



2. Angle the top edge of the LED display under the light bar on the Express 250. Starting at the top, align and slide the LED display guide tabs into the corresponding slots. Ensure the lower sign is correctly captured by the bottom edge of the LED display. Push the bottom into place until firmly seated.

Note: Keep the area light cable routed out the top of the display.

3. Ensure the gasket on each end of the area light bar is properly seated around the plastic tab.
4. Connect the power cable from the LED display to the area light bar.



5. Position the area light bar above the LED display with the lights facing downward. Align the area light bar and hold it in place with enough force to compress the gaskets.
6. Use the supplied T25 Torx driver to tighten the two captive screws on the bottom edge of the area light bar.
7. Unwrap the charging cable connectors and insert each connector into its corresponding holster.



8. Remove the protective tape from the swing arms, signs, and touchscreen.
9. Ensure the rating markings are visible above the light ring, located on the plastic just below the swing arm in the rear of the charging station. (The CE label is just below the swing arm on the left side of the charging station.)



Important: You have now completed the physical installation of the Express 250. Follow the steps in the next section to complete the installation. Do not leave the installation site until you complete all steps in the next section and verify the Express 250 is operating correctly.

Complete the Installation 5

After an Express 250 charging station (or pair of stations) has been successfully installed, follow the instructions in this section to complete the installation.

You need:

- A smartphone or laptop with a QR-code scanner, camera, and Internet connection. These are required to access the pinpointing dashboard at m.chargepoint.com.
- Your ChargePoint certified installer user name and password.
- The exact installation location of the parking space where the Express 250 is installed.

Complete the Installation Wizard: Standalone Installations

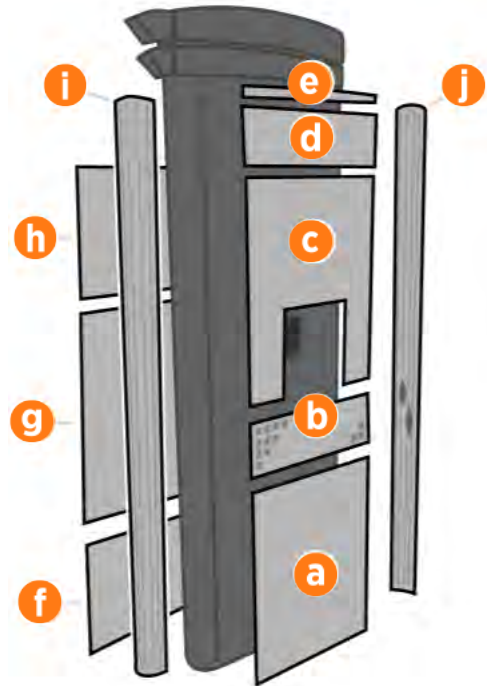
Follow the steps in this section if you are installing a Standalone charging station. For Paired installations, skip to the next section.

Once all cables are installed and all cover panels are in place, the on-screen Installation Wizard steps you through a series of tasks to set up the Express 250 and verify that it can operate properly.

1. Power on the Express 250 charging station at the breaker panel.
2. On the front touchscreen, select a language for the Installation Wizard (this does not permanently affect the Express 250's display language).

3. The next Installation Wizard test determines whether all cover panels are correctly installed and fully seated. Check the lower right corner of the screen for any error messages. If panel errors appear, match the panel letters to this illustration.

- a. Front bottom panel
- b. Middle vent panel
- c. Front top panel
- d. LED display
- e. Area light bar
- f. Rear bottom panel
- g. Rear middle panel
- h. Rear top panel
- i. Left extrusion
- j. Right extrusion



DANGER: RISK OF SHOCK. If a fault exists, turn the power off during work and keep it off until all panels are reinstalled. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR LOSS OF LIFE.

If any panel needs re-installation, review the procedures above to double-check that all panels are fully seated and that the edges of all signs are captured fully by the panels around them.

- 4. Select the option “New installation”.
- 5. Confirm you have all required materials to continue activation, and select Yes.
- 6. Skip the next section and continue with [Pinpoint the Station\(s\)](#) (page 52).

Complete the Installation Wizard: Paired Installations

Follow the steps in this section if you are installing Paired charging stations. For Standalone installations, see the previous section.



CAUTION: Do not use either Paired station for a charging session, from the time work is begun to the point that both stations are confirmed as having Paired functionality. Equipment damage can result from plugging in a vehicle while the update is only partially complete.

Once all pairing cables are installed and all cover panels are in place, the on-screen Installation Wizard steps you through a series of tasks to set up the Express 250 and verify that it can operate

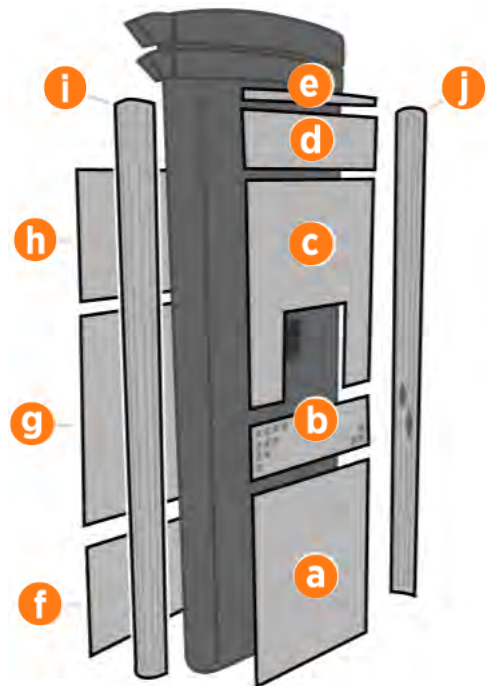
properly.

1. Power on both Express 250 charging stations at the breaker panel.
2. If the stations do not power on and begin their configuration automatically after a couple of minutes, go to chargepoint.com/support and find your region's technical support number. Identify the two stations you are installing or updating. Request confirmation that both charging stations are running firmware version 7.0.4.x or higher. If not, ask the support technician to do this now.



Important: Ensure both paired charging stations have the exact same version of firmware before continuing. For example, two stations running 7.0.4.24 and 7.0.4.25 are not sufficiently synced.

3. On the front touchscreen, select a language for the Installation Wizard (this does not permanently affect the Express 250's display language).
4. The next Installation Wizard test determines whether all cover panels are correctly installed and fully seated. Check the lower right corner of the screen for any error messages. If panel errors appear, match the panel letters to this illustration.
 - a. Front bottom panel
 - b. Middle vent panel
 - c. Front top panel
 - d. LED display
 - e. Area light bar
 - f. Rear bottom panel
 - g. Rear middle panel
 - h. Rear top panel
 - i. Left extrusion
 - j. Right extrusion



DANGER: RISK OF SHOCK. If a fault exists, turn the power off during work and keep it off until all panels are reinstalled. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR LOSS OF LIFE.

If any panel needs re-installation, review the procedures above to double-check that all panels are fully seated and that the edges of all signs are captured fully by the panels around them.

5. Select the option “New installation”, whether you are installing two new stations or pairing with an existing station. (The other option, “Replace Existing Station”, is only for stations where all settings remain the same as before.)

-
6. Confirm you have all required materials to continue activation, and select Yes. If the Ethernet connection is detected, the Installation Wizard runs the paired connectivity check in the background and displays a notice if all tests have succeeded.
 7. If the Installation Wizard Ethernet test initially fails, it asks you to select Standalone or Paired configuration. Select Paired.
 8. Solve any displayed paired faults. If problems persist:
 - Ensure both stations are running the same (and latest) version of firmware.
 - Ensure all cover panels are correctly installed.
 - Power off both stations and check the Ethernet and DC conductor connections.
 - In the case of “Power Module Fault” or “timeout” errors, power off both stations and check DC conductor and Power Module connections.
 - If none of these measures work, contact ChargePoint Support.

Pinpoint the Station(s)



Important: Pinpointing allows drivers to quickly locate the Express 250 on a map. Ensure you accurately pinpoint the Express 250 when prompted by the Installation Wizard.

1. Using your smart phone, navigate to m.chargepoint.com.
2. Log into the ChargePoint mobile site from your smart phone with your installer credentials.
3. Scan the QR code on the screen with your phone. Enter the activation password and touch Next.
4. Confirm that you are installing a new Express 250 charging station.
5. When prompted, touch OK to share your GPS location data with the ChargePoint mobile site.
6. When prompted, touch OK to review the station’s location on Google™ Maps.
7. Review the station address and zoom in to review the initial position of the station’s pin on the map.
8. Manually move the pin to the correct parking spot location on the screen.
9. If needed, adjust the address of the station’s location.
10. Take a picture of the station using your smart phone. Scroll down to “Upload a Station Picture” and choose the station picture.
11. Add helpful information for drivers, such as parking structure floor.
12. Touch SUBMIT to pinpoint the station on the ChargePoint map.

Run a Test Charging Session

Before leaving the installation site, follow these steps to ensure the Express 250 is fully operational:

1. Connect the charging cable to a vehicle.
2. Use your ChargePoint card to start a charging session. The Express 250 displays instructions on how to plug in a vehicle.
3. Stop the charging session and return the connector to the holster.

If the Express 250 operates correctly and no errors are displayed, the installation is complete. If the Express 250 does not power up, or fails to begin a charging session, confirm the wiring is properly connected. If the Express 250 is properly wired but is not operating correctly, contact ChargePoint at chargepoint.com/support for assistance.



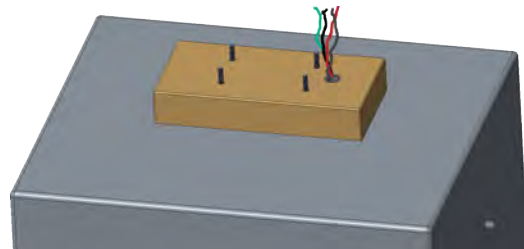
Important: Do not leave the installation site until the Express 250 is operating correctly.



Important: Remove the crates and all packaging from the installation area. Make sure no materials in the area could potentially damage vehicle tires, such as nails or screws.

Removing the Express 200 Adapter

If you are installing an Express 250 to replace an existing Express 200, remove the Express 200 by reversing the instructions provided in the *CPE200 Installation Guide*. You must also uninstall the Express 200 adapter as described in this appendix.



Tools Needed

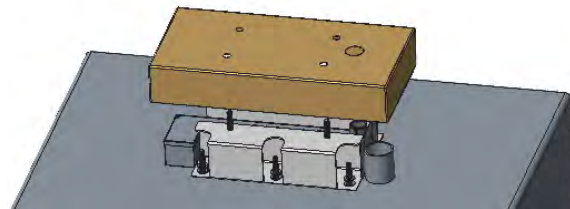
- Cut-resistant gloves to handle the cover
- #2 Phillips screwdriver
- 18 mm (11/16 in) wrench

Follow These Steps

1. Remove the metal adapter cover by pulling it upward.



WARNING: Always wear cut-resistant gloves when handling the cover. The cover has sharp edges that can cause injury.



2. Using a Phillips screwdriver, unfasten the two screws to remove the L-shaped wiring cover.
3. Remove the conduit shield from the wiring cover by holding down the conduit connector release ring while pulling the conduit shield.
4. Remove the Express 200 adapter's base by removing the six nuts and washers from the mounting bolts using a 18 mm (11/16 in) wrench.

Note: The service wiring for the Express 200 was redirected through conduit because the Express 200 terminal block is located on the right (when facing the front of the installation pad). On the Express 250, the terminal block is on the left; run the wiring directly upward from the left conduit opening.

Limited Warranty Information and Disclaimer

The Limited Warranty you received with your Charging Station is subject to certain exceptions and exclusions. For example, your use of, installation of, or modification to, the ChargePoint® Charging Station in a manner in which the ChargePoint® Charging Station is not intended to be used or modified will void the limited warranty. You should review your limited warranty and become familiar with the terms thereof. Other than any such limited warranty, the ChargePoint products are provided "AS IS," and ChargePoint, Inc. and its distributors expressly disclaim all implied warranties, including any warranty of design, merchantability, fitness for a particular purposes and non-infringement, to the maximum extent permitted by law.

Limitation of Liability

CHARGEPOINT IS NOT LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS, LOST BUSINESS, LOST DATA, LOSS OF USE, OR COST OF COVER INCURRED BY YOU ARISING OUT OF OR RELATED TO YOUR PURCHASE OR USE OF, OR INABILITY TO USE, THE CHARGING STATION, UNDER ANY THEORY OF LIABILITY, WHETHER IN AN ACTION IN CONTRACT, STRICT LIABILITY, TORT (INCLUDING NEGLIGENCE) OR OTHER LEGAL OR EQUITABLE THEORY, EVEN IF CHARGEPOINT KNEW OR SHOULD HAVE KNOWN OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY EVENT, THE CUMULATIVE LIABILITY OF CHARGEPOINT FOR ALL CLAIMS WHATSOEVER RELATED TO THE CHARGING STATION WILL NOT EXCEED THE PRICE YOU PAID FOR THE CHARGING STATION. THE LIMITATIONS SET FORTH HEREIN ARE INTENDED TO LIMIT THE LIABILITY OF CHARGEPOINT AND SHALL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITED REMEDY.

FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer's instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case, you will be required to correct the interference at your own expense.

Important: Changes or modifications to this product not authorized by ChargePoint, Inc., could affect the EMC compliance and revoke your authority to operate this product.

Exposure to Radio Frequency Energy: The radiated power output of the 802.11 b/g/n radio and cellular modem (optional) in this device is below the FCC radio frequency exposure limits for uncontrolled equipment. The antenna of this product, used under normal conditions, is at least 20 cm away from the body of the user. This device must not be co-located or operated with any other antenna or transmitter by the manufacturer, subject to the conditions of the FCC Grant.

Industry Canada

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC/IC Compliance Labels

Visit chargepoint.com/labels/

Visit our Website at:
www.leviton.com/evrgreen
email: commercial@leviton.com

Q-1450-INSTALL

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