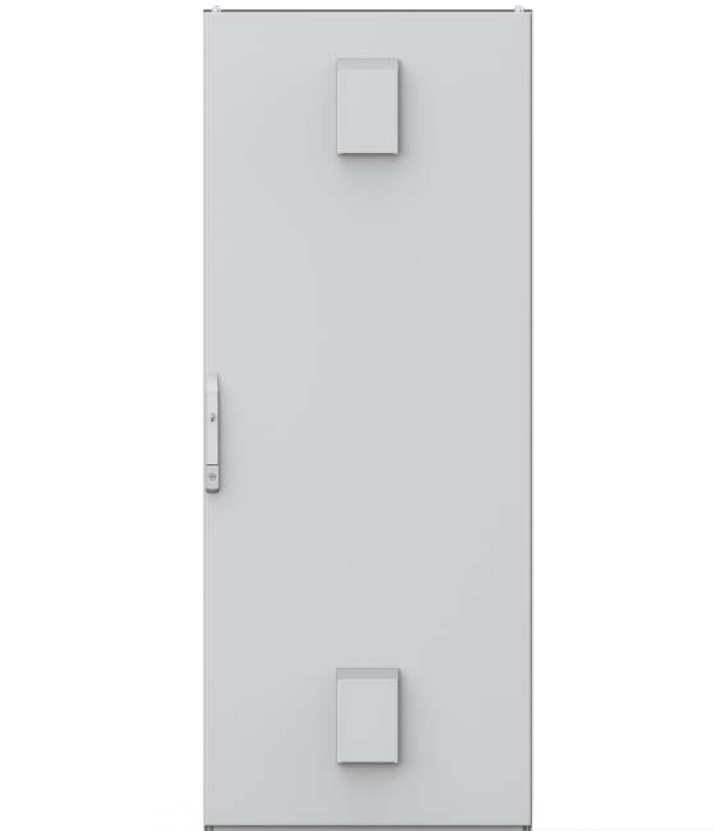


Power Hub

Express Plus DC Fast Charging Platform

Operation and Maintenance Guide



IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

This manual contains important instructions for Power Hub that shall be followed during installation, operation and maintenance of the unit.

WARNING:

1. **Read and follow all warnings and instructions before servicing, installing, or operating the ChargePoint® product.** Install and operate only as instructed. Failure to do so may lead to death, injury, or property damage, and will void the Limited Warranty.
2. **Only use licensed professionals to install your ChargePoint product and adhere to all national and local building codes and standards.** Before installing the ChargePoint product, consult with a licensed contractor, such as a licensed electrician, and use a trained installation expert to ensure compliance with local building and electrical codes and standards, climate conditions, safety standards, and all applicable codes and ordinances. Inspect the product for proper installation before use.
3. **Always ground the ChargePoint product.** Failure to ground the product can lead to risk of electrocution or fire. The product must be connected to a grounded, metal, permanent wiring system, or an equipment grounding conductor shall be run with circuit conductors and connected to the equipment grounding terminal or lead on the Electric Vehicle Supply Equipment (EVSE). Connections to the EVSE shall comply with all applicable codes and ordinances.
4. **Install the ChargePoint product using a ChargePoint-approved method.** Failure to install on a surface that can support the full weight of the product can result in death, personal injury, or property damage. Inspect the product for proper installation before use.
5. **The product is not suitable for use in Class 1 hazardous locations, such as near flammable, explosive, or combustible vapors or gases.**
6. **Supervise children near this device.**
7. **Do not put fingers into the electric vehicle connector, or touch fingers to charging rails.**
8. **Do not use this product if any cable is frayed, has broken insulation, or shows any other signs of damage.**
9. **Do not use this product if the enclosure or the electric vehicle connector is broken, cracked, open, or shows any other signs of damage.**
10. **Wire and wire terminal information are provided in the ChargePoint product Site Design Guide and Installation Guide.**
11. **Torques for installation of wire terminals are provided in the ChargePoint product Installation Guide.**
12. **The ChargePoint product maximum operating temperature is 50 °C (122 °F).**





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

Product Disposal

To comply with Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), devices marked with this symbol may not be disposed of as part of unsorted domestic waste inside the European Union. Enquire with local authorities regarding proper disposal. Product materials are recyclable as marked.



Document Accuracy

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

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Symbols

This guide and product use the following symbols:



DANGER: Risk of electric shock



WARNING: Risk of personal harm or death



CAUTION: Risk of equipment or property damage



IMPORTANT: Crucial step for installation success



Read the manual for instructions



Ground/protective earth

Illustrations Used in This Document

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

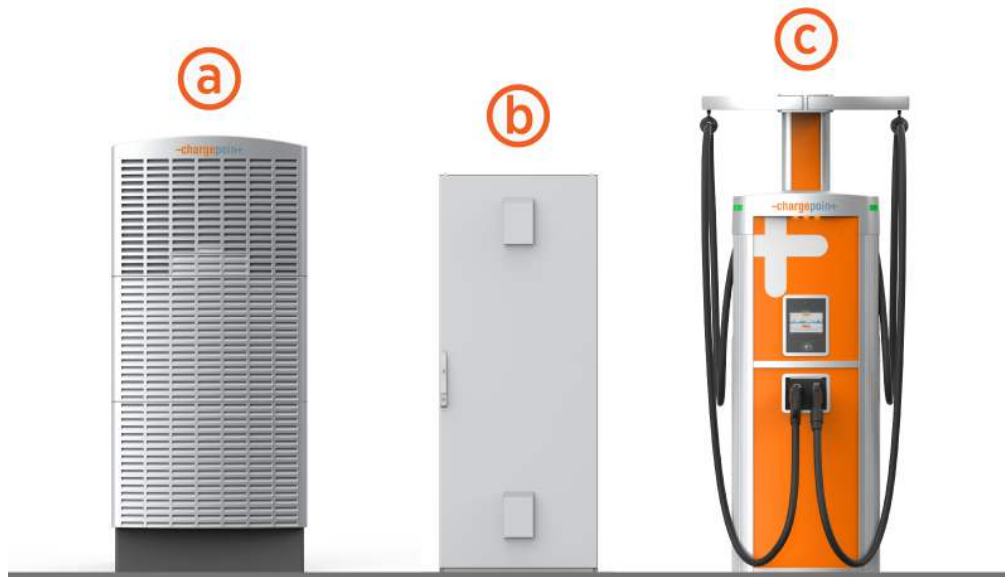
Contents

Important Safety Instructions	ii
1 Introduction	1
Power Hub Components	1
Power Hub Guides	3
2 Operation	4
Power Operation	4
3 Maintenance	5
Site Manager's Responsibilities	6
Preventive Maintenance	6

Introduction 1

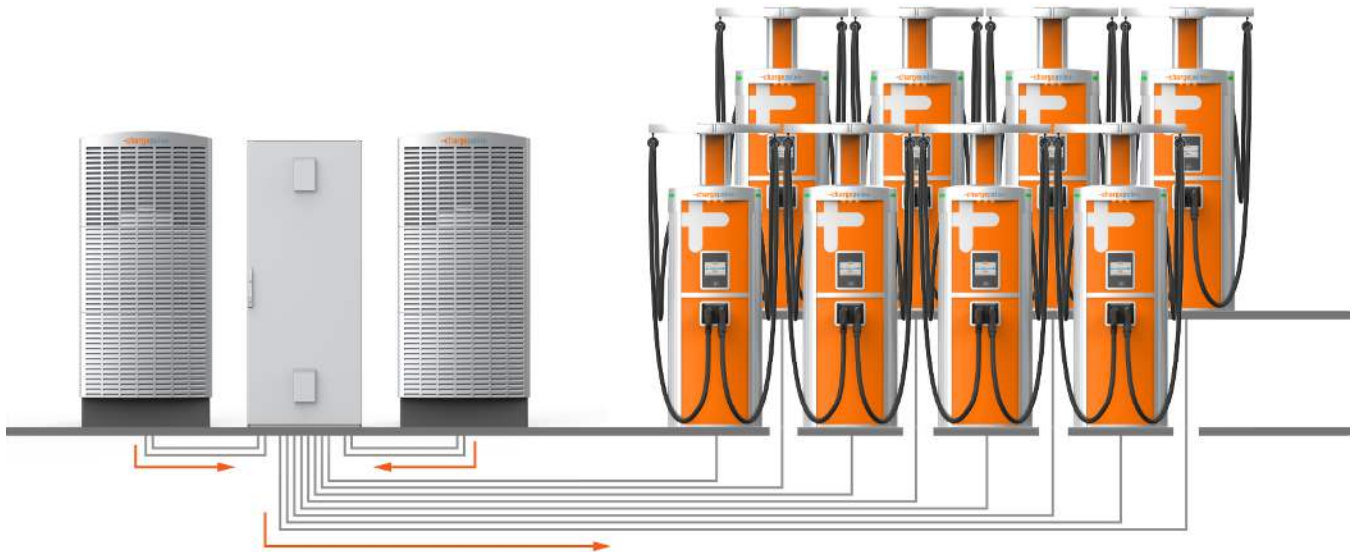
This guide describes how to operate and maintain the ChargePoint® Power Hub DC fast charging platform.

Power Hub Components



The Power Hub is a component of the Express Plus product family. Express Plus is a modular solution for scalable fast charging of electric vehicles, comprising the following product components:

- (a) Power Block: Power cabinet that converts AC power to DC power. Supplies DC output power to Power Links, either directly or through a Power Hub. Each Power Block has two DC outputs.
- (b) Power Hub: Distribution cabinet that enables one or more Power Blocks to distribute charging power to more Power Links than a single Power Block could support by itself.
- (c) Power Link: Dispenser for electric vehicles, available in single or dual input variants. Can support up to two output cables or automatic connection devices with sequential or simultaneous charging.



The Power Hub is used in fleet charging architectures. Each Power Hub can accept input power from up to two Power Blocks, and then distribute that power to as many as eight Power Links (two or four of which can actively charge at a time, depending on configuration). The configuration shown above can charge two vehicles at a time and supports sequential charging of 16 vehicles.

Internal disconnect switches enable high voltage shutoff between the Power Hub and each of its connected Power Blocks. Low voltage and Ethernet connectivity are fed from the Power Blocks to the Power Hub, and from the Power Hub to Power Links.

Power Hub Guides

Access ChargePoint documents at chargepoint.com/guides.

Document	Content	Primary Audiences
Datasheet	Full station specifications	Site designer, installer, and station owner
Site Design Guide	Civil, mechanical, and electrical guidelines to scope and construct the site	Site designer or engineer of record
Construction Signoff Form	Checklists used by contractors to ensure the site is correctly completed and ready for product installation	Site construction contractor
Installation Guide	Anchoring, wiring, and powering on	Installer
Operation and Maintenance Guide	Operation and preventive maintenance information	Station owner, facility manager, and technician
Service Guide	Component replacement procedures, including optional components	Service technician
Declaration of Conformity	Statement of conformity with directives	Purchasers and public

ChargePoint Documentation

For assistance, contact ChargePoint Support (chargepoint.com/support).

Operation 2

Power Operation

- Power on: Power Hub is powered on by the installation team at the site's electrical panel, immediately after completing the Power Hub system installation.
- Power off: Power Hub does not need to be powered off except during maintenance or service. Refer to the *Power Hub Service Guide* to power off and de-energize the Power Hub.

Maintenance 3

Power Hub needs minimal preventive maintenance over its lifetime. ChargePoint's network connection monitors for system health and sends an alert when corrective maintenance might be required (see [View Station and Diagnostics Information](#)).

IMPORTANT:

- Follow local code and refer to the site lockout/tagout procedure and Service Guide to power off and de-energize Power Hub.
- If you find any damages, excessive wear, part impairment, or improper functioning, contact ChargePoint for assistance and replacement parts.
- Use only ChargePoint authorized parts and refer to the Service Guide for part replacement instructions.

CAUTION: Warranty Limitation

- If the charging station is not installed, commissioned, or serviced by a ChargePoint certified installer or technician using a ChargePoint-approved method, it is excluded from all ChargePoint and other warranties and ChargePoint is not responsible.
 - You must be a licensed electrician and complete the training at chargepoint.com/installers to become ChargePoint certified and to access the ChargePoint web or app-based installer tools.
-

Site Manager's Responsibilities

The site or facility manager has a few duties for general site maintenance:

- Establish site lockout/tagout procedure per local code and in compliance with the *Service Guide*.
- Maintain an up-to-date copy of the site's as-built and single line diagram (SLD) that includes the naming of all control elements (circuit breakers, fuses, overcurrent devices, and disconnect switches). Documentation to include but not be limited to the localizations, permanent panel schedules, and means or methods required to de-energize the charging station.
- To ensure proper ventilation, make sure nothing is blocking each station's exterior vents, including any snow buildup (remove if present).
- Regularly clean each station's exterior with a damp and lint-free cloth to prevent the accumulation of debris, dust, or dirt. Perform this maintenance more frequently in high pollution environments.

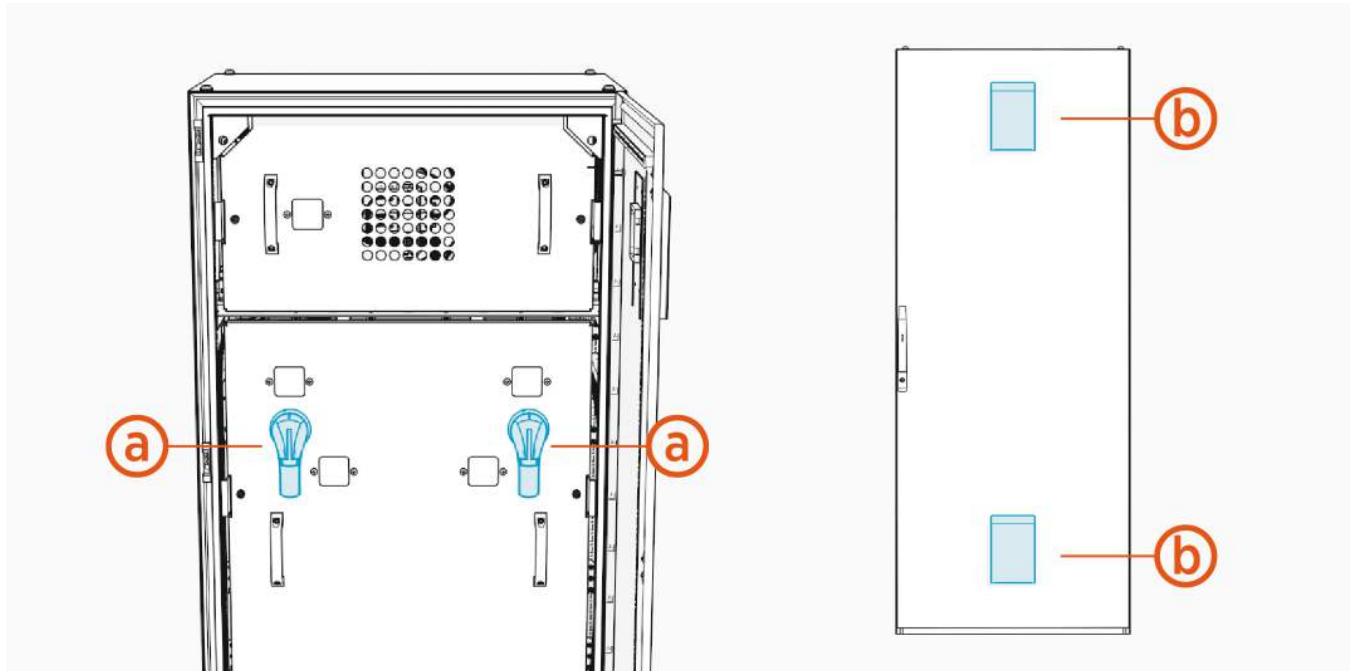


CAUTION: Do not pressure wash the station. Water pressure can damage the station.

- Check each station (including the charging cable and connector) monthly for vandalism and any signs of wear or damage.

Preventive Maintenance

ChargePoint, or a ChargePoint certified technician, should perform maintenance checks at the intervals listed below.



Part	Every		Action C = Check, R = Replace
	1 year	5 year	
(a) Disconnect switch handle(s)	C		Mechanically operate disconnect switch handle(s)
(b) Door air filter	C		Check and replace air filter as needed
Anchor bolt top nuts (no riser install)		C	Check for correct torque (94.9 Nm (70 ft-lb))
Anchor bolt top nuts (riser install)		C	Check for correct torque (94.9 Nm (70 ft-lb))
Anchor M12 bolts* (fastening Power Hub enclosure to riser)		C	Check for correct torque (94.9 Nm (70 ft-lb))
48 V DC input wires at circuit breakers		C	Check for correct torque
			AWG 18-16 1.5 Nm (13.3 in-lbs)
			AWG 14-10 2 Nm (18 in-lbs)
			AWG 8-4 4.5 Nm (40 in-lbs)
48 V DC output wire at fuse holders		C	Check for correct torque (1.7 Nm (15 in-lb))
Ground wire lug nuts		C	Check for correct torque (4.9 Nm (43 in-lb))
HV DC wire lug nuts		C	Check for correct torque (61.6 Nm (45 ft-lb))

*To check riser anchor M12 bolt torques, you must remove covers from corners of riser. After torque check, reinstall the corner covers and apply weatherproof sealant to seal the base of the riser to the concrete pad.

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 B 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 residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

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

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

ISED (formerly Industry Canada)

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

Cet appareil est conforme aux flux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada (ISDE). L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter.

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

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

FCC/IC Compliance Labels

Visit chargepoint.com/labels.



chargepoint.com/support

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