

# Recommended Install Checklist

## Express 280

To adhere to ChargePoint best practices, complete this checklist before you leave the site.

Express 280		
1.	Any site slopes, walls, or fencing do not trap water around the charging station installation. (The system is only built to withstand 457 mm (18 in) of standing water.)	<input type="checkbox"/>
2.	Site conditions CONFORM to nominal pad design: Minimum 51 ix 51 in (1300 x 1300 mm)	<input type="checkbox"/>
3.	Concrete pad edges are smooth.	<input type="checkbox"/>
4.	If installation must comply with ADA requirements then, the touchscreen and charging cables are not at a height above grade greater than 1219 mm (48 in), or the equivalent in other regions.	<input type="checkbox"/>
5.	Ventilation needs are met: <ul style="list-style-type: none"> <li>If a charging station has a wall directly behind it, min. rear clearance is 305 mm (12 in).</li> <li>If two Express 280 charging stations are positioned back to back, the rear clearance between the stations should be 610 mm (24 in).</li> </ul>	<input type="checkbox"/>
6.	All station clearances for service and use are met. [Please refer to the Site Design Guide.]	<input type="checkbox"/>
7.	Recommended distance between wheel stop and station: 1371 mm (4 ft 6 in) for passenger vehicles.	<input type="checkbox"/>
8.	Ensure bollards follow the measurements listed for bollards placement. [Please refer to the Site Design Guide.]	<input type="checkbox"/>
9.	North America: The transformer nameplate shows that wiring is 480/277 VAC, Wye (Y) connected, 3-phase with bonded neutral plus Ground, and matches regional code requirements for conductor colors. Correct with tape if incorrect.	<input type="checkbox"/>
10.	The switchgear has been fully commissioned and energized.	<input type="checkbox"/>
11.	The electrical enclosures are clean and free of wire strands and metal shavings.	<input type="checkbox"/>
12.	North America: Verify that the breaker feeding each station is three-pole and non-GFCI.	<input type="checkbox"/>
13.	North America: Verify that a correctly rated, dedicated breaker is installed for each station: <ul style="list-style-type: none"> <li>Nominal Voltage: 480 V</li> </ul>	<input type="checkbox"/>

Express 280		
	<ul style="list-style-type: none"> <li>• Max AC Current: 100 A</li> <li>• Breaker Size: 125 A</li> </ul>	
14.	Verify that each station breaker is correctly labeled.	<input type="checkbox"/>
15.	(Paired installation only). The breaker or AC disconnect cover has the supplied Paired label installed in a visible place and is correctly filled in with the serial numbers of both stations, to help ensure both breakers are opened for safe service.	<input type="checkbox"/>
16.	All mounting hardware is tightly secured, and the station is level and stable. All four leveling nuts are present. All anchor bolt nuts are torqued to 94.9 Nm (70 ft-lb).	<input type="checkbox"/>
17.	All conduit stub-ups are placed correctly according to the Concrete Mounting Template (CMT) or Surface Mount Plate.	<input type="checkbox"/>
18.	Conduit stub-ups height is between 76-152 mm (3-6 in) from ground level.	<input type="checkbox"/>
19.	Conduits do not exceed maximum allowed size: <ul style="list-style-type: none"> <li>• Shunt trip (if used): 19 mm (3/4 in trade size)</li> <li>• AC conductors: 51 mm (2 in trade size)</li> <li>• Ethernet (if Paired): 19 mm (3/4 in trade size)</li> <li>• DC conductors (if Paired): 76 mm (3 in trade size)</li> </ul>	<input type="checkbox"/>
20.	AC input cable meets ChargePoint specifications: <ul style="list-style-type: none"> <li>• Voltage rating: 600 V</li> <li>• Temperature rating: 90 °C</li> <li>• Recommended cable size: 1/0 AWG</li> <li>• Insulation type: THHN or THWN-2</li> </ul>	<input type="checkbox"/>
21.	AC conductors are installed in the correct order (L1, L2, L3) and correctly color coded according to local AHJ requirements.	<input type="checkbox"/>
22.	AC lugs meet these specifications: <ul style="list-style-type: none"> <li>• 2 holes Silver plated copper compression lug; tin plated is acceptable if used with dielectric grease</li> </ul>	<input type="checkbox"/>
23.	AC lugs at the AC terminal block are properly torqued to 5.6 Nm (50 in-lb), and are torque marked with a paint pen, and dielectric grease is applied.	<input type="checkbox"/>
24.	The AC rodent guard has rubber grommets in place to prevent wire damage.	<input type="checkbox"/>
25.	AC rodent guard bracket is installed, rests on the top of the conduit, has conductors run through the ferrite stack, and duct seal is applied.	
26.	AC wiring cover is on.	
27.	If shunt trip wiring is used, it is sized between 0.08-2.5 mm <sup>2</sup> (28-14 AWG), fine stranded or solid.	
28.	The ground connection is mounted and secured to the terminal block, tight and connected properly.	
29.	North America: All four DC copper conductors are installed between stations as follows:	

Express 280		
	<ul style="list-style-type: none"> <li>• Voltage Rating: 1000 V</li> <li>• Temperature rating: 90 °C</li> <li>• Maximum conductor gauge for terminals: 300 Kcmil</li> <li>• Insulation Type XHHW-2</li> </ul>	
30.	DC cable connection order is correctly and permanently labeled per wiring diagram: <ul style="list-style-type: none"> <li>• Station 1 A+” on one end and “Station 2 B1+” on the other end. Perform continuity test [Please refer to the Installation Guide.]</li> </ul>	
31.	DC cable connection order is correctly and permanently labeled per wiring diagram: <ul style="list-style-type: none"> <li>• Station 1 A-” on one end and “Station 2 B1-” on the other end. Perform continuity test [Please refer to the Installation Guide.]</li> </ul>	
32.	DC cable connection order is correctly and permanently labeled per wiring diagram: <ul style="list-style-type: none"> <li>• Station 1 B1+” on one end and “Station 2 A+” on the other end. Perform continuity test [Please refer to the Installation Guide.]</li> </ul>	
33.	DC cable connection order is correctly and permanently labeled per wiring diagram: <ul style="list-style-type: none"> <li>• Station 1 B1-” on one end and “Station 2 A-” on the other end. Perform continuity test [Please refer to the Installation Guide.]</li> </ul>	
34.	North America: Confirm DC lugs use two holes.	
35.	DC lugs meet these specifications: <ul style="list-style-type: none"> <li>• Silver plated copper compression lug; tin plated is acceptable if used with dielectric grease</li> </ul>	
36.	DC fasteners are installed in this order: terminal block, lug, M6 flat washer, M6 Belleville washer with the cup facing the station, 10 mm M6 nut.	
37.	All four lugs at the DC terminal block are properly torqued to 5.5 Nm (48.7 in-lb), and are torque marked with a paint pen.	
38.	DC rodent guard bracket: -- Is installed with punch-outs intact, if Standalone -- rests on the top of the conduit, and duct seal is applied, if Paired.	
39.	DC wiring cover is on, whether or not station is Paired.	
40.	Outdoor rated Ethernet Cat 5e or Cat 6 cable is installed between the stations: <ul style="list-style-type: none"> <li>• Is crimped in a 568B pattern</li> <li>• Passes functional testing</li> <li>• Has no stray wires in the crimp</li> <li>• Has a maximum run length of 100m(328ft), and not routed through the DC fuse hole</li> </ul>	
41.	The Ethernet cable is correctly installed: <ul style="list-style-type: none"> <li>• Fastened with P-clips on the side of the station frame, without potential for pinching or damage</li> <li>• Is bundled above the contactor box</li> </ul>	

Express 280		
	<ul style="list-style-type: none"> <li>Is firmly seated in the DCC</li> </ul>	
42.	Charging cable's terminals are properly routed through the ferrites, and torqued to 6.8 Nm (60 in-lb), and are torque marked with a paint pen and dielectric grease is applied.	
43.	Both station rear cover panels are properly mounted and tightened.	
44.	Both front station cover panels are mounted.	
45.	The parking area is clean and free of all crate fasteners, packaging, and debris.	
46.	North America: Take a voltage measurement at the AC disconnect (if present) or breaker between L1 - L2 shows: 480 VAC +/- 10%	
47.	North America: Take a voltage measurement at the AC disconnect (if present) or breaker between L2 - L3 shows: 480 VAC +/- 10%	
48.	North America: Take a voltage measurement at the AC disconnect (if present) or breaker between L3 - L1 shows: 480 VAC +/- 10%	
49.	Using a Snyder cellular signal detector or equivalent, test the location of every station and ensure it meets minimum RSRP measured at -90 dBm or better.	
50.	Using a Snyder cellular signal detector or equivalent, test the location of every station and ensure it meets minimum RSRQ at -12.5 dB or better.	
51.	Surface Conduit Entry (SCE) installations only: All mounting hardware is tightly secured, and the station is level and stable. All four leveling nuts (shown with arrows) are present. All anchor bolt nuts are torqued to 81 Nm (60 ft-lb). Correct the leveling if needed.	
52.	Surface Conduit Entry (SCE) installations only: <ul style="list-style-type: none"> <li>The surface mount plate was used as a template</li> <li>Anchor bolt locations correctly correspond to wiring conduit location</li> <li>Proper epoxy was used on all drilled anchor holes</li> </ul>	
53.	Surface Conduit Entry (SCE) installations only: Wireway is sealed to the box base using a code-approved sealing method for all conduit openings.	
54.	Surface Conduit Entry (SCE) installations only: Box cover and SCE side extrusions with cutouts are properly installed to protect wiring.	

---

## Third-Party Service Providers

### Services Performed

Details	Complete the following:
Description of Service Provided	
Location	
Unit	
Panel ID	
Breaker	

### Contact Information

Service Provider	Complete the following:
Technician Name	
Email	
Service Company Name	
Address	
Contact Person	
Phone	

Site Owner/Customer	Complete the following:
Contact Person	
Email	
Business Name	
Site Address	
Phone	

## Questions

For assistance, navigate to [chargepoint.com/support](https://chargepoint.com/support) and contact technical support using the appropriate region-specific number.