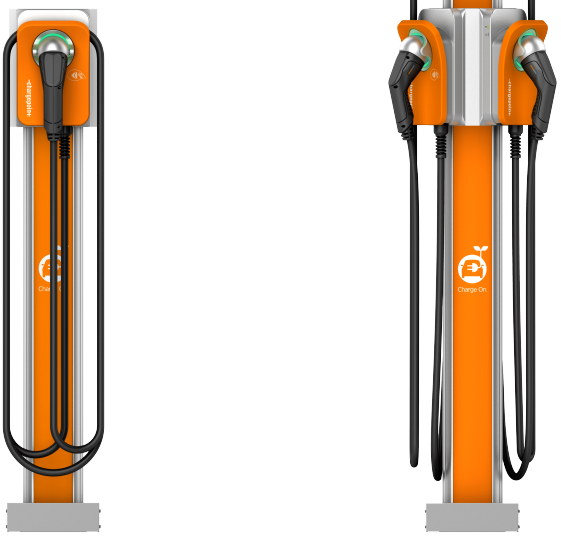
CPF32

Networked Charging Station

Site Design Guide



IMPORTANT SAFETY INSTRUCTIONS: SAVE THESE INSTRUCTIONS

WARNING:

1. Read and follow all warnings and instructions before installing and 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.

2. Only use licensed professionals to install your ChargePoint® Charging Station and adhere to all national and local building codes and standards. Before installing the ChargePoint® Charging Station, 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 Charging Station for proper installation before use.

3. 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 must 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 must comply with all applicable codes and ordinances.

4. Install the ChargePoint® Charging Station 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.

5. This charging station is not suitable for use in hazardous locations.

6. This device should be supervised when used around children.

7. Do not put fingers into the electric vehicle connector.

8. Do not use this product if the flexible power cord or EV cable is frayed or has broken insulation or any other signs of damage.

9. Do not use this product if the enclosure or the EV connector is broken, cracked, open or shows any other indication of damage.

10. Use 90°C wire copper conductors only.

Important: Under no circumstances will compliance with the information in this manual relieve the user of their responsibility to comply with all applicable codes or safety standards. This document describes the most commonly used installation and mounting scenarios. If situations arise in which it is not possible to perform an installation following the procedures provided in this document, contact ChargePoint, Inc. **ChargePoint, Inc. is not responsible for any damage that may result from custom installations that are not described in this document or for any failure to adhere to installation recommendations.**

Product Disposal

Follow proper disposal methods according to local authorities. Re-using, recycling or correctly processing obsolete devices is an important contribution to environmental protection. Product materials are recyclable as marked.

No Accuracy Guarantee

Commercially reasonable efforts were made to ensure that the specifications and other information in this manual are accurate and complete at the time of its publication. However, the specifications and other information in this manual are subject to change at any time without prior notice.

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

Site Design Guidelines 1

This document describes how to design a project site for the ChargePoint® CPF32 charging station for electric vehicles, using the ChargePoint Gateway for network connectivity. This includes guidelines and best practices for electrical infrastructure and capacity planning, construction and concrete work required prior to installation of charging stations and mobile signal requirements.

For full specifications and certifications for CPF32 charging stations, refer to the CPF32 Data Sheet found online at: chargepoint.com/eu/guides.

Initial Site Guidelines

ChargePoint recommends the CPF32 charging station solution for behind-the-fence fleet and multi-family charging station installations.

An on-site evaluation is needed to determine conduit and wiring requirements from the panel to the proposed parking spaces to evaluate construction and concrete requirements for mounting the charging stations, to measure mobile signal levels for the Gateway and identify suitable locations for any necessary mobile signal booster equipment, and to ensure that the stations have good WiFi connectivity to the Gateway.

Mounting Requirements

The CPF32 can be mounted on a concrete pedestal or on a wall.

Wall mounting:

- Must be on a smooth, plumb, stable, strong wall.
- Can be mounted on wood stud, masonry or concrete walls.

Pedestal mount:

- Must be on concrete that is a minimum 600 mm wide x 600 mm long x 600 mm deep.
- Must not be installed in asphalt.

Power Supply Requirements

Review the *CPF32 Data Sheet* at chargepoint.com/eu/guides.

The ChargePoint CPF32 charging station is designed to operate on rated voltages of 230 V (phase-neutral) at 50 Hz.

Important: CPF32 charging station installations must comply with all regulatory requirements for low voltage installations according to IEC 60364-1 and IEC 60364-5-52.

Consult with your electricity grid operator regarding requirements for local regulations. Depending on the desired rated power, the installation of the charging station may require registration with and/or approval by your electricity grid operator.

Each charging station requires:

- A dedicated single-phase electrical circuit.
- A new circuit breaker at the electrical panel.
- A new 30-mA Type B residual current detection (RCD) at the service panel.
- Electrical cable and conduit installed in the appropriate location with appropriate circuit protection and metering, in accordance with all local codes and regulations.

The CPF32 delivers up to 7.4 kW per charging port. Various options are available for power management. If a site has limited power capacity or needs to reduce costs for electrical infrastructure, consider ChargePoint power management options for power sharing at the panel, transformer or site level.

Mobile Connectivity

The CPF32 charging station connects to the ChargePoint Gateway. The Gateway is required. The Gateway needs strong mobile connectivity to allow it to communicate with the ChargePoint network and line-of-sight WiFi connectivity to communicate with each charging station. To ensure adequate signal strength in underground garages or other enclosed parking structures, mobile network repeaters may be required.

A connection is needed for station owners and operators to access these features:

- User authentication, access control and billing.
- Energy usage reporting.
- Charging station utilisation and charging session details for analytical reporting.
- Automatic power management.
- Real-time charging status to drivers using the ChargePoint mobile app or web portal.
- Ability for drivers to use the ChargePoint mobile app and Tap to Charge, Apple Pay or Android Pay on their smartphone to start and stop sessions.
- Notifications to drivers when vehicle battery is full or stops charging.
- Notifications to drivers regarding waiting-list position.
- Notifications to drivers prior to pricing increases for overstay of parking at EV spots.
- Station fault alarms and remote diagnostic capability.
- Over-the-air software upgrades for new station features or enhancements.

If you have pre-existing infrastructure or are using your own preferred electrical contractor to prepare your site, a completed Construction Sign-off Form is required to certify compliance with electrical specification requirements and to ensure that everything was prepared to ChargePoint specifications.

Important: Always check local codes or consult an engineer to ensure that the site is prepared in compliance with all applicable regulations. Local authorities might not allow a unit to operate if it is not installed to code.

Charging Station Placement

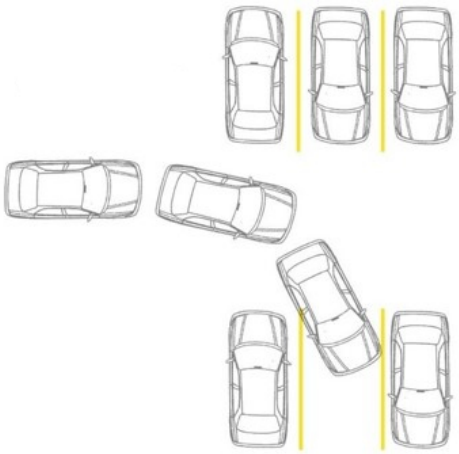
WARNING: The ChargePoint charging station must be installed on a level concrete base or attached to a flat wall. Asphalt cannot support the full weight of the charging station. Failure to install the ChargePoint charging station on a level concrete base or a flat wall may cause the charging station to tip over, resulting in death, personal injury or property damage.

Layout Considerations

- Identify station locations for EV charging spots.
- To help minimise costs, choose station locations that are as close as possible to the available electrical infrastructure.
- Determine raceway or conduit runs for electrical wiring from the electrical panel and consider a layout to minimise linear conduit costs to all proposed EV parking spaces.
- If possible, avoid or minimise trenching requirements, especially more costly trenching to run conduit under asphalt surfaces.
- Consider locations where it will be easy to add future stations.
- Identify suitable locations with smooth, plumb surfaces for wall-mounted stations or suitable floor surfaces for pedestal-mounted stations.
- The charging station must not block ramps or pathways, and cables must not extend across ramps or pathways when connected to a vehicle. Avoid high pedestrian traffic areas such as thoroughfares and marked escape routes.
- The charging station must not be installed in close vicinity to running water, sprinklers, water jets or irrigation systems.
- Choose adjacent parking spaces in an area with adequate lighting.

- For stall parking, ChargePoint prefers using perpendicular parking stalls to better accommodate vehicles with front and rear charge ports.

  Note: While ChargePoint tests charging stations with a majority of upcoming vehicles, ChargePoint cannot guarantee the port locations of future vehicles and cannot warrant the configurations proposed will work for all vehicles.



- Consider how easily drivers can find the stations they need to access.
- Use dual-port, pedestal-mounted stations where possible in open areas for adjacent parking or adjoining parking spaces.
- Consider protective bollards and wheel stops where appropriate, especially for open tandem parking spaces.

Electrical Considerations

- Evaluate existing electrical infrastructure to determine if the existing utility service and electrical panel capacity is sufficient.
- Ensure that the electrical wiring, overcurrent circuit protection and metering (if required) is in place by reviewing the data sheet as well as the wiring diagram and grounding requirements in this document.
- The station accepts wire sizes between 4 mm^2 to 16 mm^2. Typically, 10 mm^2 is used.
- The station must be grounded adequately according to local code requirements.
- Size all conduit and electrical wiring in accordance with all local code requirements. ChargePoint recommends using a certified electrician to evaluate available capacity and identify any upgrades that may be required.
- If a dedicated EV electrical panel is required, choose a panel location in close proximity to the existing electrical supply.

Additional Considerations

- Identify costs for any necessary upgrades and/or a new dedicated electrical panel.
- Determine appropriate mounting type: wall mount vs pedestal mount.
- Establish the quantity of each type of charging station in the initial order.
- Measure mobile signal levels using professional mobile test equipment to ensure adequate mobile coverage at the Gateway location.

  Note: To ensure adequate mobile signal strength in underground or enclosed parking structures, mobile repeaters may be required. Use an indoor aerial located near EV parking spaces and an outdoor aerial typically located at the garage entrance ceiling or on the rooftop where mobile signals are best. See additional details in “Connectivity” on page 17.

- Determine cost budget options for electrical infrastructure to satisfy current needs and future needs.
- Prioritise charging station locations based upon immediate and future needs, construction timelines and costs.

Plan for the Future

Design and plan for current EV charging needs, but also for future needs as EV adoption continues to grow.

- Add extra capacity if electrical panels are being upgraded now.
- Use sub-panels as a way to shorten the electrical path.
- Consider running raceway or conduit to all planned EV parking spots, but pulling electrical wiring from the panel to meet the needs of currently planned stations.
- Oversize the conduit between the main electrical panel and future stations.
- Install pull or junction boxes at the end of an existing row of charging stations to ease cable pulls for future stations.
- Consider installing a dedicated electrical panel for EV charging, then leverage ChargePoint power management to efficiently use available power at a site to support more EV charging ports than would otherwise be possible without power management.

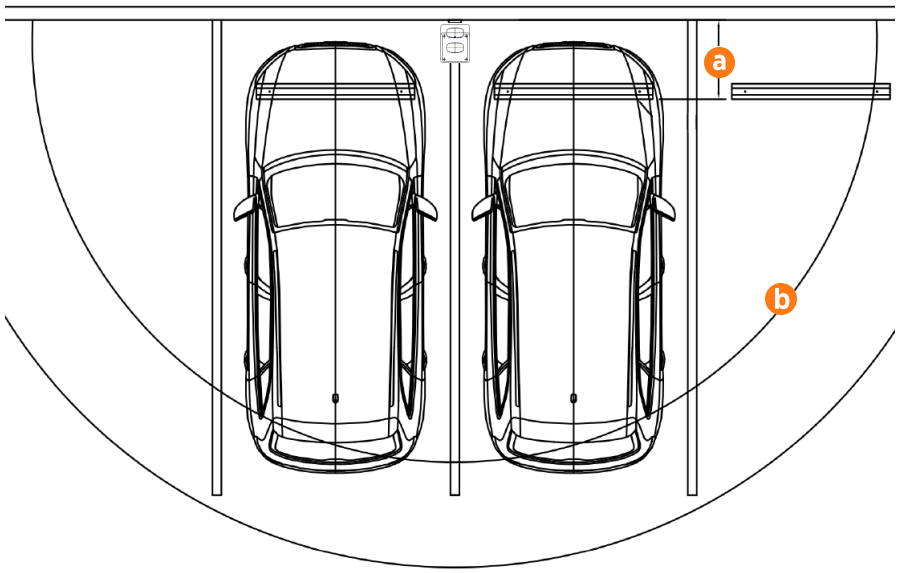
Civil and Mechanical Design 2

Use the guidance below to design the civil and mechanical aspects of the site.

The station can be installed attached to a wall or on a concrete pedestal. The pedestal can be a newly poured pad or an existing concrete surface.

Wall-Mounted Stations

For wall-mounted stations, the wall must be smooth, stable, plumb and sturdy. The minimum height of the wall must be 1250 mm. Place wheel stops (a) 900 mm from the wall. The arc shows the usable reach of the 5.5-m charging cable (b).



Important: Ensure that the wall supports the station. If mounting to a hollow wall, bridge at least two studs using a 41-mm channel strut.

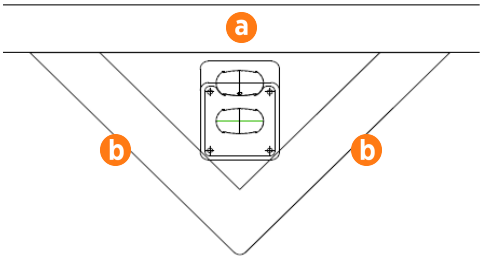
WARNING: If not installed correctly, the ChargePoint® charging station may pose a fall hazard, leading to death, personal injury or property damage. Always use the provided Concrete Mounting Template or a ChargePoint-approved surface mounting solution to install the ChargePoint® charging station and install in accordance with applicable codes and standards using licensed professionals. Non-approved installation methods are performed at the risk of the contractor and void the Limited Warranty.

Pedestal-Mounted Stations

For newly poured pedestal-mounted installations, the mounting surface must be smooth and cannot exceed a slope of 6 mm per 300 mm. The concrete base must measure at least 600 mm on all sides, including underground. For installations in existing concrete, epoxy anchors can be used. Consult a civil engineer to ensure sufficient volume and strength of concrete.

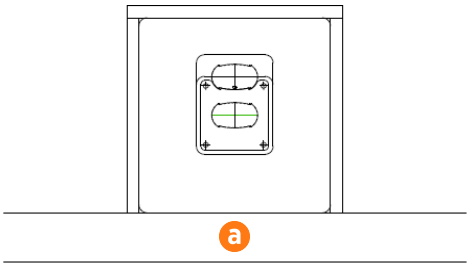
There are three basic pedestal base designs:

- In front of a kerb (a)
  900 mm x 2 (b)
  Area: 0.42 m^2
  Volume: 0.26 m^3

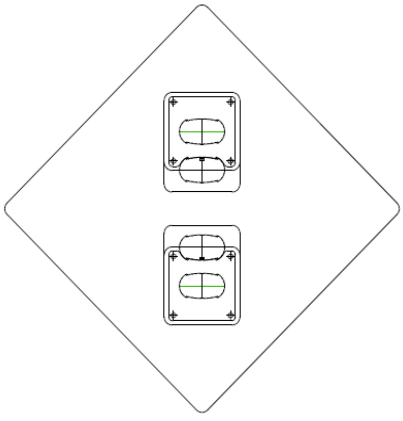


- Behind a kerb (a) in a planter or berm
  600 mm on each side
  Area: 0.37 m^2
  Volume: 0.23 m^3

  Note: Use a retaining wall as needed to prevent dirt from accumulating on the pad.

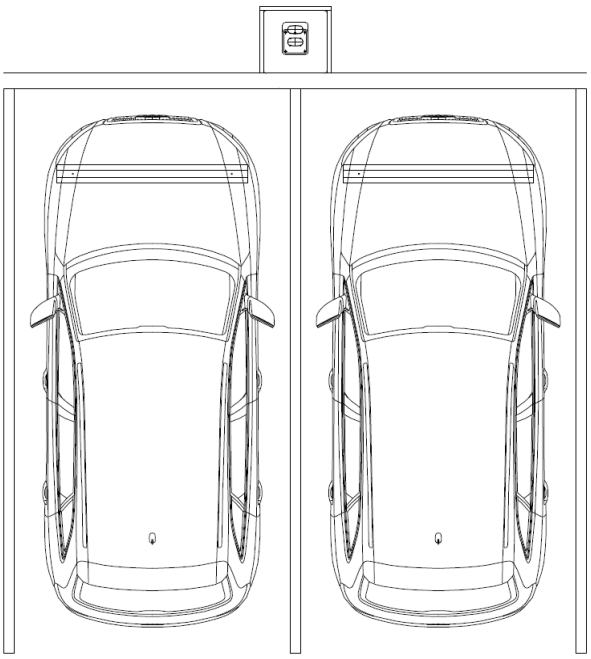


- Two stations back to back, centred between four spaces
  900 mm on each side
  Area: 0.84 m^2
  Volume: 0.51 m^3

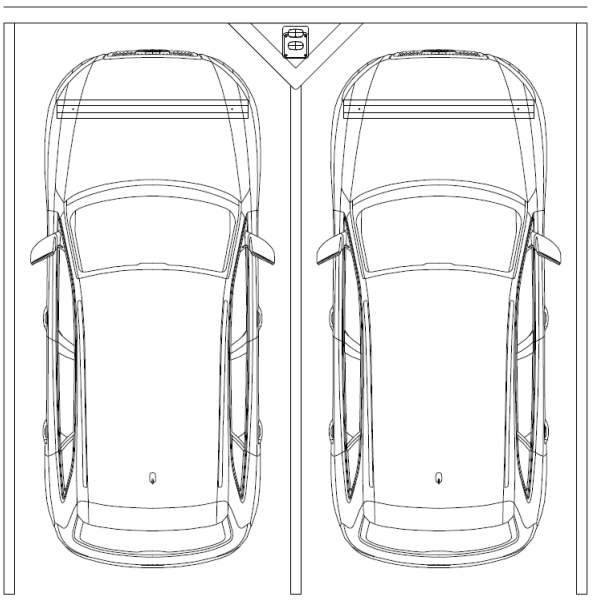


The pedestal base design can be configured in a variety of ways to serve different parking arrangements. Ensure a sufficient volume of concrete to provide anchoring for the charging station.

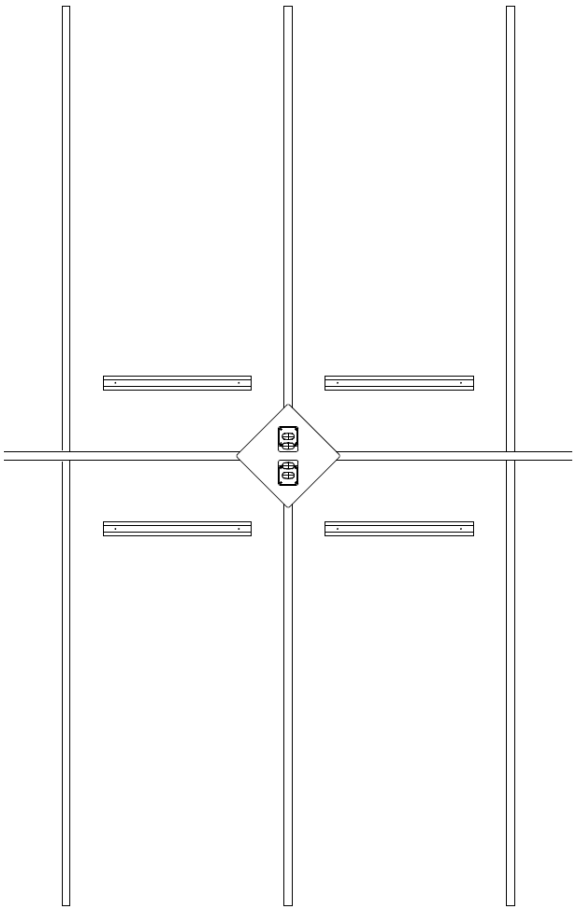
- Place the station behind the kerb in a planter or berm between spaces with wheel stops 900 mm from the front of each stall.



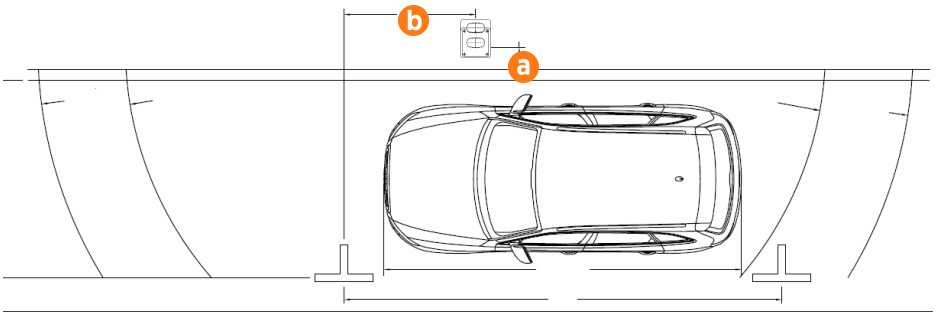
- Place the station in front of the kerb between spaces with wheel stops 900 mm from the front of each stall. The base of the charging station can be flush with the parking spaces or at kerb level.



- Place two stations back to back centred on four spaces with wheel stops 900 mm from the front of each stall. The base of the charging station can be flush with the parking spaces or at kerb level.



- Place a single port station for a single parallel parking space 6 m long. Place the station (a) 450 mm from the kerb, and 1.8 m from the front of the parking space (b).



Drainage

Ensure that any site slopes, walls or fencing do not trap water around the charging station installation site. The system is only built to withstand water to the height of the conduit stub-up.

The charging station complies with the IP54 enclosure standard. It is protected against water splashes and sprays. However, do not install the station in close proximity to running water, sprinklers, water jets or irrigation systems.

WARNING: Exposing the ChargePoint® charging station to water above the height of the conduit stub-up could cause electrocution, shock or a fire hazard. Cut power to the charging station if it has been exposed to standing water and contact ChargePoint before the charging station is powered on.

Clearances

For pedestal installations, the conduit stub-up must be a minimum of 230 mm from any obstructions to the rear. This includes other charging stations. Check applicable codes for any additional clearance requirements.

Accessibility

The CPF32 charging cable is centred at 1150 mm for pedestal installations to meet accessibility needs. If your installation must comply with disability access regulations, consider this height when designing the height of the pad or when planning a wall-mounted installation. Also consider site design factors such as placement of pedestals or other vehicle obstacles. The placement must not obstruct ramps, pathways or escape routes.

Electrical Design 3

The wall mount CPF32 installation uses surface mount wiring. The pedestal mount CPF32 installation requires service wiring installed underground. (If a pedestal mount installation requires surface run conduit, contact ChargePoint before beginning work to obtain an approved installation method.) Conduit and wire size are determined based on the length of the runs from the electrical panel to the station location. Consult all applicable codes or a project engineer to determine the grade, quality and size of the conduit or cable. The CPF32 Concrete Mount Kit accommodates service wiring through the flare, conduit or locally appropriate wiring method.

Note: All wiring and conduit is supplied by the contractor unless otherwise indicated.

Power Supply Requirements

The CPF32 can accept wire sizes from 4 mm^2 to 16 mm^2. Typically, 10 mm^2 wire is used.

When planning multiple EV charging stations, it is best practice to separate non-continuous from continuous loads, with all branch circuits for EV charging on a dedicated electrical panel assembly with adequate circuit breakers. When sizing new electrical panels dedicated for EV charging, all branch circuits must support continuous load.

CAUTION: The CPF32 charging station is tested to IEC 61000-4-5, Level 5 (6 kV @ 3000 A) standards. In geographic areas that experience frequent thunderstorms, appropriate supplemental surge protection is recommended to guard against product damage.

Conduit

The outside diameter of conduit must not exceed the sizes called out in the conduit layout drawing: 45 mm. Conduit stub-ups must not extend higher than 660 mm above grade. For wall-mounted stations, flex conduit is recommended to bring the wire to the station.

Wiring Requirements

For full product specifications, refer to the *CPF32 Data Sheet*. Using that data, ensure that the installation location is equipped with service wiring that supports the CPF32's power requirements:

- AC conductors – Live (L1) and Neutral (L2)
- Ground conductor

When pulling electrical wiring for CPF32 pedestal mount, ensure that at least 1.5 m of wire remains above grade.

When pulling electrical wiring for wall-mounted stations, the conduit and wire must be brought to the location where the stations will be mounted. Flex conduit may be used to bring the wire to the station. For wall-mounted installations, the cable is brought in from the rear or bottom of the station, depending on configuration. For pedestal installations, the wiring must be brought up through the pedestal into the back of the station via the bracket. The CPF32 has a 21-mm knock-out in the bottom and the rear of the charging station. Entering the station, the cable diameter must not exceed 27 mm.

Meeting Power Supply Requirements

The charging station is designed for connection to and operation on rated voltages of 230 V at 50 Hz.

- Comply with all regulatory requirements for low voltage installations according to IEC 60364-1 and IEC 60364-5-52.
- Always connect the device to the protective earth conductor of the power source.
- Reserve a power source exclusively for the charging station and ensure that it complies with HD 60364-7-722:2012.
- Protect the charging station branch circuit in the panel (mains) with a suitable miniature circuit breaker (MCB).

Consult your electricity grid operator regarding requirements for local regulations. Depending on the desired rated power, the installation of the charging station may require registration with and/or approval by your electricity grid operator.

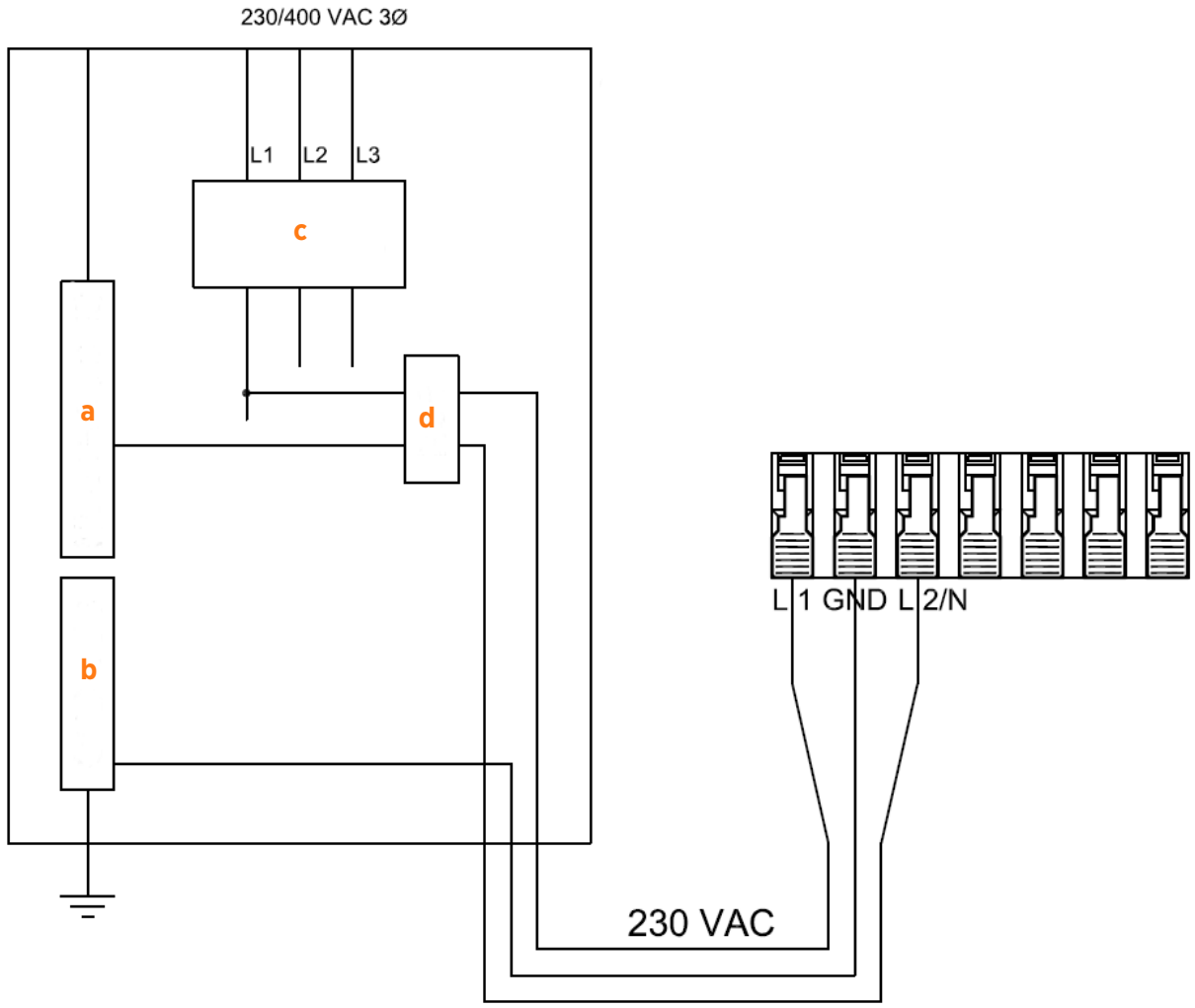
Grounding Requirements

The CPF32 must be connected to a grounded, metal, permanent wiring system. An equipment-grounding/protective earth conductor can be run alongside live conductors and must be connected to an equipment-grounding/protective earth terminal on the CPF32. A grounding/protective earth conductor that complies with applicable electrical codes must be properly grounded to earth at the service equipment or, when supplied by a separate system, at an appropriate earth electrode.

Wiring Diagram

The following illustration describes the wiring for installing a CPF32.

Note: A 40-A breaker is recommended.



a. Neutral bus
b. Ground bus
c. Main breaker
d. RCB

Note: For any circuit-sharing solution, refer to regional and local codes. Contact your ChargePoint representative for additional guidance.

Connectivity 4

Plan for the Gateway

The ChargePoint Gateway is required for all CPF32 installations. It consists of a mobile modem for wide area networking and built-in WiFi for local communications to and from each CPF32 charging station. The Gateway should be located where mobile signal levels are optimal for 3G and must be located within a line-of-sight view of 45 m to as many as nine (9) CPF32 charging stations. Each CPF32 charging station has built-in WiFi capability to communicate via the Gateway for ChargePoint networking services.

The Gateway is a UL Class 2 equipment and requires less than four watts of power (33 mA@120 V or 19 mA@208 V). ChargePoint recommends hardwire electrical termination to the power source for the Gateway.

Refer to the data sheet, installation guide and mounting template for additional information. These are available at chargepoint.com/eu/guides.

Mobile Connectivity

The Gateway includes a 3G mobile modem (with 2G backup) for wide area networking. It supports these bands:

- UMTS/HSPA/3G/WCDMA Band: 800/850/900/1900/2100 MHz.
- 2G/GSM/GPRS Band: 850/900/1800/1900 MHz.

The Gateway should be located where mobile signal levels are optimal for 3G. A consistently strong mobile signal is required before station owners can activate the charging stations.

Do not rely on mobile phone applications to measure mobile signals when conducting site surveys. Use a mobile signal detection device (such as an Snyper-LTE+ Spectrum (EU) by Siretta) to take signal strength readings at the exact proposed Gateway location. Take mobile readings at the exact location of each proposed Gateway location. Ensure the RSSI is -85 dBm or better, with -70 dBm or better preferred.

Note: These numbers are all negative, so -70 dBm is excellent signal strength and -113 dBm is little to no signal.

For reference, RSSI Signal Strength ratings are shown here:

RSSI	Signal Strength
Greater than -70 dBm	Excellent
-70 dBm to -85 dBm	Acceptable
-86 dBm to -113 dBm	Contact mobile provider for repeater installation

If the signal strength is closer to -85 dBm, verify that the ECIO value is -10 or better.

If the RSSI signal is below -85 dBm, ChargePoint recommends contacting your telecommunication company to request a mobile repeater. If you have a provider for company mobile phones, consult them first. A 3G (or 4G that is backwards compatible to 3G and 2G) repeater can improve the mobile signal for the Gateway, as well as for employees and customers that are on that network in the area.

Note: To future-proof your site, ChargePoint recommends measuring RSRP to ensure that the site is covered for future use of 4G/LTE. An RSRP of -90 or better with an RSRQ of -10 or better ensures that any future equipment will also work at this location.

Consult your ChargePoint account manager for additional guidance. ChargePoint O&M partners can validate acceptable mobile signal strength at the site using a mobile strength reader.

WiFi Connectivity

WiFi connectivity is used to allow the Gateway to communicate with each individual charging station. Each station must be within 30 m of a Gateway. Each station must also have a direct line-of-sight view of the Gateway. WiFi signal cannot pass easily through common obstructions such as:

- Walls
- Columns
- Metal cabinets

WiFi signal can also be disrupted by electromagnetic interference (EMI). This includes:

- Other systems operating on 2.4 Ghz
- Other wireless access points

Additionally, mounting the Gateway on the wall is preferred to ceiling mounting to provide the broadest coverage.

5 Pedestal Mount Concrete Preparation

The CPF32's pedestal mount can be installed either:

- Into the ground by casting into new concrete.
- Onto an existing concrete surface.

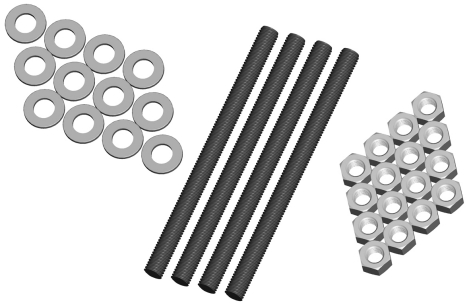
WARNING:
Do not use expanding anchor bolts.
Do not install the CPF32 on an asphalt surface.

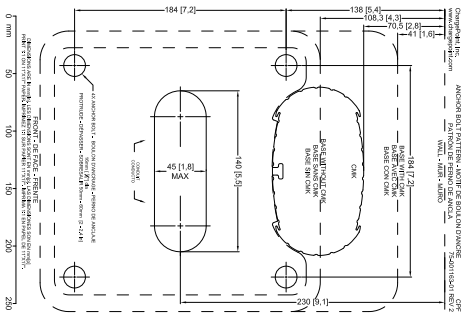
The required kit components, required tools and installation steps vary depending on the type of installation. This section provides basic guidelines for all approved installation types.

Installation Overview

To install the CPF32 pedestal mount into the ground, you need the components shown below.

- M16 x 250 threaded rods (4)
- M16 nuts (16)
- M16 washers (12)
- Bolt Pattern Template for mounting with a CMK 75-001238-01





These components can be purchased from ChargePoint by ordering a CPF32 Pedestal Mount Kit.

When installing onto an existing concrete surface, you only need eight nuts and eight washers. Additionally, required consumables are described below.

Installation on New Concrete

Before casting new concrete, review the site for suitability to install a CPF32. The CPF32 requires space behind the conduit stub-up for the Cable Management Kit (CMK), if applicable. To ensure adequate clearance, refer to the illustrations below and to the CPF32 Mounting Template included in the Pedestal Mount Kit.

Note: If the original copy of the installation template is lost, a new one can be printed at: chargepoint.com/eu/guides. Ensure that the PDF version of the mounting template is accurate by printing at 100% scale on A3 paper and verifying at least one dimension.

Important: Always check local codes to ensure compliance. You may need to adjust these instructions to comply with codes that apply at your installation location.

- The concrete block must measure at least 600 mm on all sides, including underground.
- The bolt threads must extend 55 mm above the concrete.
- The conduit must not exceed a maximum of 45 mm in diameter and extend 660 mm above the concrete.
- The service wiring must extend 1.5 m above the concrete surface.

Tools Needed

In addition to the items in the CPF32 Pedestal Mount Kit, you also need:

- An M16 spanner wrench.
- A digging shovel with steel scoop.
- A spirit level.
- Grade C30 concrete.
- Materials to build a temporary frame to support the template over the installation site.
- Materials to build a wooden version of the template.

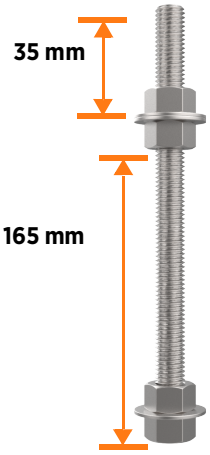
Preparation

1. Dig a hole with the minimum measurements of 600 mm x 600 mm x 600 mm.

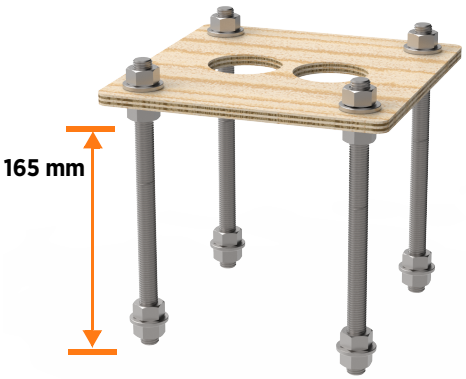
Important: The concrete block you create must be at least 600 mm on all sides.

2. Ensure that electrical cable and conduit has been installed in the correct location and that the appropriate circuit protection and metering is in place, following all local codes and regulations.
3. Ensure that enough power cable (1.5 m) is above the planned ground level to create a service loop. It can be trimmed back during installation as needed.
4. Create a base for the concrete as required by local codes and regulations.
5. Create a wooden version of the template.

6. Build a temporary frame to support the wooden template over the hole.
7. Before pouring the concrete pad, make sure that all pedestal mounting components are readily available at the installation site.
8. Install two nuts, with two washers captured between them, onto each of the four bolts, as illustrated. Lock them together so the lower end of the upper nut is located 165 mm from the bottom of the bolt. This sets the length of the exposed threads.



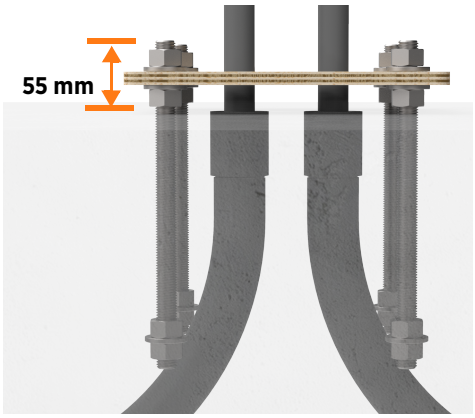
9. Insert the four bolts through the wooden template. This ensures the relative position of the bolts and ensures that the flange of the pedestal fits over the bolts.
10. On the bottom end of each bolt, install a nut, a washer and a nut. Lock the two nuts together so that the lower nut aligns to the bottom of the bolt. This provides retention for the bolt in the concrete.



Installation Instructions

1. Pour the concrete into the hole you prepared.
2. Immediately after pouring the concrete, push the bolts into the concrete. Rotate each bolt to draw concrete into the threads. You may need to slightly loosen the hexagon nuts to rotate the mounting bolts. Ensure correct alignment and that the top 55 mm of the bolts remain exposed.

Important: Rotate the bolts as you insert them. This allows the concrete to fully coat the threads of the bolts, reducing the amount of trapped air.

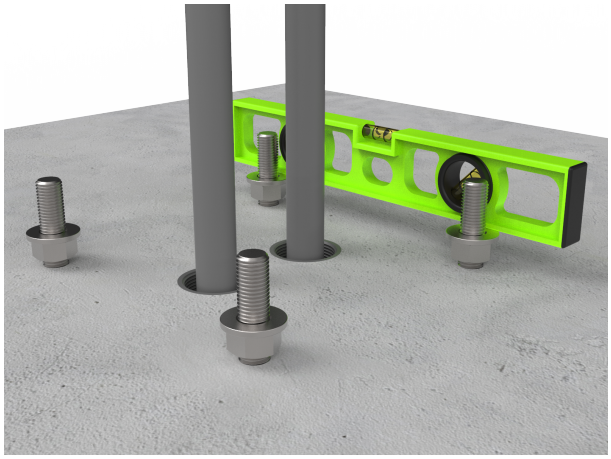


3. Retighten the hexagon nuts to the template.
4. Remove any boards or shims supporting the mounting template. Leave the mounting template in place until the concrete is fully cured.

Complete After Concrete Cures

1. When the concrete is fully cured, remove the upper nut and the washer.
2. Adjust the remaining nuts and washers until about 35 mm of bolt is exposed above each washer.
3. Use a spirit level and adjust the height of the nuts as required to ensure that the four washers are completely level with each other.

You are now ready to install the CPF32 pedestal mount charging station.



Installing on Existing Concrete

If installing on existing concrete, review the site for suitability to install a CPF32. The CPF32 requires space behind the power stub-up for the pedestal and (optional) CMK. To ensure adequate space, refer to the CPF32 Installation Template included in the Concrete Mounting kit.

Important: Always check local codes to ensure compliance. You may need to adjust these instructions to comply with codes that apply at your installation location.

- Review the dimensions of the existing concrete slab. To safely mount a CPF32 charging station, the concrete must be at least 200 mm thick. At this thickness, all CPF32 mounting bolts must be positioned at least 380 mm from the front edge, at least 305 mm from the side edges and at least 150 mm from the rear edge of the concrete slab.
- If an existing charging station is already in place at the installation site, turn off all power to the station and disassemble according to the original manufacturer's instructions. Cut away any existing bolts or non-power conduit stub-ups to ground level. Seal cut-away conduits at the slab end and disconnect wiring at the other end.
- Ensure that you have adequate wiring. Service wiring for the CPF32 must extend 1.5 m above the platform's surface.
- ChargePoint recommends creating a rigid template based on the paper template to position the bolts.

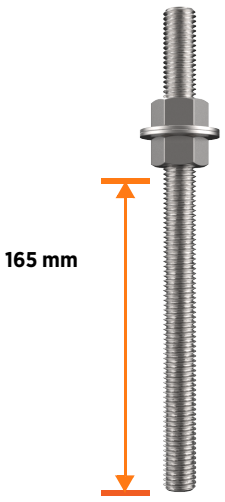
Tools and Consumables Required

Quantity	Description	Purpose
1	CPF32 Pedestal Mount Kit or equivalent parts	Mounting hardware: nuts, bolts and washers, plus the mounting template.
1	Electric drill or hammer drill (a 12-mm chuck may be required depending on drill bits used)	Drill holes in existing concrete.
1	Epoxy adhesive for concrete such as Hilti RE-500	Fill drilled holes and secure anchor bolts.
1	Electrical cleaning and maintenance aerosol, such as any angle spray duster	Clean drilled holes. **Note**: Compressed air will work.
1	Slow spiral round-shank masonry drill bit, 25 mm in diameter	Drill 25 mm holes in concrete. **Note**: The holes must be at least 165 mm deep.
1	Drill bit for concrete embedded rebar, round 25-mm bit size	Drill a 25-mm hole through the rebar.
1	Nylon loop handle brush, 25 mm brush in diameter, 75-mm-length brush, 215 mm length overall	Clean drilled holes.
4	Push-on round cap, fits 16 mm – 17.5 mm OD, 12 mm inside height,	Keeps the epoxy inside the drilled holes in situations where the slab is only 200 mm deep.

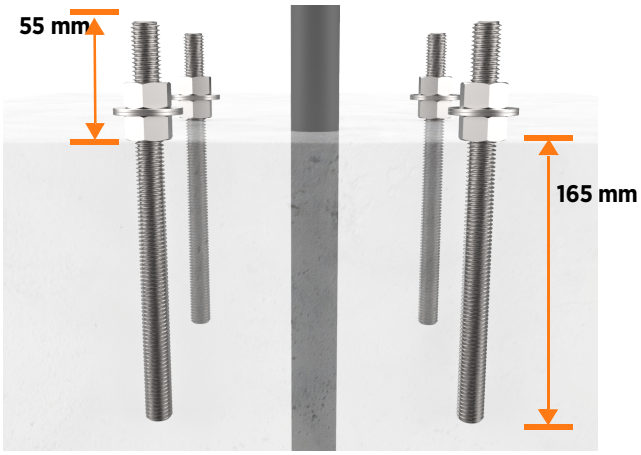
Note: If the original copy of the installation template is lost, a new one can be printed at: chargepoint.com/eu/guides. Ensure that the PDF version of the mounting template is accurate by printing at 100% scale on A3 paper and verifying at least one dimension.

Installation Instructions

1. Install two nuts with two washers captured between them. Lock them together so the lower end of the nut is located 165 mm from the bottom of the bolt. This sets the length of the exposed threads.
2. Use the Installation Template to mark the hole locations.



3. Remove the template and drill four 25-mm diameter holes 165 mm deep into the concrete. When locating the template, consider the station's total footprint. For reference, a template is included in the Concrete Mounting kit.
    - Bolts must be parallel after installation. Therefore, ensure that drill holes are plumb by using a bubble level to check the angle of the drill after drilling 25 – 30 mm.
    - If installing over existing buried conduit, position the centre of the template around the conduit stub-up.



    - You may need two drill bits: one for the concrete (with the pilot); and another for the rebar (without the pilot). Always start the hole using the standard drill bit, then switch to the rebar drill bit only if drilling through rebar.
4. Remove all dust from inside the drilled holes using compressed air, a vacuum and/or a brush.
5. If the concrete slab is only 200 mm deep, insert a plug in each hole to keep the epoxy in place until it hardens. Place the plug over the long end of a bolt and use the bolt to push the plug to the bottom of the hole.
6. Fill each hole with epoxy to about 65 – 75 mm below the top. Continue immediately to the next step because the epoxy sets within about eight minutes.
7. Inserting the threaded bolts displaces the epoxy, causing it to fill the holes to grade level. If the epoxy is below grade level, you can add more after the next step.
8. Place the Installation Template over the holes. This ensures the relative position of the bolts and that the flange of the pedestal fits over the bolts.
9. Insert the bolts through the template into the holes. Rotate the bolts as you insert them to draw epoxy into the threads.

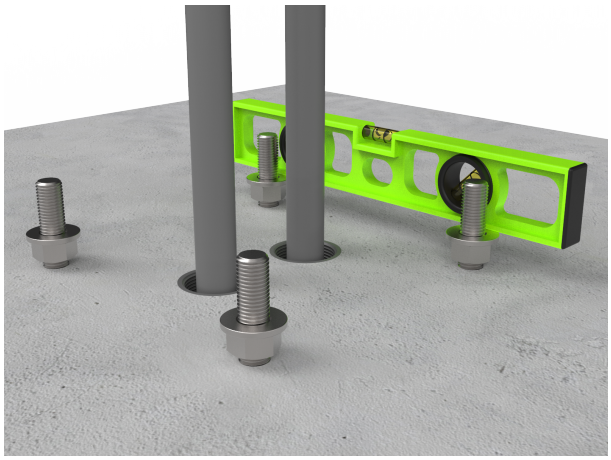
Important: Rotating the bolts while inserting them allows the epoxy to fully coat the threads of the bolts, reducing the amount of trapped air.

10. If needed, top up the holes with epoxy to grade level.
11. Allow the epoxy to cure according to manufacturer's instructions before proceeding.

Complete After Concrete Cures

1. When the epoxy is fully cured, remove the upper nut and the washer.
2. Adjust the remaining nuts and washers until about 35 mm of bolt is exposed above each washer.
3. Use a spirit level and adjust the height of the nuts as required to ensure that the four washers are completely level with each other.

You are now ready to install the CPF32 pedestal mount charging station.



Warranty Information and Disclaimer

The Warranty you received with your Charging Station is subject to certain exceptions and exclusions. For example, your use 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 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 BUT NOT LIMITED TO 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 WILL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITED REMEDY.

Declaration of Conformity

Category/Directive	Standard	Scope
General Safety Requirments Directive 2001/95/EC Low Voltage Directive 2014/35/EU	IEC61851-1, (2nd ed.)	Electric vehicle conductive charging systems, general requirements
Electromagnetic Compatibility (EMC) Directive 2014/30/EU	EN 301 489-1 EN 301 489-3 EN 301 489-52	EMC for standard radio and service EMC for short range radio EMC for mobile device
Radio Equipment Directive (RED) 2014/53/EU	EN 300 330 v2.1.1 EN 301 893 v2.0.7 EN 300 328 v2.1.1	RF testing for WiFi and BT RF testing for RFID
RoHS Directive 2011/65/EU	EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:

- General Safety Requirments Directive 2001/95/EC
- Low Voltage Directive (LVD) 2014/35/EU
- Electromagnetic Compatibility (EMC) 2014/30/EU
- Radio Equipment Directive (RED) 2014/53/EU
- Restriction of the use of certain hazardous substances in electrical and electronic equipment, 2011/65/EU

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