

ChargePoint Home Flex Series

Networked Charging Station

Operation and Maintenance Guide



IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS



WARNING: This manual contains important instructions for Home Flex. When using electric products, always follow basic precautions, including the following:



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 electric shock. The charging station must be connected to an earthed, metal, permanent wiring system or an equipment earth conductor shall be run with circuit conductors and connected to the equipment earth 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 Class 1 hazardous locations, such as near flammable, explosive or combustible vapours or gases.**
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 any cable is frayed, has broken insulation, or shows any other signs of damage.** Call ChargePoint Support immediately at 1.888.758.4389 (24 hours).
9. **Do not use this product if the enclosure or the EV connector is broken, cracked, open, or shows any other signs of damage.** Call ChargePoint Support immediately at 1.888.758.4389 (24 hours).
10. **Use 90°C wire copper conductors only.**
11. **Applicable only to NA - Do not operate the charging station in temperatures outside its operating range.** For charging stations set to 16–48 A, the range is -40°F to 122°F (-40°C to 50°C). For charging stations set to 50 A, the range is -40°F to 113°F (-40°C to 45°C).



12. **Other than the charging cable, Home Flex contains no field serviceable parts.** Do not attempt to repair or service any other part of the unit yourself. If the unit requires servicing, contact ChargePoint, Inc.
13. **Ensure the charging cable is positioned so it is not stepped on, tripped over, or subjected to damage or stress.** Do not close a garage door on the charging cable.

Product Disposal

ChargePoint Home Flex is electronic and therefore may not be disposed of as part of unsorted domestic waste. 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 Product Reference Documentation](#).

Copyright and Trademarks

©2013-2025 ChargePoint, Inc. All rights reserved. This material is protected by the copyright laws of the United States and other countries. It may not be modified, reproduced, or distributed without the prior, express written consent of ChargePoint, Inc. ChargePoint and the ChargePoint logo are trademarks of ChargePoint, Inc., registered in the United States and other countries, and cannot be used without the prior written consent of ChargePoint.

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



NOTE: Helpful information to facilitate 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	i
Revision History	vi
1 Basic Operation	1
ChargePoint Flex Series Charging Stations	2
Connectors and Cables	2
Power the System On and Off	2
Check Station Status	3
Charge a Vehicle	4
Reset, Remove or Deactivate a Station	5
2 Maintenance	6
Site Manager's Responsibilities	6
Preventive Maintenance	6
3 ChargePoint Platform	8
Charging Schedule	8
4 Troubleshooting	12
5 Technical Information	15
Mechanical Characteristics	15
Electrical Characteristics	17
European Standards	20
Flex Series Labels	21
A Conformity—Metering and calibration law (Eichrecht)	24
Electric metering data	24
Obligations and Notifications	24
AFIR Requirements	24
Charging Data Record	25
Flex Series Station Display	26
Eichrecht Parameter List	36
Verify Signed Charge Data Records	36
Measurement Dataset	37
Time and Clock	37
Charging Station Logic	37

Charging Session Invoices / Receipts	37
RFID	39
Identifier	40
Download Transparency Software	41
Test Instructions for Eichrecht Tests in Field Devices	42
B EV Ready	48
Overload Protection	48
Welding Detection	49
C UK Specific Information	51

Revision History

This page provides a summary of revisions made, listing the month and year of each update along with a brief description of the changes made.

Month & Year	Version Number	Description
November, 2025	v1	Removed installation and DMS-specific details from Chapter 3 <u>ChargePoint Platform</u> . Updated short-circuit and label details in Chapter 5 <u>Technical Details</u> . Revised tamper-proof label details and move to Appendix A <u>Conformity (Eichrecht)</u> .

Basic Operation 1

ChargePoint Flex Series stations, also referred to as CP800, are AC charging units that can supply up to 22 kW (three-phase) or 7.4 kW (single-phase) of power to electric vehicles, depending on the specific model. These stations feature metering compliant with calibration law and backend connectivity via OCPP 2.0.1. They can be used in private areas as home chargers and in semi-public areas with billing based on energy consumption.

This manual includes the following:

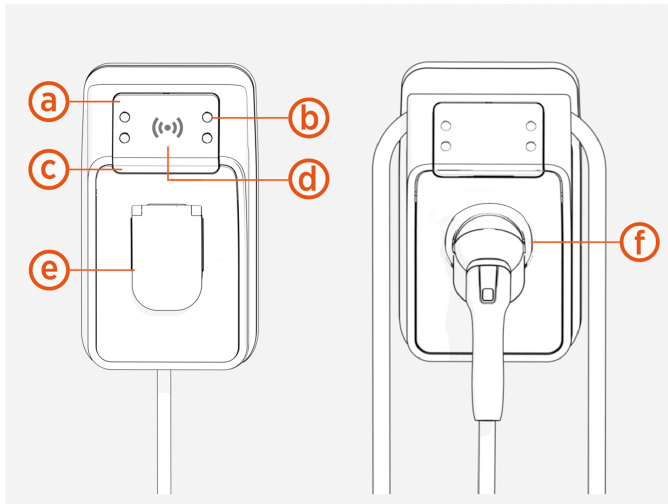
- Detailed explanations and technical specifications of ChargePoint Flex Pro stations
- Instructions for setting up charging stations for home use
- Information about how to use Flex Series charging stations and the online ChargePoint Driver Dashboard
- Guidance for the maintenance of the charging station
- Explanations for how to view monthly statements and verify the accuracy of the recorded measurements for charging activity.
- Insights on some regional requirements (such as in the United Kingdom and Germany)

Installation instructions are included in a separate document called *Installation Guide*. All public ChargePoint documents, including this manual, are available at [ChargePoint Product Reference Documentation](#).



NOTE: The ChargePoint Flex Series charging station is designed to be used by people without specialised training.

ChargePoint Flex Series Charging Stations



- (a) Display
- (b) Touch buttons
- (c) Status LEDs
- (d) RFID – card reader
- (e) Type 2 socket
- (f) Type 2 holster

Connectors and Cables

ChargePoint Flex Series stations are available with Type 2 socket and shuttered socket outlets.



NOTE: EV connector adapters are not compatible. Charging cables are available in 5 and 7.5 m lengths.

Power the System On and Off

The charging station does not have a separate power switch. Use the upstream breaker in the consumer unit to power the charging station on or off.








When the breaker is powered on after the station is first installed, or when powered up after servicing or a power outage, the station runs a self-diagnostic to ensure safe and correct operation. This includes:






- Electrical safety checks
- Component operation checks
- Network connectivity checks

Check Station Status

When the station is powered on and activated, the status light **(a)** on the front of the station displays status via light colour and pulsing.



Status Light Colour		Operating definitions
	Light blue	Vehicle plugged in, waiting for power release (for example, due to energy management)
	Blue, pulsing	Charging a vehicle
	Blue, solid	Charging complete, charging stopped, or charging suspended
	Green, pulsing	Card authorisation
	Green	Available and ready to charge
	Orange, solid	Online, waiting for a reservation
	Orange, pulsing	Card authorisation time

Status Light Colour		Operating definitions
	Red	Out-of-service or disabled
	Yellow, pulsing	Installing software or rejecting card (flash yellow for 3 seconds) also occurs during first boot-up when the station is not activated.
	White, pulsing	Installing software or running a self-test
	White	Offline or unavailable
	Purple	Account has not been authenticated, return holster to station

For assistance, go to chargepoint.com/support and contact technical support using the appropriate region-specific number.



NOTE: ChargePoint Flex Series charging stations support authentication via RFID card and tap-to-charge.

Charge a Vehicle

Complete the following steps to charge a vehicle at a public ChargePoint station:

1. Authenticate at the charging station.
 - a. With RFID card: Hold your RFID card or mobile phone with a virtual RFID card (Tap-to- Charge) next to the RFID card reader symbol on the charging station.
 - b. Without a card, using your smartphone app: Tap on the Flex Series charging station you want to activate, just like with other charging points on the map.

The availability of the charging station appears at the bottom of the display. Tap the name of the charging station, then tap **Start Charging** on the next screen.

Press **Start** to confirm.

2. The Flex Series display indicates that charging has been authorised. This unlocks the cable or socket. Connect your electric vehicle.
 - a. At a station with fixed cables: Take any available cable from the holder and plug it into your vehicle's Type 2 socket.
 - b. At a station with a Type 2 socket: Use a standard Type 2 cable to connect the station to your vehicle. You can plug the cable ends into the station and the vehicle in either order.



IMPORTANT: To prevent overheating when using Flex Series charging stations, make sure the charging cable is fully uncoiled.

3. Check your vehicle's display (often found on the dashboard) to make sure it is charging.
4. End the charging session.
 - a. At the station: After charging, hold the identification method you used at the beginning (RFID card or smartphone) up to the RFID symbol on the station.
 - b. Via the app: Tap on the charging point your vehicle is connected to, then tap the **Stop Charging** button.
 - c. From the vehicle: Depending on the vehicle, you may also be able to stop the charging session directly from the vehicle.
5. Return the cable to the holder or remove your own cable. If either end of the socket is not released, try ending the session again, or contact ChargePoint Support at chargepoint.com/support.

Reset, Remove or Deactivate a Station

Complete the following steps to reset the station and remove it from the driver's ChargePoint account.

1. Log in to the ChargePoint app and click **Home**.
2. Select **Settings**.
3. Click **Remove from Account**.



IMPORTANT: To install or activate the station, contact a certified installation expert. They will use the ChargePoint Installer app to configure the station or complete the activation.

Maintenance 2

ChargePoint charging stations need preventive maintenance. ChargePoint's network connection monitors stations for system health and sends alerts when corrective maintenance might be required.

Maintenance can be performed by ChargePoint technicians for an additional fee; otherwise, the customer can send their own technicians for training to become approved by ChargePoint to perform the work. For more information on becoming a ChargePoint-approved installer or service technician, see: chargepoint.com/installers.

Site Manager's Responsibilities

The site or facility manager or the station owner where the ChargePoint charging station is installed has the following for general site maintenance:

- Check each station monthly for damage. If the station appears damaged, navigate to chargepoint.com/support and contact technical support using the appropriate region-specific number.
- Check each charging cable monthly for any signs of wear or damage. If a cable appears damaged, navigate to chargepoint.com/support and contact technical support using the appropriate region-specific number.



CAUTION: Do not pressure wash the charging station. Pressurised water can damage the system. Use a damp cloth to clean the charging station.

Preventive Maintenance



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-energise the applicable circuit and lock out/tag out the upstream breaker before proceeding. Use a multimeter and check that the power is off. Keep the 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.

Perform these recommended service checks at the intervals listed below.

Yearly Maintenance

Perform the following maintenance every year:

- Test the upstream RCCB or RCBO breaker. Every CP800 includes an upstream RCCB or RCBO for shock protection. These devices include a test button. Ensure no vehicle is charging and then go to the upstream cabinet and force the tripping function by pressing the 'test' button located in front of the device.
- Use a damp, lint-free cloth to wipe down the exterior surfaces, including the cables, outer surfaces of the connector (plug at end of cable) and display.
- Inspect the exterior for any signs of damage. If you find any, navigate to chargepoint.com/support and contact technical support using the appropriate region-specific number.
- Inspect exterior vinyl signs for marks or fading. Contact ChargePoint for replacement signs, if needed.
- Inspect charging cables:
 - Check the charging cables and connectors for any sign of damage. If you find any damage, power the station off, advise the site manager to keep it off and contact ChargePoint.
- Check the meter display:
 - Check the meter display on the top left side of the charging station. The meter displays the following messages every 10 seconds. **POS, XXXX kWh, NEG, XXXX kWh, LRS, yyyy.**
 - If the display does not show anything, navigate to chargepoint.com/support and contact technical support using the appropriate region-specific number.
- Check the status light bar (a). If the light bar is not functioning, or you find other issues, navigate to chargepoint.com/support and contact technical support using the appropriate region-specific number.



For information about what the status light colours indicate, visit [Light Status](#).

For assistance, go to chargepoint.com/support and contact technical support using the appropriate region-specific number.

ChargePoint Platform 3

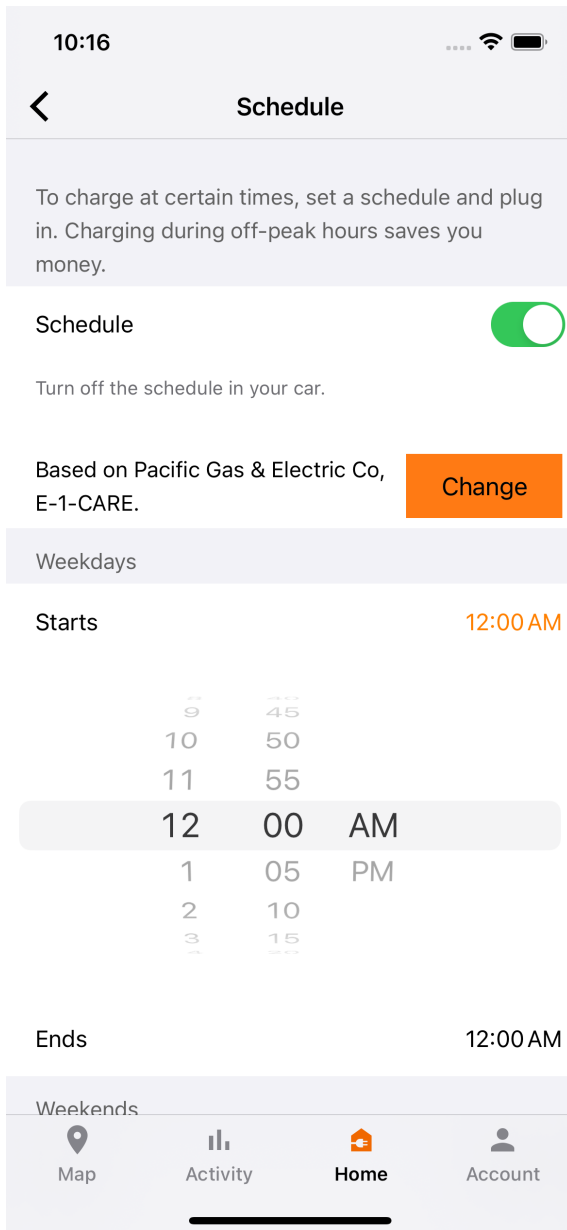
Access data and diagnostics, create reports, and manage many features of charging stations in the ChargePoint Platform Dashboard. This applies to all Flex Series stations (non-Eichrecht-compliant and Eichrecht-compliant). This section describes how to find reporting and diagnostic information about your charging stations.

To explore all the features, log in to the ChargePoint dashboard: eu.chargepoint.com using the login credentials created when setting up the station network manager account.

Charging Schedule

You can configure the Flex Series charging station to charge at different hours to optimise power consumption times using the ChargePoint app.

1. Open the ChargePoint app and click **Home**.
2. Click **Schedule**.



3. Enter start and end times.

Your charging station charges during the hours indicated. To withdraw from the charging schedule, slide the Schedule button to **Off**.

Charging Limit Current

Complete the following steps to set the amount of charging power being delivered to your vehicle.



1. Open the ChargePoint app and click **Home**.
2. Click **Charge Current Limit**.


3. Select the desired charge limit.




NOTE: The maximum amount of energy will be limited to 32A by design. Other limitations, such as upstream breaker capacity, backplate configuration, upstream energy consumption, request from EV, or maximum current limited through the ChargePoint app, might apply.

10:18

****  

 Charge Current Limit

Choose the charge current



Charge current limited to 80% of the breaker amperage or the charger's maximum rated output.
[Learn More](#)

Charge Current:


9A


10A


11A


12A

Save

 Map

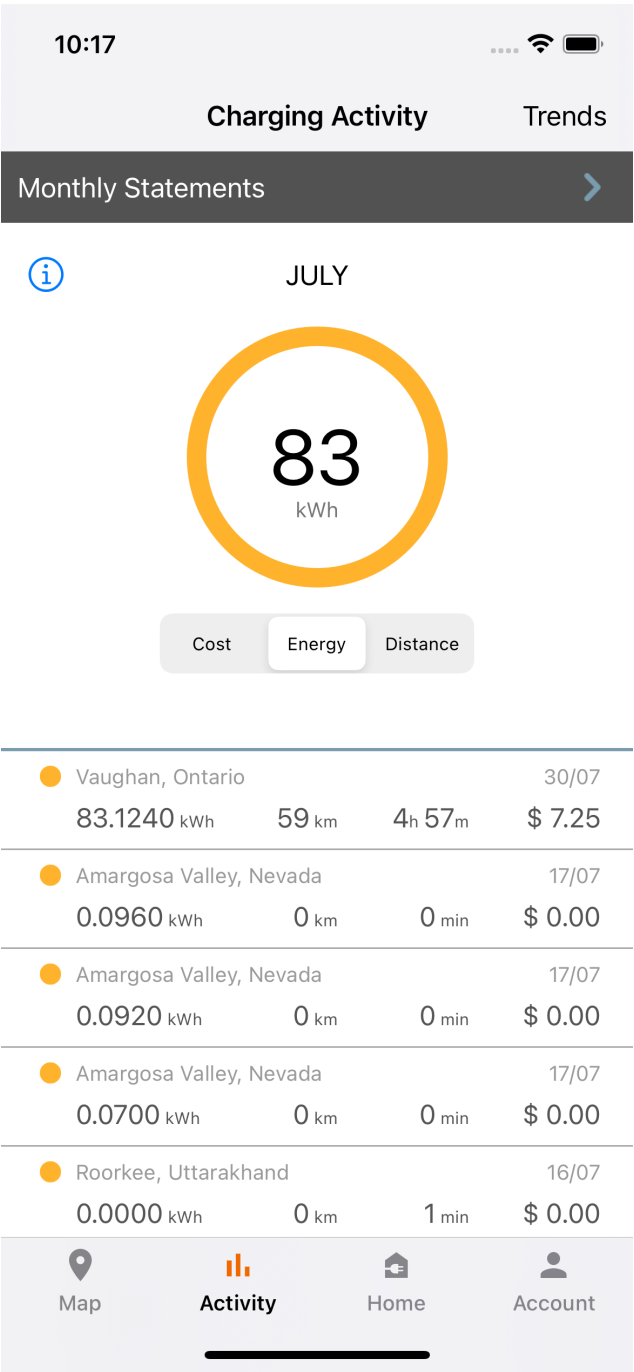
 Activity

 Home

 Account

Generate a Report

- 1. Open the ChargePoint app and click **Activity**.
- 2. Select **Monthly Statements**.



Troubleshooting 4

With any persisting error, customer or installer should contact ChargePoint Support at chargepoint.com/support.

Fault ID	Severity	Description	Host Message
urn:fault:koala:input- overvoltage	Major	ADC Voltage too high	Call support if problem persists
urn:fault:koala:input- undervoltage	Major	ADC Voltage very low	Call support if problem persists
urn:fault:koala:unable- provide-ventilation	Major	Charger does not support ventilation	Ventilation is not supported by this charger. Call support if problem persists.
urn:fault:koala:acs-hardware- error	Critical	Charging is stopped due to missing or non-functional hardware	See station diagnostics for more information
urn:fault:koala:acb-self-test- fail	Critical	Charging is stopped due to ACB self-test fail	See station diagnostics for more information
urn:fault:koala:acb-firmware- failed	Critical	Charging is stopped due to ACB-firmware failed	See station diagnostics for more information
urn:fault:koala:acb-over- temp	Minor	A Critical component exceeded the maximum allowed temperature	ACB over-temp. Call support if problem persists.
urn:fault:koala:acb-temp- sensor-error	Minor	Temperature sensor error	ACB temp sensor error. Call support if problem persists.
urn:fault:koala:acm-temp- sensor-error	Minor	ACM Temperature sensor error	ACM temp sensor error. Call support if problem persists.
urn:fault:koala:acm-over- temp	Minor	A Critical component exceeded the maximum allowed temperature	ACM over-temp. Call support if problem persists.
urn:fault:koala:cpcm-over- temp	Minor	A Critical component exceeded the maximum allowed temperature	CPCM over-temp. Call support if problem persists.
urn:fault:koala:bkplt-over- temp	Minor	Backplate input terminals are over temp	Backplate over-temp. Call support if problem persists.
urn:fault:koala:can-bus-error	Minor	Unable to communicate with Meter	CAN bus error. Call

Fault ID	Severity	Description	Host Message
		via CAN	support if problem persists.
urn:fault:koala:pilot-fault	Major	The CCS control pilot voltage is out of the expected range, possibly indicating the EV's control pilot diode has failed	Pilot fault. Call support if problem persists.
urn:fault:koala:eichrecht-meter-mismatch	Critical	This will happen if dev-pair see ACM UUID mismatch the info in seal.json.	Failed in Station Identity Verification. Please call support.
urn:fault:koala:frontplate-tamper-detect	Major	Frontplate tamper has been detected	Frontplate tamper detect. Call support if problem persists.
urn:fault:koala:backplate-tamper-detect	Major	Backplate tamper has been detected	Backplate tamper detect. Call support if problem persists.
urn:fault:koala:signature-verification-failed	Critical	Eichrecht meter data signature verification failure.	Unable to verify meter data signature
urn:fault:koala:ac-over-current	Major	Input AC over-current detected	AC power fault. Please call support.
urn:fault:koala:ac-over-current-soft	Minor	Input AC over-current detected	AC over-current recoverable fault.
urn:fault:koala:circuit-distribution-error	Minor	Current distribution among circuits unbalanced beyond limit	Circuit distribution error. Call support if problem persists.
urn:fault:koala:acs-comms-fault	Major	Loss of communication between CPCM and ACS	ACS comms fault. Call support if problem persists.
urn:fault:koala:wiredcomss-update-failed	Major	Charging is stopped due to wiredcomss update failed	See station diagnostics for more information
urn:fault:koala:acm-comms-loss	Critical	Communication to ACM Lost	ACM connectivity Lost. Call Customer Support
urn:fault:koala:lcd-comms-loss	Critical	Communication to LCD Lost	LCD connectivity Lost. Call Customer Support
urn:fault:koala:acm-firmware-failed	Critical	Charging is stopped due to ACM firmware failed	See station diagnostics for more information
urn:fault:koala:diff-coil-fault	Major	Diff coil fault detected	Diff coil fault detected. Call support if problem persists.
urn:fault:koala:dc-ground-fault	Major	DC ground fault detected	DC ground fault has occurred, opening relays. Fault will clear in 10 seconds
urn:fault:koala:chassis-required-devices-not-found	Critical	Chassis server has not started yet as the minimum required devices are not ready	Contact customer support.
urn:fault:koala:dc-ground-fault-nonrecoverable	Major	DC ground fault detected	Non-recoverable DC ground fault has occurred. Plug out EV

Fault ID	Severity	Description	Host Message
			to reset.
urn:fault:koala:cable-cut-detected	Critical	Cable cut detected	Charge cable cut detected. Call support.
urn:fault:koala:invalid-cable-detected	Major	An unsafe condition (e.g. non-functional cable) does not allow to charge	Charging will not work with bad cable.
urn:fault:koala:smart-meter-comms-loss	Major	SmartMeter communication loss	SmartMeter comms loss. Call support.
urn:fault:koala:smart-meter-overload	Major	SmartMeter Overloaded	SmartMeter Overloaded.
urn:fault:koala:enwg-grid-suspend	Major	EnWG charging suspend initiated by grid operator	AC Grid Operator suspend initiated.

Technical Information 5

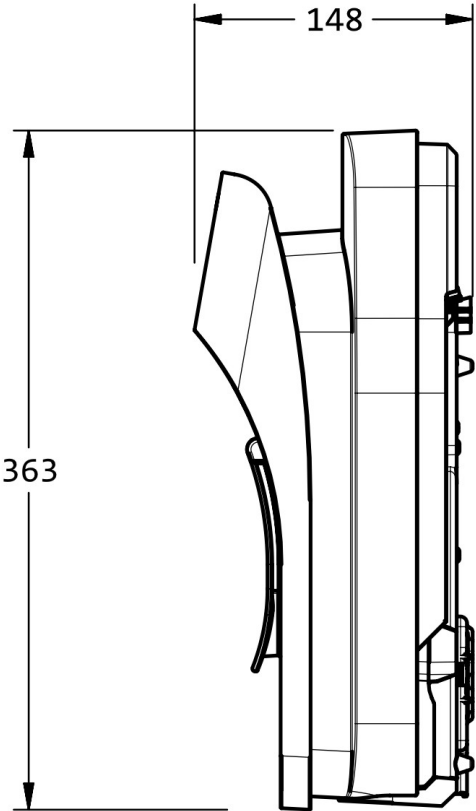
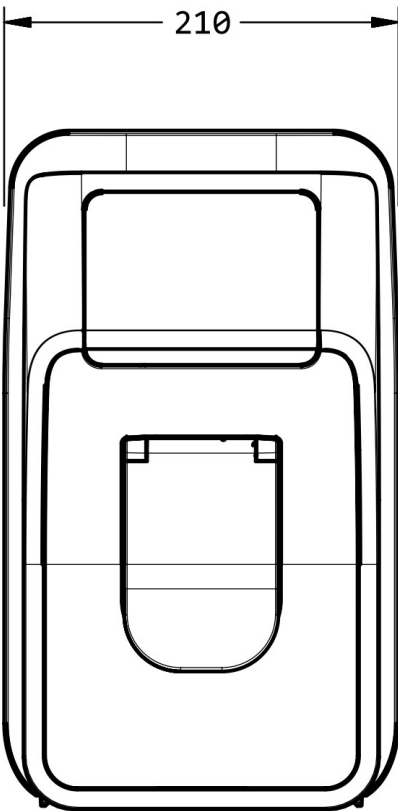
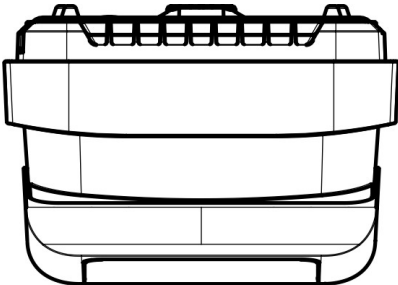
Mechanical Characteristics

Mechanical Characteristics	Values
Temperature range	-25 to 50°C
Protection degree	IP56
Impact protection degree (IK)	IK10
Dimensions (WxDxH)	21 x 15 x 36 cm
Enclosure materials	Dye cast aluminium and polycarbonate
Weight	Up to 10 kg (including 5 and 7.5 m cables)
Pollution degree	PD3

Charging Station Dimensions



NOTE: Images are not to scale. Measurements appear in metric units (mm) followed by imperial equivalents (inches).



Electrical Characteristics

ChargePoint Flex Series stations (also known as CP800) are alternating current (AC) charging stations, capable of delivering up to 22 kW (three phase) or 7.4 kW (one phase) of power to an electric vehicle (EV).

ChargePoint Flex Series charging stations include overcurrent protection which disconnects the outlet if the current is more than or equal to 1.25 times the maximum current set.



NOTE: The maximum wiring size permitted for single input is 25 mm². Check local regulations.



IMPORTANT: ChargePoint Flex Series charging stations do not include breakers. A breaker needs to be included upstream.

For the upstream protection breaker, ChargePoint recommends using Curve B or C Miniature Circuit Breakers (MCB) and must be rated as follows:

- 20 A for a 16 A single- or three-phase charging station
- 25 A for a 20 A single- or three-phase charging station
- 32 A for a 25 A single- or three-phase charging station
- 40 A for a 32 A single- or three-phase charging station



IMPORTANT: MCBs have a minimum short-circuit capacity of 6 kA.



NOTE: The MCB must open all live conductors (including Neutral).

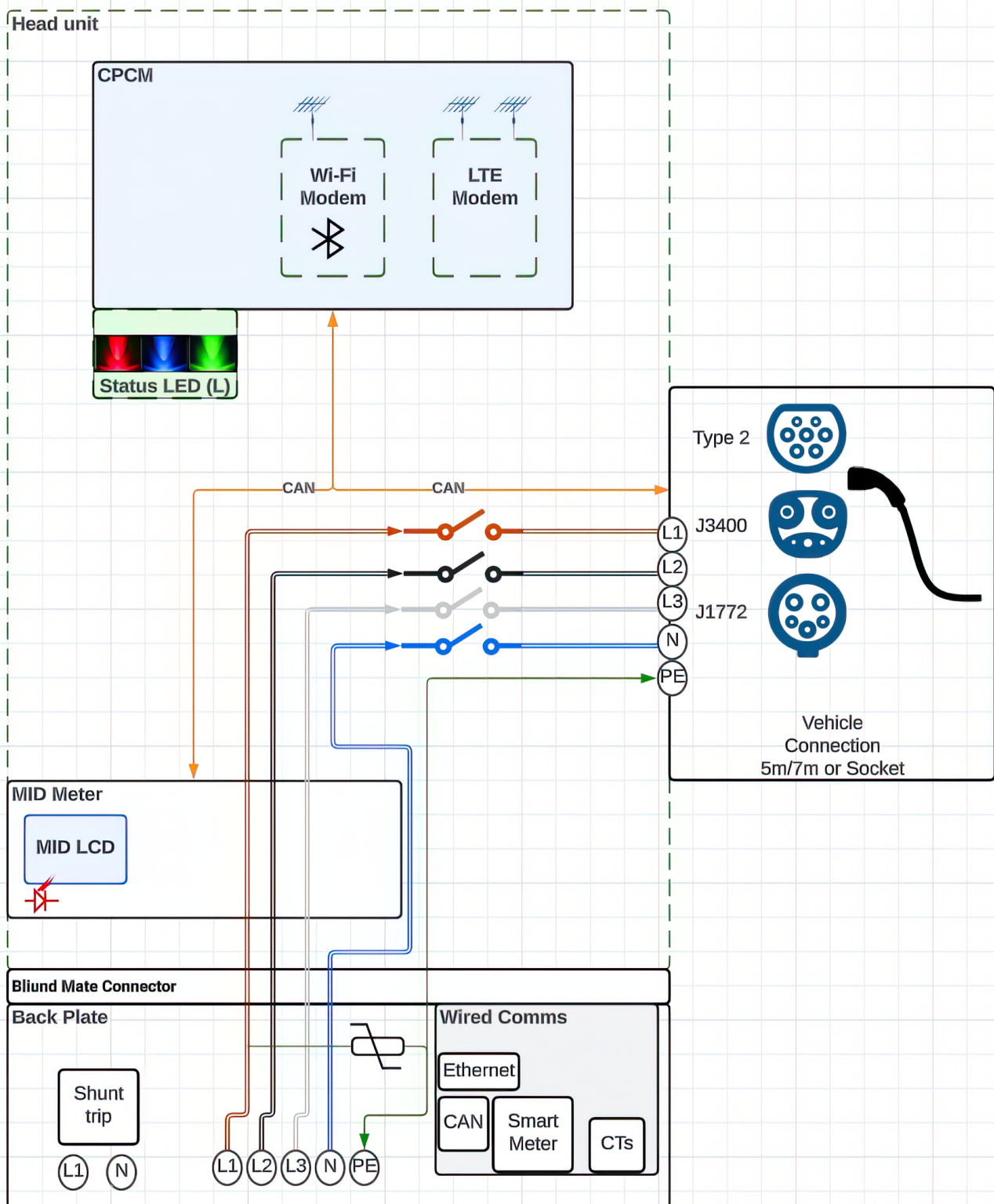
Feature	Description
Input voltage	~230/400 VAC 3ph + N + PE
Protective class	Class 1. Protective earth + supplementary isolation device installed upstream is compulsory.
Rated Impulse Voltage (Uimp)	4 kV
Rated Insulation Voltage	1.5 kV for 1 min
Input/output current	Maximum 32 Amps, reduction can be applied.
Rated power	Maximum 22 kW (3 phase) or 7.4 kW (1 phase) per output. Power de-rating can apply.
Mode of charging	Mode 3
Type EV connection	Case B, Case C according to IEC 61851-1:2017
Type of connector	Type 2 EV connector according to IEC 62196-2 Type 2-S socket outlet according to IEC 62196-2

Feature	Description
	Type 2 socket outlet according to IEC 62196-2 Adapters between different EV connectors are not recommended.
Supported Grid connections	TT, TN-S, TN-C-S and IT.
Residual Current Device (RCD, RCCB or RCBO)	Not included, must be provided in the installation. Type A, 40 Amps, 4 pole for 3ph, 2pole for 1ph.
Dc sensor leakage ($I_n > 6 \text{ mA DC}$)	Embedded
Overload protection (1,25 times I_n)	Embedded
Surge Protection Devices (optional)	These components are not supplied with the charger. If determined necessary during the site assessment, it must be installed as part of the installation process. Refer to the Surge Protective Devices section for more information.
Welded switching device detection	Embedded
Short-circuit protection RCBO or MCB	Not included, must be provided in the installation.
Short-circuit capacity	Withstands up to 223 A for 5 seconds and up to 5000 A for 10 milliseconds.
Metering Device	MID meter included, accuracy Class B.
Locking system for Case B	Included.
Phase balancing (optional)	Some charging stations can switch and change the line configuration for phase balancing. Order L1, L2, L3 and N can be changed to L1, L3, L2 and N with internal switching devices.
Ventilation function (State D)	Not permitted. The CP800 will stop charging if ventilation is requested from the Electric Vehicle.
Communication port (optional)	Ethernet
Electromagnetic compatibility	Class B

Wiring Diagram

The following diagram represents a simplified description of the wiring configuration of a ChargePoint Flex Series charging station.

At least L1, N and PE shall be connected to the main terminals of the charger. This is applicable for both 1ph and 3ph charger configurations.



European Standards

Flex Pro charging stations comply with the following standards:

Standards
EN 50470-1:2006+A1:2018
EN 50470-3:2006+A1:2018 / EN 50470-3:2022
IEC 62052-11:2003
IEC 62053-21:2003
WELMEC 7.2:2019
REA-Dokument 6-A:2017
PTB-A 50.7:2002
IEC 62052-11
IEC 62052-31
IEC 61851-2017
IEC 61851-21-2:2018
IEC 61439-7:20
IEC 62955 (applicable clauses to 6 mA DC detection only)
EN 63000:2018
ETSI EN 300 328 V2.2.2
ETSI EN 301 893 V2.1.1
ETSI EN 300 440 V2.2.1
ETIS EN 300 330-2 V1.5.1
EN 62311
ETSI EN 301 489-1 V2.2.3
ETSI EN 301 489-3 V2.3.2
ETSI EN 301 489-17 V3.2.4
ETSI EN 301 489 -52 V1.2.1

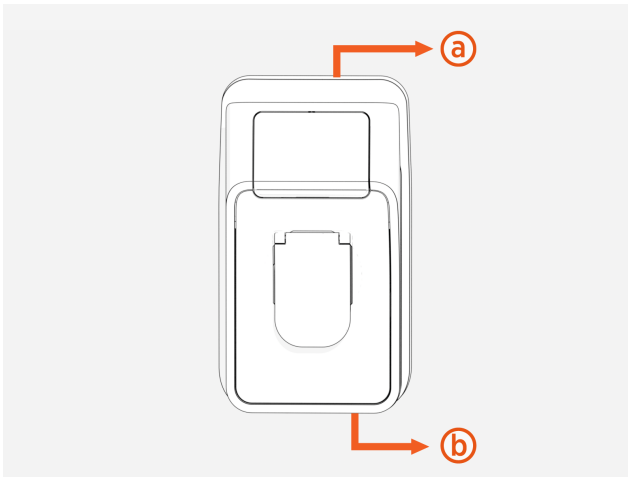
Flex Series Labels

Flex Series charging stations have main product, current and voltage, and tamper proof labels:

- The main product label **(a)** including Eichrecht information is on the top of the charger. This label includes manufacturer information, metering details, and serial number information.
- The current and voltage label **(b)** is on the bottom right corner of the charger.



NOTE: Tamper proof labels are applied by the manufacturer and are described below.



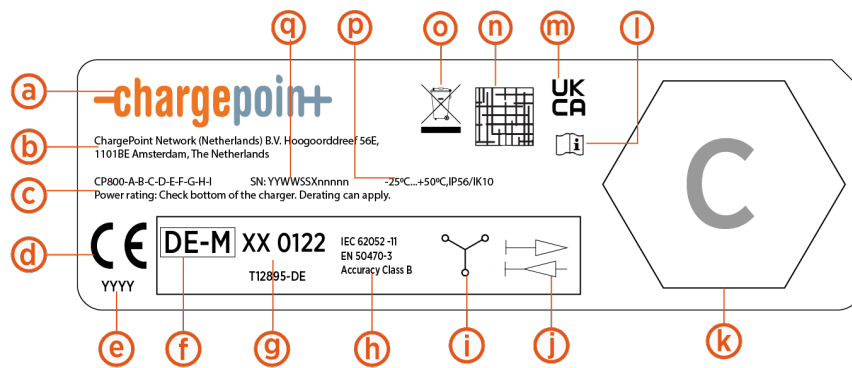
Serial Number Location

To find the serial number of a Flex Series charging station, start the ChargePoint app. Complete the following steps from the ChargePoint Cloud Dashboard 1.

1. Log in to ChargePoint and select **Stations**.
2. Find the MAC address and serial number (System S/N) next to the station name in the Stations Overview table.

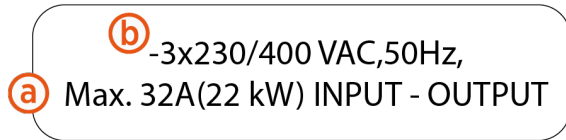
Or check your product label, as shown in the following section.

Product Label



- (a)** Manufacturer logo
- (b)** Company address
- (c)** Product type designation
- (d)** CE marking
- (e)** Year of manufacture
- (f)** Eichrecht metrology marking
- (g)** Year of manufacture, notify body number and certificate number
- (h)** Accuracy class of the charging station
- (i)** 3 phase or 1 phase symbol
- (j)** Bi-directional metering function symbol
- (k)** EN 17186 Identifier
- (l)** Icon, documentation. Check manual for more information.
- (m)** UKCA marking
- (n)** QR code with serial number
- (o)** WEEE symbol. Do not bin this product.
- (p)** Temperature rating / IP rating
- (q)** Serial number

Current and Voltage Label



(a) Input and output voltage.

(b) Maximum current (and power). Power de-rating can be applied by software.

Conformity—Metering and calibration law (Eichrecht) A

Electric metering data

This Flex Series electric vehicle charging system conforms with German regulations regarding metering and calibration (MessEG, MessEV).

Hardware and software are certified according to the type examination process (Module B and Module D). The Legally Relevant Software (LRS) versions, along with their checksums, are found in the type examination certificate. The checksum of the software installed on the charger can be retrieved from the **Info** menu. The certificate can be provided under request to ChargePoint.

The LRS version of the charging station is also included in each digitally signed data set for a charging session (OCMF).

Obligations and Notifications

The operator of the charging device is the user of the measuring device within the meaning of Section 31 of the German Measurement and Verification Act (Mess- und Eichgesetz).

The owner of this product must ensure that the calibration validity period for the components in the charging device and for the charging device itself is not exceeded.

In accordance with §32 Mess- und Eichgesetz (MessEG), the installation and use of a new or renewed measuring instrument must be notified to the competent authority no later than six weeks after commissioning the measuring instrument.

According to the Measurement and Calibration Ordinance – Mess EV – Section 34 and Annex 7, the calibration period of an Electric Vehicle Supply system is eight years. It is responsibility of every Calibration authority to perform the evaluation.

ChargePoint Operators (CPOs) must notify the relevant Calibration Authority within six weeks of commissioning a new or refurbished charging stations.

Click on this link for the contact point for the competent authority for each region within Germany: [German authorities](#).

AFIR Requirements

If the measuring instrument is located in a public area and accessible to the general public, use the following link to notify the Bundesnetzagentur (BNetzA): [BNetzA](#).

The ChargePoint operator must notify the BNetzA during the following time frames:

- No later than two weeks after the commissioning of the measuring device
- Immediately after the measuring instrument is decommissioned

Charging Data Record

The station stores the signed charging data record (CDR), the public key, and its metrological logbook locally and uploads it to the CPO backend.

1. When a charging session starts, the CDR is created and saved on the station by the legally relevant software. Upon completion of the charging session, this CDR is digitally signed by the legally relevant software and the data is transmitted to the CPO backend.
2. The CPO transmits the signed CDR to the e-mobility service provider (eMSP).
3. The eMSP makes the signed CDR available to the driver.
4. The driver downloads the signed CDR.
5. The driver can check the data by examination using the industry standard transparency software from the SAFE Initiative (www.safe-ev.de). The driver can also ask the Market Supervision office (Eichbehörde) to investigate the invoice.
6. The Market Supervision office requests the logbook and CDR from the CPO.
7. The CPO contacts ChargePoint for the logbooks
8. The Market Supervision office reviews the logbook and CDR. ChargePoint retrieves and gives logbook to CPO
9. CPO provides data to the Market Supervision office

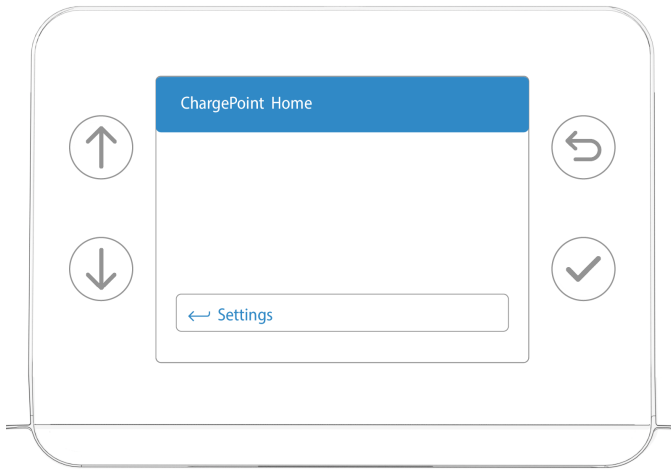


NOTE: The metrological logbook has a dedicated storage capacity of 512 MB. Assuming the typical legally relevant events the metrological logbook will have enough space for more than 8 years. It is periodically uploaded to the cloud for secure and long-term storage. Copies of the legally relevant logbook can be provided by ChargePoint upon request.

The logbook can be accessed on the charging station display via settings. Visit [Check the Logbook](#) for more information.

Flex Series Station Display

This section lists the display information that contains legally relevant data. Legally relevant data is always rendered on a white paper-like background and is easily identifiable from other non-legally relevant data items.

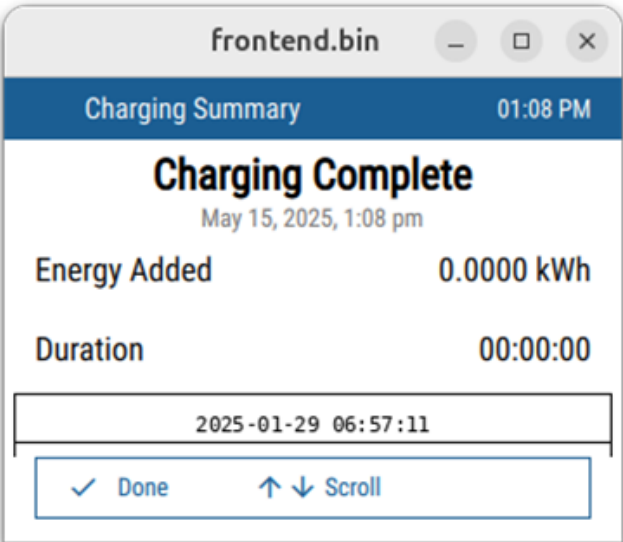
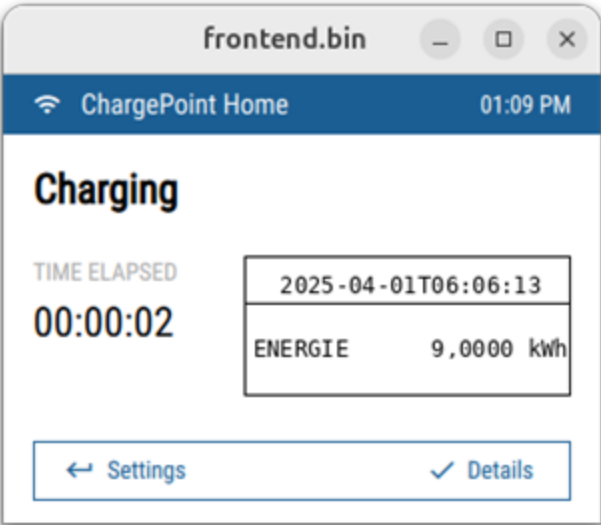


In the front area of the charger you will find 4 touch buttons. Use the up/down arrows to navigate through the menu.

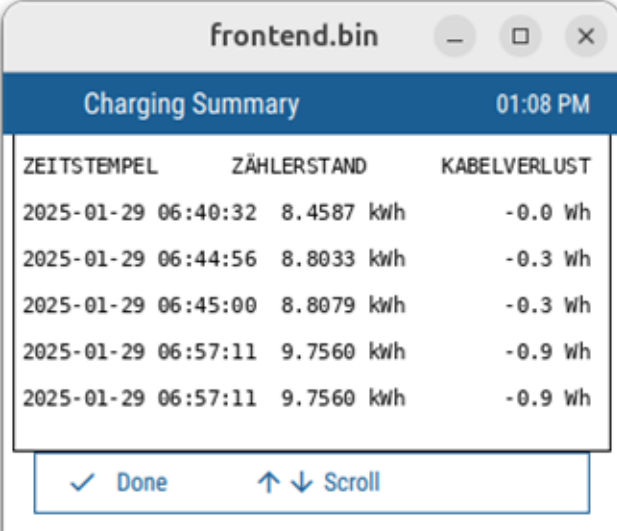
Press the curved arrow to access to the menu.

Display During the Charging Process

The electrical energy transferred to your vehicle can be monitored live on the display during an active charging process. All timestamps during and after the charging process appear in local time.



At the end of every charging session you can check the details of the energy transferred, the compensation factor for the cable losses (if any), and the time:



The screenshot shows a window titled 'frontend.bin' with standard window controls. Inside, a 'Charging Summary' window is displayed with a timestamp of '01:08 PM'. The summary is presented as a table with three columns: 'ZEITSTEMPEL' (Timestamp), 'ZÄHLERSTAND' (Meter Status), and 'KABELVERLUST' (Cable Loss). The table contains five rows of data. At the bottom of the window, there are two buttons: '✓ Done' and '↑ ↓ Scroll'.

ZEITSTEMPEL	ZÄHLERSTAND	KABELVERLUST
2025-01-29 06:40:32	8.4587 kWh	-0.0 Wh
2025-01-29 06:44:56	8.8033 kWh	-0.3 Wh
2025-01-29 06:45:00	8.8079 kWh	-0.3 Wh
2025-01-29 06:57:11	9.7560 kWh	-0.9 Wh
2025-01-29 06:57:11	9.7560 kWh	-0.9 Wh

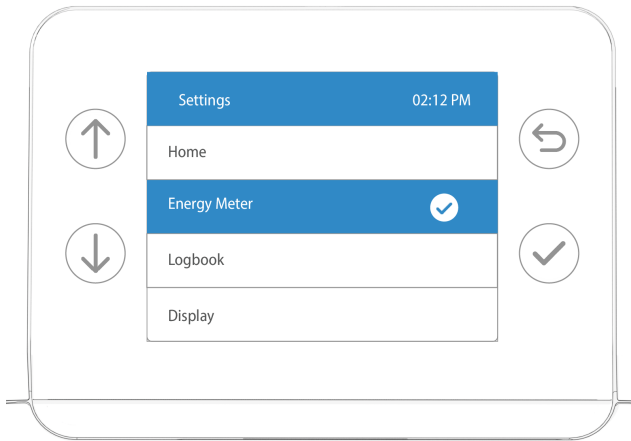
✓ Done ↑ ↓ Scroll

Once the charging session is completed, this information will not be displayed again.

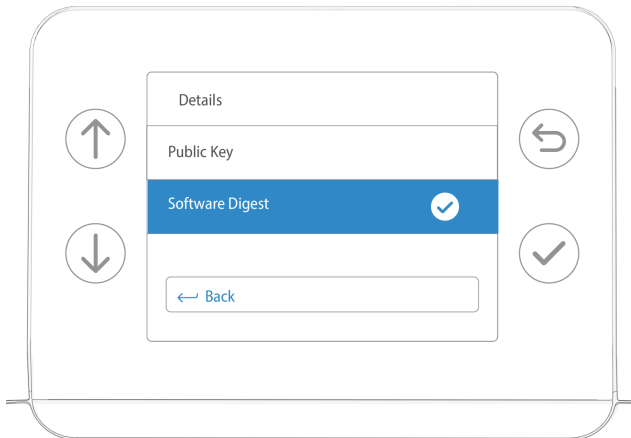
Software digest

Complete the following steps to obtain the legally relevant software version of the Flex Series charging station:

1. Log in to ChargePoint and click **Energy Meter**.



2. Use of the up/down arrows to navigate to **Software Digest**.



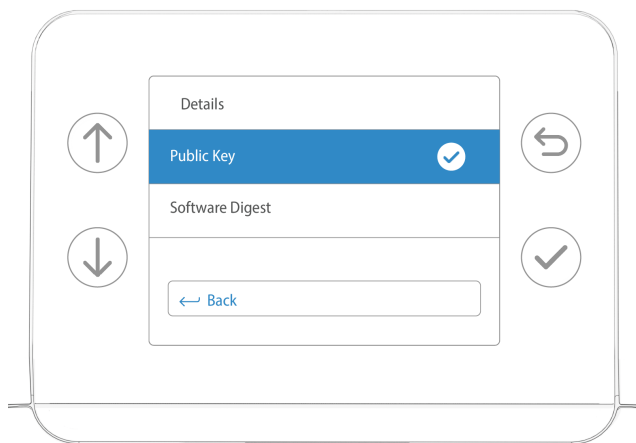
The following QR appears. Use your smartphone or a QR reader to see the full software digest version of the charging station.



Check the Public Key

Each charging station has a unique public key which appears as a QR code. Complete the steps below to view the public key.

1. Log in to [ChargePoint](#) and click **Energy Meter**.
2. Navigate to **Public Key**.



The following QR will be displayed. Use your smartphone or a QR reader you can see the full public key of the charging station.

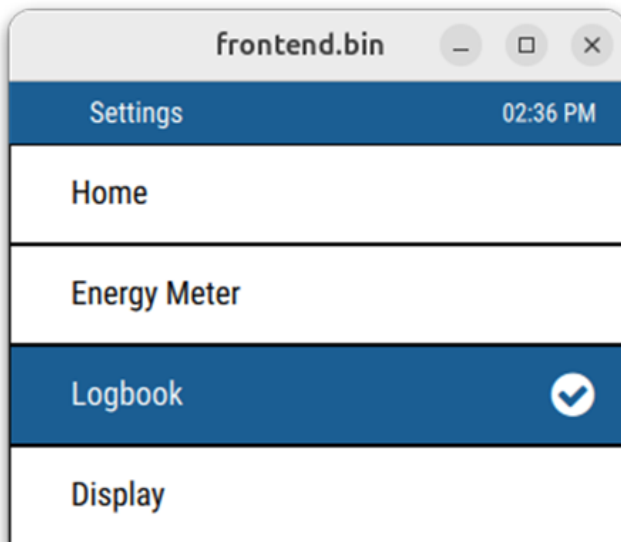


Check the Logbook

The metrological logbook records all events that could affect the accuracy of the measurement. This includes commissioning, parameter changes, and software updates on the station.

To view the logbook, complete the following steps.

1. Log in to [ChargePoint](#) and click **Logbook**.



2. Press the Up and Down arrows to navigate through the logbook pages.

The Eichrecht logbook displays entries with a timestamp in UTC format according to ISO 8601.

Entries on UDID and LRS hash are truncated in the UI of the Eichrecht logbook. Only the first 4 characters are displayed. The full UDID or LRS hash can be identified via the truncated.

frontend.bin				
ChargePoint Home 1/0				
#	ZEIT	DATUM	VERANSTALTUNG	METADATEN
1	2025-01-24	T09:53:58	EichrechtServiceStarted	
2	2025-01-24	T09:53:58	ClockUnsync	
3	2025-01-24	T09:54:03	MeterTestPassed	{"udid": "WFhYWFhYWF"}
4	2025-01-24	T09:55:20	ClockChanged	
← Settings ▾ Last ▴ First				

frontend.bin				
ChargePoint Home 2/2				
#	ZEIT	DATUM	VERANSTALTUNG	
26	2025-04-01	T06:06:13	FirmwareUpdateRequested	{"LRSHash": "09b265e1dc", "LRSVersion": "1.0.0"}
27	2025-04-01	T06:56:14	FirmwareDownloaded	{"LRSHash": "09b265e1dc", "LRSVersion": "1.0.0"}
28	2025-04-01	T06:56:52	FirmwareInstalled	LRSHash: 09b265e1dc, LRSVersion: 1.0.0
← Settings ▾ Prev ▴ First				

frontend.bin				
ChargePoint Home 2/2				
#	ZEIT	DATUM	VERANSTALTUNG	
26	2025-04-01	T06:06:13	FirmwareUpdateRequested	{"LRSHash": "09b265e1dc", "LRSVersion": "1.0.0"}
27	2025-04-01	T06:56:14	FirmwareDownloaded	{"LRSHash": "09b265e1dc", "LRSVersion": "1.0.0"}
28	2025-04-01	T06:56:52	FirmwareInstalled	LRSHash: 09b265e1dc, LRSVersion: 1.0.0
← Settings ▾ Prev ▴ First				

Possible logbook entries

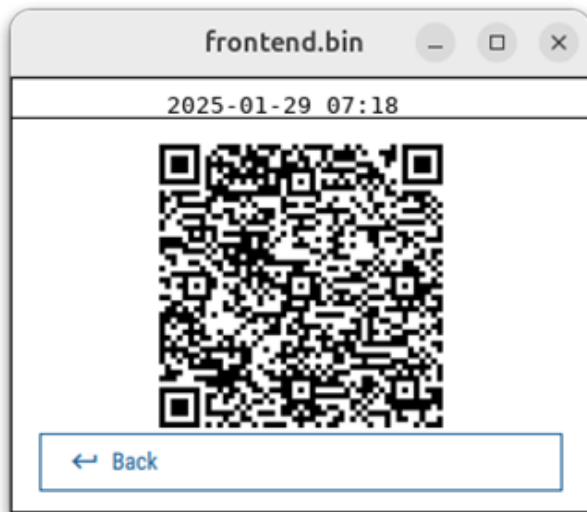
Event	Description	Data
EichrechtServiceStarted	Eichrecht Service started	–
EichrechtServiceStopped	Eichrecht Service Stopped	–
MeterTestPassed	Meter is detected by the Chassis-server and has reported signed energy values	Meter (CPKM3000) UDID
MeterTestFailed	Meter is not detected	–
MeterDataCorrupt	Signed Meter Data authentication fails when received by UCB	Meter (CPKM3000) UDID
ClockSync	NTP Time synced	–
ClockUnsync	NTP Time Sync lost after multiple retries. Based on deviation of RTC part used in UCB. This will occur after around 12 hours of continuous NTP server communication miss.	–
ClockChanged	Time changed on running system	–
FirmwareUpdateRequested	OTA on station started	Current LRS version New LRS version
FirmwareDownloaded	The Firmware package is successfully downloaded	Current LRS version
FirmwareDownloadFailed	Happens in cases of network outage	Current LRS version
FirmwareInstalled	OTA Completed on station	Previous LRS version
FirmwareInstallFailed	OTA Failed	Current LRS version
ChargingStarted	Charging Session Started	Outlet Number Session ID
ChargingSuspended	Session is suspended	Outlet Number Session ID
ChargingResumed	Session is Resumed	Outlet Number Session ID
ChargingStopped	Session End	Outlet Number Session ID
SigningKeyInvalid	Private is lost or invalid when opened for signing logbook or OCMF Charge Record	–
MeterReplaced	Logs the change of the cable correction parameter (update: cable)	Old parameter New parameter
StationActivated	Station has been activated	Eichrecht Activation State. True/False

Time sync display

Each Legally Relevant Display (LRD) bitmap includes a timestamp at the top. On loss of time sync status, a new message "Time Out Of Sync" appears in place of the ISO-formatted timestamp. See the following example.

1. Log in to [ChargePoint](#) and click **Energy Meter**.
2. Navigate to **Software Digest**.

Time-Synced



Time - Unsynced



The change in the time synchronisation is also recorded in the logbook of the charging station

frontend.bin

ChargePoint Home		1/0	
#	ZEIT DATUM	VERANSTALTUNG	METADATEN
1	2025-01-24T09:53:58	EichrechtServiceStarted	
2	2025-01-24T09:53:58	ClockUnsync	
3	2025-01-24T09:54:03	MeterTestPassed	{"udid": "WFhYWFhYWF"}
4	2025-01-24T09:55:20	ClockChanged	

← Settings

▼ Last

▲ First

Energy Meter Details

1. Log in to [ChargePoint](#) and click **Energy Meter**.
2. Navigate to **Details**.

The information displayed includes the meter energy register, the meter ID, and the serial number, as well as the legally relevant software version of the meter. This data is calibrated and recorded in the factory before the product is shipped, in order to ensure properly digital sealing between the embedded MID meter and the full EV charging station.

frontend.bin

2025-01-29 07:19:10	
LADESTELLE	1
ZÄHLERSTAND	9,7560 kWh
ID	ACM
SERIENNR.	AA-BBBBBB-CC-DD
ZÄHLER-DIGEST	ad2c9082ef1ec2c33b82

← Back

Eichrecht Parameter List

These parameters cannot be observed from the main menu of the charger. Only through the OCMF file.

Name	Event/Usage	Rights	Authorised	Location	Interface
Kabelkorrektur	Cable replacement	Read and Write	Manufacturer (ChargePoint)	Production and field	Remote
Software Hash	Firmware update Requested	Read and Write	Manufacturer (ChargePoint)	Production and field	Remote
Energy	OCMF Dataset	Read	Manufacturer, CPO, User	Production and field	Remote, Display
TiemeStamp, Duration	OCMF Dataset	Read	Manufacturer, CPO, User	Production and field	Remote, Display

The parameter "Kabelkorrektur" defines the cable correction factor applied at the energy of the charging session.

This parameter has the following values:

- 0 $\mu\Omega$ for the socketed stations.
- 23000 $\mu\Omega$ for the cable attached version (both 5 metres and 7.5 metres)

Verify Signed Charge Data Records

Flex Series charging stations produce signed charge data records in the industry-standard OCMF format for permanent storage in the CPO backend. Users can verify a record's signature using the transparency software 1.3 by the SAFE Initiative. Visit [Download Transparency Software](#) for more information.

An example of the OCMF file:

```
<values>
```

```
<value context="Transaction.End" transactionId="4193206880799101095">
<publicKey>MHYwEAYHKOZiZj0CAQYFK4EEACIDYgAE1MkN7mkLvNDpIlh7wPB2+aWsRM8xHNcCi5SlmnCL
3g2+JgFoksicI3rQKZA2iOvgItXDUIiOlogGbH3bEc3Y+QCDXZm+KiPujEz4mjoTyPtHIGGKm8XqwZtauo3
EEmjd</publicKey>

<signedData>OCMF|{"FV":"1.0","GI":"CP0001","PG":"T15-4193206880799101095","GV":"lrs_
ver: 1.0.0, sw_rel: 2024.05.00.423-alpha","MV":"Chargepoint
Inc.,"MM":"CPKM3000","MS":"MjUxMzYyQjAwMDAxAAAAAHwzMS0wMDI3MDAtMDQtMDE=","MF":"scf
km+3e8g/pmv+JLwhg+NUpXpW7+JXaVoTw3gGP2oQ=","IS":true,"ID":"0000000000000005","CI":1
,"LC":{"LU":"uOhm","LR":0.0},"TT":"","RD":[{"TX":"B","TM":"2025-06-
03T07:48:45,000+0000 U","RU":"kWh","RI":"1-
b:1.8.0","RT":"AC","RV":0.4159,"CL":0.0,"ST":"G"},{"TX":"S","TM":"2025-06-
03T07:49:24,000+0000 U","RU":"kWh","RI":"1-
b:1.8.0","RT":"AC","RV":0.4159,"CL":0.0,"ST":"G"},{"TX":"E","TM":"2025-06-
03T07:49:25,000+0000 U","RU":"kWh","RI":"1-
b:1.8.0","RT":"AC","RV":0.4159,"CL":0.0,"ST":"G"}]}|{"SA":"ECDSA-secp384r1-
SHA256","SD":"MGYCMQCfrJkO5izcVZVFYcvRznYW7wmawrI8dBpei+ng3H8q2bcdOUFQzXo3RDNu9bLk9
YQCMQD57JB6i7Db5G2WZrAqfwPi6ZKwtFVZIr63QJ/VkHI+k3wqJl0NrcBkqVS/0pwQdGE=","SE":"base
64"}</signedData>
```

```
</value></values>
```

Measurement Dataset

Pagination is ensured via an increasing counter for each measurement. In the OCMF dataset, the counter is placed in the field labelled as "PG" (pagination), following the "T" and preceding the dash, such as "PG":T5-5333490790308772492. In this example, the number 5 represents the counting number, indicating that this is the fifth session on that station. The port used for that measurement can be identified via the "CI" field in the OCMF dataset. When it equals the integer 1, it signifies the right port (as seen from the front), and if it equals 2, it indicates the left port (as seen from the front).

Time and Clock

The station uses the standard time (legally relevant). The station clock is periodically synchronised with a trusted NTS endpoint. The endpoint is hosted by a cluster of chrony servers which upstream to PTB's public NTS endpoints. The standard time on the station clock is used whenever legally relevant time is required (timestamps on signed CDRs, for example).

Charging Station Logic

After authorisation via ChargePoint permitted authorisation means, which will be processed on the Flex Series Control and Communication Module (CPCM), the session start is triggered and executed. The CPKM3000 MID meter measures energy and sends this data to the CPCM of the station periodically and at certain events, such as the end of the session. From there on, additional information, such as timestamps and user ID will be added to the data set and sent to the ChargePoint backend. Cable losses are also designated in the CPCM. During and after the charging session, the Eichrecht relevant info appears both on the station display and in the driver portal.

Charging Session Invoices / Receipts

ChargePoint offers EV drivers different ways to retrieve an invoice/receipt.

If you have a ChargePoint account and/or the ChargePoint app, you can get view receipts, including the amount billed, for every charging session in Charging Activity.

Complete the following steps to see charging activity invoices or receipts:

1. Log in to [ChargePoint](#) and click **Charging Session**.
2. Click on the finished charging session.
3. Click **Receipt**.

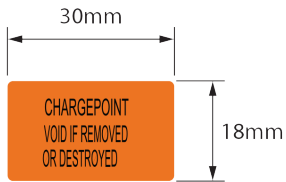
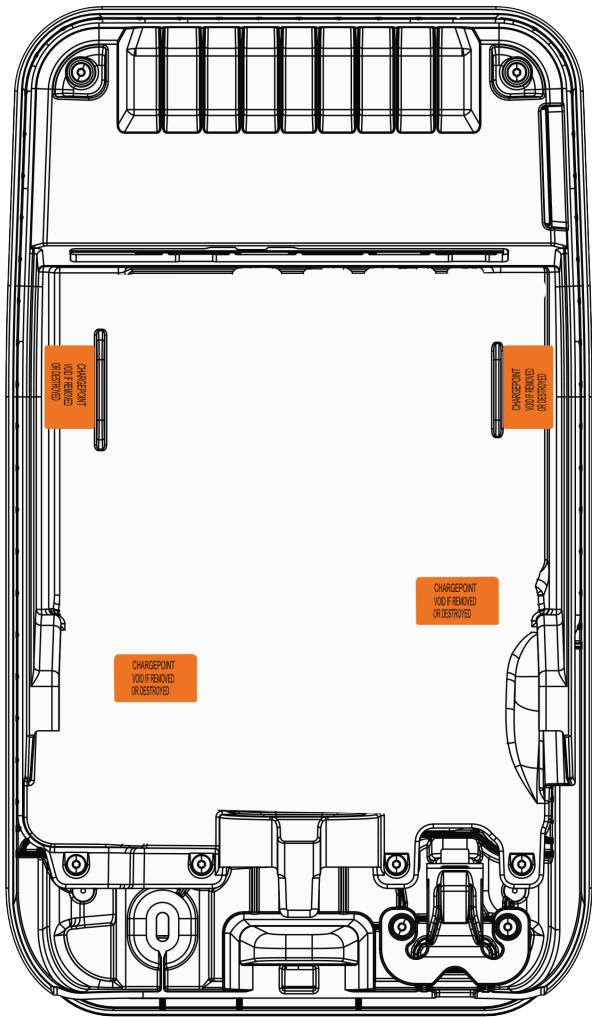
If you used a credit or debit card, or your ChargePoint account is linked to a credit or debit card, you can also retrieve the receipt by clicking on this link: [Request a Receipt](#). For more information, visit [ChargePoint receipts](#).

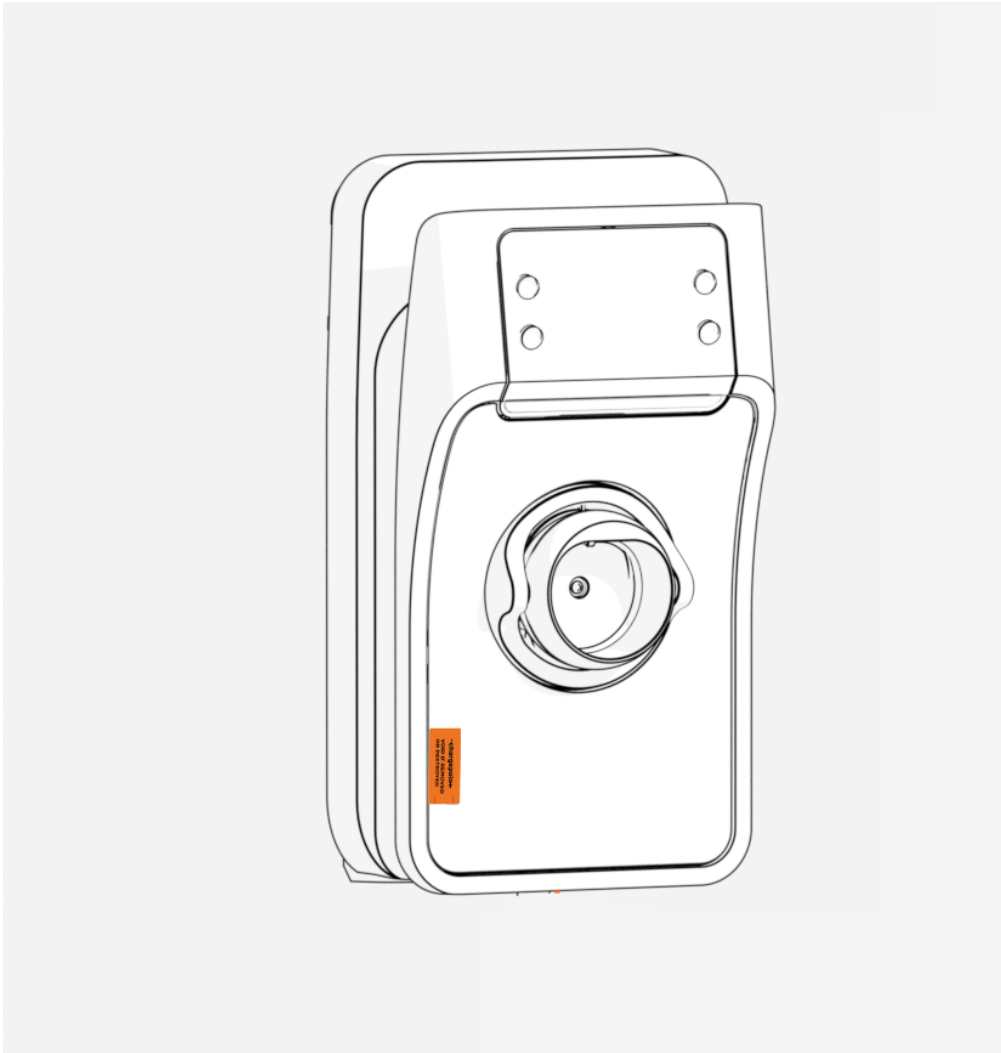
Tamper Proof Labels

Components of Flex Series charging stations have self destructive tamper proof labels. Tamper proof labels are applied by the manufacturer. The following message remains if the label is removed: * **VOID IF REMOVED OR DESTROYED**.



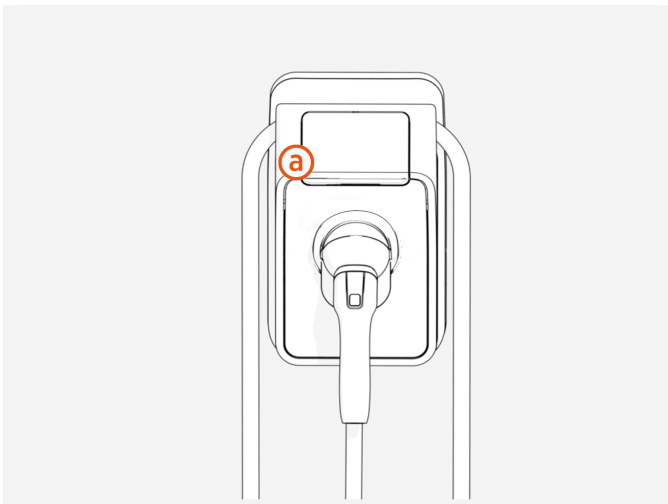
NOTE: Images are not to scale. Measurements appear in metric units (mm) followed by imperial equivalents (inches).





RFID

The RFID interface is located on the front of the charging station **(a)**, surrounding the display. The below picture indicates the area to swap the RFID card. Place a RFID card in this field for the charging station to read the card.



Identifier

Details	Type plate	Display	OCMF data package	Logbook
Serial number of the charging device (=counter)	Complete and in plain text	Complete and coded		Only the first 10 characters of the coded form.
Version of the LRS hash software relevant for calibration.		Complete via QR code.	Complete and in plain text	
Version of the charge controller software.			Complete and in plain text	

Download Transparency Software

The charging data you receive from Flex Series or your mobility provider is verified using transparency software, which is developed and distributed by the industry association SAFE e.V. For Flex Series charging stations, you will need transparency software version 1.3.0. This is the only version that has been conformity-assessed in connection with the Flex Series and the only one that can provide legally valid verification results. As a ChargePoint customer, you can find the download link directly in the charging receipt.

SAFE-Transparency software 1.3 (Flex Series)

Transparency software 1.3

All Versions of the Transparency Software Require Java

All versions of the SAFE transparency software require a current Java Development Kit (JDK), which you can download for free from Oracle:

<https://www.oracle.com/java/technologies/downloads/>.

For all versions of the SAFE transparency software, you will find the checksums (to verify the authenticity of the software) as well as live images at:

https://www.safe-ev.de/de/transparenzsoftware_versionen.php

Using and Displaying Data in the SAFE Transparency Software 1.3 (Flex Series)

A general guide for using the transparency software can be found via the link provided in the previous section.

Instructions: https://www.safe-ev.de/global/downloads/S.A.F.E._End-Nutzer-Handbuch_Transparenzsoftware_1.2.0-rc1.pdf?m=1651735144&

The data records from the Flex Series can be checked using the standard workflow described in the manual. This manual also provides detailed explanations of all displayed data and fields. Since the transparency software is neither developed nor maintained by ChargePoint, ChargePoint has no influence over the user interface or the presentation.

Device-Specific Notes on the Transparency Software:

- All displayed values (start, intermediate and end) are compensated values. The "CL" value is subtracted at that point with the actual meter. The start value CL is always 0.0 and that coincides with actual reading. For all other values, CL contains the difference between the compensated and uncompensated reading.
- Pagination is ensured by an ascending counter for each measurement. In the OCMF data record, this counter is found in the field with the key "PG" after the letter T and before the hyphen, for example:

"PG":T5-5333490790308772492

where the number 5 is the count number, indicating that this is the fifth session at this charging station.

[Hide d](#)

Time status at reading 2	synchronized
Identificationmedia type	NEMA
Time status at reading 5	synchronized
Time status at reading 4	synchronized
Pagination of the dataset	T5-5333490790308772

- The field "CI" in the OCMF data record indicates which connector was used for a measurement. If the value is 1, it refers to the right connector (when viewed from the front), and if the value is 2, it refers to the left connector (when viewed from the front).
- In case of an error reading the meter value or timestamp, an additional "E" (Energy Error) or "t" (Time Error) is displayed next to the respective meter reading or timestamp.

Test Instructions for Eichrecht Tests in Field Devices

Testing of Operational Equipment

This section describes the tests to be carried out in the context of testing operational equipment. All tests are to be carried out for each charging point.

The tests described represent only one permissible procedure. Similar alternatives are permitted at the discretion of the person carrying out the tests. The tests essentially cover the following categories:

- Quality checks.
- Functional tests including accuracy testing.

Quality Testing

The following list needs to be available before and during the evaluation of the charger on site:

- Physical structure of the charging device
- Address/location of the charger
- Charger Serial number and software version
- MID meter serial number and software version
- Type plate inscriptions (Product specifications)
- Tamper proof sealings.

Furthermore, testing in accordance with the BMP* documents listed in section 1.6, the necessary manufacturer's documents and GMP-P-6-1 or PTB test rules volume 6 (third edition, parts B and D) are to be used. Among others, this applies to:

- Compensation factor (when using the type 2 connected charging cables)
- Comparing the crypto module public key with the public key displayed on the Flex Pro display
- Comparing the legal time with the NTS server used
- Checking functionality of the statutory log book

- Checking that the MID meter serial number on the meter menu information matches the MID meter serial number in the OCMF data packet (coded)
- Checking the energy register on the charger matches the signed OCMF data record
- Checking that the accuracy of the MID meter and/or the EV Charger matches the Type Certification. The EC-type examination certificate and relevant documents can be provided to government or state recognised bodies by ChargePoint upon request.

Functional tests including accuracy testing

As part of the functional tests, at least one complete charging process is to be carried out per charging point with the charging device. At least one means of identification must be used to perform functional and accuracy testing.

The charging device can be connected to the back-end portal for remote display via mobile radio. The type of connection is specified on the hardware side.

Accuracy testing and functional testing can be carried out as follows:

1. Start the charging process by connecting a vehicle or a vehicle simulator and authenticating the customer (tester) at the charging station using a means of identification.
2. Monitor the energy output via the live display. The counter reading increases when current flows
3. End the charging process, either by stopping the charging session by the user or the charger.

The measurement deviation of the charging device is determined by comparing the energy measured by the charging device with a standard calibrated power meter within the same time interval. ChargePoint recommends for the charging session to be at least 1 minute long or a total energy of 0.3 kWh. The inspector can decide to change these parameters.

The measurement error of the charging device must not exceed the value specified for Class A meters in MID (Annex V, Table 2,) which is 2%.



NOTE: When testing and measuring the error of the embedded MID electric meter, the error shall not exceed the values specified for Class B meters in MID (Annex V, Table 2,) which is 1%.

Complete these steps to check data authenticity:

1. Obtain the OCMF data record which the EMSP provides to the customer via the EMSP web portal together with the invoice.
2. Retrieve data packets from the email or the portal labelled with the charging device signature.
3. Check the signature using the transparency and display software.

More information is available in Section 5 of the Type Approval Certificate (BMP).

Special test equipment or test software

The following equipment is necessary to test the equipment:

1. An electrical test load simulating an electric vehicle and that can be used to draw energy from the charging device with at least two different current intensity levels under a three-phase symmetrical load and under a single-phase load with a symmetrical multiphase voltage.
2. A cable adapter simulating an electric vehicle that is plugged into the charging station drop-off point.
3. A standard power measuring device which is connected between the electrical vehicle charging station and the electric emulator or electric vehicle. The standard power measuring device has a traceable metrology in accordance with Section 47 MessEG.
4. A computer connected to the Internet for accessing the portal which the EMSP uses to provide the signed data packets for testing (remote display). In the case of testing devices before they are placed on the market (module D or F), a charging device operator and an EMSP may have to be emulated. The computer must have a Windows operating system that allows the transparency and display software to be used to check the signature of the data packets. It must be ensured that the computer is free of malware and that the operating system is not compromised. This can be done, for example, by booting the test computer with a "live operating system" from a USB stick, the memory content of which can be reliably assumed to be uncompromised due to its known origins and history.
5. The transparency and display or signature check software to visually check the authenticity of transmitted data.
6. Means of identification to be able to initiate a charging process on the charging device.

7. The logbook can be reliably read on the Falcon display. To make it easier to read the log book entries, the manufacturer can additionally make the signed log book entries available via the ChargePoint Cloud.

Calibration and Adjustment Procedures

Calibrations and adjustments are not provided in the context of monitoring operational devices.

Measurement Accuracy Information According to Type Examination Certificate

The operator of the charging device is the user of the measuring device within the meaning of Section 31 of the Measurement and Calibration Act.

1. The charging device is only considered to be used for its intended purpose in accordance with calibration regulations if the meter installed in it are not exposed to environmental conditions other than those for which their EC-type examination certificate was issued.
2. The user of this product must also register the public key specified on the charging device for the charging points with the Federal Network Agency in its registration form! Without this declaration, it is not possible to operate the column in accordance with calibration regulations. Web link: https://www.bundesnetzagentur.de/DE/Sachgebiete/ElektrizitaetundGas/Unternehmen_Institutionen/E-Mobilitaet/start.html
3. The user of this product must ensure that the calibration periods for the components in the charging device and for the charging device itself are not exceeded.
4. The user of this product must ensure that the charging devices are taken out of service in a timely manner if it is no longer possible to operate them in accordance with calibration regulations due to errors or faults displayed on the human-machine interface relevant to calibration regulations. The catalogue of error and fault messages in these operating instructions must be observed.
5. The user must (also) permanently store any signed data packets read from the charging device in accordance with pagination and without any gaps that they have in their possession. They must be stored in hardware dedicated to this purpose or in the EMSP or back-end system through corresponding agreements ("dedicated storage"), and these must be kept available for authorised third parties (operating obligation of the store). Permanent means that the data must not only be stored until the business transaction is completed, but at least until the expiry of possible legal redress periods for the business transaction. No substitute values may be generated for accounting purposes for data that does not exist.
6. The user of this product must provide an operating manual approved by the CSA in electronic format for users of measured values who obtain the measured values from this product from them who and use them in business transactions. In particular, the user of this product must provide information regarding No. II "Requirements for the user of the measured values from the charging device".
7. Users of this product have a duty of disclosure in accordance with Section 32 MessEG (excerpt):
Section 32 Duty of disclosure (1) Anyone using new or upgraded measuring devices must inform the competent authority under state law no later than six weeks after commissioning.
8. If deemed necessary by authorised authorities, the measuring device user must be able to provide the complete content of the dedicated local or memory in the EMSP or back-end system including all data packages from the billing period.

Requirements for those using measured values from the charging device (EMSP) Those using the measured values must comply with Section 33 of the MessEG:

- Section 33 MessEG (quote)
- Section 33 Requirements for the use of measured values

1. Values for measured quantities may only be stated or used in commercial or business dealings or for measurements in public interest if a measuring instrument has been used to determine them in accordance with their intended purpose and the values are attributable to the respective measurement result, unless otherwise specified in the ordinance pursuant to Section 41 number 2. Other provisions under federal law that serve comparable protective purposes continue to apply.
2. Anyone using measured values must, as far as they are able, ensure that the measuring device meets the legal requirements and must have the person using the measuring device confirm that they meet these obligations.
3. Anyone using measured values must ensure that invoices, insofar as they are based on measured values, can be reproduced in a simple manner by the person for whom the invoices are intended, in order to verify stated measured values and, if necessary, provide suitable aids for the purposes referred to in number 1.

This provision gives rise to the following specific obligations for those using the measured values in accordance with calibration regulations:

1. The contract between the EMSP and the customer must unequivocally stipulate that the contract only covers the supply of electrical energy and not the duration of the charging service.
2. The timestamps on the measured values come from a watch in the charging device that is not certified in accordance with measurement and calibration regulations. They must therefore not be used to classify the measured values.
3. The EMSP must ensure that the customer is automatically provided with proof of the measurement and the information identifying the business transaction after completion of the measurement and at the latest by the time of billing, unless the customer expressly waives this. The following information can be used to identify the business transaction:
 - a. Name of the EMSP
 - b. Start and end times of the charging process
 - c. Charged energy in kWh
 - d. Credit card number
4. If the customer requests proof that the measurement results from the charging device have been correctly transferred to the invoice, the person responsible for the measurement values is obligated to provide this in accordance with Section 33 (3) of the European Union (MesseEG). If the customer requests reliable proof in permanent format in accordance with Appendix 2 10.2 MesseEV, the person using the measured values is obligated to provide these. The EMSP must inform its customers about these obligations in an appropriate form.

This can be done in the following ways, for example, and depending on the authentication method:

- a. When charging with a continuing obligation in the form of a textual contract
- b. When using one-off charging (ad-hoc charging) via an APP or mobile website, together with proof via email or SMS
- c. When using one-off charging (ad-hoc charging) using a (contactless) credit card together with proof of the account statement

5. The EMSP must automatically provide the customer with the data packages, including a signature, that are relevant for accounting after the measurement has been completed, and no later than when the billing takes place. This must be issued in a way that the documents can be checked for authenticity using the transparency and display software. The data packets can be made available via channels that have not been tested in accordance with calibration regulations in the following ways and depending on the authentication method:
 - a. When charging with a continuing obligation, an email or access to a back-end system
 - b. When using one-off charging via APP or mobile website via email or SMS
 - c. When using one-off charging using a (contactless) credit card, the bank statement and the associated access to a back-end system

In addition, the EMSP must provide the customer with transparency and display software associated with the charging device in order to be able to provide information that the data packets are accurate using the transparency and display software. This can be done by referring to the supply source in the customer's operating instructions or via the channels mentioned above.

6. The EMSP must be able to show, in a verifiable manner, which means of identification were used to initiate the charging process associated with a specific measured value. This means that they must be able to prove that they have correctly assigned the personal identification data to each individual business transaction and billed measured value. The EMSP must inform its customers about this obligation in an appropriate form.
7. The EMSP may only use values for billing purposes for which data packets are available in a dedicated memory, if applicable, that is either in the charging device and/or in the memory of the EMSP or back-end system. Surrogate values must not be generated for billing purposes.
8. The EMSP must conclude appropriate agreements with the operator of the charging device to ensure that the operator stores the data packets used for billing purposes for a sufficient period of time to be able to complete the associated business transactions.
9. In the event of a justified purchase requisition querying the purposes of carrying out these calibrations, performing diagnostic tests and implementing usage monitoring measures, the EMSP must facilitate authentication of product copies associated with these operating instructions by providing suitable means of identification.
10. All of the aforementioned obligations also apply to the EMSP as a user of measured within the meaning of Section 33 MessEG if they obtain the measured values from the charging devices via a roaming service provider.

EV Ready B

Overload Protection

All Flex Series charging stations by default include an overload protection, which stops the charging session within 10 seconds if the current being drawn by your vehicle during a charging session exceeds 25% of the limit set either by the charger, the EV, or the installation.

The charging station won't stop the charging session if the overload is less than 25% of the maximum permitted current value set by the charger, the EV, or the installation.

Below are some examples of tripping values:

Maximum permitted current	Tripping value
8A	10A
10A	12.5A
16 A	20 A
25 A	31.25A
32 A	40 A

After a few seconds, the Flex Series charging station tries to resume the charging session and it closes its switching contacts. If the overcurrent is detected again, the charging station stops within 10 seconds. This will happen 3 times.

If the overload is reduced within 10 seconds, the charger won't stop the charging session.

Once an overload error has been detected, the Flex Series charging station won't allow any charging session anymore. To override the error, please power cycle your Flex Series charging station by switching on/off the upstream breaker. Please allow 1 minute between on/off the breaker to allow the Flex Series charging station to clear the errors.

If the error persists, contact your charger provider.

Each connection point shall be individually protected by a circuit-breaker for overcurrent protection.

The circuit-breaker curve shall be:

- curve B or C for single phase charging station and mode 2 installations
- curve C for three phase charging station

The design of the distribution of the installation will have to allow the supply of the power corresponding to the gauge of the charging station.

The charging station shall be protected by a circuit-breaker with a gauge:

- 20 A for a 16 A single- or three-phase charging station
- 25 A for a 20 A single- or three-phase charging station

- 32 A for a 25 A single- or three-phase charging station
- 40 A for a 32 A single- or three-phase charging station

Welding Detection

All Flex Series charging stations include by default a welded switching contact detection system. In the remote case of the contact switch being welded due to a fault, the Flex Series station detects and change status to "Error". This fault can only happen after a charging session.



WARNING: For Flex Series stations with cable attached – If a welded contact switch has been detected, unplug your EV and return the EV connector in its holster position. Do not touch the terminals or the front of the EV Connector.



WARNING: For Flex Series stations with socketed outlet – If a welded contact switch has been detected, unplug your EV plug from the charger first and then unplug the EV connector from your vehicle.

If the Flex Series charging station includes a HUD, the Flex Series charging station displays a message indicating a fault has been detected and won't allow a charging session to happen any more

If the Flex Series charging station does not include a frontal HUD, then the charger will display a fault with the frontal cosmetic LED turning red. The charger won't allow a charging session.

This error cannot be cleared by power cycling the charging station. Please contact your EV charger provider for advice.

Surge Protective Devices

Flex Series charging stations include surge protection components according to IEC 62368-1 and other equivalent standards. This protects your Flex Series charging station from common temporary surge events up to 4000 V coming from the electric grid.

According to international standard IEC 60634-7-722 a Surge Protection Device might be needed when an EV charger is installed in a new or existing public installation. Other national standards can deviate on the requirements and certified electrical installers will advise on the best procedure depending on the location of the installation.

There are three different types of Surge Protective Devices

- Type 1 - Installed in the origin of the installation (in the main distribution panel of a building, for example)
- Type 2 - Installed at downstream cabinets (in a consumer unit, for example)
- Type 3 - Installed to protect the specific equipment (an electrical appliance, for example)

As a general rule, the Type 3 shall be supported and coordinated by a Type 2.

During the installation, a proper assessment shall be performed to determine if a SPD is necessary. If requested, ChargePoint recommends installing either a Type 2 or a Type2+3 SPD in compliance with IEC 61643-11 or equivalent standard. ChargePoint recommends one SPD per installation, in the upstream cabinet. This should be sufficient to protect one or more Flex Series charging stations.



NOTE: If the SPD is installed, regular maintenance should be performed. ChargePoint recommends checking the status of the SPD at least once every year. In areas with frequent thunderstorms, we recommend checking the status of the SPD more often. For more information, talk to your installer about SPDs or check the manual of operation of the SPD.

6 mA DC Leakage Detection

If the 6 mA DC leakage disappears within 10 seconds, the Flex Series charging station won't trip.

The 6 mA DC leakage detection function is not a safety function of the EV charger and does not remove the necessity to include an upstream Residual Current Device (RCD) in compliance with IEC 61008 or equivalent, with tripping characteristics at least Type A.

The combination of Type A + the 6 mA DC leakage detections comply with the requirements stipulated in standards such as IEC 61851-1 and IEC 60364 which are the minimum necessary to provide reliability and safety for an EV charging installation. It is possible that a national wiring requirement goes beyond and requires a Type B RCD installed upstream. Please make sure your installer is a certified electrician who can provide the best advice for the installation.

UK Specific Information C

PME Fault Detection – OPEN Fault Detection

The Flex Series charging station does not include a PME fault detection system, therefore a suitable solution according to BS 7671-1 shall be used.

The section 772 of BS 7671-1: 2018 alongside its latest amendments, defines particular requirements for Electric Vehicle supply systems installed within the United Kingdom of Great Britain and Northern Ireland.

For those installations in which a TN system is used, a TN-C-S system (also can be known as PME earthing system) shall be presumed. In order to protect the EV charger, your vehicle, and yourself, you must ensure that your installation includes one of the following options.

- (ii) – The main earthing terminal of the installation is connected to an installation earth electrode by a protective conductor complying with Regulation 544.1 of BS 7671.
- (iii) and (iv) – Protection against electric shock is provided by a device which electrically disconnects the vehicle from the live conductors of the supply and from the protective earth in accordance with Regulation 543.3.3.101(ii) within 5s.
- (v) – Protection is achieved by a device which provides equivalent protection as to (ii), (iii) and (iv).

For the general public, ChargePoint recommends option (iii) or (iv) from BS 7671-1, be installed upstream the Flex Series charging station.

Ensure your electrical installer is certified to perform the installation of an EV charger and request advice on what is the better solution for your installation.

60 A Limitation

This requirement is applicable to home installations mostly.

Every time a Flex Series charging station is going to be installed, you or your installer must inform the distributor network operator.

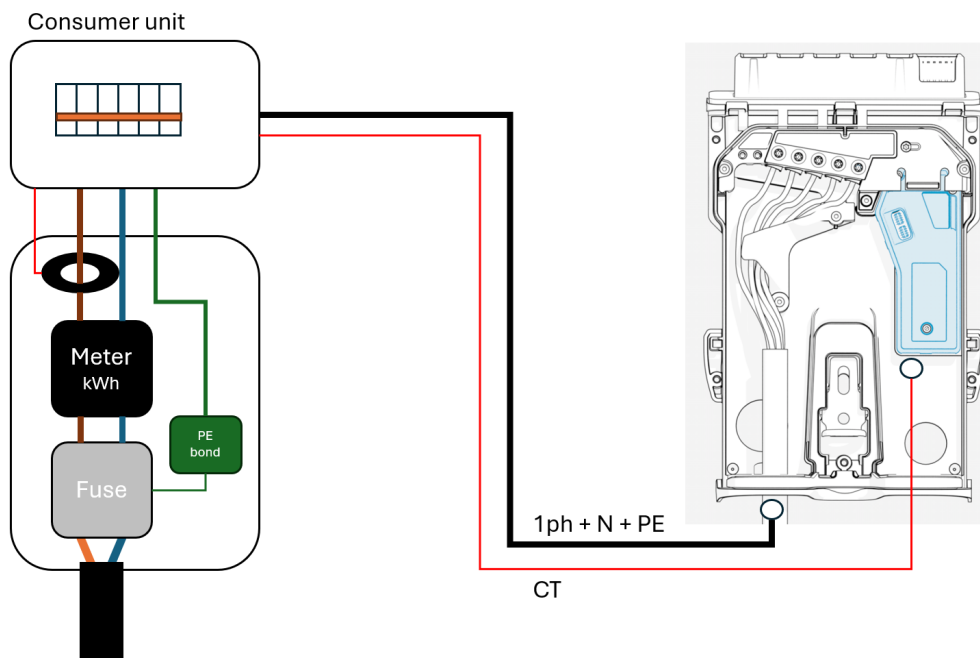
The notification will be in the form of an application or a notification. This notification shall dictate whether your supply maximum demand (MD) has a limitation of 60 A or less and you pretend to install an EV charger.

Depending on the assessment performed by you or your installer, the DNO will request:

- That your EV charger is a smart EV charger capable of limiting the current being drawn by the vehicle in real time in order to not overcome the limit of 60 A or
- That your installation is upgraded to accommodate the EV charger extra power.

Flex Series charging stations include an optional accessory which allows you and your home to maintain the 60 A limit by adding a current transformer connected in your cabinet and the charger, ensuring that the charging session is always optimised to maintain the limit of 60 A.

Refer to the following diagram during station installation:



Click on the link below for additional information:

<https://www.energynetworks.org/industry/connecting-to-the-networks/frequently-asked-questions-about-connecting-to-the-networks>

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.