Power Hub

Site Commissioning Form

Review Power Hub Documentation

Complete the steps listed here for each ChargePoint Power Hub to ensure it is commissioned as specified. The detailed datasheets, site design guides, and installation guides defining ChargePoint specifications and procedures are available online at: chargepoint.com/guides.

Before Beginning Work

ChargePoint charging stations must be installed and serviced only by qualified personnel equipped with appropriate personal protective equipment and adhering to proper electrical and work practices.

DANGER: RISK OF SHOCK. Before performing any procedure, the technician must disconnect the power to the charging station at the service panel. Follow local code to de-energize the applicable circuit and lock out/tag out the disconnect before proceeding. Use a multimeter and check that the power is off. Keep power off for the circuit until all cover panels are correctly reinstalled and the work is complete. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN SERIOUS INJURY, LOSS OF LIFE, OR PROPERTY DAMAGE.

Note: Commissioning inspection protocols, measurements, and photo documentation must be completed at the same time as station installation and via the ChargePoint Installer app once it is available.

Before removing any station parts:

- Consult with site personnel for access to site and equipment.
- Verify de-energization and lock out / tag out of all power sources to the station as stated in the shock danger warning above.
- Wear appropriate Personal Protective Equipment (PPE) and verify the station is de-energized.

CAUTION: For all sections below, items marked as Critical are essential to prevent hazards or equipment damage.

- If a Critical item does not pass, complete the full inspection but DO NOT energize the site. Contact ChargePoint for next steps. If a Critical item passes, complete the inspection and energize the site as authorized.

- All checks must be completed. Items marked as Optional are optional and might not fail commissioning if they are not applicable or separate action can be taken. If an (Optional) item is incomplete, describe the reason.
- Items that require photos must be shared according to the following
    - All photos should be sharp and focused on the item being documented.
    - All photos should be JPEG format. Apple's standard HEIC format is NOT acceptable.
    - The aspect ratio should be 16:9 or 4:3 and resolution should be between 5.0 - 12.1 MP.

After Work

- For ChargePoint managed installations, the Site Commissioning Form and related attachments, such as photos and documents, can be submitted via the Work Order associated with the specific installation.
- The Installer must always keep a copy of the Site Commissioning Form and related attachments, such as photos and documents, to be submitted to ChargePoint on request.

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

This manual contains important instructions for Express Plus 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).
13. Site operator is responsible for making sure that no mechanical damage occurs and the pantograph is installed in a location that doesn't present a safety risk. If used carelessly, the pantograph could critically injure someone just from the extension force.

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

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.

Site Inspection

Customer Information	
Customer name	
Customer contact name	
Customer contact phone	
Customer contact email	

Site Information	
Street and number	
City	
State	
Country	
Zip code	
Number of stations to be installed	
Number of paired stations to be installed (if applicable)	
Expected start of construction works	
Expected installation and commissioning date	

Site Preparation (Make Ready) Performed by	
Contractor company name	
Contractor site lead name	
Contractor site lead phone	
Contractor site lead email	
Contractor type	☐ ChargePoint recommended ☐ Customer hired

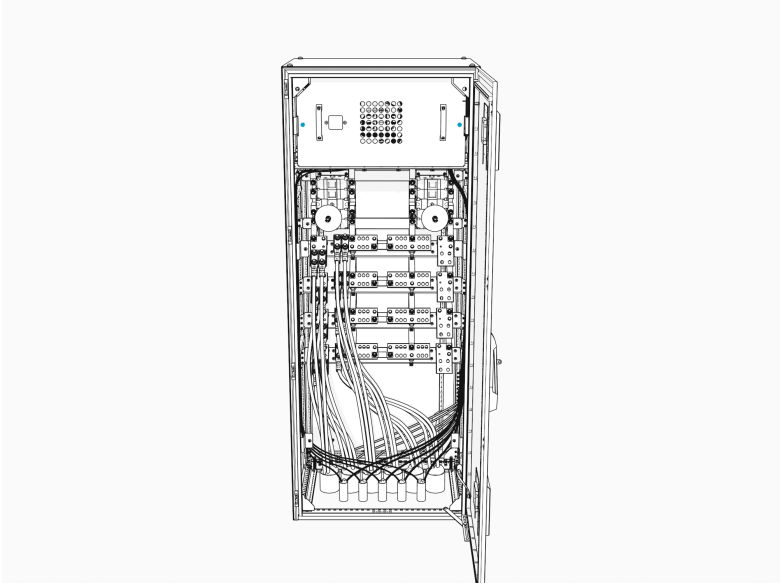
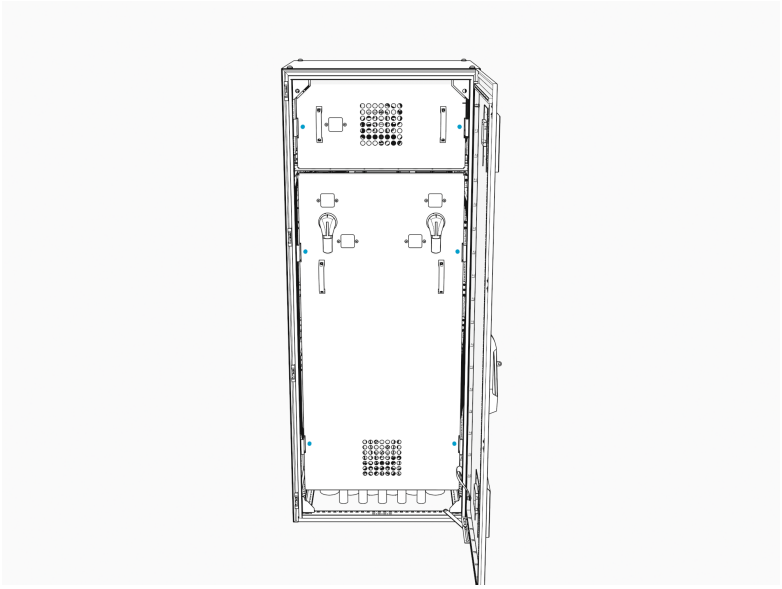
Station Installation Performed by	
Installation company name	
Lead installer contact name	
Lead installer contact phone	

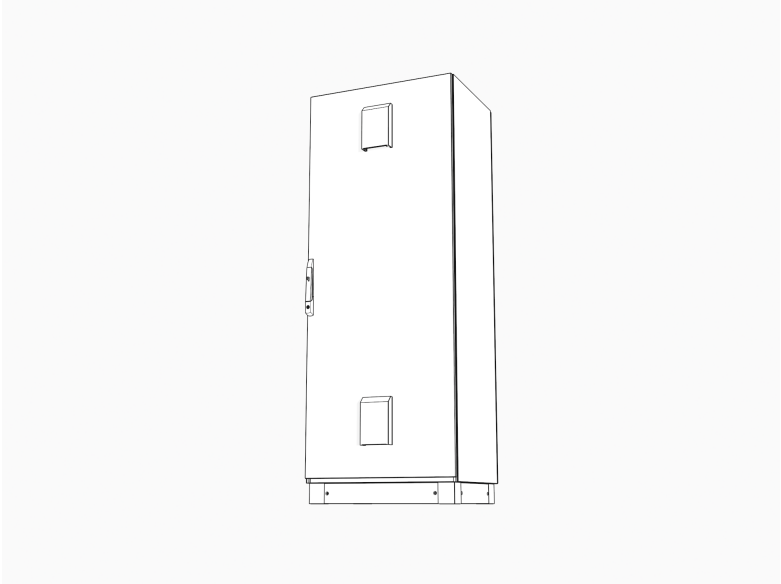
Station Installation Performed by	
Lead installer contact email	
Installer type	☐ ChargePoint recommended ☐ Customer hired

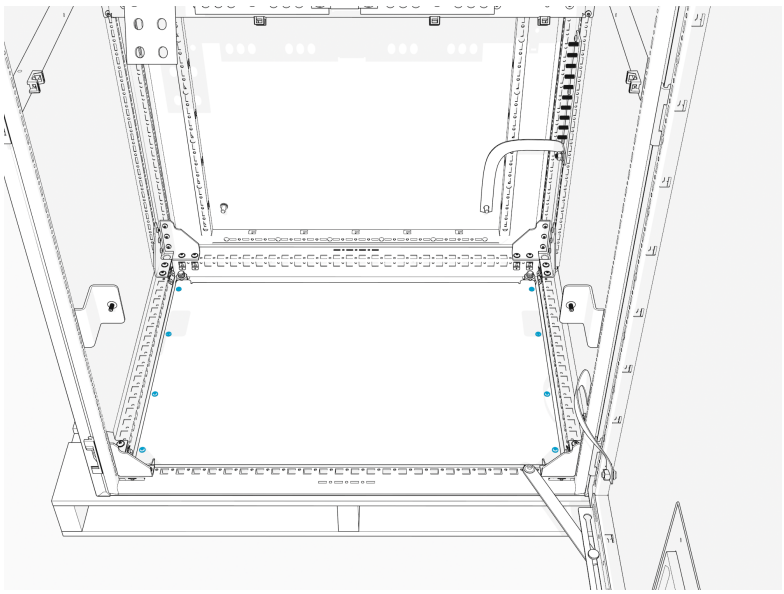
Station Commissioning Performed by	
Technician name	
Technician phone	
Technician email	
Commissioning start date (mm/dd/yyyy)	
Commissioning end date (mm/dd/yyyy)	

General

	Item	Status/Comments
	1. Station Serial Number:[UPLOAD PHOTO]	☐
	2. Verify that the stickers (UL and power rating) are placed on the Power Hub.	☐
	3. Verify that the applied power rating label has an output of 350 A. Note: Report if the label is missing or mismatches the expected power output rating.	☐
	4. Verify Low voltage cabinet dead front is present: [UPLOAD PHOTO]	☐

	Item	Status/Comments
		
	5. [Critical] Verify High voltage cabinet dead front is present: [UPLOAD PHOTO] 	☐
	6. How many Power Blocks are connected to this Power Hub?	☐ 1 Power Block ☐ 2 Power Blocks
	7. Power Block #1 Serial Number:	
	8. Power Block #2 Serial Number:	
	9. Is a secondary DC disconnect switch installed on the right side of this Power Hub?[UPLOAD PHOTO]	◯ Yes ◯ No
	10.Record the conductor entry type:	☐ Surface Entry ☐ Stub Up

	Item	Status/Comments
	11. Does the installation include a Riser Kit? The Riser Kit raises the Power Hub cabinet off the ground by 100 mm (4 in).[UPLOAD PHOTO] 	◯ Yes ◯ No
	12. Verify the use of 5/8 in anchor bolts (x4).	☐
	13. Verify the Power Hub is secured to each anchor bolt (x4) with a washer and a top nut (15/16 in). Verify all top nuts are torqued to 94.9 Nm (70 ft-lb).	☐
	14. Verify that the Power Hub is leveled (use a bubble level or equivalent). Correct the leveling if needed.	☐
	15. Verify the following minimum site and service clearances are met: • Front: 792 mm (31-1/4 in) • Right side: 51 mm (2 in) • Left side: 51 mm (2 in) • Rear: 51 mm (2 in)	☐
	16. Verify that a weep hole with diameter 3.2-6.4 mm (1/8-1/4 in) is drilled into the lowest part of the Power Hub at its walls, to allow water to drain out of the enclosure. [Note: measurement is not required.][UPLOAD PHOTO]	☐
	17. Verify gland plate (if used) is installed and gland plate T25 Torx screws (x8) are torqued to 5.1 Nm (45 in-lb). [UPLOAD PHOTO]	☐

	Item	Status/Comments
		
	18. Verify there are no metal shavings inside the Power Hub. [UPLOAD PHOTO]	☐

Conduits

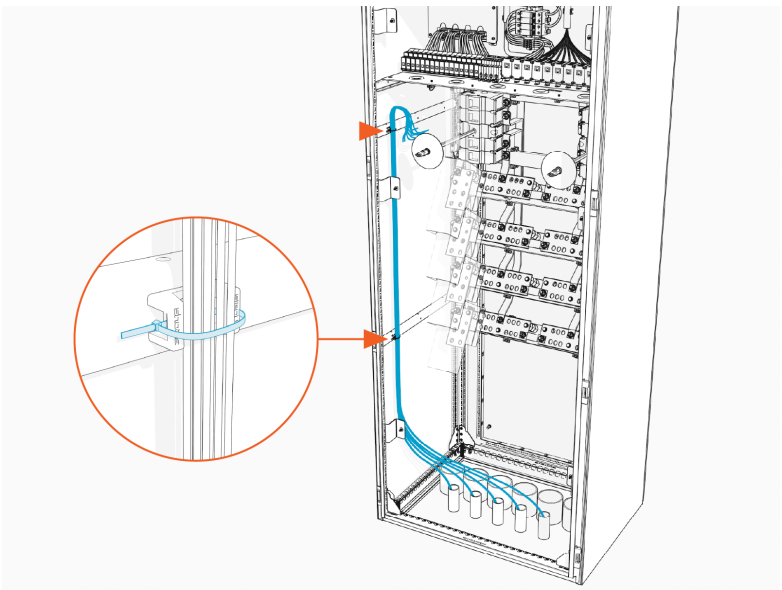
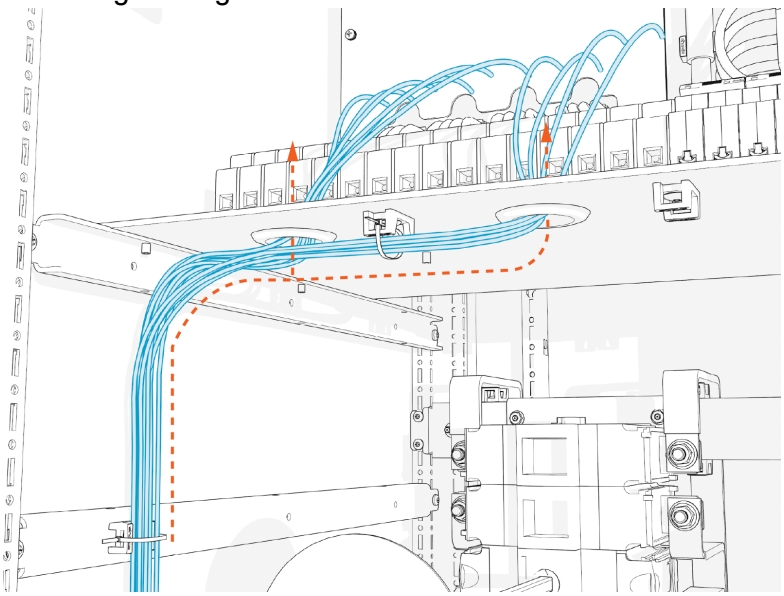
	Item	Status/Comments
	1. Record the type of conduit (PVC, metal, etc.):	☐ PVC ☐ RMC (Rigid Metal Conduit) ☐ EMT (Electric Metallic Tubing)
	2. Record the HV DC output conduit size:	☐ 2 inch ☐ 2.5 inch ☐ 3 inch ☐ 3.5 inch ☐ 4 inch
	3. Record the HV DC input conduit size:	☐ 2 inch ☐ 2.5 inch ☐ 3 inch ☐ 3.5 inch ☐ 4 inch
	4. Record LV DC and Ethernet (communication) conduit	☐ 1/2 inch

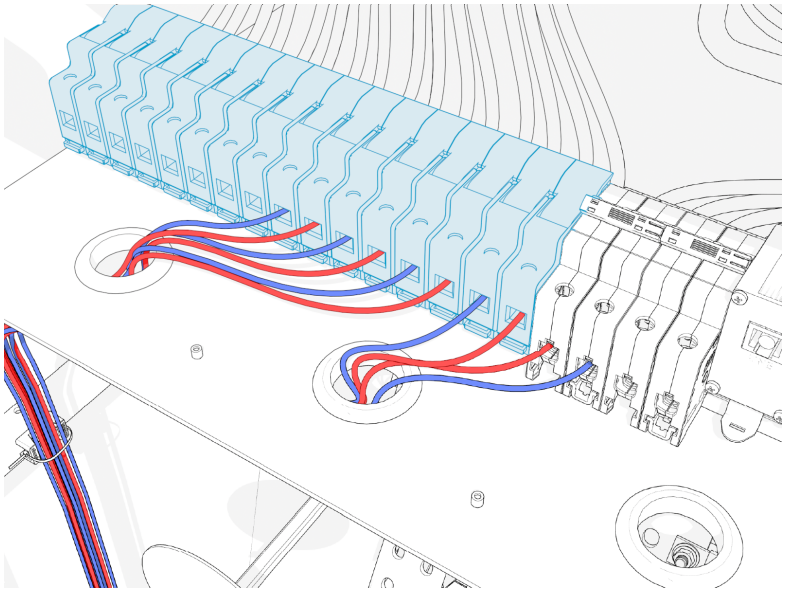
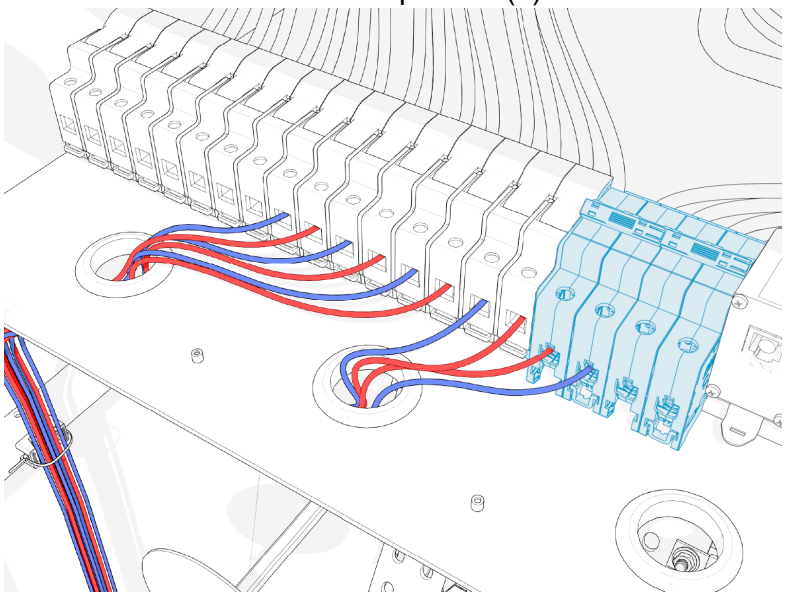
	Item	Status/Comments
	size:	☐ 3/4 inch ☐ 1 inch
	5. Are the Ethernet and LV DC wires in the same conduit? (It is acceptable to have one Ethernet wire and a LV DC wire pair in the same conduit.)	◯ Yes ◯ No
	6. If wires enter in a stub-up, verify that all stub-ups are within the Power Hub entry.	☐
	7. If wires enter in a stub-up, verify that duct seal compound is applied to seal all conduit stub ups.[UPLOAD PHOTO]	☐
	8. [Optional] Conduit evaluation comments:	

Conductors and Cables

	Item	Status/Comments
	1. Record the number of HV input DC conductors per terminal:	☐ 1 ☐ 2 ☐ 3
	2. Record DC input conductor wire gauge:	
	3. Record DC input conductor material:	◯ Cu ◯ Al
	4. Record DC input wire temperature rating:	
	5. Record DC input wire voltage rating:	
	6. Record DC input wire insulation type:	
	7. Provide a photo showing the HV input DC conductor ratings specified above. (Attach letter of rating if different from actual cable markings.)[UPLOAD PHOTO]	☐
	8. [Critical] Do the DC input specifications recorded above match ChargePoint requirements?	◯ Yes ◯ No
	9. Record the number of HV output DC conductors per terminal:	☐ 1 ☐ 2 ☐ 3
	10.Record DC output conductor wire gauge:	
	11.Record DC output conductor material:	◯ Cu ◯ Al
	12.Record DC output wire temperature rating:	
	13.Record DC output wire insulation type:	

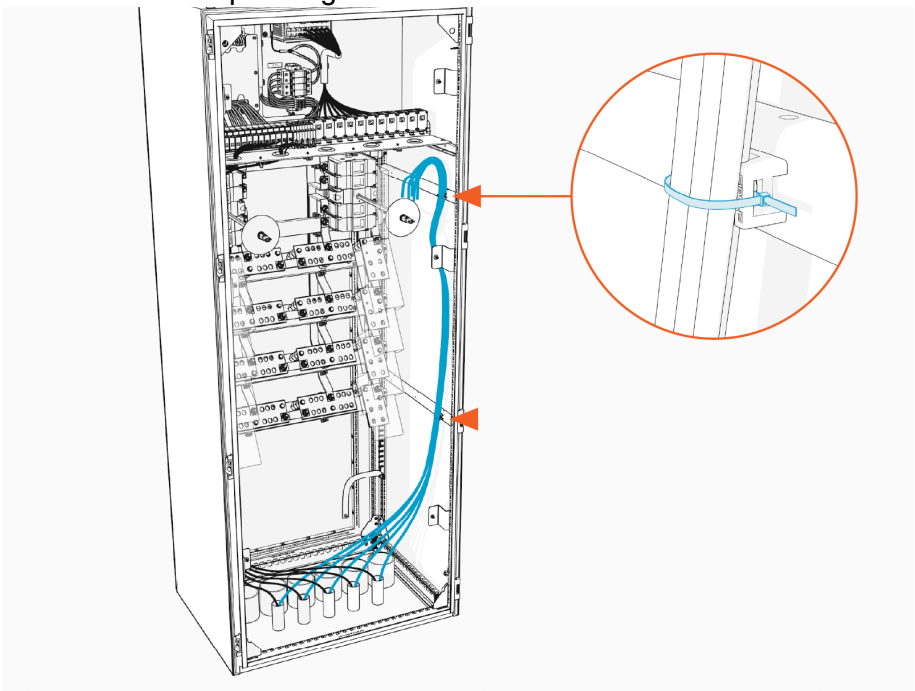
	Item	Status/Comments
	14.Record DC output wire voltage rating:	
	15.Provide a photo showing the HV output DC conductor ratings specified above. (Attach letter of rating if different from actual cable markings.)[UPLOAD PHOTO]	☐
	16.[Critical] Do the DC output specifications recorded above match ChargePoint requirements?	◯ Yes ◯ No
	17.Record ground wire guage:	
	18.Record number of ground wires:	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10
	19.Provide a photo showing the output ground conductors ratings specified above. (Attach letter of rating if different from actual cable markings.)[UPLOAD PHOTO]	☐
	20.Provide a photo showing the input ground conductors ratings specified above. (Attach letter of rating if different from actual cable markings.)[UPLOAD PHOTO]	☐
	21.Verify that the rear panel ground strap is present and torqued to 8.5 Nm (75 in-lb.)	☐
	22.Verify that the LV DC wires are routed up the side of the Power Hub cabinet and secured to cabinet wall clips using cable ties.	☐

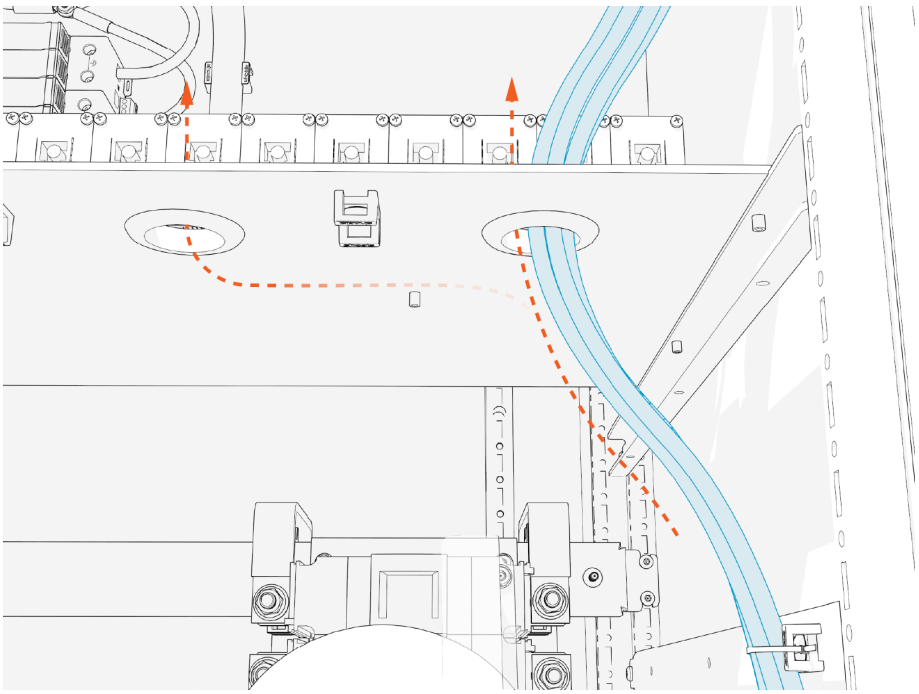
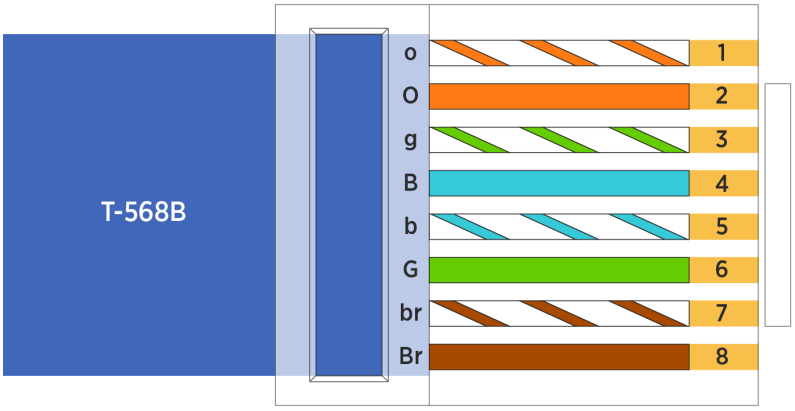
	Item	Status/Comments
		
	23. Verify the LV DC wires route across the ceiling of the high voltage cabinet and then through a grommet hole. Ensure the use of cable ties to secure the wires to the ceiling of the high voltage cabinet. 	☐
	24. Verify that the 48 V DC LV wires are sized 16 mm^2 (6 AWG).	☐
	25. Verify that the 48 V DC LV wires are copper (Cu) and are rated for 1000 V / 90 °C (194 °F).	☐
	26. Verify that the 48 V DC LV conductors are stripped to 12 mm.	☐
	27. Verify that each input 48 VDC LV wire is inserted into its	☐

	Item	Status/Comments
	corresponding circuit breaker (input wire). Note: Positive wires (red) should be terminated in the positive (+) terminals. 	
	28. Verify that each output 48 VDC LV wire is inserted into its corresponding fuse holder. Note: Positive wires (red) should be terminated in the positive (+) terminals. 	☐ ☐
	29. Verify that each output 48 VDC LV wire fuse is present and passes a continuity test.	☐
	30. Verify that fuse holder set screws are tightened to 1.7 Nm (15 in-lb) and circuit breaker set screws are tightened to 2.8 Nm (25 in-lb).	☐

	Item	Status/Comments
	31. Perform a push-pull test to ensure that all the 48 V DC LV conductors are properly seated.	☐
	32. Verify the relevant circuit breaker switches are in the ON position.	☐
	33. Conductors and cables evaluation comments:	

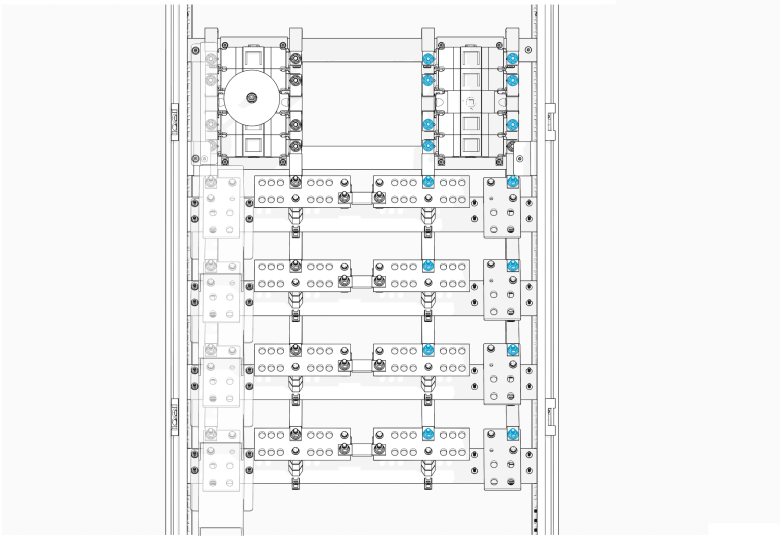
Communication Cable Specification

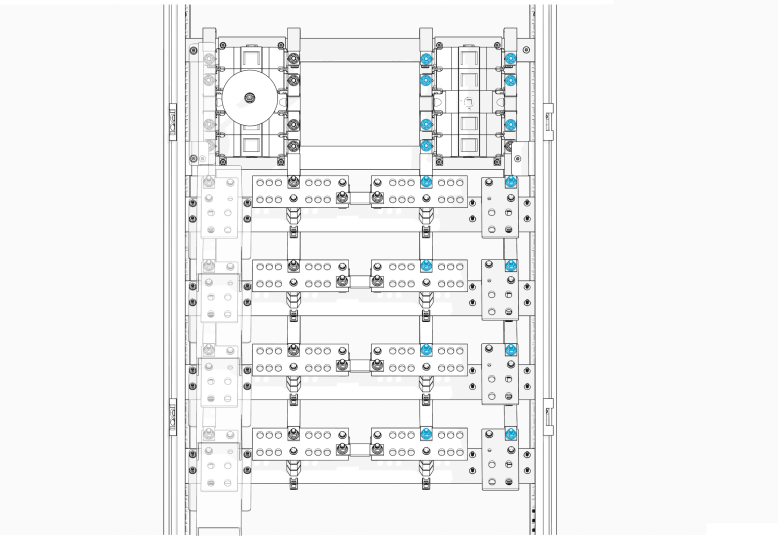
Item	Status/Comments
1. Verify that the Ethernet cables are routed and secured to the side cabinet wall clips using cable ties. 	☐
2. Verify that the Ethernet cables route across the ceiling of the high voltage cabinet and then through a grommet hole. Ensure the wires are secured to the ceiling of the high voltage cabinet using cable ties.	☐

Item	Status/Comments
	
3. Verify that all Power Hub Ethernet cables are: Outdoor rated, CAT 6, Shield Twisted Pair (STP).	☐
4. Verify that all Power Hub Ethernet cables are field-crimped in a straight-through 568B pattern. 	☐
5. Verify that all Power Hub cables: • have no stray wires in the crimp. • have a maximum run length of 100 m (328 ft).	☐
6. Verify that the Ethernet cables connecting from the Power Hub to Power Blocks, are not grounded at the Power Hub and grounded at the Power Block.	☐
7. Verify that the Ethernet cables connecting from the Power Hub to	☐

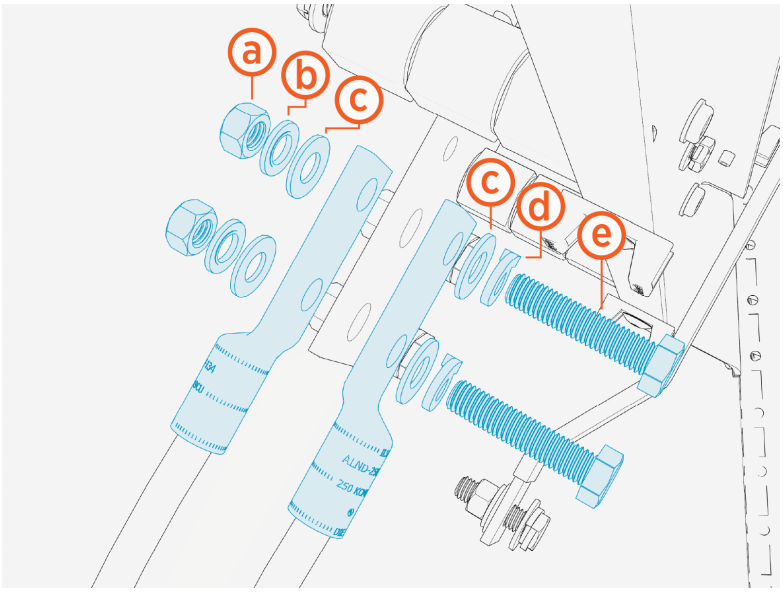
Item	Status/Comments
Power Link 1000s are grounded at the Power Hub and not grounded at the Power Link 1000.	☐
8. [Critical] Verify that all the Ethernet cables connected between this Power Hub to Power Link 1000(s) and/or this Power Hub to Power Block(s) pass functional testing.	☐
9. [Optional] Communication cable specification evaluation comments:	

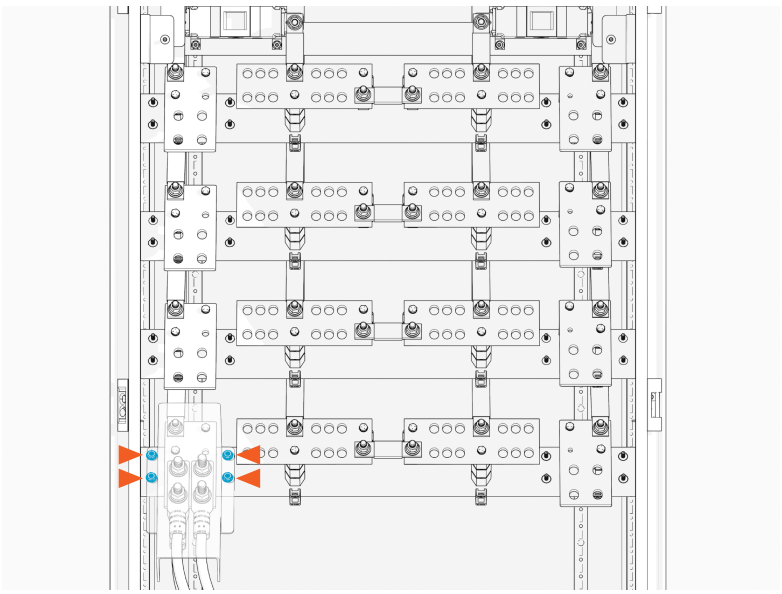
Disconnect Switch and Second Input Kit

	Item	Status/Comments
	1. [Second Input Kit Only] Verify the right disconnect switch is secured to the back rail with #10 fasteners (x4). Ensure the fasteners are torqued to 3.4 Nm (30 in-lb).[UPLOAD PHOTO]	☐
	2. [Second Input Kit Only] Verify that flex jumpers (x8) are fastened to the right disconnect switch and the fasteners are torqued to 35 Nm (26 ft-lb). 	☐
	3. [Second Input Kit Only] Verify that the other end of the flex jumpers (x8) are fastened to the high voltage DC buses, and the fasteners are torqued to 42.4 Nm (31 ft-lb).	☐

	Item	Status/Comments
		
	4. [Second Input Kit Only] Verify that all flex jumpers at the right disconnect switch are secured using zip ties (x20). [UPLOAD PHOTO]	☐
	5. [Second Input Kit Only] Verify that the right disconnect switch safety shield is installed.[UPLOAD PHOTO]	☐
	6. [Second Input Kit Only] Verify that a disconnect switch handle for the right disconnect switch is present on the HV dead front.[UPLOAD PHOTO]	☐
	7. [Critical] [Second Input Kit Only] Verify that the right disconnect switch is operating properly. Switch off disconnect and test the continuity between each DC HV input and adjacent DC HV output buses using a multimeter. The values should indicate an Open Loop.	☐
	8. [Critical] Verify that the left disconnect switch is operating properly. Switch off disconnect and test the continuity between each DC HV input and adjacent DC HV output buses using a multimeter. The values should indicate an Open Loop.	☐
	9. [Optional] Disconnect switch and Second Input Kit evaluation comments:	

Lugs

	Item	Status/Comments
	1. [Critical] Verify the use of two-hole compression lugs that are correctly crimped on HV DC wires.	☐
	2. Verify that each HV DC wire lug is installed on the bus using the following provided fasteners: a) hex nut, b) Belleville washer, c) flat washer, d) lock washer, and e) bolt. 	☐
	3. Is dielectric grease used on all DC and AC lugs?	◯ Yes ◯ No
	4. Verify all HV DC wire lugs are torqued to 61.6 Nm (45 ft-lb). (Perform a spot check.)	☐
	5. Provide photos of the HV DC input lug connections. [UPLOAD PHOTO]	☐
	6. Provide photos of the HV DC output lug connections. [UPLOAD PHOTO]	☐
	7. Verify that safety shield is installed over all high voltage DC input terminals.[UPLOAD PHOTO]	☐
	8. Verify that each safety shield is installed using captive screws (x4 per shield). Ensure all captive screws torqued to 2.8 Nm (25 in-lb).[UPLOAD PHOTO]	☐

	Item	Status/Comments
		
	9. Verify that the ground wires are terminated with compression lugs, landed on the ground stud, and torqued to 4.9 Nm (43 in-lb).	☐
	10. Provide photos of the Ground Lug connections.[UPLOAD PHOTO]	☐
	11. [Critical] Continuity Test (HVDC): Verify conductor continuity test between left output bus A+ and A- on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	12. [Critical] Continuity Test (HVDC): Verify conductor continuity test between left output bus A+ and B+ on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	13. [Critical] Continuity Test (HVDC): Verify conductor continuity test between left output bus A+ and B- on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	14. [Critical] Continuity Test (HVDC): Verify conductor continuity test between left output bus A- and B+ on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	15. [Critical] Continuity Test (HVDC): Verify conductor continuity test between left output bus A- and B- on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	16. [Critical] Continuity Test (HVDC): Verify conductor continuity test between left output bus B+ and B- on this	☐

	Item	Status/Comments
	Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	17.[Critical] Continuity Test (HVDC): Verify conductor continuity test between right output bus A+ and A- on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	18.[Critical] Continuity Test (HVDC): Verify conductor continuity test between right output bus A+ and B+ on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	19.[Critical] Continuity Test (HVDC): Verify conductor continuity test between right output bus A+ and B- on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	20.[Critical] Continuity Test (HVDC): Verify conductor continuity test between right output bus A- and B+ on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	21.[Critical] Continuity Test (HVDC): Verify conductor continuity test between right output bus A- and B- on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	22.[Critical] Continuity Test (HVDC): Verify conductor continuity test between right output bus B+ and B- on this Power Hub. The result on the multimeter should be Open Loop (OL) or infinite resistance.	☐
	23.[Critical] Verify that the input HV DC conductors are correctly wired from this Power Hub to the connected Power Block(s) through a continuity test. Note: To conduct a continuity test, ground the terminal at Power Block and use the multimeter to test the continuity at Power Hub.	☐
	24.[Critical] Verify that the output HV DC conductors are correctly wired from this Power Hub to the connected Power Link 1000(s) through a continuity test. Note: To conduct a continuity test, ground the terminal at Power Hub and use the multimeter to test the continuity at Power Link 1000s.	☐
	25.Record grounding impedance value for DC ground:	
	26.[Optional] Lugs evaluation comments:	

Chassis

Item	Status/Comments
1. Verify the use of weatherproof sealant to fully seal the Power Hub base to the concrete surface.	☐
2. Verify the lifting eye bolts are removed and top bolts are installed.	☐
3. [Optional] Chassis evaluation comments:	

Energization and Electrical Measurements

	Item	Status/Comments
	1. Verify that HV dead front is installed.	☐
	2. Verify that LV dead front is installed.	☐
	3. Verify that each disconnect switch handle is turned to the ON position.	☐
	4. Verify that parking area is clean and free of all crate fasteners, packaging, and debris.	☐
	5. Provide photos of the front and back of the Power Hub after assembling all parts.[UPLOAD PHOTO]	☐

Acknowledgment

I, _____, hereby confirm the following:

- All instructions in the Installation Guide have been followed
- Torqued all fasteners to the correct torque values using an appropriate tool
- The electrical system complies with all local codes, norms, standards, and regulations. This includes but is not limited to health and safety regulations, electrical regulations, building regulations, manufacturer specifications, and requirements of the local authorities.
- I certify that the scope of work has been completed correctly and that the station has no functional, electrical, or safety issues

Name and signature of the technician who commissioned the stations.

Name: _____

Company: _____

Signature	Date

Legal Disclaimer

ChargePoint is not responsible for verifying this information, and the creator of the protocol remains responsible for this information.

ChargePoint accepts no ongoing responsibilities for the electrical design and the installation specifics.

chargepoint.com/support

75-001678-01 r1