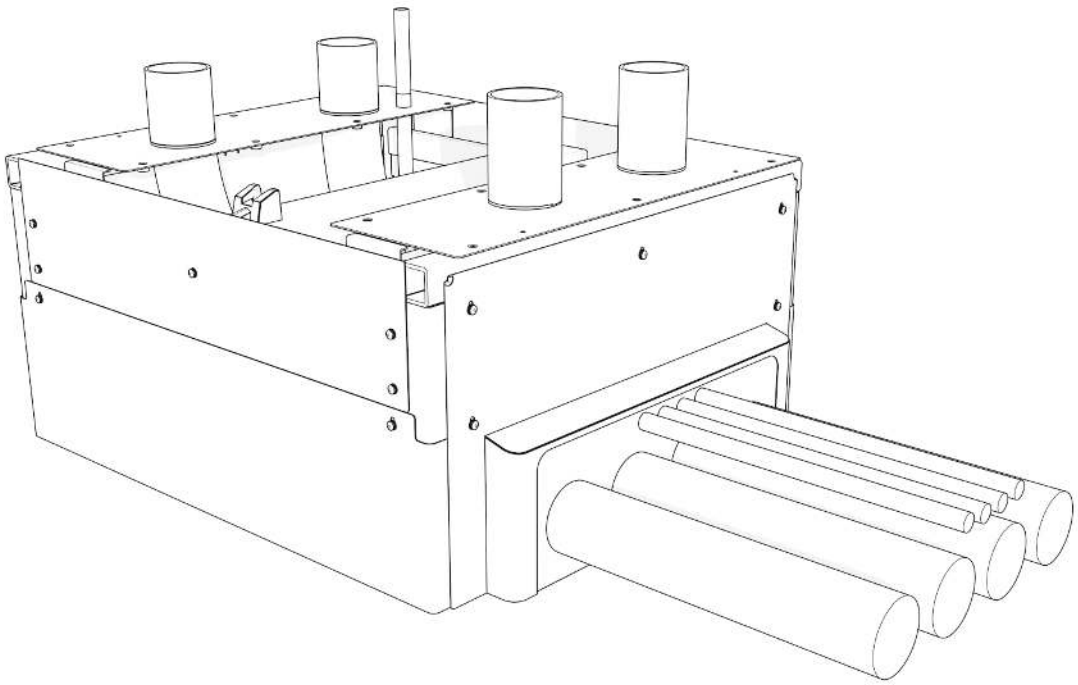
# Surface Conduit Entry (SCE) Kit

## for Express Plus Power Block



# IMPORTANT SAFETY INSTRUCTIONS

## SAVE THESE INSTRUCTIONS

**WARNING:**

1. This guide contains important instructions you must follow to install, operate, and maintain the Express Plus DC fast-charging platform with Power Block model CPPB0001xxx and Power Link model CPPL0001xxx.
2. **Read and follow all warnings and instructions before servicing, installing, or 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.
3. **Only use licensed professionals certified by ChargePoint for installation and service, adhere to all national and local building codes and standards, and ensure compliance with local building and electrical codes and standards, climate conditions, safety standards, and all applicable codes and ordinances that may apply.** Before installing the ChargePoint unit, consult with a licensed contractor, such as a licensed electrician, and use a trained installation expert to ensure compliance. Inspect the charging station for proper installation before use.
4. **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.
5. **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.
6. **This charging station is not suitable for use in Class 1 hazardous locations, such as near flammable, explosive, or combustible vapors or gases.**
7. **Supervise children near this device.**
8. **Do not put fingers into the electric vehicle connector (plug).**
9. **Do not use this product if any cable is frayed, has broken insulation, or shows any other signs of damage.**
10. **Do not use this product if the enclosure/exterior/housing or the electric vehicle connector is broken, cracked, or open, or shows any other signs of damage.**
11. Use only copper conductor wire rated for 90 °C (194 °F).

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

## Document Accuracy

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

## Copyright and Trademarks



## 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

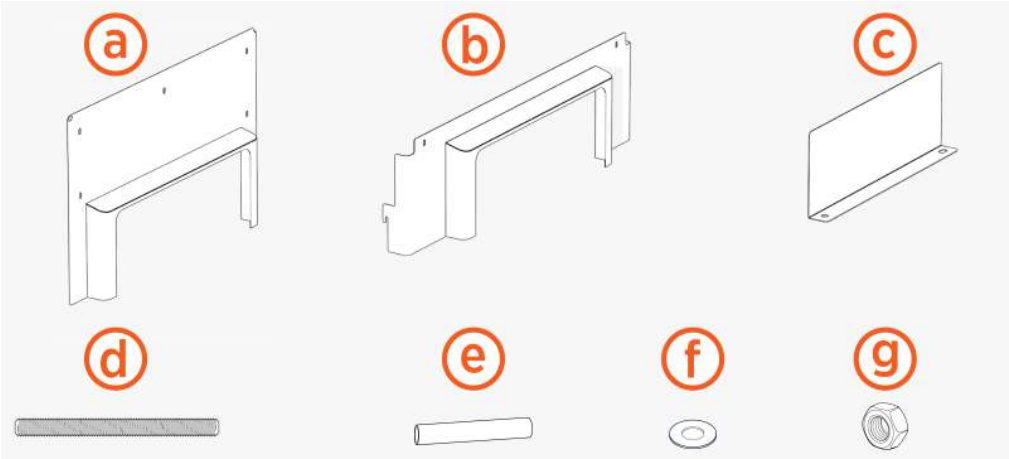
# Purpose of SCE Kit

This SCE kit is for Express Plus Power Block in situations where the site cannot run conductors underground or the site is not using stub-up entry through Concrete Mounting Template (CMT) embedded in a concrete pad.

**Note:** This document is a supplement to the Express Plus Installation Guide instructions related to Power Block. Make sure to follow all instructions in the Installation Guide except for the ones about CMT and stub-up entry of wiring.

**Note:** The illustrations in this document are for demonstration purposes only. Make sure to install the SCE kit according to the proposed side of conduit entry in the site drawings.

# SCE Kit Contents




a. Side cover (1) - for left or right side of the Power Block pedestal
b. Rear cover (1) - for rear side of the Power Block pedestal

   **Note:** Both side and rear covers are included in this kit. You will only need one of these depending on which side of the pedestal the conduits enter inside the Power Block. Replace the standard cover shipped with the Power Block with a suitable cover and dispose of the unused covers in accordance with local municipal recycling guidelines.
c. SCE gland plate (1)
d. M16 (5/8 in) anchor bolts (2) - for mounting SCE gland plate
e. M16 (5/8 in) spacer (2)
f. M16 (5/8 in) washer (6)
g. M16 (5/8 in) nut (6)

# Tools and Materials Required

- Cut-resistant gloves
- Protective eyewear
- Marker
- Vacuum

### For Installing Anchor Bolts

- Concrete drill with level feature recommended
- 25 mm (1 in) and 6 mm (1/4 in) concrete bits
- 24 mm (15/16 in) socket or open ended wrench
- 750 ml of epoxy with bonding strength of 11.7 MPa minimum, compressive strength of 82.7 MPa minimum, and tensile strength of 49.3 MPa minimum, such as Hilti HIT-RE 500 V3 (normal cure time), Hilti HY-200 (fast curing), or similar.
- Paper towels

  **Note:** Different epoxy types have different cure times at various temperatures. Check local temperatures for the site in advance to help choose an appropriate epoxy.
- Level

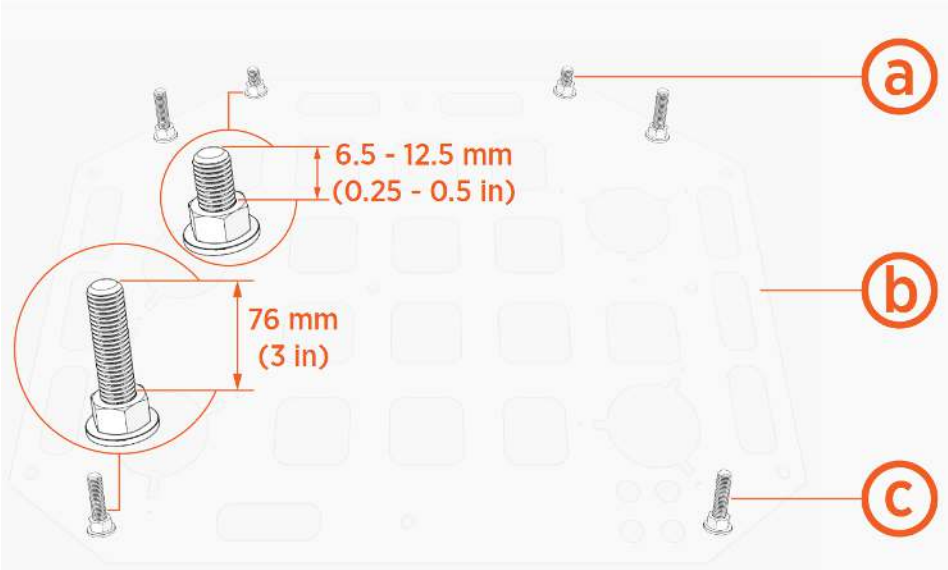
### For Installing Surface Conduit Entry

- Surface wireways: Refer to the Express Plus Installation Guide and site drawings to find out the wiring and conduit requirements.

  **Note:** A flexible conduit is recommended to route wiring from the SCE gland plate into the pedestal gland plate (i.e., gland plate installed on the pedestal).
- Sheet metal hole saw with pilot bit for conduit sizes listed in the Express Plus Installation Guide
- Cable puller or fish tape
- Tools for cutting, assembling, and securing wireways

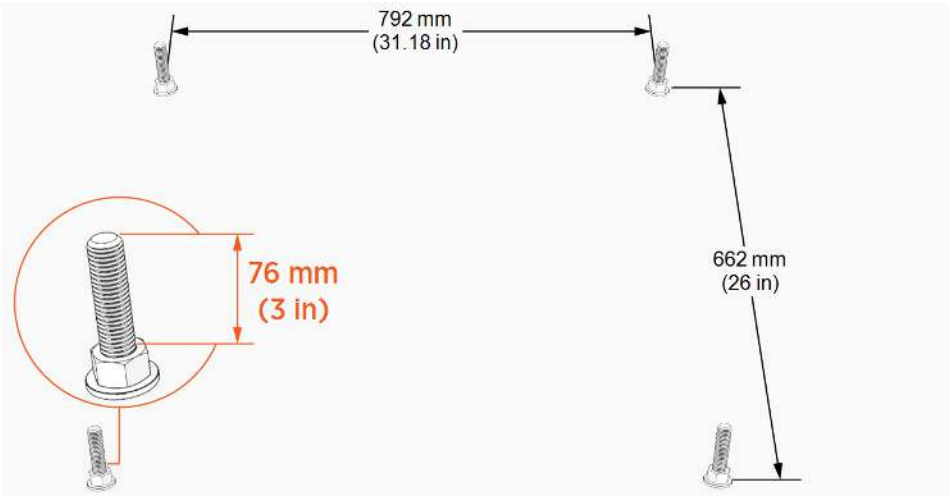
# Before You Begin

- If CMT is used (i.e., embedded in concrete), make sure that the anchor bolts for the SCE gland plate and Power Block pedestal are installed according to the proposed side of conduit entry and mounting specifications in the site drawings.




a. Anchor bolts for SCE gland plate (example showing rear side conduit entry)
b. CMT embedded in concrete
c. Anchor bolts for Power Block pedestal

- If CMT is not used (i.e., not embedded in concrete):
  - Make sure that the anchor bolts for the Power Block pedestal are installed according to the mounting specifications in the site drawings.

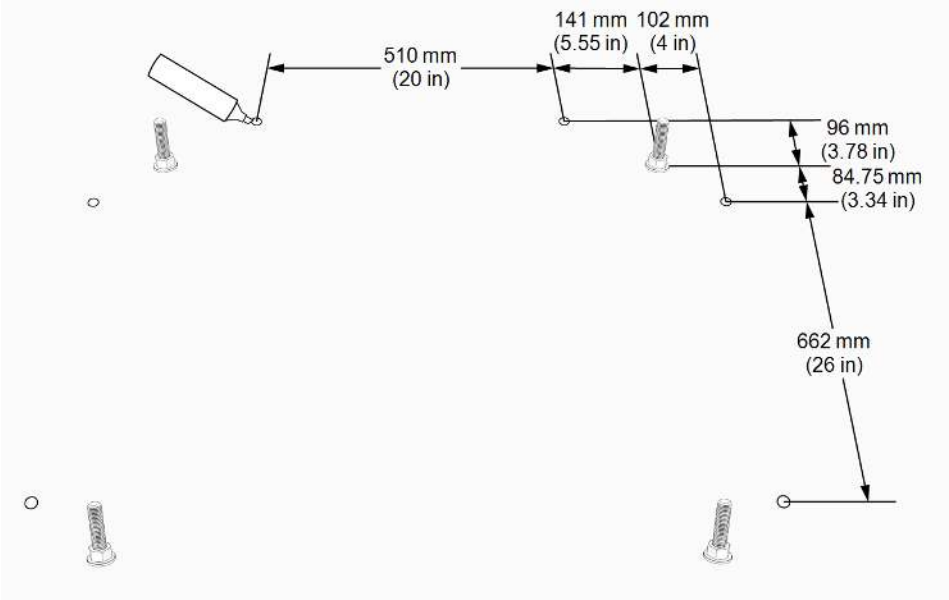



  - Refer to the site drawings to find out which side of the pedestal the conduits must enter inside the Power Block.
  - Make sure to dispose of the unused CMT in accordance with local municipal recycling guidelines.

# Install Anchor Bolts

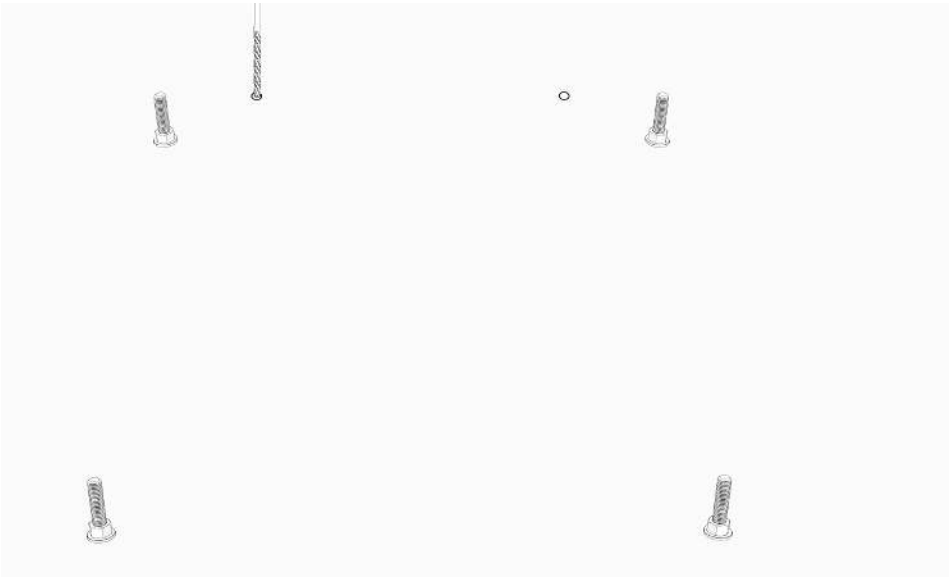
**Skip this procedure if CMT is used and/or anchor bolts for the SCE gland plate are already installed.**

1. Measure the locations for the SCE gland plate anchor bolts and mark them using a marker.




**Note:** The illustration above shows SCE gland plate anchor bolt locations at the left, right, or rear side of the Power Block. Measure the locations according to the proposed side of conduit entry in the site drawings. Also, make sure to leave enough clearance (i.e., 610 mm or 24 in) for servicing.

2. Use the 6 mm (1/4 in) concrete drill bit to drill a pilot hole about 51 mm (2 in) deep at the two marked locations. The holes must be parallel to each other and perpendicular to the surface.

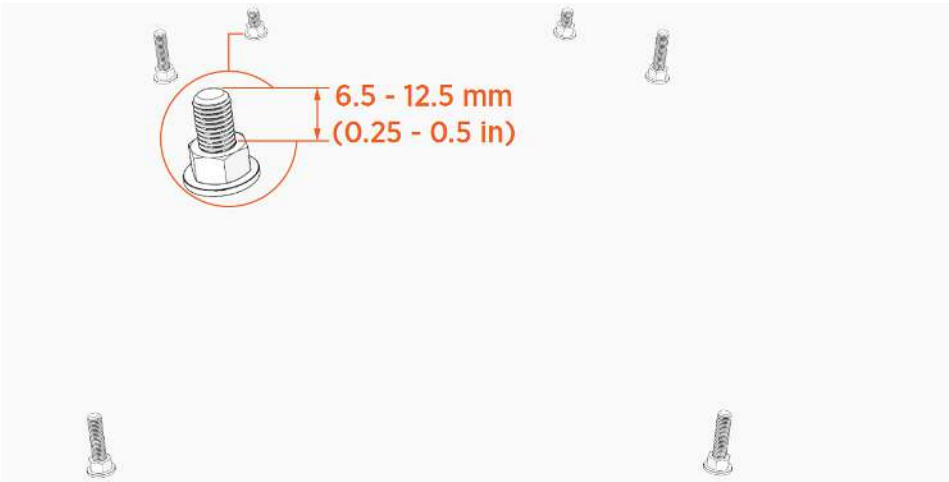


3. Use a vacuum to clean dust from holes.

4. Use the 25 mm (1 in) concrete drill bit to drill anchor holes a minimum of 229 mm (9 in) deep. Anchor bolts must have 127 mm +/- 12.7 mm (5 in +/- 1/2 in) above surface.
5. Thread a washer and a nut onto each anchor bolt so that the measurement from the top of the nut to the top of the bolt is between 6.5 - 12.5 mm (0.25 - 0.5 in).
6. Put a piece of tape above each nut to prevent it from floating upward when you rotate the bolt into the epoxy later.
7. Prepare the epoxy. Ensure the applicator is dispensing correctly mixed epoxy before beginning work (for example, the Hilti epoxy is white when unmixed and gray when mixed).
8. Fill the first anchor hole with epoxy until the epoxy is about 44.5 mm (1.75 in) from the top of the hole.

**IMPORTANT:** Continue immediately to the next step because the epoxy sets within about eight minutes.

9. Insert the anchor bolt into the hole. Rotate the anchor bolt as you insert it to draw epoxy into the threads. Take out the anchor bolt to see how close to the surface the epoxy has filled. If the epoxy is below surface level, add enough to fill the hole to surface level. Use paper towels to wipe off any excess.
10. Measure the nut distance from the top of anchor bolt again and adjust if needed.



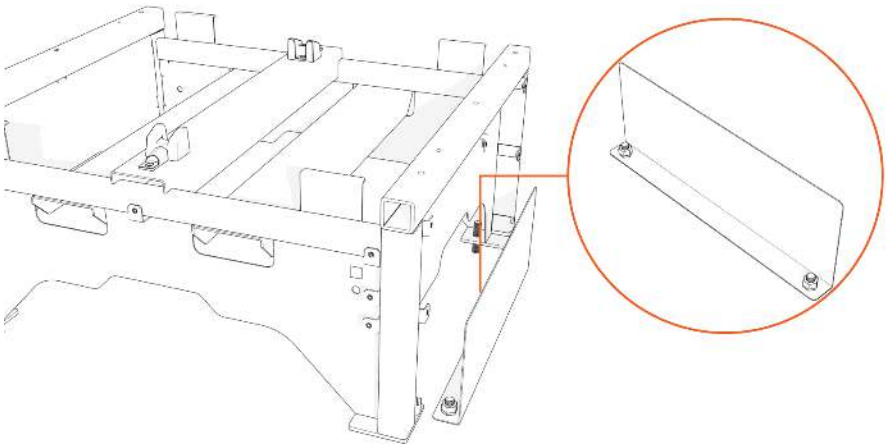

11. Use a level to check that the anchor bolt is plumb. If needed, adjust it while the epoxy is still setting.
12. Repeat the above epoxy steps for another anchor bolt.
13. Allow the epoxy to cure for the initial cure time listed on the epoxy before beginning to install the surface conduit entry.

# Install Surface Conduit Entry

**Note:** You can install SCE before or after the installation of Power Block pedestal.

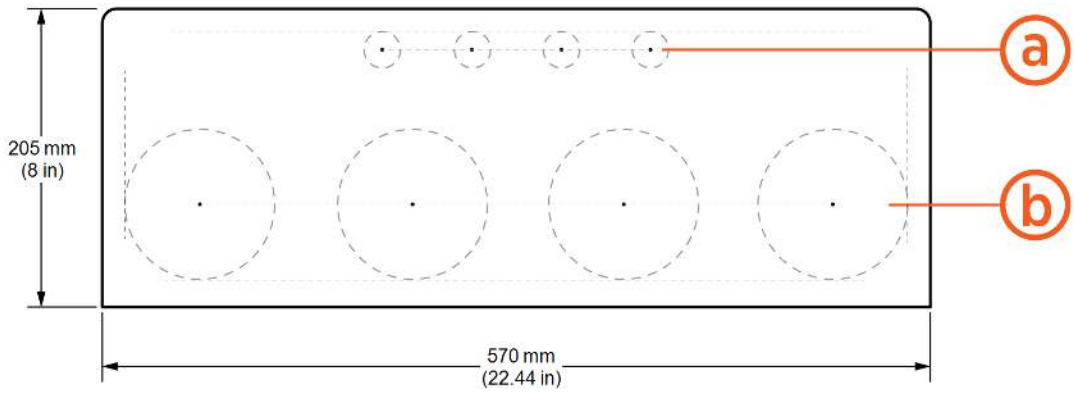
1. Install the SCE gland plate onto the anchor bolts. Make sure that the bent edge of the SCE gland plate is facing inwards to the Power Block pedestal.
2. Install one nut and washer onto each (i.e., two) anchor bolt and flush against the base.

   Torque to 54 Nm (40 ft-lb).



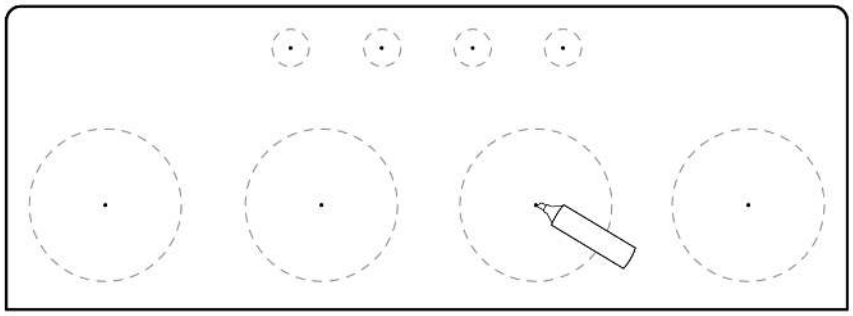
3. Refer to the Express Plus Installation Guide and site drawings to find out the proposed wiring and conduit requirements. Based on the proposed wiring and conduit requirements, draw a conduit layout to mark pilot hole locations on the SCE gland plate.

   **Note:** The conduit layout shown below is for demonstration purposes only.

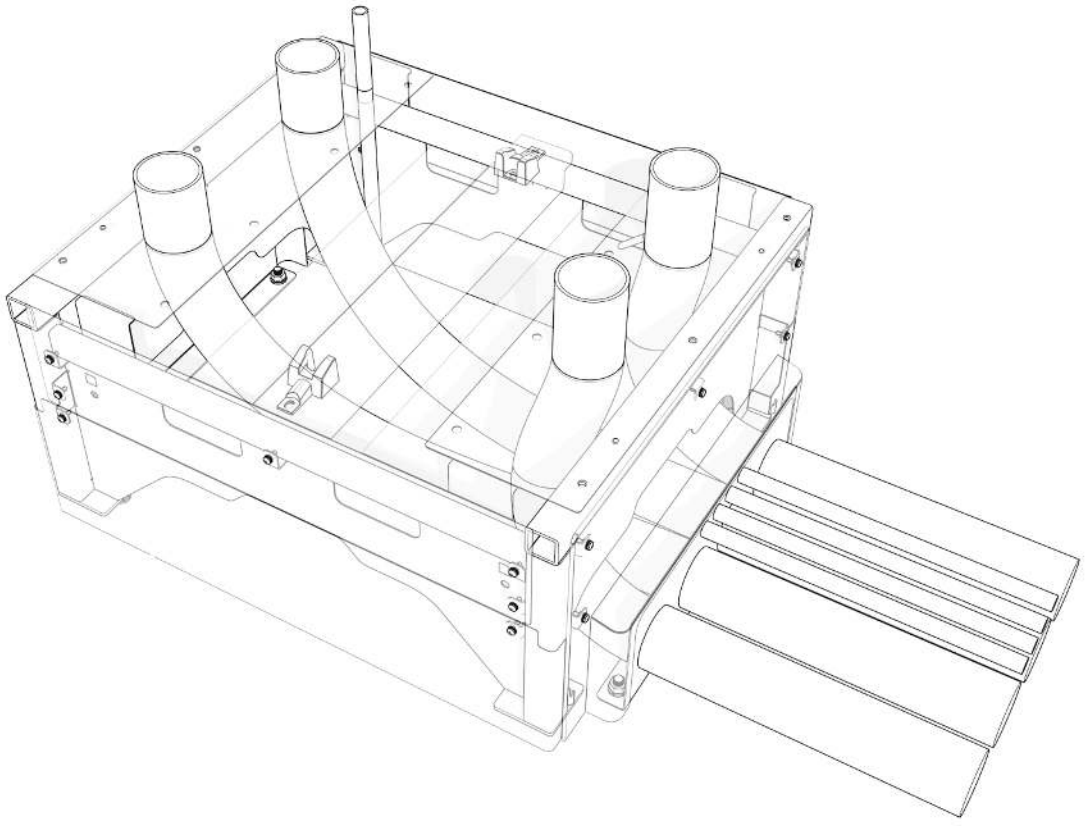



| | Description | Maximum Size | No. of holes |
|---|---|---|---|
| a | Holes for 48 V DC and Ethernet conduits | 21 mm (3/4 in) | 1 - 4 |
| b | Holes for AC input, DC output, or DC auxiliary input conduits | 103 mm (4 in) | 1 (AC input)<br>1 (DC auxiliary input)<br>1 or 2 (DC output) |
| **Note:** Leave a minimum clearance of 15 mm (0.6 in) around the edges. | | | |

4. Use a marker to mark pilot hole locations on the SCE gland plate.



5. Use a suitable hole saw, position the hole saw's pilot bit on the marked location, and drill a hole into the SCE gland plate. Repeat for other marked locations.
6. Vacuum all metal shavings.
7. Use a flexible conduit to route wiring from the SCE gland plate into the pedestal gland plate.

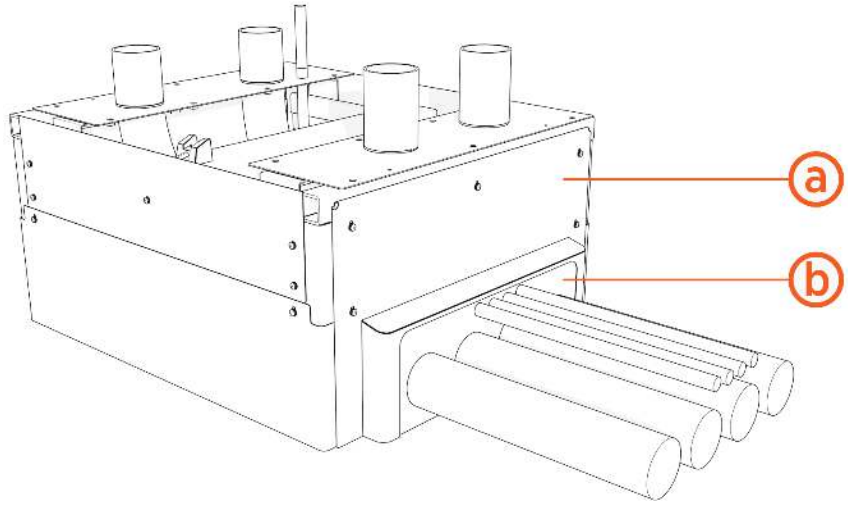


**Note:** Refer to the Express Plus Installation Guide to route and connect wiring inside the Power Block, and use the duct seal compound shipped with the Power Block to seal around each conduit inside the Power Block.

8. Install pedestal covers.

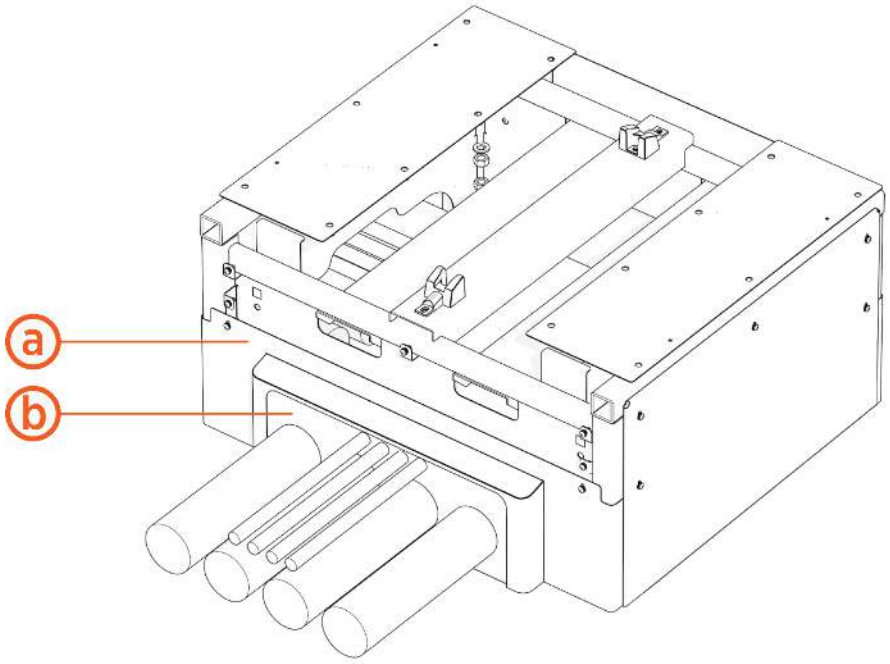
   **Note:** Reuse the screws shipped with the Power Block to install the pedestal covers. The installation instructions can be found in the Express Plus Installation Guide.

   - If the SCE gland plate is installed on left or right side of the Power Block pedestal, use the side cover.




a. Pedestal side cover
b. SCE gland plate

   - If the SCE gland plate is installed on rear side of the Power Block pedestal, use the rear cover.




a. Pedestal rear cover
b. SCE gland plate

## 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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