

WEST BOYLSTON MUNICIPAL LIGHTING PLANT

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Appendix B

ChargePoint CPE250-CMT Installation Guide on
Pad with Conduits

(2) ChargePoint CPE-250 Chargers with Mounting
Plates Provided by WBMLP

Express 250

ChargePoint® CPE250-CMT Installation Guide

The Express 250 is a DC fast charging station for electric vehicles. The default Express 250 installation requires service wiring to be installed underground and run to a concrete pad. The ChargePoint Express 250 Concrete Mounting Template (CPE250-CMT) correctly aligns anchor bolts and conduit openings to ensure the Express 250 can be easily installed and connected. A separate CPE250-CMT is required for each charging station.

Note: If a site requires surface mounting, do not use this mounting template. Contact ChargePoint before beginning work, to obtain an approved Surface Conduit Entry Kit.



WARNING: Use of a ChargePoint approved mounting method, such as the CPE250-CMT, is required for safe installation of the Express 250. Failure to use an approved mounting method may result in a risk of tip-over, which can cause death, personal injury, or property damage, and will void the Limited One-Year Parts Exchange Warranty.

The CPE250-CMT kit, available from ChargePoint, includes:

North America (Imperial)	Europe (Metric)
<ul style="list-style-type: none"> CMT metal template 	<ul style="list-style-type: none"> CMT metal template
<ul style="list-style-type: none"> 5/8 in-11 thread, 12 inch long threaded mounting bolts with plastic caps on one end (x6) 	<ul style="list-style-type: none"> 16 mm thread, 305 mm long threaded mounting bolts with plastic caps on one end (x6)
<ul style="list-style-type: none"> 5/8-11 inch nuts (x24) 	<ul style="list-style-type: none"> M16 nuts (x24)
<ul style="list-style-type: none"> 5/8-11 inch washers (x24) 	<ul style="list-style-type: none"> M16 inch washers (x24)

Note: You must order the CPE250-CMT separately, with sufficient lead time before site construction. This kit ships separately from the ChargePoint Express 250 charging station.

Bring Tools and Materials

In addition to the CPE250-CMT kit, the site construction team needs:

- Digging tools (shovel, spade, etc.)
- Materials to prepare the form for pouring concrete
- Concrete as specified by site drawings
- Rebar as specified by site drawings
- Two wrenches (24 mm wrench for Europe, or 1-1/16 in. open end wrenches for North America)
- Pliers to adjust the guide fingers on the CMT conduit openings
- Level
- Cut-resistant gloves
- Conduit, ducting, or armored cable in the amounts and types specified by site drawings, that complies with local code (see the rest of this document for conduit sizes and routing)

Refer to the *Express 250 Site Design Guide* for full site construction requirements, pad specifications, and conductor specifications if needed.



Important: Although the Concrete Mounting Template was originally designed for six anchor bolts, only the four corner anchor bolts are required for station stability. Only use the four corner anchor bolts for new stations. If older sites were already designed with six anchor bolts, removing the middle bolts is not required.

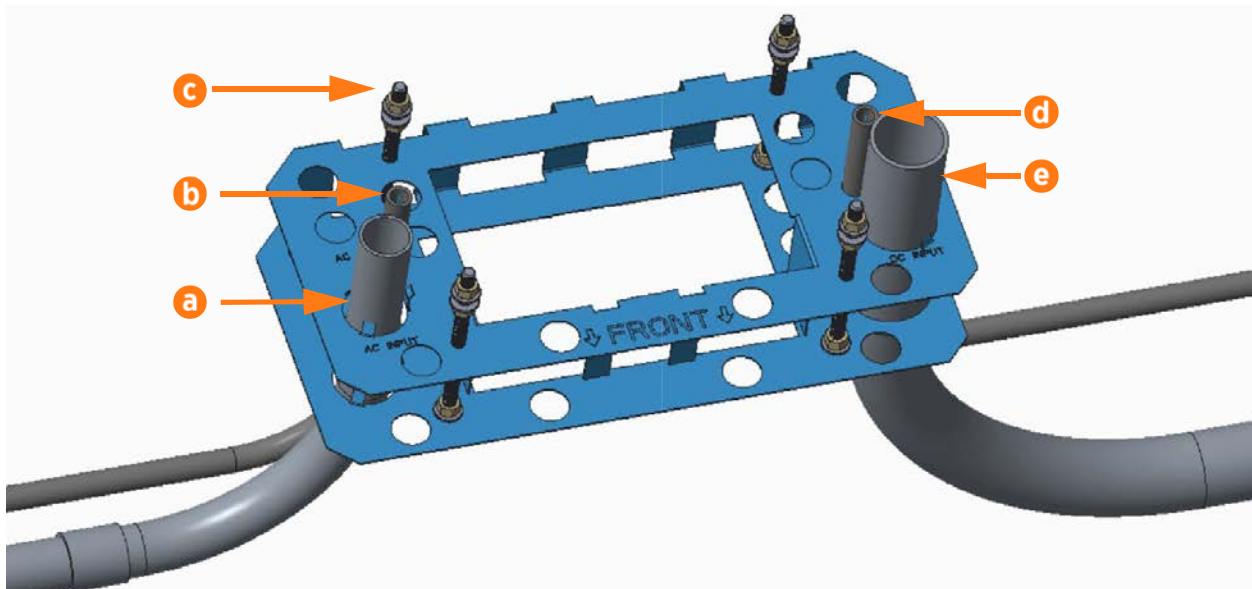
CPE250-CMT Overview

The Express 250 is a DC fast charging station for electric vehicles. It converts three-phase power from its associated building (callout a in the image below) to DC power to charge the vehicle. A ground conductor also runs in conduit a. Shunt trip wiring (b, optional) is run from the station to the breaker panel to automatically shut down the station if a fault or hazard is detected, such as a damaged cover panel or impact from a vehicle. All stations use four anchor bolts (c).

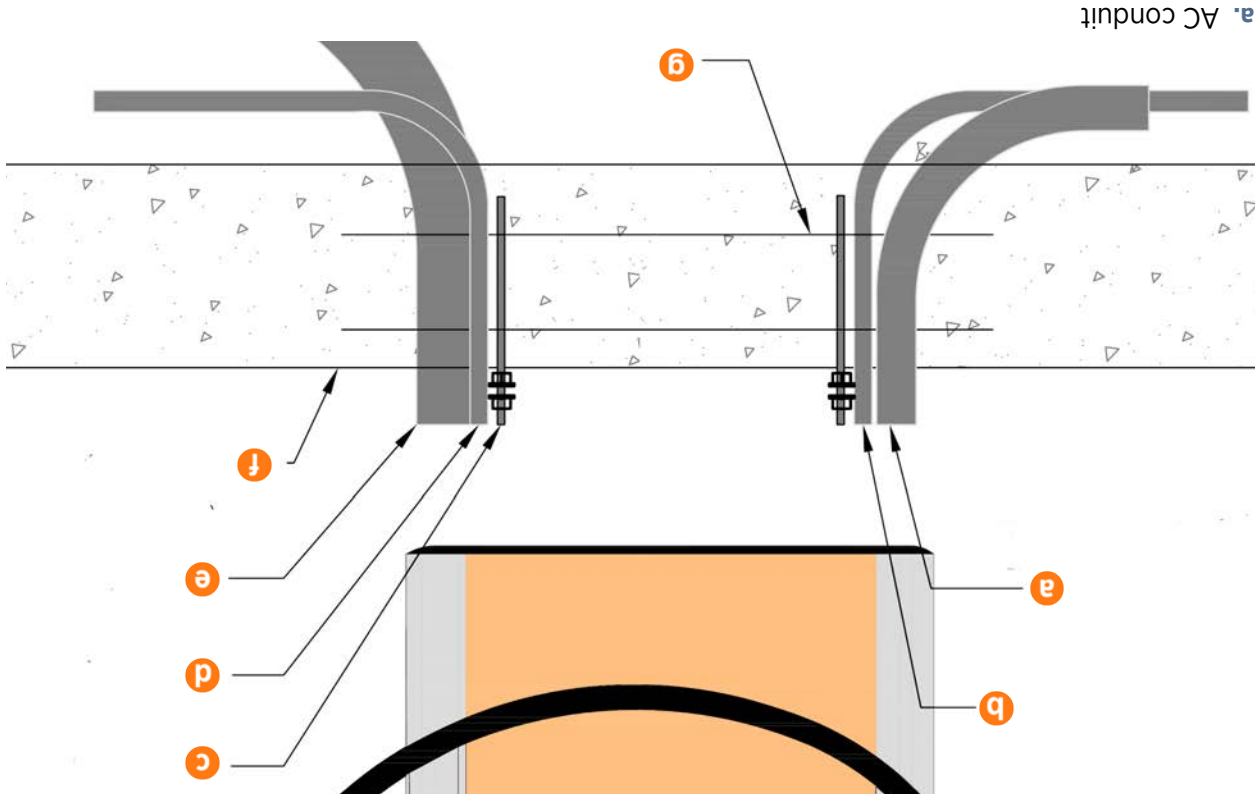
If two Express 250 stations are “paired”, they share DC power to allow faster (higher amperage) charging to a vehicle as needed. In this case, DC conductors (e) are run between the stations, as is an Ethernet wire (d) for communication.

Note: Each Express 250 communicates with ChargePoint using a cellular network. No communication wiring is needed between the station and the building.

An assembled CPE250-CMT template is shown below with the positions of all conduit and anchor bolts.



- a.** AC conduit from the left side of each station to the breaker panel (possibly with an AC disconnect switch in the circuit): 50.8 mm (2 in trade size)
- b.** Shunt trip conduit from the left side of each station to the breaker panel: 19.1 mm (3/4 in trade size)
- c.** Anchor bolts (x4)
- d.** Ethernet conduit (Paired installations only) between the two stations to be paired, right side to right side: 19.1 mm (3/4 in trade size)
- e.** DC conduit (Paired installations only) between the two stations to be paired, right side to right side: 76.2 mm (3 in trade size)



Note: Ensure no bell ends are left on any conduit after all wires are pulled. Bell ends can interfere with station placement.

Note: Depth of conduit or armored cable may vary by site. The image above does not dictate conduit depth, as long as the stub-ups are vertical and placed correctly. Always refer to site drawings and local code.

Assemble the CPE250-CMT



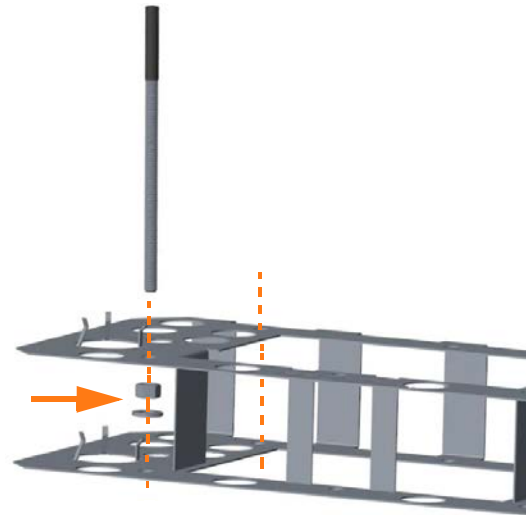
CAUTION: The CPE250-CMT has sharp edges. Wear cut-resistant gloves.



Important: Although the CPE250-CMT was originally designed for six anchor bolts, only the four corner anchor bolts are required for station stability. Only use the four corner anchor bolts for new stations.

Before pouring concrete, assemble the CPE250-CMT with its anchor bolts, washers, and nuts.

1. Holding a mounting bolt by its plastic cap, insert the bare end into a corner bolt hole in the top plate of the template.
2. Before inserting the bolt through the bottom plate of the template, thread a nut onto the bolt and add a washer as shown.
3. Ensure the plastic cap is pressed fully down on the bolt. Leave this cap on to protect the threads until the Express 250 is being installed.



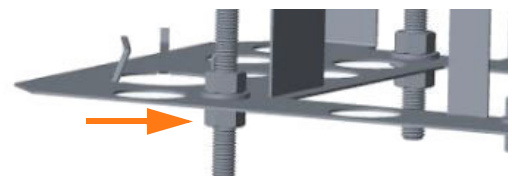
4. Holding the bottom nut and washer flush against the top surface of the bottom plate, thread the bolt onto the nut until the distance between the bottom of the plastic cap and the surface of the top plate is 51 mm (2 in).
5. Repeat Steps 1 to 4 for the remaining three corner bolts.

Note: Do not insert bolts into the center two holes. Only the four corner bolts are required for system stability.

51 mm (2 in)



6. Secure a second washer and nut onto the bottom of each bolt until it is flush with the bottom surface of the bottom plate. Torque each nut to 5.6 Nm (50 in-lb).



Install the CPE250-CMT



WARNING: Failure to install the ChargePoint® charging station in accordance with these instructions and all local building practices, climate conditions, safety standards, and all applicable codes and ordinances may lead to risk of death, injury, or property damage, and will void the Limited One-Year Parts Exchange Warranty.

1. Trench and excavate an opening to accommodate the wiring conduit and the concrete mounting pad that meets local codes and requirements, per site drawings.
2. Run conduit to each station as needed. If the stations will be Paired, also run DC and Ethernet conduit between stations.
3. Build the form and lay rebar for the foundation.



Important: It is critical that the conduits are positioned properly and plumb. The tolerance where the conduits enter the station is 2 mm (1/16 in).

4. Place the assembled CPE250-CMT so that the “FRONT” marking aligns with the specified front of the station, with the conduit guide fingers facing up.
5. Slide the CPE250-CMT over the conduit stub-ups until the top surface of the template is positioned 50.8 mm (2 in) below where the top surface of the concrete will be when poured. The surface of the concrete must align with the bottom of the plastic caps.
 - Carefully press the CPE250-CMT down onto the conduit to avoid flexing it.
 - Ensure the conduits are plumb.
 - Use a level to check that the CPE250-CMT is level from front to back and from side to side.
6. Tie or shim the CPE250-CMT to the rebar to prevent movement during concrete pouring.



Important: Before pouring concrete, the CPE250-CMT and the conduit must be secured in place to prevent them from rising or floating out of position while the concrete is poured and curing.

7. Pour the concrete.

Note: Make sure the concrete surface between the conduits is completely level and free of any irregularities.

Limited Warranty Information and Disclaimer

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

Limitation of Liability

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

FCC Compliance Statement

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

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

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

Industry Canada

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC/IC Compliance Labels

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