Express 250 Paired

DC Fast Charging Station

Pairing Retrofit Guide

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.

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.

Contents

Prepare for Retrofit 1

This document describes how to convert a previously installed ChargePoint® Express 250 DC fast charging station that was operating by itself (called "Standalone" configuration) to share power with one other Express 250 for higher throughput (called "Paired").

Note: To install a *new* Express 250 charging station as Paired, follow the usual Installation Guide shipped with the charging station.

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
Express 250 Data Sheet	Full station specifications	Site designer, installer, and station owner
Express 250 Site Design Guide	Civil, mechanical, and electrical guidelines to scope and construct the site	Site designer or engineer of record
Concrete Mounting Template Guide	Onsite instructions for installing the CMT with anchor bolts and conduit placement	Site construction contractor
Express 250 Installation Guide	Anchoring, wiring, and powering on	Installer
This document	**Retrofitting a 250 to Paired configuration**	**Installer**
Express 250 Operations and Maintenance Guide	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/guides or chargepoint.com/eu/guides.

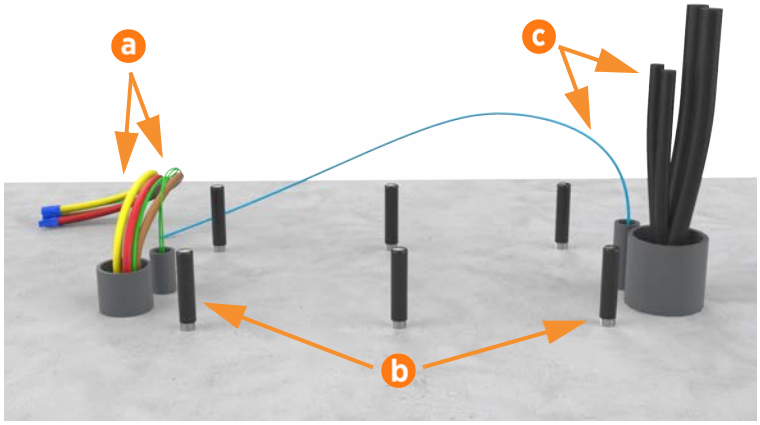
For assistance, go to chargepoint.com/support and find your region's technical support number.

Updating an Express 250 to Paired requires two people and takes approximately 2 hours. This time estimate does not include the time needed to pull DC and Ethernet cable. Pairing also requires contacting a ChargePoint support technician to perform any required software updates and pairing 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*.



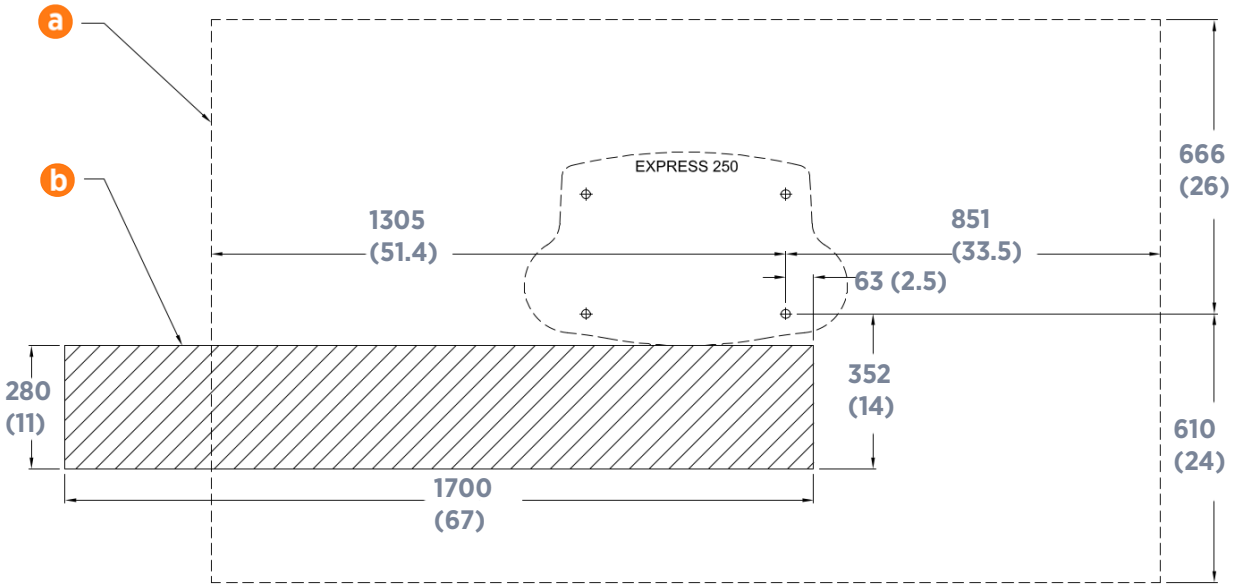
For an existing Express 250 Standalone station, the AC and shunt trip wiring (a) and anchor bolts (b) should already be in place, and the charging station mounted. The Ethernet wiring and DC conductors (c) might be in place and stored inside the right cover panel, or they might need to be pulled through conduit once the charging station's cover panels are removed.

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 the basic spacing requirements outlined below:

- The service clearance of open space, not necessarily at system grade (image callout a) extends a minimum of 610 mm (24 in) beyond the station in front, 1276 mm (50 in) total front to back, 2156 mm(84.9 in) side to side centered on the station, and 305 mm (12 in) above the station.
- 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).

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



Also ensure that:

- The appropriate service wiring, circuit protection, and metering is in place at the installation site (for details, see the *Express 250 Paired Site Design Guide*).
- 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)

- 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. For further details, see the *Express 250 Paired Site Design Guide*.

- Enough space is available around the installation pad to use a cable puller if needed, unpack the crates, remove packing materials, and allow two people to freely move throughout the area.
- You have all shipping crates and all the tools and equipment needed, as described later in this section.
- You have read the installation steps described in this guide to familiarize yourself with the installation process.

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.

Review Express 250 Hardware

Power Modules and the Pairing Kit ship separately from the charging station. New Power Modules are not required to pair an existing station, but their replacement might be part of the service visit while the charging station is powered off. Ensure you have all crates for this job at the installation site.

Contents	Max. Shipped Dimensions	Max. Shipped Weight*
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)
Pairing Kit (for retrofit stations only)	1110 x 205 x 641 mm (43.7 x 8.1 x 25.3 in)	6.5 kg (14.3 lbs)

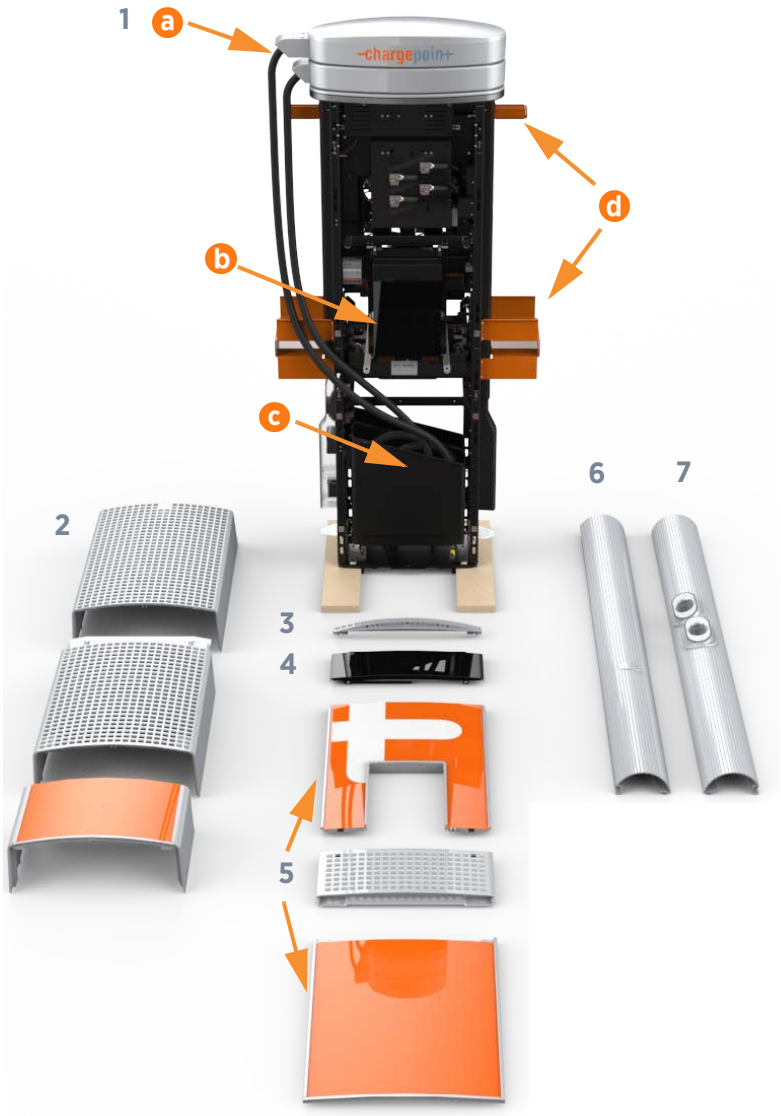
**Includes the weight of the crate - for the weight of the component, see the Express 250 Data Sheet*

Express 250 Charging Station

This image shows the names of the parts on the Express 250, as reference for the rest of this guide.

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

Note: Panel design varies by station generation. There is no functional difference between cover panels with square or rectangular vents. Images in this guide might not exactly match the station being upgraded.



Important: When removing cover panels, 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.

Power Module Shipping Crate

Each Power Module crate holds one Power Module.

Each Power Module also ships with two small stud brackets and their screws. These brackets are not required for Paired installations.

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.

Pairing Kit

Each pairing kit contains enough material for one charging station. A full pairing requires two pairing kits. The kit contains:

- Product labels:
  - Ratings label for top cap
  - Multi-power source warning label for the Power Module mechanism
  - Label for DC terminal blocks
  - Label for panel breakers
- EMI shields:
  - Front middle vent
  - Front Power Module area
  - Rear Power Module area
- Grommets for DC rodent guard bracket
  - 73 mm (2 7/8 in) OD
  - 22 mm (7/8 in) OD
- DC terminal spare fasteners
- DC terminal A replacement kit (if needed)
- T20 Torx driver
- Ethernet connector that accommodates up to 6 mm (0.24 in) OD jacketed Cat5e or Cat6 cable
- DC compression lugs (x4)(separate box): 3/0 AWG provided, 4/0 AWG available upon request. See Bring Tools and Materials (page 7) for EU/UK lug specifications and recommendations

Bring Tools and Materials

A certified installer needs to bring:

- Lockout/tag out equipment
- Cable puller (if not already completed on site)
- Step ladder
- Cut-resistant gloves
- Safety glasses
- Head-mounted flashlight
- T25 Torx security driver
- T27 Torx security driver
- 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
- Drill
- 8 mm (5/16 in) drill bit
- 45 mm or 60 mm (1 12/16 in or 2 3/8 in) coring drill bit to match AC and DC conductor sizes
- #2 Phillips screwdriver with long handle
- Standard electrical equipment such as wire cutter, wire stripper, and cable ties
- DC conductors (x4) (if not already pulled):

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 mm^2 (3/0 AWG) is sufficient for most sites unless ambient temperatures are >= 40°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 total; 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 (the *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 compression lugs (x4): 3/0 AWG lugs provided by default. 4/0 AWG available upon request. Use these specifications if other lugs are needed.
    - Silver plated copper narrow-tongue 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 24 mm (15/16 in)
    - 4 mm (0.55 in) clearance between the bottom bus bar block's top stud axis and the beginning of the top bus bar block
    - Example lugs for average conductor size are Burndy 3/0 YA27L-2TC14E2 or similar (North America) or Weidmuller 1494410000 120 mm^2 or similar (UK/EU)
    - Contact ChargePoint if the installer requires lugs for 3/0 (kit 99-002644) or 4/0 (kit 99-002645) 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)
- Dielectric grease, such as Dow Corning 4 Electrical Insulating Compound or similar
- 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
- 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
- Isopropyl alcohol wipes
- Permanent marker
- Torque paint pen
- Duct seal compound
- Propylene glycol 60/40 coolant and funnel (coolant label references Safety Data Sheet if needed; coolant available from ChargePoint as a service part)

2 Prepare the Charging Station for Pairing

This section describes how to prepare an Express 250 charging station for pairing when it was already installed as a Standalone station.

Update the Firmware

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

Before powering off any existing charging stations, update their firmware and settings using the following steps.

1. Go to chargepoint.com/support and find your region's technical support number. You need assistance from ChargePoint Support to perform this process.
2. Identify the two stations you are updating. The station Serial Number is on the rear of the station, just below the cable swing arms.
3. Ask the support technician to perform a firmware update to version 7.0.4.x or higher. This step takes about 30 minutes to complete.

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.

4. Ask the support technician to restore both charging stations to factory defaults.

About 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.

Panels overlap from the bottom to the top. To remove any panel, all panels above it on that side must be removed first.

Newer models have guide marks on the frame to help with cover panel installation. The top line shows where the top of the cover begins, and the bottom line is visible once the panel is pushed down and completely seated.

Remove the Area Light Bar and LED Display

1. Power off any existing station 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 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.

2. Using a T25 Torx driver, loosen the two captive screws on the area light bar.

3. Disconnect the power cable that connects the area light bar to the LED display assembly. Remove the area light bar.

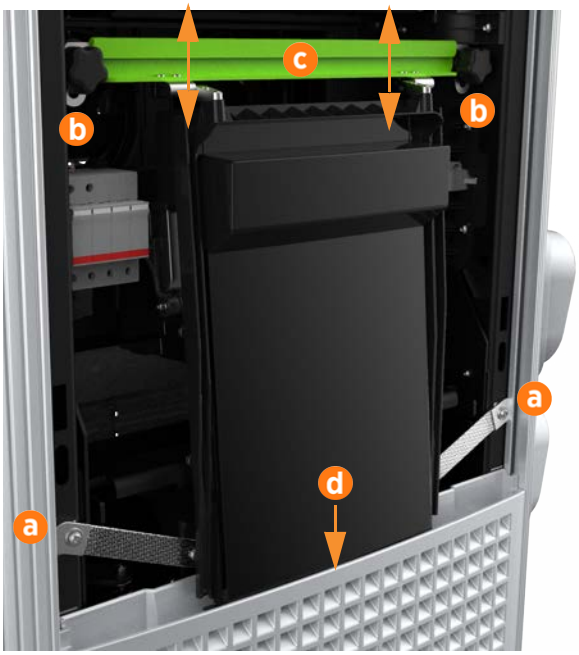
4. Push the LED display upward to release its guide tabs from their corresponding slots on the Express 250's frame.
5. When the LED display assembly is released, disconnect the five cables from the back.

Important: Do not allow the LED display to hang from its cables.

Remove the Front Panels

1. Using two hands, pull the top panel upward to release its guide tabs from their corresponding slots on the Express 250's frame.
2. Place a protective cover, such as a lint-free cloth, over the touchscreen to prevent damage during installation.

3. Use a T25 Torx driver to remove the M5 screw and washer (a) attaching each touchscreen ground strap to the frame. Keep the screws and washers for reuse.
4. Loosen both retention knobs (b), allowing the touchscreen beam (c) to slide up vertically and the touchscreen's bottom edge to clear the middle vent panel's slot (d).
5. With hand pressure, tilt the touchscreen upward at a 45° angle.
6. Allow the touchscreen to return to its lowest position vertically. Rotate the retention knobs clockwise to re-tighten.

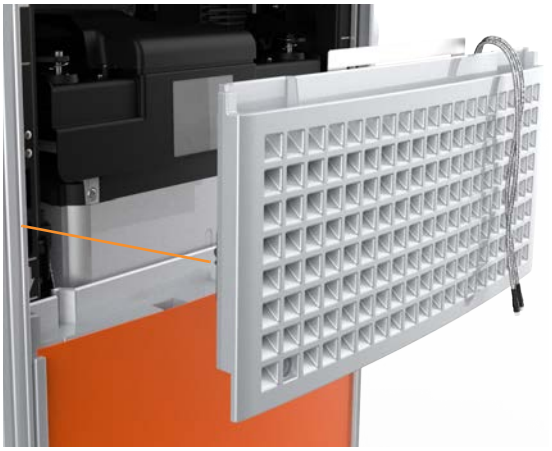


Important: The bottom edge and corners of the touchscreen are sharp. Take care when moving underneath the raised screen.

7. Disconnect the two proximity sensor wires from the connectors on the bottom of the touchscreen and the wire management ring. Move the proximity wires to hang in front of the middle vent panel.

8. Using two hands, one on each side of the middle vent panel, remove the panel by firmly pulling it upward to release the guide tabs from the corresponding slots on the Express 250's frame.

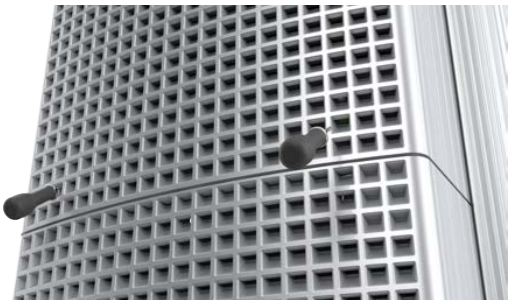
CAUTION: The fins on the back surface of the middle vent panel are sharp. Take care when handling the panel.



9. Remove the bottom front panel by lifting upward from the bottom of the panel to release the guide tabs from their corresponding slots on the Express 250's frame.

Remove the Rear Panels

1. Using a T25 Torx (or a Phillips #2 screwdriver for early charging stations), loosen the two hidden captive screws located in the top rear panel's vents, inset from each bottom corner.



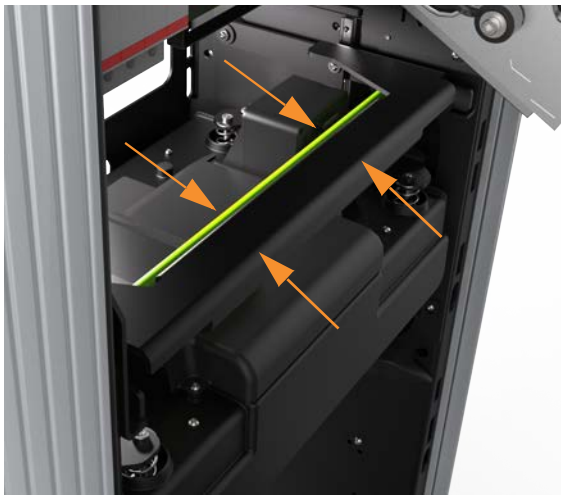
2. Using a T25 Torx driver, loosen the two captive screws located at the top of the top rear panel.
3. Using two hands, hold the top rear cover at an angle to remove, leading with the bottom edge.

4. Using two hands, lift the middle rear panel straight up and out to disengage the guide tabs.

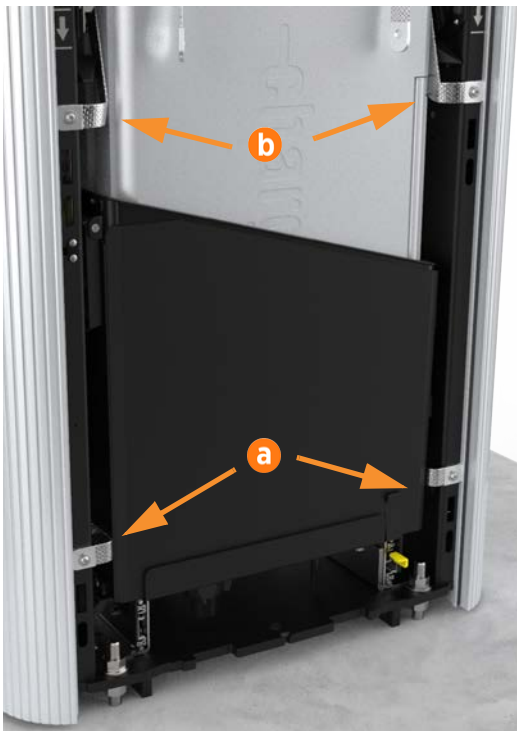
5. Using two hands, one on each side of the lower rear panel, carefully pull the panel upward to release the panel's guide tabs from their corresponding slots on the Express 250's frame.

Open the Power Module Holders

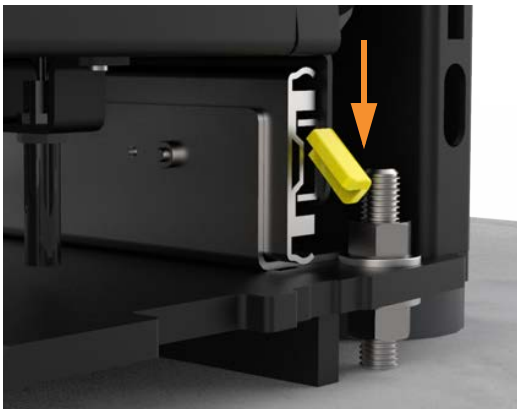
1. Using two hands, squeeze the Power Module mechanism's release bar against the flange. Raise the bar to fully rotate the Power Module mechanism upward to the lock position. Ensure the mechanism has fully cleared the ports and guide posts on the Power Module(s).



2. If present, use a T25 Torx to remove the front and rear M5 screws and washers attaching the Power Module holder (a) and Power Module (b) ground straps to the Express 250 frame (eight screws total). Keep the screws and washers for use in a later step.



3. 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
4. Pull the Power Module tray out completely.



5. If present, use an 8 mm (5/16 in) nut driver to remove all four ground straps and their fasteners from the Power Modules (c) and Power Module holders (d). Discard the nuts and straps. These are replaced with new EMI shields in a later section.

Note: It is not necessary to swap the Power Modules when pairing a charging station. These are pulled out to allow access to fasteners for cover panels. Unless there is a site-specific reason to replace the Power Modules, leave them in their holders.

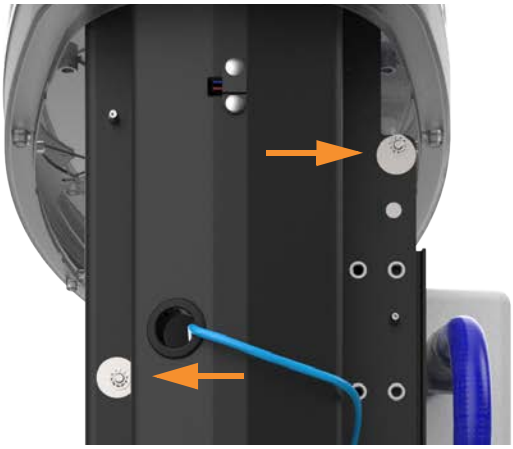
Remove the Right Extrusion

1. Remove the charging cables from their holsters and rest them gently on a padded surface out of the way.
2. Insert a small flathead screwdriver into the notch on each plastic cap to remove it from the holster screw opening.
3. Use a T25 Torx to remove the rubberized washer and M5 shoulder screw. Set them aside for reuse.

4. Using one hand, hold the extrusion and loosen the top two captive screws using the supplied T25 Torx driver. (Blue Ethernet wire in image is not yet installed at this stage.)

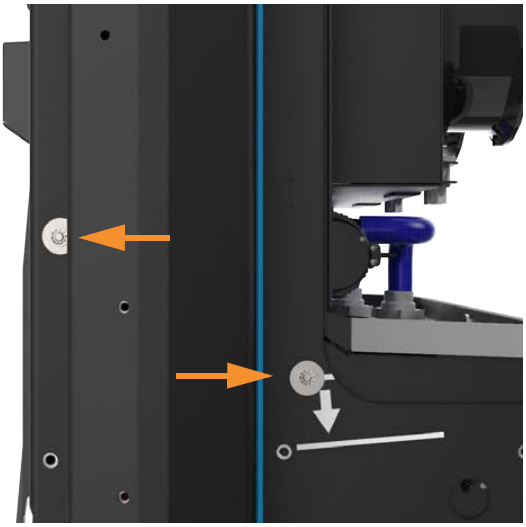
   Note: The step ladder is needed to reach the top screws.

   Note: The top screws are asymmetrical.



5. Use a T25 Torx driver to loosen 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.



6. Loosen the bottom two captive screws on the extrusion. (Cables in image are not yet installed at this stage.)

7. Slightly tilt the bottom of the extrusion out to extract its top edge from under the bottom edge of the area light bar. Lift the extrusion off the guide pins on each side of the frame that hold the extrusion in place.

   Note: Keep the extrusion close to the station until its cables are disconnected.

8. Disconnect the shortest cable from the top holster.
9. Disconnect the next-longest cable from 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: When reinstalling, check that these connections are correctly seated, or the system will not operate.

10. Depending on the generation of holster, use either a T25 Torx driver or an 8 mm nut driver to remove the P-clip hardware stack (a) from the lower holster of the extrusion. Carefully note the order of the components.
11. Remove the shielded holster cable from the opening in the P-clip (b).
12. Remove the extrusion from the station. Lay it aside on a padded surface for reuse.

Pair the Charging Stations 3

This section describes the steps needed to install needed labels, connect the DC conductors, and connect Ethernet communication for both charging stations to be paired.

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 from the retrofit kit 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 or breaker responsible for AC power to this charging station, and the disconnect for its Paired partner.
5. Using a permanent marker, write in the last three numbers of each Paired stations' serial number (found next to the ratings) on its disconnect label, so that future technicians know which disconnects to power off for service. This is especially important for sites with multiple pairs of charging stations.

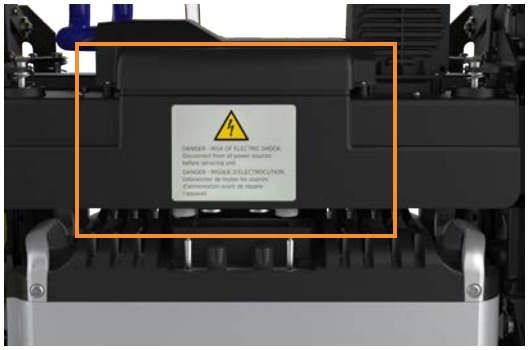
DANGER: RISK OF SHOCK. Power must be disconnected at the service panel to BOTH Express 250 paired charging stations when servicing. FAILURE TO CORRECTLY MARK THIS FOR FUTURE TECHNICIANS CAN RESULT IN SERIOUS INJURY OR LOSS OF LIFE.

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

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

7. Affix the label designating terminals A, B1, and B2 to the right side of the DC terminal blocks.

8. Affix the “multiple sources” label to the front of the Power Module mechanism, over the top of the existing warning label.



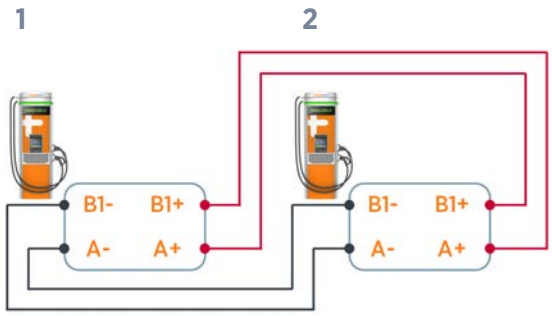
Install DC Cables

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. 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

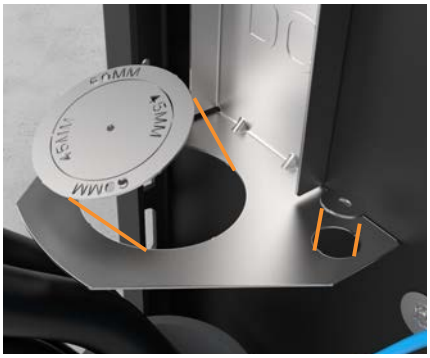


CAUTION: Be sure to connect positive to positive, and negative to negative, on the same wire. Do not reverse the polarity.

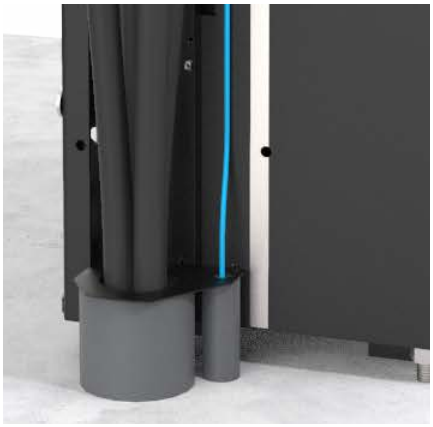
2. If not already done, pull DC conductors through the DC conduit and Ethernet wire through the communications conduit in the installation pad, as described in the *Express 250 Paired Site Design Guide*.
3. Use the multimeter and toner attachment to test each DC conductor for continuity. If any errors are found, adjust the conductor labels.
4. 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.

5. Use a flathead screwdriver to push out both punch-out discs in the rodent guard bracket. The larger hole must be large enough for the conductors to pass through, but no larger than the conduit or cable gland ID. If the bracket does not have punch-outs, use the closest size core drill bit: 45 mm or 60 mm (1 12/16 in or 2 3/8 in) for the conductor hole, and 8 mm (5/16 in) for the Ethernet hole.



6. 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. Ensure both conduit stub-ups on the DC side are trimmed to the same height: a minimum of 60 mm (2.4 in) from the ground, maximum 160 mm (6.3 in).

   c. Route the conductors through the rodent guard 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.

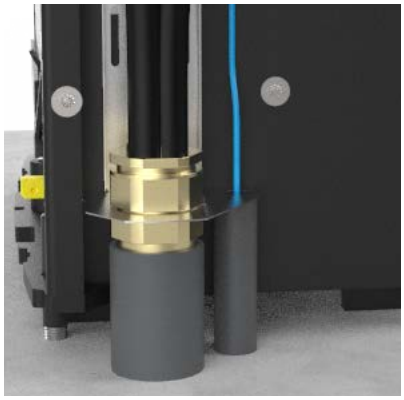
   d. Route the Ethernet wire through the smaller hole in the rodent guard bracket.

   e. Pull enough Ethernet wire to reach the port (approximately 317.5 cm/125 in at each end).

   f. 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.

   g. Strip the DC wiring outer jackets as needed for wire management.

7. 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. Strip the outer jacket of the armored cable to a height within the allowance of the adjustable rodent guard bracket: a minimum of 60 mm (2.4 in) from the ground, maximum 160 mm (6.3 in).

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

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

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

f. Route the DC wires through the rodent guard bracket.

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

g. Route the Ethernet wire through the smaller hole in the cable bracket.

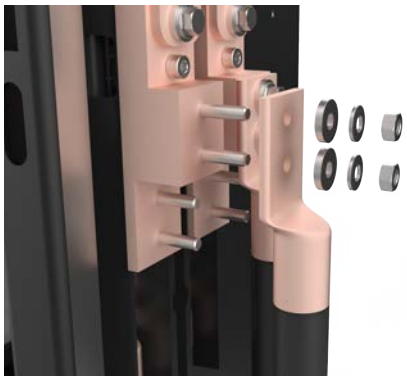
h. Pull enough Ethernet wire to reach the port (approximately 317.5 cm/125 in at each end).

i. 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.

j. 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.

8. 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 7). 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 dielectric grease between the terminal block and the lug.

e. Land the DC lugs on the terminal blocks according to the labels that were installed above. Land the A lugs on the bottom terminal blocks, and the B lugs on the top B1 terminal blocks. Leave the middle terminals free. Fasten each lug in this order: terminal block, lug, M6 flat washer, M6 Belleville washer, 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.

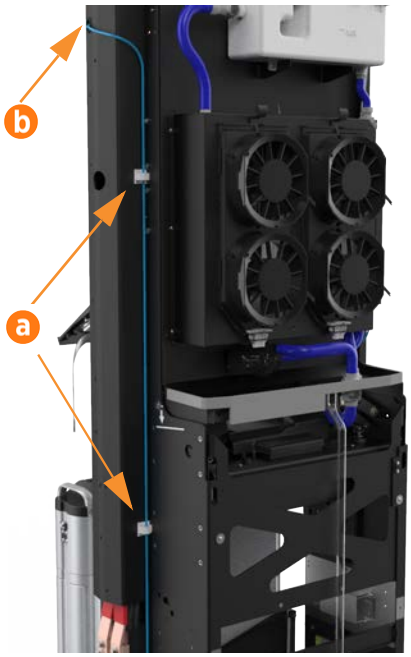
CAUTION: Do not under- OR over-torque the DC fasteners. Excess torque, even with hand tools, can damage the terminal blocks.

CAUTION: If the lowest (A) terminal studs on the DC bus bars do not hold torque when fastening the conductor lugs, **STOP**. Follow the instructions in Appendix B to remove and replace them with new materials from the Pairing Kit. Terminal studs that are not correctly torqued can lead to poor connection and risk charging station damage.

9. 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. Peel the backing off both plastic P-clips. Install them along the rear face of the DC side rail: the bottom one just above the bus bars, and the top one just above the central screw hole in the rail (a).
3. Route the Ethernet wire up the rear side of the frame, through the P-clips, and into the top wiring hole (b).



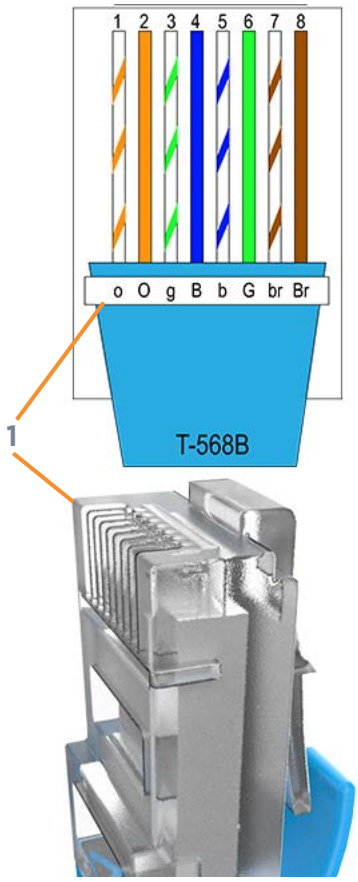
4. Route the Ethernet wire across the charging station from right to left between the auxiliary power supply and the contactor assembly. Zip tie the Ethernet wire to the existing cable bundle at each corner (c).
5. Route the Ethernet wire down behind the touchscreen adjustment bar.
6. With hand pressure,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

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

7. Re-measure the distance to the "Ethernet" port of the Station Management Unit (e) and trim excess wire.
8. Strip the end of the Ethernet insulation.

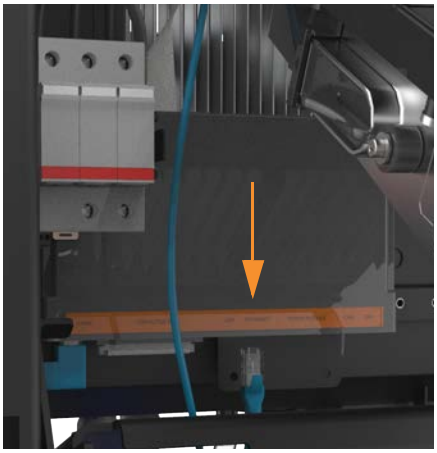
9. Crimp the Ethernet wire in a straight-through pattern into RJ45 connectors at both ends. Note the location of Pin 1 relative to the clip in the image, and the order of the blue and green wires in the pattern.

10. Test the Ethernet wire for functionality.



11. 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.



12. Use duct seal compound 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
    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.

13. 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.

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).

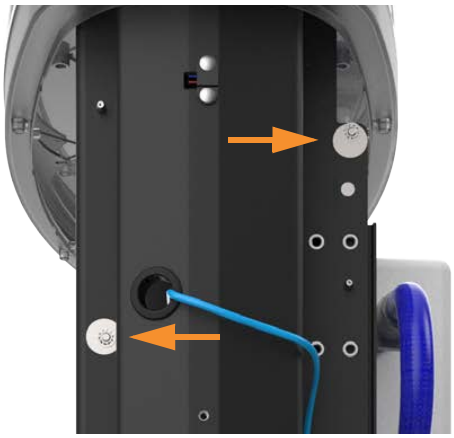
Install the Right Extrusion

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.

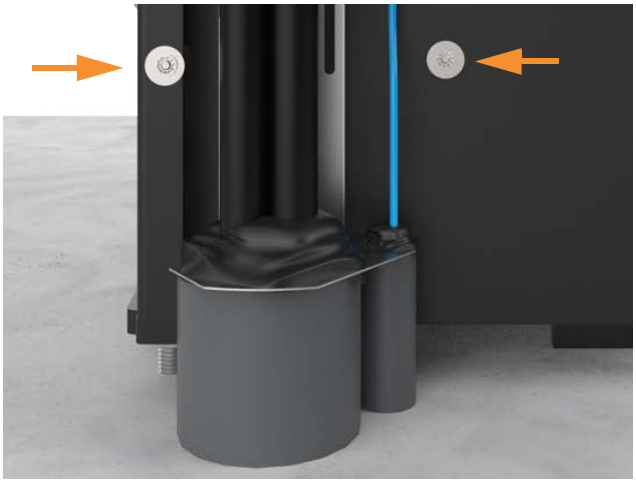
2. Using one hand, hold the extrusion and loosely secure the top two captive screws using a T25 Torx driver.

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

   Note: The top and middle screws are asymmetrical.



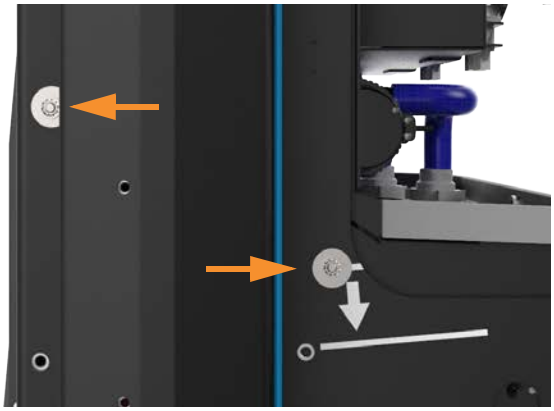
3. Use the supplied T25 Torx driver to loosely secure the bottom two screws next. The Power Module holders must not be inside the charging station to have access to the bottom screws.



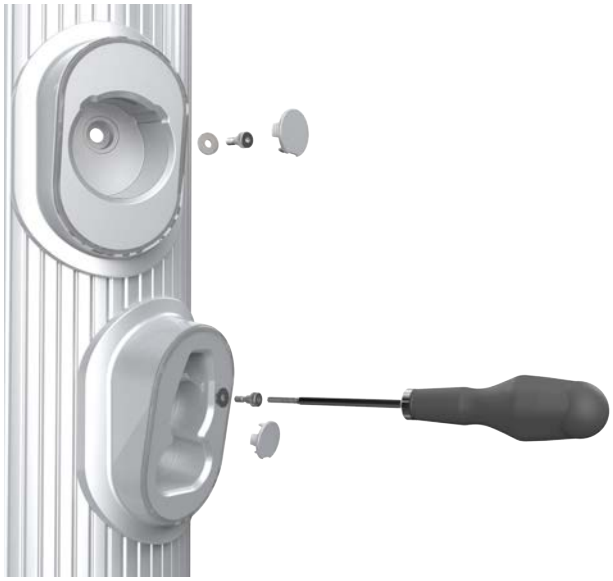
4. Use a T25 Torx driver to loosely secure the middle two screws, just above the Power Module mechanism.

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

5. Tighten all 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.



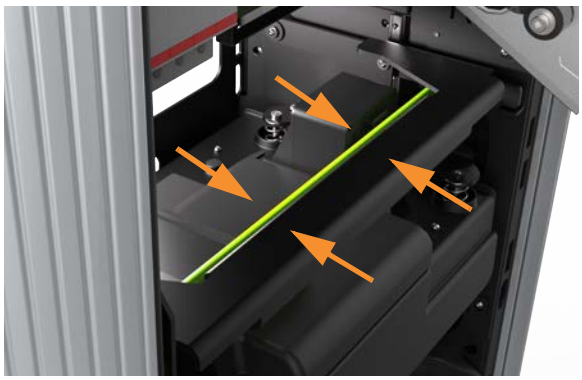
Secure the Power Modules and EMI Shields

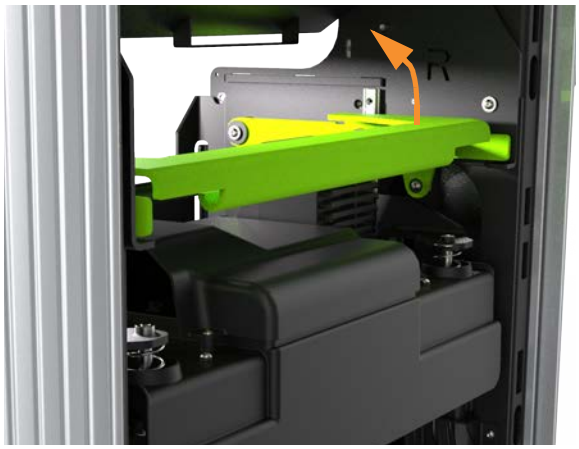
If there is a site-specific reason to replace the Power Modules, follow the instructions included in the Power Module crate to do so. If not, follow these steps to secure them in the charging station again and continue the retrofit.

1. With hand pressure, swing the bottom of the touchscreen out to a 45° angle.

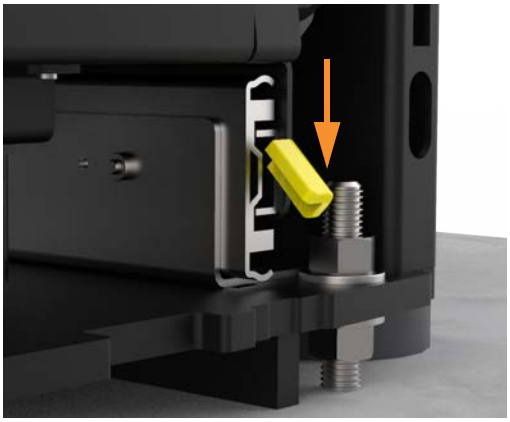
CAUTION: The bottom edge and corners of the touchscreen are sharp. Take care when moving underneath the raised screen.

2. 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.





3. 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.



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

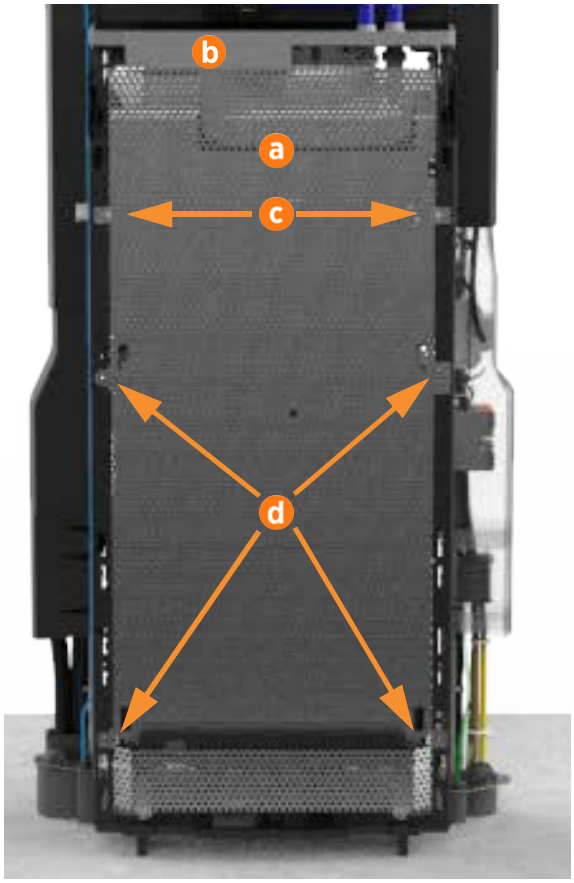
5. Lower the Power Module mechanism until you hear a click as the mechanism locks into place. Ensure the mechanism is fully engaged with all Power Module connectors. The ridges on the Power Module's top edge should not be visible. If the mechanism does not engage, raise it again and push the Power Modules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

Important: Do not apply excessive force.

6. 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.

7. 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.

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

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

13. Remove the two T25 screws and washers that align with the top front EMI shield tabs.

14. 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).

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

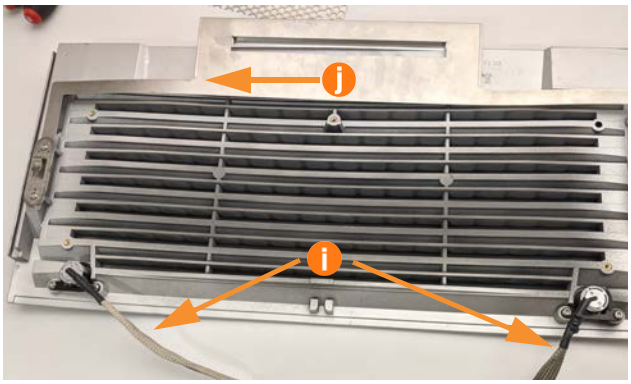
16. Use a T25 Torx, an M5 screw, and an M5 washer to attach the front EMI shield to the middle and bottom grounding locations on the front of the frame (h). Torque to 4 Nm (35 in-lbs).

17. Identify the middle vent (front cover panel).

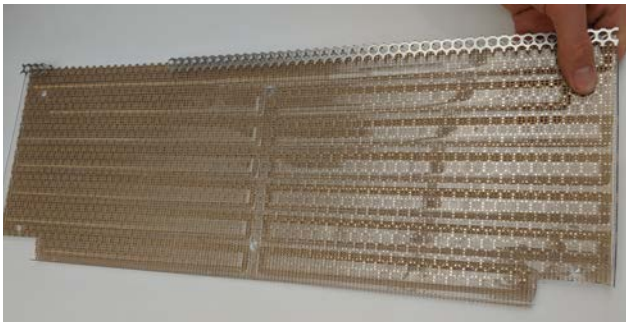
18. Use a T20 Torx to remove the six screws holding the clear plastic baffle and the screen onto the panel. Remove the baffle and screen. Set the screws aside for re-use.

Note: Hold the baffle down firmly at the base of the screw during removal, to help prevent the panel's threaded insert from pulling out of the panel.

19. Gently pull the two proximity sensor wires (i) out from under the metal frame edge (j).



20. Tuck the screen and baffle under the C-channel edge of the EMI shield, with the screen in the middle. Align the screw holes and corner cut-outs on all three layers.
21. Insert all three layers back under the metal frame edge.
22. Replace all six screws. Torque to 1.5 Nm (13.3 in-lbs).
23. Re-route the two proximity sensor wires under the metal frame edge on the right side (as viewed from the front of the panel).
24. Set the middle vent panel aside until it is time to install the front cover panels.



Fill the Coolant Reservoir

Check the coolant levels in the Express 250, and top up if needed. Coolant and a funnel can be ordered as a field replacement kit from ChargePoint.

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

Install the Rear Cover Panels

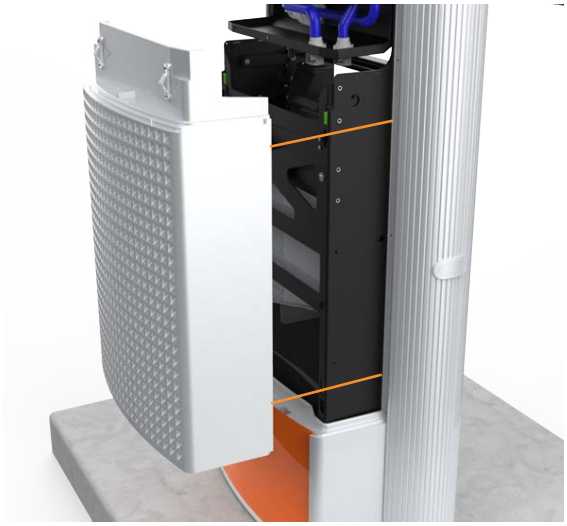
Important: When installing the rear panels, take special care to ensure that each panel is correctly positioned. Failure to do so can prevent station operation.

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 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: Later versions of the charging station have 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. Ensure the lower panel's sign (if present) is correctly captured under the middle panel's edge as you carefully push the panel down.

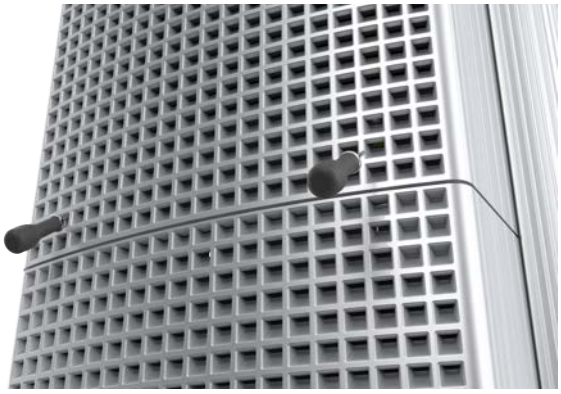


3. Using two hands, hold the top rear panel at an angle and slide into place beginning with the top edge. Squeeze the sides of the panel inward to fit the tabs into place in the C-channel, inside the watertight gasket.

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

4. Using a 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 (or a Phillips screwdriver for early charging stations), tighten the two hidden captive screws located in the panel's vents, inset from each bottom corner.
6. Use a 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. 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. 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).

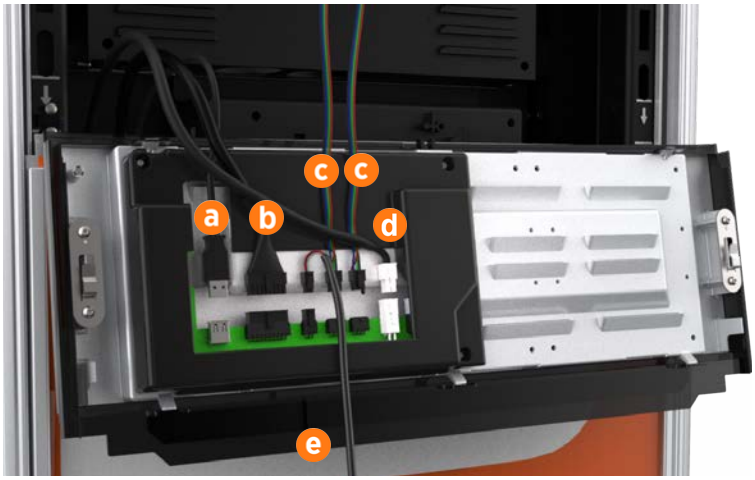
11. Using two hands, align the guide tabs on the front upper panel with the corresponding slots. While pushing the panel into place, push the bottom edge and its sign inward to engage them inside the groove in the middle vent panel. Carefully push the panel down until it is firmly seated.

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 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

After both Express 250 charging stations have 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 each Express 250 is installed.

Complete the Installation Wizard

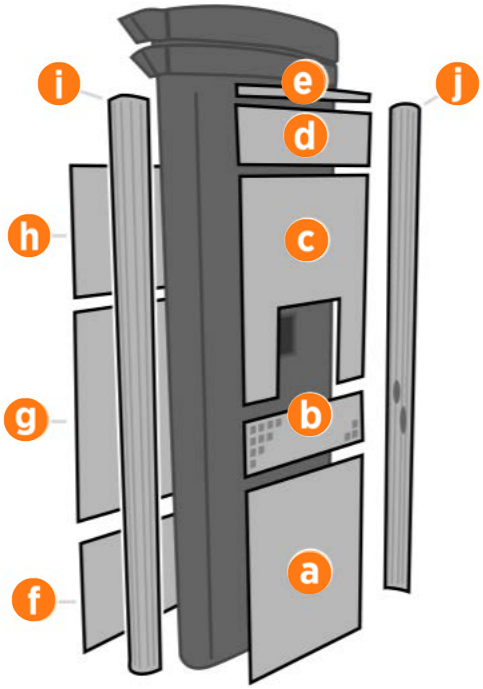
CAUTION: Do not use either paired station for a charging session, from the time work is begun to the point that both stations are confirmed as having paired functionality. Equipment damage can result from plugging in a vehicle while the update is only partially complete.

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. Go to chargepoint.com/support and find your region's technical support number. You need assistance from ChargePoint Support to perform several steps in this process.
3. Call ChargePoint Support. Identify the two stations you are installing or updating.
4. If you have not already done so in Prepare the Charging Station for Pairing (page 9), 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.

5. While you are on the phone, request the PIN numbers for pinpointing both stations.
6. On the front touchscreen, select a language for the Installation Wizard (this does not permanently affect the Express 250's display language).
7. 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. For further details, refer to the *Express 250 Installation Guide*.

8. Select the option "New installation". (The other option, "Replace Existing Station", is only for stations where all settings remain the same as before.)
9. 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.
10. If the Installation Wizard Ethernet test initially fails, it asks you to select Standalone or Paired configuration. Select Paired.
11. 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.

12. Inform ChargePoint Support that the charging stations are ready for support configuration. Support configures both stations for power level, power sharing rules, and other required paired settings.

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. Enter the PIN number for that station that ChargePoint Support provided to complete pinpointing.
4. Scan the QR code on the screen with your phone. Enter the activation password and touch Next.
5. Confirm that you are installing a new Express 250 charging station.
6. When prompted, touch OK to share your GPS location data with the ChargePoint mobile site.
7. When prompted, touch OK to review the station’s location on Google™ Maps.
8. Review the station address and zoom in to review the initial position of the station’s pin on the map.
9. Manually move the pin to the correct parking spot location on the screen.
10. If needed, manually adjust the address of the station’s location.
11. Take a picture of the station using your smart phone. Scroll down to “Upload a Station Picture” and choose the station picture.
12. Add helpful information for drivers, such as parking structure floor.
13. 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.

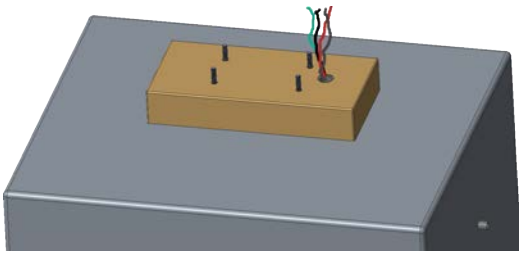
Important: Do not leave the installation site until the Express 250 is operating correctly.

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

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 *CPE200 Installation Guide*. You must also uninstall the Express 200 adapter as described in this appendix.



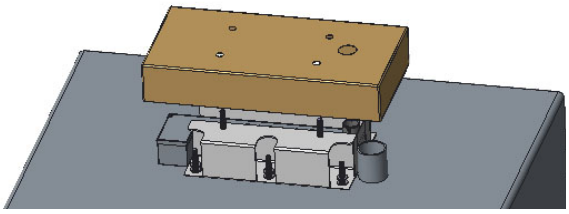
Tools Needed

- 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.

Repairing the Lowest DC Terminals B

If the lowest (A) terminal studs on the DC bus bars do not hold torque when fastening the conductor lugs, the Pairing Kit contains materials to remove and replace them.

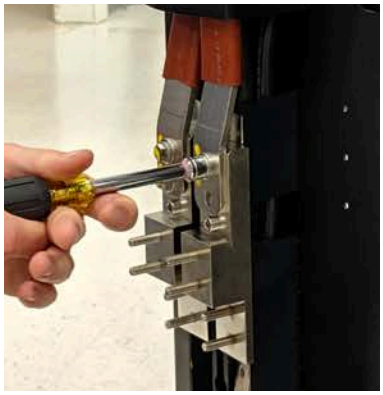
WARNING: If not installed, torqued, and shielded correctly, the DC terminals can present an arc risk. Follow all instructions in this section.

Tools Needed

- 5 mm (3/16 in) hex driver
- 10 mm (3/8 in) nut driver
- 10 mm (3/8 in) deep socket wrench

Replace the DC Terminals

1. Remove all fasteners from the A terminal studs (lowest terminals) on the DC side.
2. Use a 10 mm nut driver to remove the M6 nuts from the top, pre-installed bus bar terminals. Move the top bus bars gently to the side.



3. Use a 5 mm hex driver to remove the central screw holding the terminal block to the rail.

4. Gently pull the terminal blocks out and to the side to reach the lowest terminals mounted beneath it. These swing aside easily once they are outside the plastic lug spacer.

5. Reinstall one washer and one M6 nut onto each terminal A stud. Use a deep 10 mm socket wrench to completely torque out the A studs on the lowest terminal block. Discard the old studs.

CAUTION: If any A stud shears off or otherwise does not come completely out of the black plastic housing, stop work and call ChargePoint support.

6. Install the DC bus bar mount (two-stud plate) behind the lowest bus bar.
7. Slide a Nomex shield around each conductor.

8. Fasten the two-hole lugs for the two A wires (+ and -) onto the A terminals using both washers and a nut for each stud.

9. Peel off the adhesive backing on the Nomex. Slide the Nomex up over the combined terminal and lug with the tallest section pointing upward on the front face, until the bottom of the Nomex aligns with the bottom of the plastic DC lug spacer.

> **WARNING:** If not installed, torqued, and shielded correctly, the DC terminals can present an arc risk. Ensure the new terminal studs and lug are electrically isolated from the B terminals above them.

10. Position each A terminal back into the plastic terminal channel. Press the Nomex into place so that the adhesive sticks to the plastic channel.

11. Align the B terminal block on top of the A terminal so that the Nomex is held between B and A. Reinstall the 5 mm hex screw. Torque to 5.5 Nm (48.7 in-lbs).

12. Reinstall the top bus bar using the same two washers and M6 bolt for each. Torque to 5.5 Nm (48.7 in-lbs).

13. Return to Section 4 of this guide to complete fastening the B1 DC lugs to the terminals. Continue the normal installation procedure.

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.

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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/

chargepoint.com/support

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