Express 250

DC Fast Charging Station

Installation Guide for Standalone and Paired Stations

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

This manual contains important instructions for ChargePoint® products that shall be followed during installation, operation and maintenance of each product.

WARNING:

1. **Read and follow all warnings and instructions before servicing, installing, or operating the ChargePoint® product.** 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 product and adhere to all national and local building codes and standards.** Before installing the ChargePoint product, 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 product for proper installation before use.

3. **Always ground the ChargePoint product.** A touch current of >3.5 mA AC RMS is possible in case of a fault condition of loss of electrical continuity of the earthing conductor. Failure to ground the product can lead to risk of electric shock. The product 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 product using a ChargePoint-approved method.** Failure to install on a surface that can support the full weight of the product can result in death, personal injury, or property damage. Inspect the product for proper installation before use.

5. **The product is not suitable for use in Class 1 hazardous locations, such as near flammable, explosive, or combustible vapors or gases.**

6. **Supervise children near this device.**

7. **Do not put fingers into the electric vehicle connector or connector adapter. Do not touch fingers to charging rails.**

8. **Do not use this product if any cable is frayed, has broken insulation, or shows any other signs of damage.**

9. **Do not use this product if the enclosure, the flexible output cable, the vehicle inlet, the electric vehicle connector, or the electric vehicle connector adapter is broken, cracked, open, or shows any other signs of damage. Do not use this product if internal parts are accessible, including wiring.**

10. **Wire and wire terminal information are provided in the ChargePoint product Site Design Guide and Installation Guide.**

11. **Torques for installation of wire terminals are provided in the ChargePoint product Installation Guide.**

⚠ 12. **The ChargePoint product maximum operating temperature is 50 °C (122 °F).**

13. **Do not use an electric vehicle connector adapter with any charger or EV that is capable of exceeding the adapter's rated voltage of current capacity. Some EVs and EVSE combinations are capable of multiple voltages or limited durations of current overloading designed for normal EVSE-to-EV connections. Use of an electric vehicle connector adapter in these situations could result in unsafe conditions such as fire, burns, or exposure of high voltage.**

❗ IMPORTANT: Under no circumstances will compliance with the information in a ChargePoint guide such as this one relieve the user of the responsibility to comply with all applicable codes and safety standards. This document describes approved procedures. If it is not possible to perform the procedures as indicated, contact ChargePoint. ChargePoint is not responsible for any damages that may result from custom installations or procedures not described in this document or that fail to adhere to ChargePoint recommendations.

Product Disposal

Applicable to NA - Do not dispose of as part of unsorted domestic waste. Inquire with local authorities regarding proper disposal. Product materials are recyclable as marked.

Applicable to EU - 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.

Document Accuracy

The specifications and other information in this document were verified to be accurate and complete at the time of its publication. However, due to ongoing product improvement, this information is subject to change at any time without prior notice. For the latest information, see our documentation online at ChargePoint Product Reference Documentation.

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Symbols

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

NOTE: Helpful information to facilitate installation success

Read the manual for instructions

Ground/protective earth

Illustrations Used in This Document

The illustrations used in this document are for demonstration purposes only and may not be an exact representation of the product. However, unless otherwise specified, the underlying instructions are accurate for the product.

Contents

Revision History

This page provides a summary of revisions made, listing the month and year of each update along with a brief description of the changes made.

Month & Year	Version Number	Description
June, 2025	v1	Added commissioning steps. Updated the documentation cover image.

Prepare for Installation   1

This topic 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 online training to become a ChargePoint certified installer. If you do not complete training, you cannot access the ChargePoint network to complete installation. Find online training at: chargepoint.com/installers. If the charging station is not installed by a ChargePoint certified installer, using a ChargePoint approved method, it is not covered under warranty and ChargePoint is not responsible for any malfunctions.

Accessing ChargePoint Documentation

Access documents at ChargePoint Product Reference Documentation.

Document	Content	Primary Audiences
Datasheet	Full station specifications	Site designer, installer, and station owner
Site Design Guide	Civil, mechanical, and electrical guidelines to scope and construct the site	Site designer or engineer of record
Concrete Mounting Template Guide	Instructions to embed the charging station template in a concrete pad with anchor bolts and conduit placement (these may also be included in the Site Design Guide)	Site construction contractor
Surface Conduit Entry Kit Guide	Instructions for sites where conduit cannot be run underground	Installer
Construction Signoff Form	Checklists used by contractors to ensure the site is correctly completed and ready for product installation	Site construction contractor
Installation Guide	Anchoring, wiring, and powering on	Installer

Document	Content	Primary Audiences
Operation and Maintenance Guide	Operation and preventive maintenance information	Station owner, facility manager, and technician
Service Guide	Component replacement procedures, including optional components	Service technician
Declaration of Conformity	Statement of conformity with directives	Purchasers and public

> ⚠️ **CAUTION:** Use low torque settings when working with power tools during installation or servicing. Over-torquing can damage the equipment.

> ⚠️ **WARNING:**
> Do not install or service the charging station in inclement weather. If you work in snow, rain, or wind, you must use a weather-proof shelter that covers all boxes and components.

> 💬 **NOTE:** For all charging station specifications other than dimensions and weights, refer to the product's Datasheet, which can be found online at ChargePoint Product Reference Documentation. For assistance, go to chargepoint.com/support and contact technical support using the appropriate region-specific 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:** Ensure that the installation complies with all applicable codes and ordinances.

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)**.
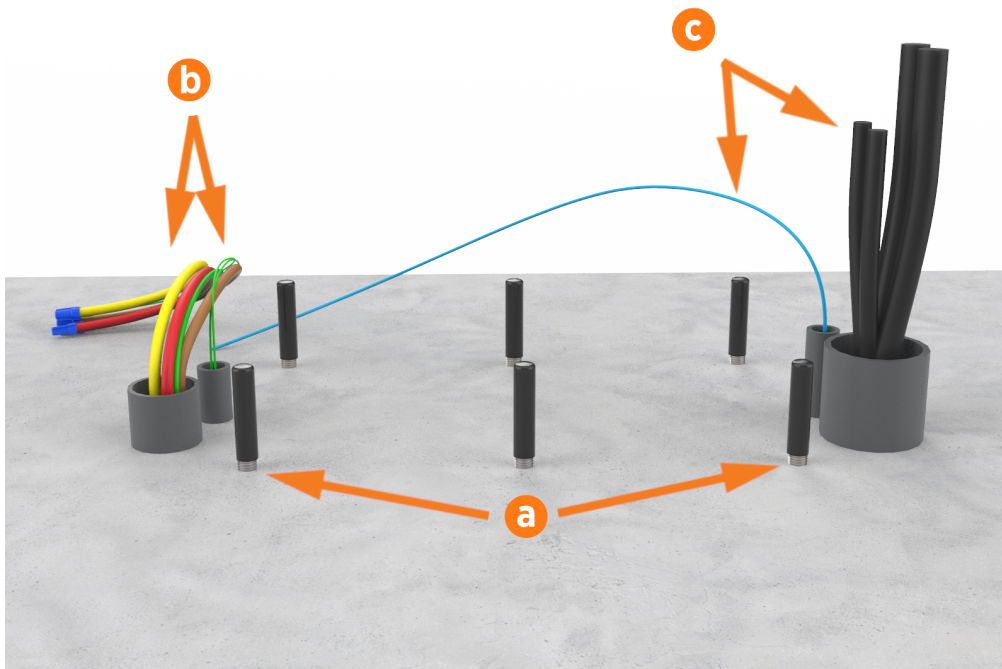
IMPORTANT:
Only the four corner anchor bolts are required for station stability. Newer charging stations are designed to only use the four corner anchor bolts. If the site is already designed with six anchor bolts, removing the middle bolts is not required. Always use the leveling nuts on three corner 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 preinstalled 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.
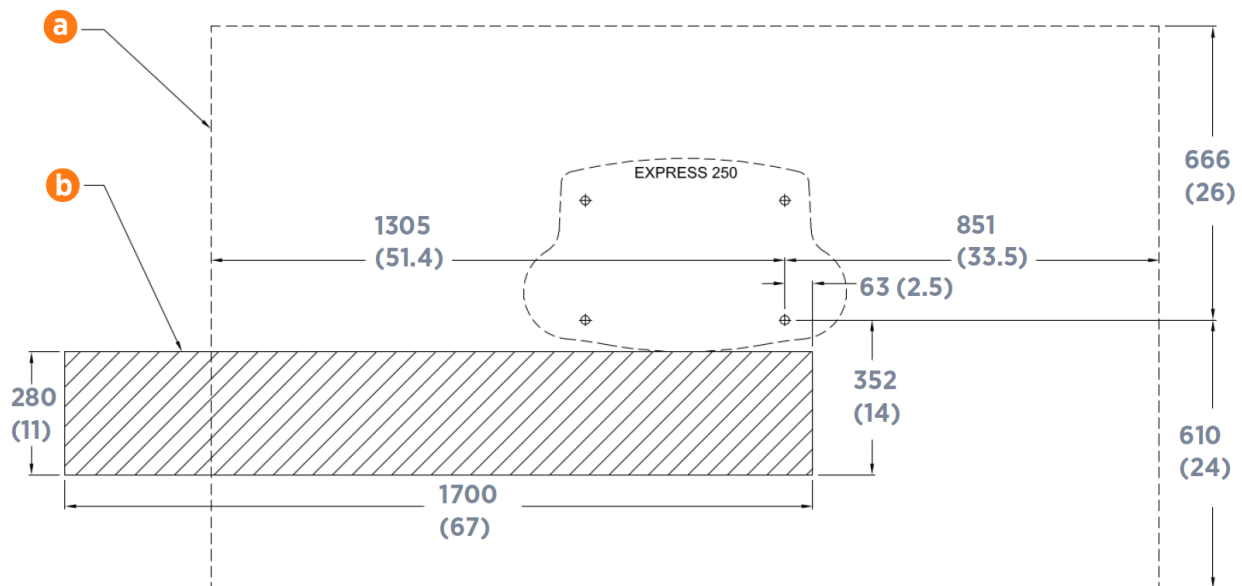
IMPORTANT:
The Express 250 provides a set of unpowered (dry pair) contacts near the AC input terminals to connect to a shunt trip device, if desired. Refer to the *Express 250 Site Design Guide* for more information.

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 (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	Circuit 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; however, neutral-to-ground bonding is required at the Main Distribution Panel (MDP) supplying the charging station.

> ⚠️ **IMPORTANT:**
> This requirement applies to Canadian installations. Whether using a step-up or step-down auto transformer, refer to the "*Hydro-Québec bulletin - Choosing the right one 600/480 V transformer*" for specific guidance.

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 Snyper, 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	DC Input/Output
EU non-armored: 600/1000 V	90 °C	120 mm^2	XLPE	160 A
EU armored: 600/1000 V	90 °C	120 mm^2 4-core	XLPE	160 A
N. America: 1000 V	90 °C	4/0 AWG	XHHW-2	160 A

- 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 Datasheet* 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	1.270 x 1.105 x 2.438 m (50 x 43.5 x 96 in)	494 kg (1089 lb)
Power Module crate: holds 1 Power Module	0.902 x 0.572 x 0.368 m (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 Datasheet.		

> ⚠️ **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.

Listed below are the components:

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)
- 60/40 Propylene glycol coolant (the coolant label references its Safety Datasheet 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)
- Grommets for DC rodent guard bracket (for Paired installations only):
  - 73 mm (2 7/8 in) OD
  - 22 mm (7/8 in) OD
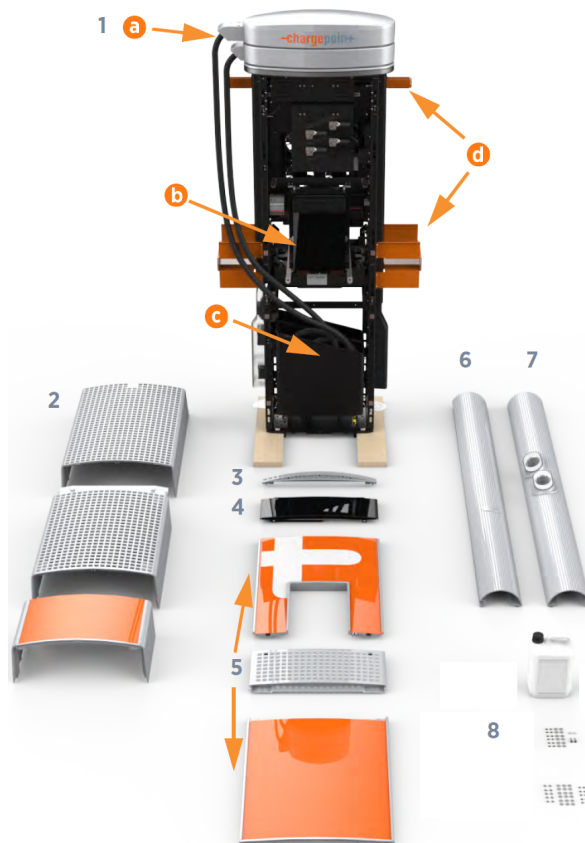
ChargePoint also provides a tool kit (not shown):

- T20 Torx security driver
- T25 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 only illustrate the proper installation position.

Bring These 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)
- Lock out/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 Snyper, Octopus, or similar
- Standard electrical equipment such as wire cutter, wire stripper, and cable ties
- Level
- Isopropyl alcohol 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, setup the 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 mm²
EU armored: 600/1000 V	90 °C	35 mm² 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	DC Input/Output
EU non-armored: 600/1000 V	90 °C	120 mm²	XLPE	160 A
EU armored: 600/1000 V	90 °C	120 mm² 4-core and cable gland sized to local code (such as Cablecraft CCG-CW50 or similar)	XLPE	160 A
NA: 1000 V	90 °C	4/0 AWG	XHHW-2	160 A

> **NOTE:** 95 mm² (3/0 AWG) is sufficient for most sites unless ambient temperatures are >= 40 °C.

- 2 positive and 2 negative conductors; 1 positive and 1 negative in each direction
- USA/Canada: Copper only, maximum station DC output/input current: 160 A
- EU/UK: Rated at 1000 V conductor to conductor (+/-500 V conductor to ground, LV), copper only, maximum station DC output/input current: 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):
  - 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 mm^2 (3/0 AWG) is sufficient for most sites unless ambient temperatures are >= 40°C.

  - North America lug size: 3/0 or 4/0 AWG
  - Example UK/EU lugs for average conductor size are Weidmuller 1494410000 120 mm^2 or similar
- 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 topic 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.

To prepare the Express 250 for mounting, complete the following steps:

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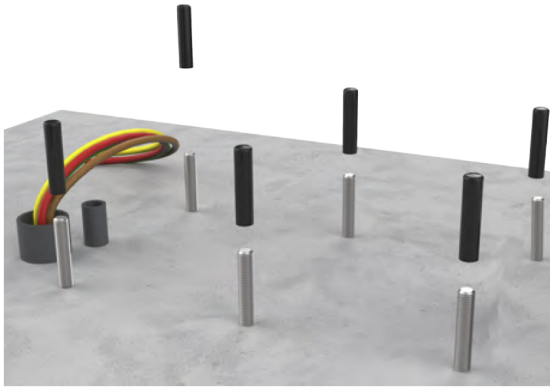
5. Place a leveling nut and washer on each of the four corner bolts.
6. Leave approximately 6.4 mm (1/4 in) between the bottom of the leveling and the concrete. Check nut positions relative to each other with a level.

6.4 mm (1/4 in)
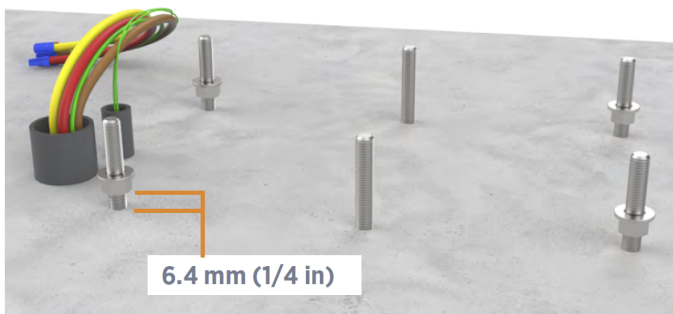
> **WARNING:**
> THE CRATE IS HEAVY AND CAN CAUSE INJURY OR DEATH IF DROPPED. DO NOT STAND OR WALK BENEATH THE CRATE AS IT IS BEING MOVED. TAKE PRECAUTIONS AGAINST THE CRATE TIPPING OR SLIDING.

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 forklift blades 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.
   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

To mount and secure the Express 250, complete the following steps:

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.

6.4 mm (1/4 in)
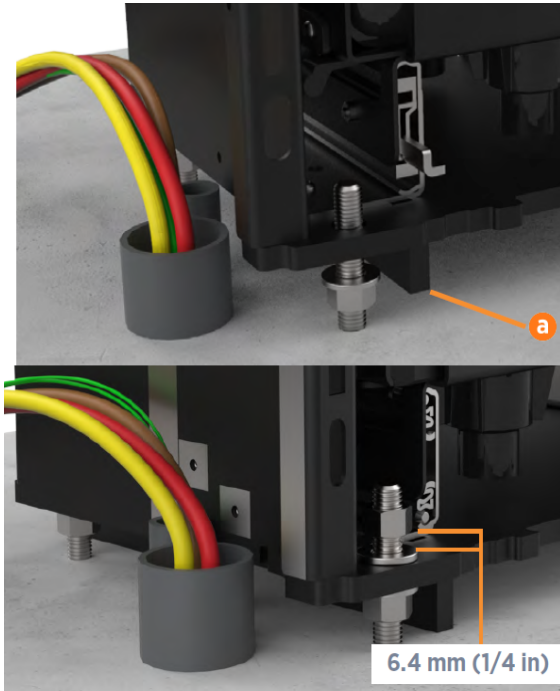
> **NOTE:** The Express 250 should rest on the leveling nuts and washers, not on the rails **(a)**. The purpose of the rails is to ensure the Express 250 is installed a minimum height from the concrete, allowing the front and rear panels to sit flush with the concrete surface.

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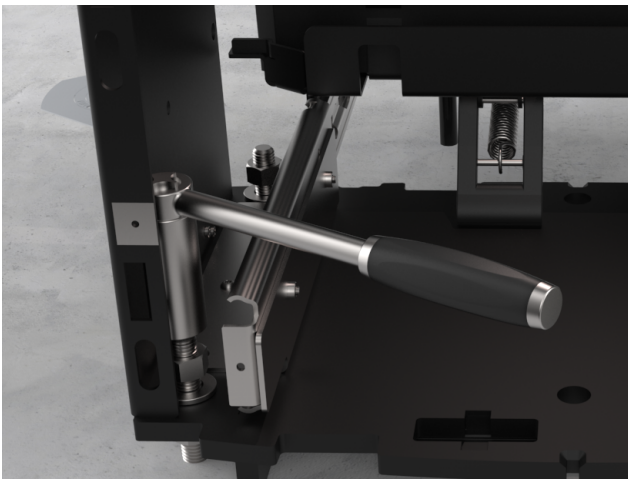
> **NOTE:** For easier access to the nuts, press down on the Power Module yellow release latch and slide the tray out.

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 T25 Torx driver to remove the right and left forklift handles from each side of the Express 250.
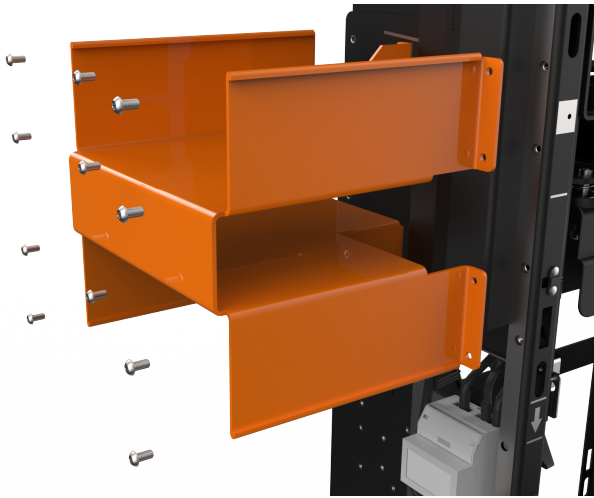
11. Use the supplied T25 Torx driver and the step ladder to remove the right and left crane lift guides near the top of each side of the Express 250.

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

> **IMPORTANT:**
> If you are installing an Express 250 station to be completely surface mounted with above-ground conduit, follow the instructions in the *Express 250 Surface Conduit Entry Guide* to install the SCE box base and box cover, then continue with connecting the AC wiring.

Connect the AC Wiring

> **NOTE:** If the station is being connected to wiring and a breaker of 80 A, a separate 50 kW ratings label must be applied over the existing ratings on the station (below the cable swing arms in the back), to indicate the charging station capacity. Wipe

down the surface area with a lint-free cloth and isopropyl alcohol wipes prior to application.

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.

To connect the AC wiring, complete the following steps:

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 can accept up to 35 mm2 (2 AWG) maximum wire size. 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. Use a T25 Torx to remove the two M5 screws attaching the ferrite mounting to the station.

> ⚠️ **IMPORTANT:**
> Ferrite mounting must be removed from the station prior to routing the AC wiring bundle. Failure to do so may result in wire damage when seating wiring in terminals. Immediately reinstall it once the conductors are in place.

   c. Route the AC wiring bundle through the larger rodent bracket grommet.

   d. Route the shunt trip wiring through the smaller rodent bracket grommet.

   e. 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.

   f. Skip to Strip each wire end 25 mm (1 in)..

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. Use a T25 Torx to remove the two M5 screws attaching the ferrite mounting to the station.

> **IMPORTANT:**
> Ferrite mounting must be removed from the station prior to routing the AC wiring bundle. Failure to do so may result in wire damage when seating wiring in terminals. Immediately reinstall it once the conductors are in place.

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

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

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

   f. Route the AC wiring bundle through the rodent guard bracket grommet.

   g. Route the shunt trip wiring only through the smaller grommet in the rodent guard bracket.

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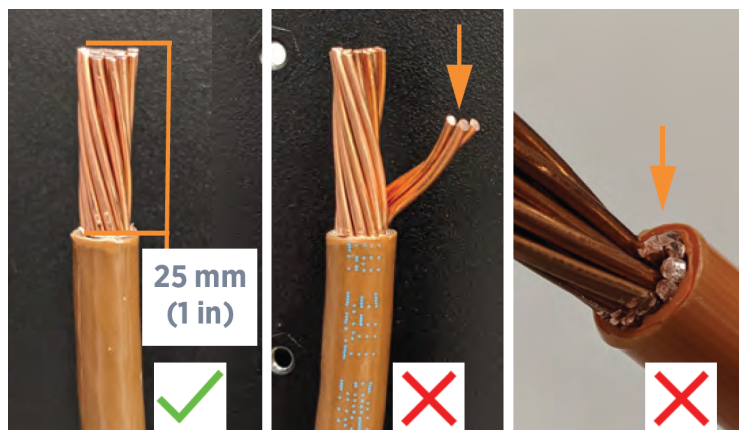
8. Bundle the strands of each wire tightly. DO NOT remove strands to fit the wire into the terminal.

> ⚠️ **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:

   a. Fully insert the Wago tool into the Wago port (a) and rotate the tool firmly counter-clockwise 90º to open the connector.

   b. Lock the connector in the open position by firmly pressing the orange button below it (b).

   c. Insert the wire fully until it hits the connector's back stop.

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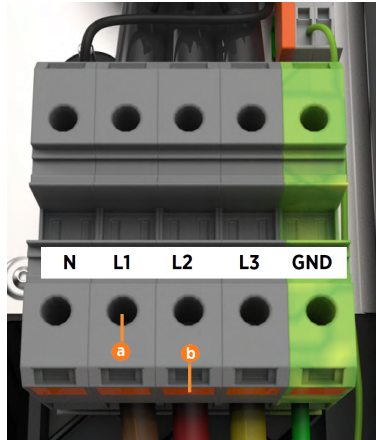
IMPORTANT:
Ensure the L1, L2, and L3 cables are installed in the correct order. Incorrect installation creates a phase rotation error later in the process. Phase rotation must be counter-clockwise.

10. Inspect the wiring and Wago terminals before proceeding:

    a. Ensure no copper is exposed below the terminal.
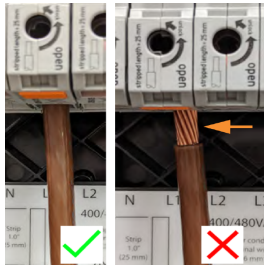
    b. Verify that all strands were fully inserted into the terminal, without being bent back.

    c. 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.
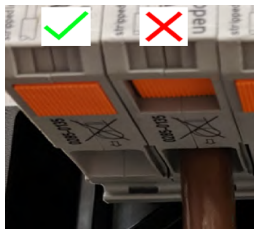
    d. Confirm each wire is held securely inside its connector by performing a pull-push test.

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:

    a. The inside of the conduit opening

    b. Within the rodent guard bracket openings for wiring

    c. Around the edges of the rodent guard bracket where it will meet the extrusion

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 topic 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.

> ⚡ **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.

Install New Labels

1. Identify the ratings label area at the rear of the charging station, just under the charging cable swing arms.

2. Wipe down the surface area with a lint-free cloth and isopropyl alcohol wipes.

3. Peel the backing and the protective front strip from the 125 kW label. Carefully affix the new ratings label over the top of the existing ratings on the station so that there are no air bubbles and scratches. The new label reflects the updates in charging station capacity.

4. 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.

5. 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.

6. 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.

> **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 mm^2 (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
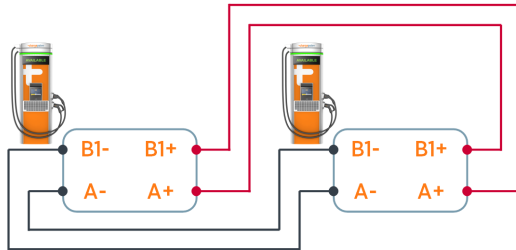
> ⚠️ **CAUTION:**
> Be sure to connect positive to positive, and negative to negative, on the same wire.
> Do not reverse the polarity.

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.
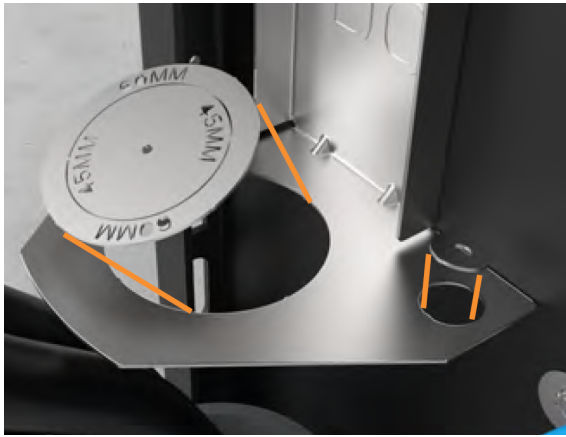
7. For North America and other regions using *conduit*:
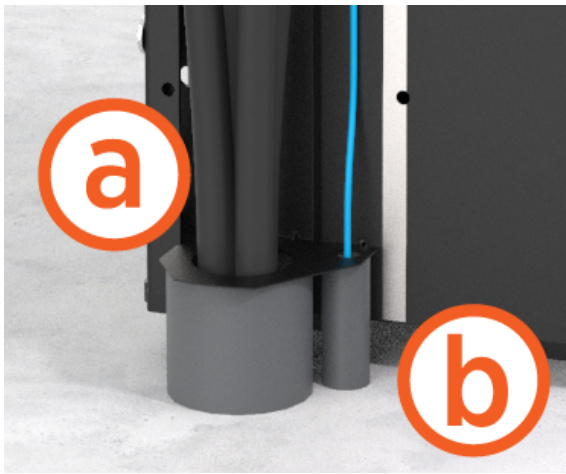
> **NOTE:** If the cable bend radius does not allow them to thread through the rodent guard bracket, use a T25 Torx to temporarily remove the bracket from the charging station. Immediately reinstall it once the cables are in place.

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.

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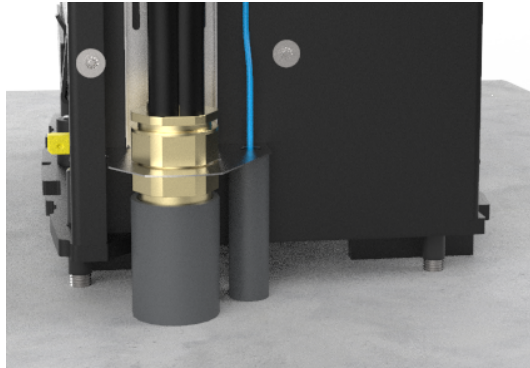
> **NOTE:** If the cable bend radius does not allow them to thread through the bracket, use a T25 Torx to temporarily remove the bracket from the charging station. Immediately reinstall it once the cables are in place.

   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 Bring Tools and Materials. 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-lb). 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

Follow the below steps to 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)**.
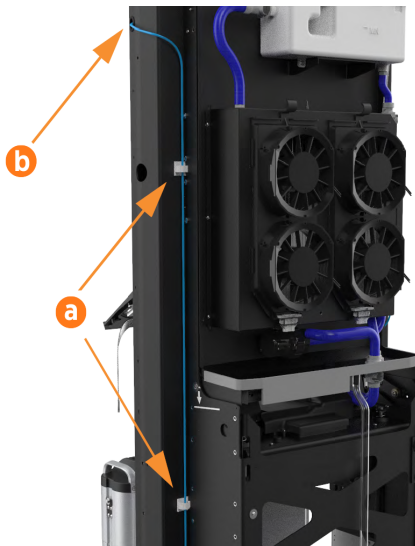
3. Route the Ethernet wire across the charging station from right to left between the auxiliary power supply and the contactor assembly. Zip tie the Ethernet wire to the existing cable bundle at each corner **(c)**.

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)**.

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.
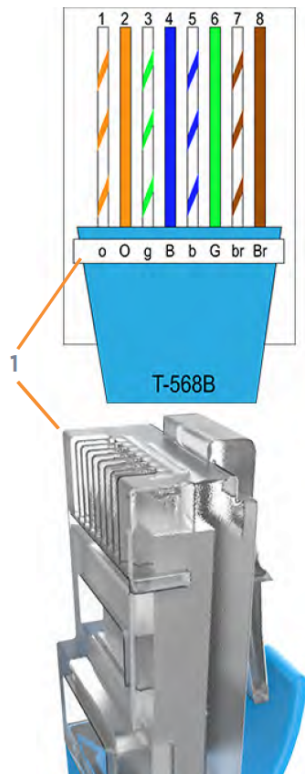
10. Plug the Ethernet wire into the **Ethernet** port of the Station Management Unit.
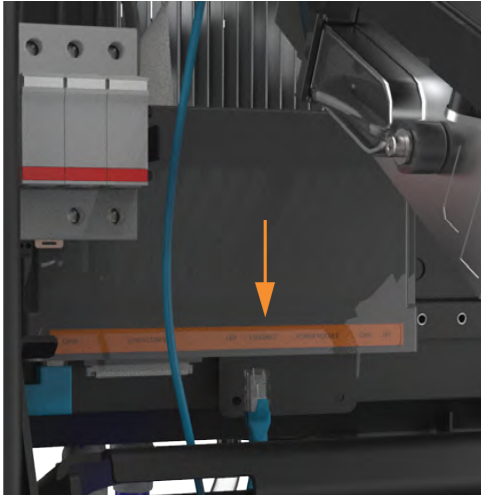
> **NOTE:** It is easier to access the Ethernet port if the Power Module mechanism handle is temporarily in the down position.

11. Use the duct seal compound included in the crate to completely seal all DC openings against pest ingress:

    - The inside of the conduit opening
    - Within the rodent guard bracket openings for wiring, to pad any sharp edges and block ingress
    - 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 charging station by pressing on its sides and pushing it inward.

Install Cover Panels 4

This topic 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 below are relevant for both Standalone and Paired installations.

To install cover panel, complete the following steps.

Power off the Station

Power off at the breaker panel and lock out/tag out before continuing work.

> ⚠️ **DANGER:**
> RISK OF SHOCK. Before performing this procedure, disconnect the power to the station 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.

Open the Power Module Tray

Follow the below steps to open the Power Module Tray:

1. Using two hands, squeeze the Power Module mechanism's release bar against the flange. Raise the bar to fully rotate the Power Module mechanism upward to the lock position.

2. At the bottom right of the Express 250, press and hold the yellow release latch while pulling the Power Module tray out of the station completely.
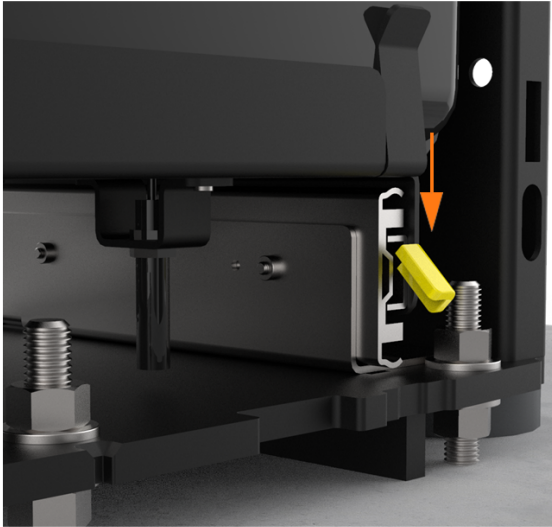
3. Carefully lift the charging cables/connectors out of the Power Module tray and rest them gently on a padded surface out of the way.

Install the Left Extrusion

Follow the below steps to install the Left Extrusion:

1. 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 frame.

2. Using a step ladder, hold the extrusion and loosely secure the top two captive screws with a T25 Torx driver.
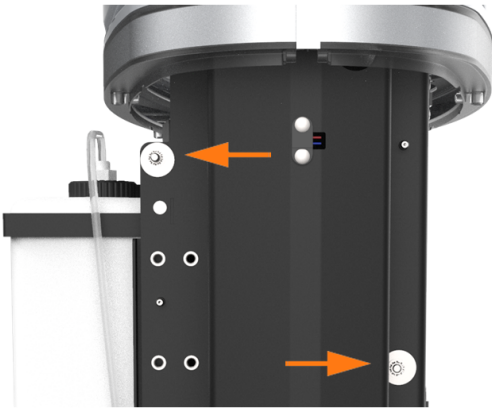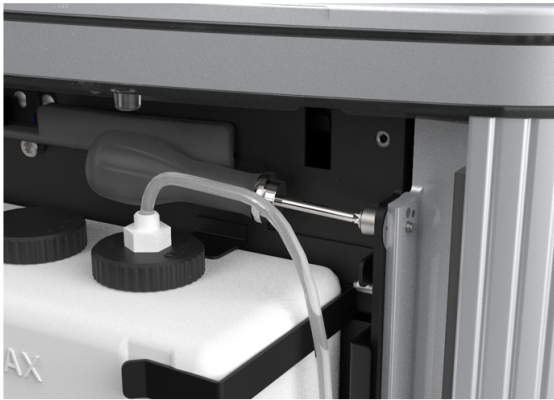
> 💬 **NOTE:** The top and middle screws are asymmetrical.

3. Use a T25 Torx driver to loosely secure the bottom two screws while the Power Module mechanism is in the closed (down) position.
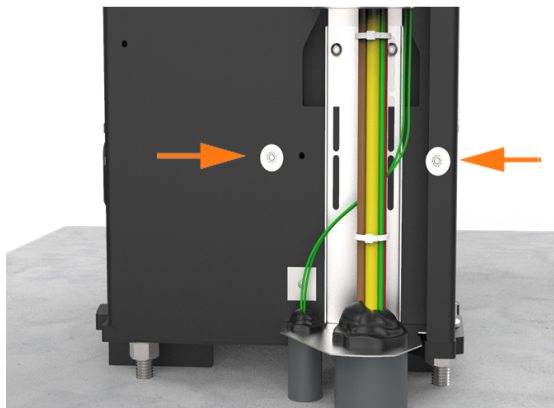
4. Use a T25 Torx driver to loosely secure the middle two screws, just above the Power Module mechanism.
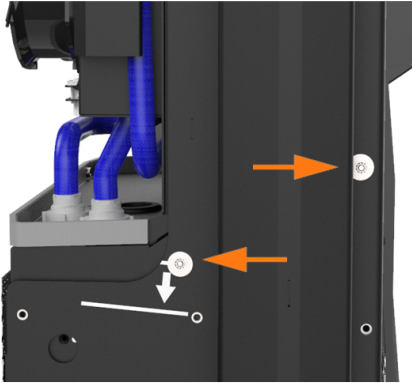
> **NOTE:** Access to the middle screws is easier with the Power Module mechanism handle in the closed (down) position.

5. Tighten all left extrusion screws.

Connect the Right Extrusion's Holster Light Cables

Follow the below steps to connect the Right Extrusion's 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 icon] **NOTE:** If there is a third, longer cable, bundle it to avoid pinch points during installation. The third cable is not currently used.

> ![IMPORTANT icon] **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-lb).

Install the Right Extrusion

Follow the below steps to 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.
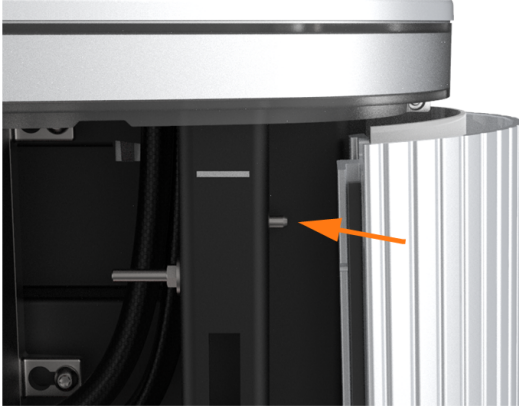
2. Using a step ladder, hold the extrusion and loosely secure the top two captive screws using a T25 Torx driver.
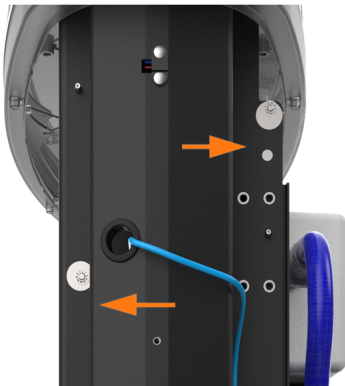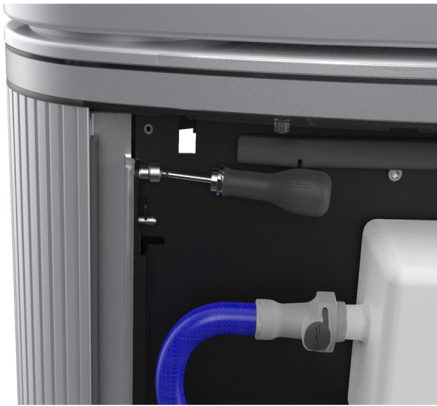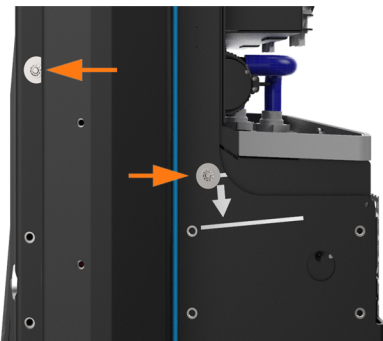

> **NOTE:** The top and middle screws are asymmetrical.

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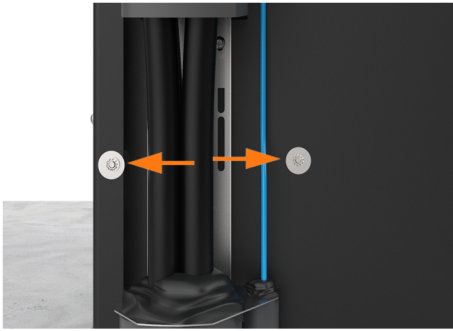
4. Use a Torx driver to loosely secure the middle two screws, just above the Power Module mechanism.

> 💬 **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.
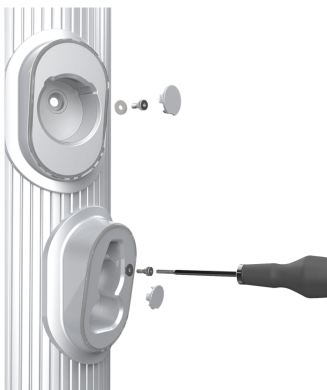
6. Secure each holster to the frame using a T25 Torx to fasten a supplied rubberized washer and M5 shoulder screw.

7. Align a supplied plastic cap over each holster opening and snap it into place.

Install the Power Modules

Follow the below steps to install the Power Modules:

> **IMPORTANT:**
> Power Modules are 45 kg (98.5 lbs) each. Installing or replacing Power Modules requires two people.

> **IMPORTANT:**
> 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.

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).
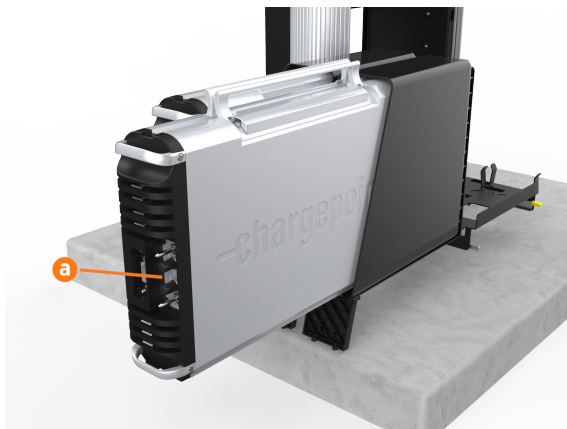

3. Once the Power Module is positioned partially inside its holder, fold the handles down to slide it in completely.
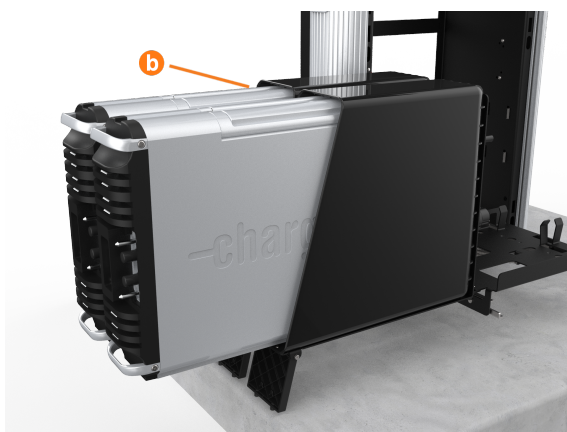
> **NOTE:** If only one Power Module is being installed, it must be installed in the rear holder (b).

4. Repeat the step for the second Power Module if applicable.

5. Lift each Power Module to the upright position one at a time.

6. If not already done, remove the safety caps from the coolant ports.
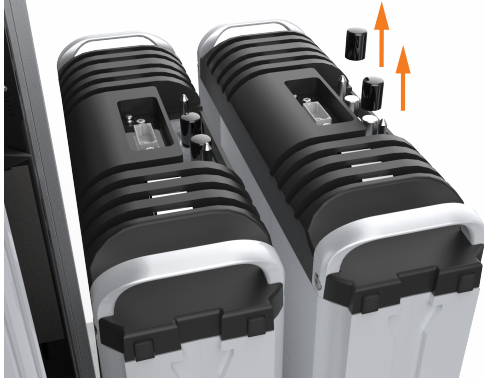
7. At the bottom right of the Express 250, press and hold the yellow release latch while pushing the Power Module tray into the station until it locks into place.
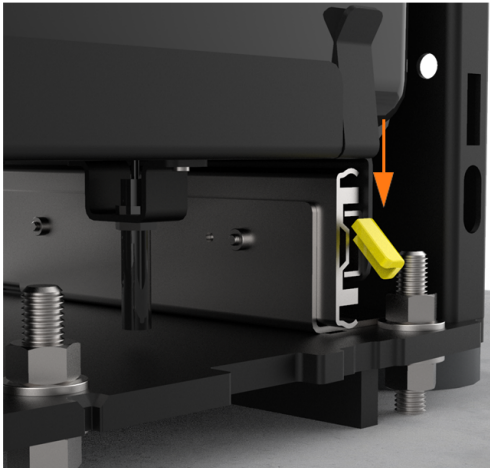
8. Using two hands, squeeze the Power Module mechanism's release bar and lower it halfway to check alignment with the ports and guide posts.

9. 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 Power Module mechanism should fully cover the ridges on the Power Module's top edge.
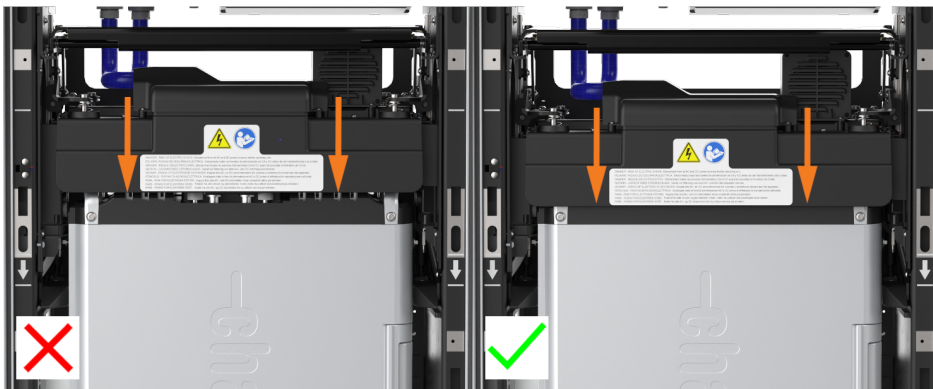
NOTE: If the mechanism does not engage, raise it again and push the Power Modules to the back of the station to realign, then try again. Do not apply excessive force.

Install the EMI Shields

Follow the below steps to install the EMI shields:

> **IMPORTANT:**
> The EMI shields *do not need* to be installed and you *do not need* the grounding straps if the station has two Power Module 1.5 versions.

1. 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.;

2. 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.
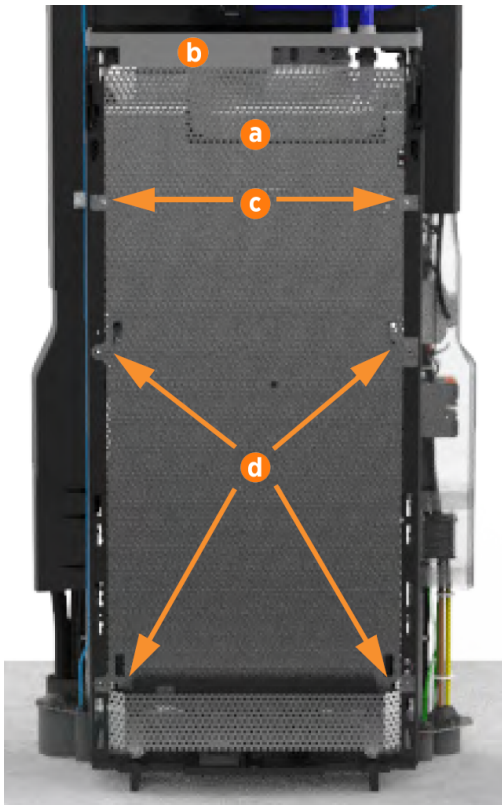
> **NOTE:** If the top edge of the EMI shield risks contact with the wiring below the cooling controller or the drain hose, pad the edge of the shield with electrical or duct tape to prevent abrasion.

3. Remove the two T20 screws **(c)** that align with the top EMI shield tabs. Discard the star washers beneath them, if present.

4. Use isopropyl wipes to clean the frame grounding locations and both sides of the rear EMI shield tabs.

5. Reinstall the T20 screws with an M5 flat washer from the installation kit to secure the top tabs of the shield on each side.

6. 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-lb).

7. Use isopropyl wipes to clean the frame grounding locations and both sides of front EMI shield tabs.

8. Remove the two T25 screws and washers that align with the top front EMI shield tabs **(g)**.

9. 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)**.

10. Reinstall the T25 screws and washer to secure the top tabs of the shield **(g)** on each side.

11. 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-lb).
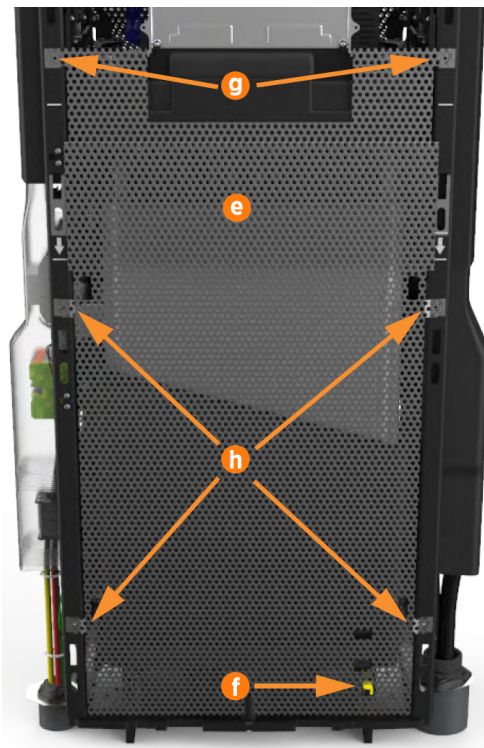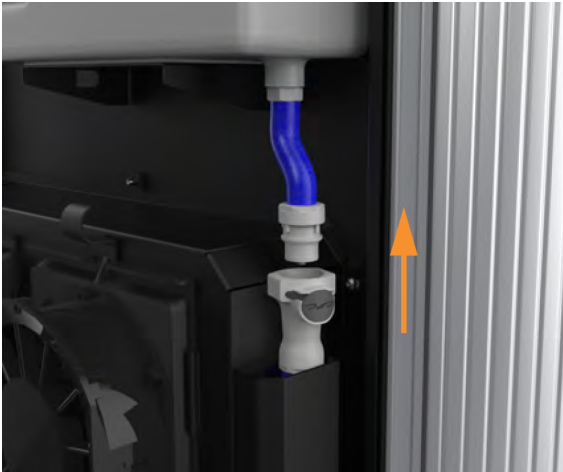

Fill the Coolant Reservoir

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.

> **IMPORTANT:**
> Always fill the coolant reservoir after installing the Power Modules in the station mechanism, since Power Modules 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.
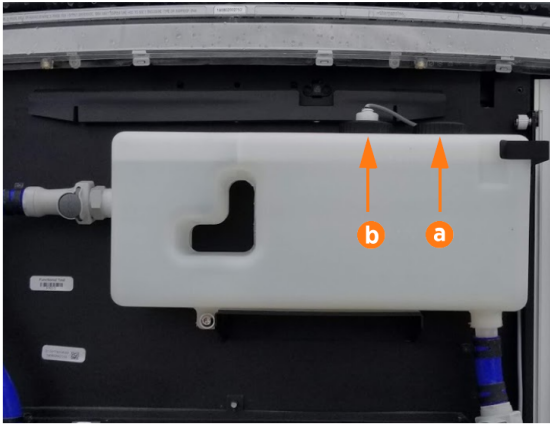

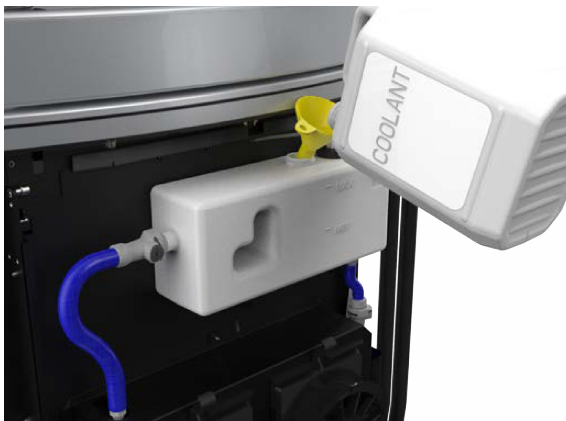2. Attach the quick connect line on the left side of the coolant reservoir.
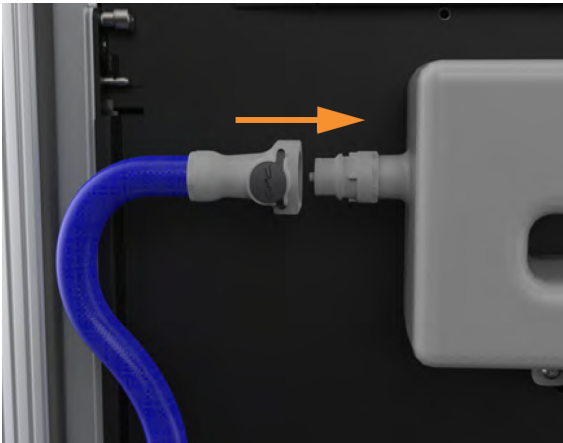
> **NOTE:** Perform a push-pull test to ensure the quick connect lines are secure.

3. Using a step ladder if needed, unscrew the reservoir fill cap **(a)**.

> 💬 **NOTE:** Do not unscrew the level sensor wiring **(b)** cap when adding coolant.

4. Use a funnel to fill the reservoir to the marked MAX line with coolant.

5. Replace the reservoir cap.
6. Use the cloth to wipe up any coolant spills.

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

Install the Rear Cover Panels

All Express 250 panels have guide tabs that align with corresponding slots on the Express 250's frame. When removing a panel, lift the panel upward to release these tabs from their slots. When installing a panel, align these tabs above their corresponding slots and press the panel downward.
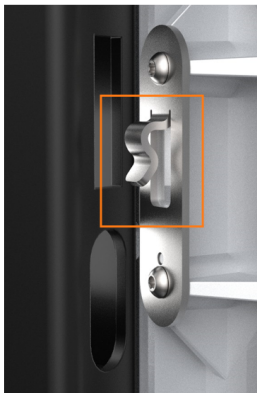
IMPORTANT:
When installing the rear panels, take special care to ensure that each panel is correctly positioned. Failure to do so can prevent station operation.

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, align the guide tabs 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 until the bottom edge aligns with the bottoms of the side extrusions.

NOTE: For SCE station installations, skip this step.

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

2. 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 until the bottom edge aligns with the bottoms of the side extrusions.

> **NOTE:** Cover panels do not have signs on the rear panels, only the front panels.

3. 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.

4. Use a T25 Torx driver to loosely secure the top of the top rear panel to the enclosure frame with the two screws.

5. Use a T25 Torx driver to tighten the two hidden captive screws located in the rear panel's vents, inset from each bottom corner.
6. Use the T25 Torx driver to tighten the top two screws.
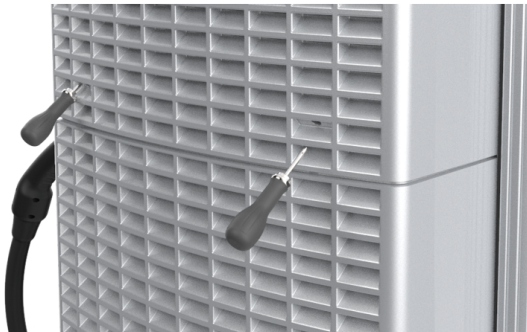

Install the Front Cover Panels

Follow the below steps to 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. Push the panel down carefully until the bottom edge aligns with the bottoms of the side extrusions.

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

2. 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.
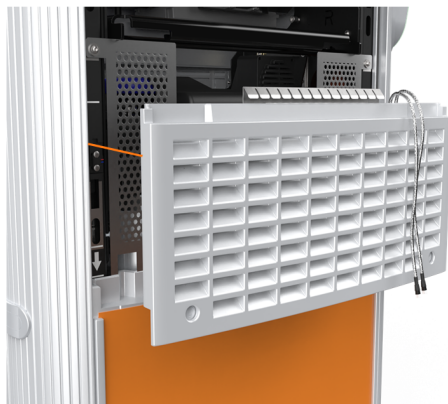
3. Remove the packaging tape and material from the touchscreen.

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

4. 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.

5. Route any excess wiring through the wire management rings under the touchscreen, to prevent it being pinched in the panels.

6. 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.

7. 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.

8. 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.

9. 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-lb).

10. 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.

11. Carefully push the panel down until it is firmly seated.

> **NOTE:** This panel is easier to install with two people.

> **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.

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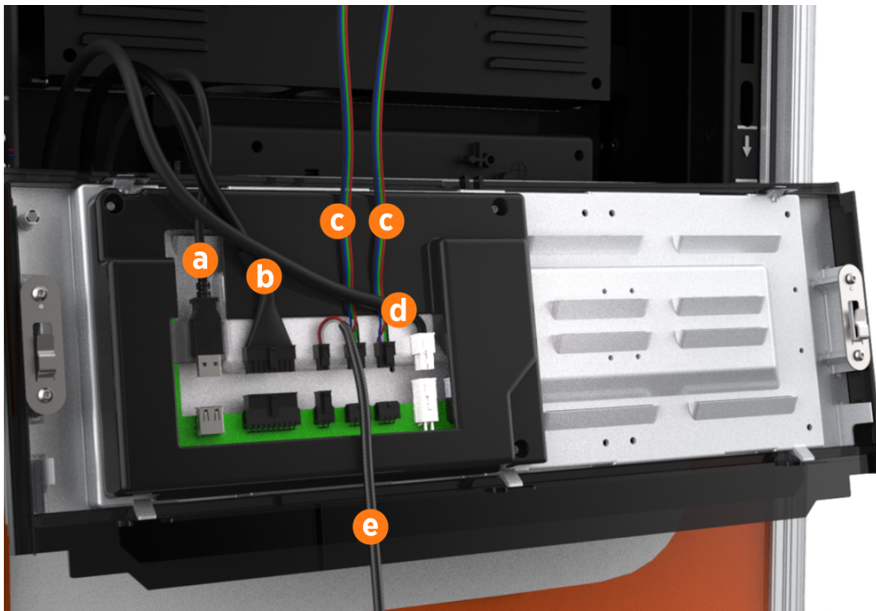
2. Angle the top edge of the LED display under the light bar on the Express 250. Starting at the top, align and slide the LED display guide tabs into the corresponding slots. Ensure the lower sign is correctly captured by the bottom edge of the LED display. Push the bottom into place until firmly seated.

> 💬 **NOTE:** Keep the area light cable routed out the top of the display.

3. Connect the power cable from the LED display to the area light bar.

4. 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.

5. Ensure the gasket on each end of the new area light bar is properly seated around the plastic tab.
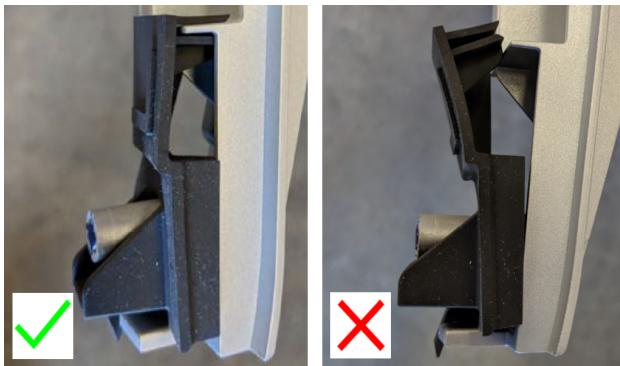
6. Use a T25 Torx driver to tighten the two captive screws on the bottom edge of the area light bar.

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

> **IMPORTANT:**
> Do not power on Express 250 after completing the installation (after installing the covers). An authorized commissioning partner will commission, power on, pinpoint, and configure Express 250 after installation.

After an Express 250 charging station (or pair of stations) has been successfully commissioned, 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.
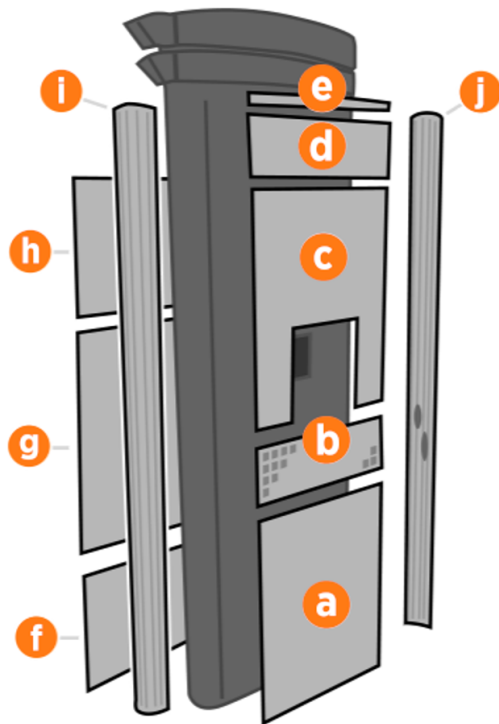
Complete the Installation Wizard: Standalone Installations

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 at the service panel to BOTH product paired charging stations during work and keep it off until all panels are reinstalled. Internal components can present a shock hazard. 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. For further details, refer to the *Express 250 Installation Guide*.

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 .

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.

1. Power on the Express 250 charging station 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.
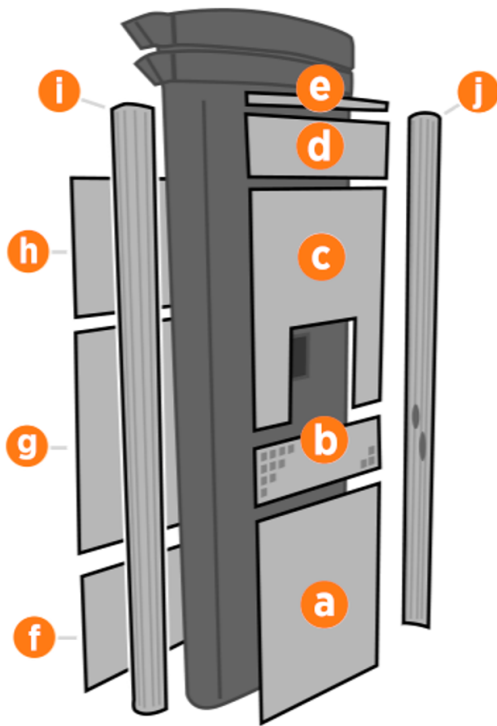
> 🛑 **IMPORTANT:**
> Ensure both paired charging stations have the exact same version of firmware before continuing. For example, two stations running 7.0.4.24 and 7.0.4.25 are not sufficiently synced.

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 at the service panel to BOTH product paired charging stations during work and keep it off until all panels are reinstalled. Internal components can present a shock hazard. 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. For further details, refer to the *Express 250 Installation Guide*.

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

Pinpoint the Station(s)

Follow the below steps to pinpoint the station:
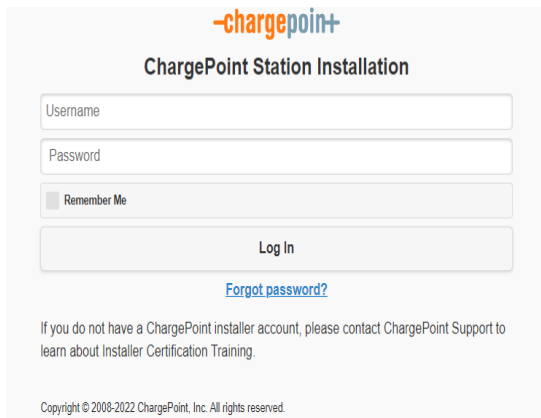
> ⚠️ **IMPORTANT:**
> Pinpointing sets up the location of a charging station for operation, service, and maintenance purposes. Location accuracy is critical.

1. Locate the activation label.

   Your smartphone or other device has a scanning app:

   a. Use the camera or open an app that can scan the QR code.

   b. Point the camera at the QR code on the activation label.

   c. Your device is automatically redirected to the installer pinpointing page. Check that the web page URL is m.chargepoint.com.

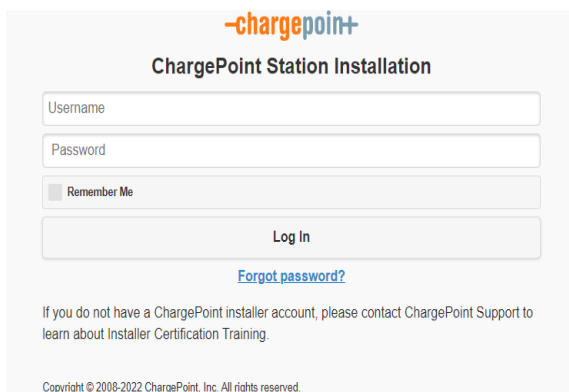d. Enter your ChargePoint installer login and password and **Log In.**

e. The system automatically enters the MAC address and activation password. Ensure that this information matches the details provided on the activation label. Choose **Next.**

Your smartphone or other device does not have a scanning app:

a. Go to m.chargepoint.com on your device.

b. Enter your ChargePoint installer login and password and **Log In.**

c. Enter the MAC address and activation password printed on the activation label. Choose **Next.**

> ⚠️ **IMPORTANT:**
> Verify the station serial number before proceeding. It cannot be changed after setup is complete.

2. Allow **Location Permission.** Your GPS coordinates are required to complete the pinpointing process.

3. Confirm that you are installing a new charging station and choose **Next.**

4. For **Make**, choose the manufacturer.

5. For **Model**, choose the model shown on the manufacturer type plate. Ensure the image of the equipment shown on the app matches the station at the site.

6. For **Station S/N**, enter the serial number shown on the manufacturer type plate and choose **Next.**

7. Begin to enter the address of the charging station. Then choose the address from the list of valid addresses and choose **Next.**

8. Drag the map to place the pin in the exact parking space for this charging station and choose **Next.**

9. Enter additional station location details, such as **Parking lot name, Building name, Floor label,** and **Parking restrictions**, if applicable. Choose **Next.**

10. Add **Helpful Information for Drivers**, if applicable.

11. Choose **Take Photo** to take an image of the newly labeled charging station and the parking space. Use your camera app to take and use a photo (follow on-screen guidance).

12. Choose **Next** to complete the process.

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 charging station is operating correctly. Contact ChargePoint Support at chargepoint.com/support if you have questions about station status.

> **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.

Recommended Install Checklist 6

Before leaving the installation site, complete the post-installation checklist using the link below:

https://docs.chargepoint.com/ref-docs-sec/content/pdfs/3-dc/express250/exp250-install_checklist.pdf

Provide the checklist and any spare parts (activation labels, and so on.) to the person responsible for activating the stations. This completes the installation of the Express 250 charging station.

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Removing the Express 200 Adapter   A

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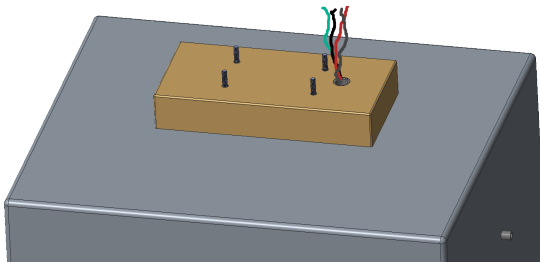
Bring These Tools and Materials

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

Remove the Express 200 Adapter

Follow the below steps to remove the Express 200 adapter:

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

1. Remove the metal adapter cover by pulling it upward.
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.
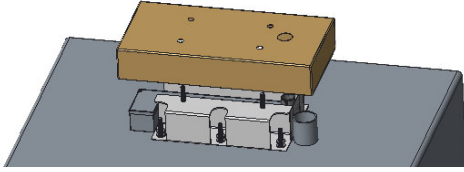
> **NOTE:** The service wiring for the Express 200 was redirected through conduit because the Express 200 terminal block is located on the right (when facing the front of the installation pad). On the Express 250, the terminal block is on the left; run the wiring directly upward from the left conduit opening.

5. Once the Express 200 adapter is uninstalled, follow the instructions provided in the *Express 200 to Express 250 Adapter Installation Guide* to install the Express 250 adapter.

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.

ISED (formerly Industry Canada)

This device complies with the licence-exempt RSS standard(s) of Innovation, Science and Economic Development Canada (ISED). 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.

Cet appareil est conforme aux flux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada (ISDE). 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.

Radiation Exposure Statement: This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

Énoncé d'exposition aux rayonnements: Cet équipement est conforme aux limites d'exposition aux rayonnements ioniques RSS-102 Pour un environnement incontrôlé. Cet équipement doit être installé et utilisé avec un Distance minimale de 20 cm entre le radiateur et votre corps.

See FCC/ISED.

FCC/IC Compliance Labels

Visit chargepoint.com/labels