# Cord Zero User and Installer Manual


www.cord-ev.com

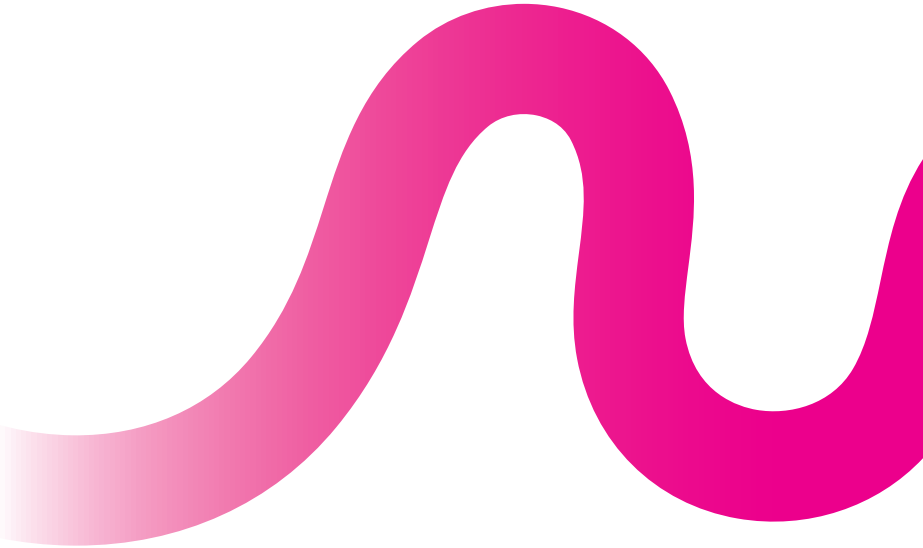
# Safety and Warnings

Save these instructions. Read all instructions before installing or using the charger.

1. Keep the charger away from explosive or flammable materials, chemicals, vapours, and other hazardous objects.
2. Keep the charger socket clean and dry. If it gets dirty, wipe it with a clean, dry cloth.
3. Do not touch the socket pin when the unit is powered on.
4. Only a qualified technician is allowed to install this charger. The installation must comply with local, regional and national regulations.
5. Do not use the charger if it is showing any visible product damage such as cracks, abrasions, exposed cables, and other visible defects or is showing an error state. In the event of such damage, contact a qualified technician immediately.
6. Do not attempt to disassemble, repair, or refit the charger. If necessary, contact a qualified technician. Improper operation will result in device damage, electric leakage, and other hazards.
7. If any abnormal condition occurs, turn off incoming power supply immediately.
8. Where possible, please ensure the charger is protected against lightning and heavy rain.
9. Keep children away from the charger.
10. Only use the charger for charging your electric vehicle while it is parked and stationary.
11. Our packaging materials are environmentally friendly and can be recycled. Please recycle packaging in appropriate containers. Do not dispose of this device with household waste. It should be taken to a suitable facility for recycling electrical and electronic devices. For more detailed information about recycling this device, please contact your local city/town council office or your household waste disposal service.

# Warning!

The device can be in an electrically energised state. There is a risk of shock and electrical hazards. Please strictly observe all warnings on the device and user manuals. The cover of the charger is only to be removed by a qualified electrician.



# Contents

## End User Guide

# 1 Introduction

| Item | Parameters | Description |
|---|---|---|
| **Input** | Power Supply | Single Phase (1P+N+PE) |
| | Rated Voltage | 230V AC |
| | Rated Current | 32A |
| | Frequency | 50Hz |
| **Output** | Output Voltage | 230V AC |
| | Maximum Current | 32A |
| | Rated Power | 7kW |
| **User Interface** | Charge Connector | Type 2 socket |
| | Enclosure | Plastic PC943 |
| | LED Indicator | Green/Yellow/Red |
| | RFID Reader | Mifare ISO/IEC 14443 A |
| | Start Mode | Plug &Play / RFID card / App |
| **Communication** | Communication | Wi-Fi 2.4GHz or 4G |
| | Protocol | OCPP 1.6J |
| **Safety** | Built-in RCD protection | RDC-PD with type A + DC 6mA according to IEC 62955 |
| | Ingress Protection | IP65 |
| | Impact Protection | IK08 |
| | Electrical Protection | Over current protection, Residual current protection, Ground protection, Surge protection, Over/Under voltage protection, Over/Under frequency protection, Over temperature protection, PEN Fault Protection |
| | Certification | BS EN IEC 61851-1:2019, IEC62955, BS IEC 61851-21-2:2021, BS EN IEC 61000-6-1:2019, BS EN IEC 61000-6-3:2007+A1, BS7671:2018-amd2:2022 722.411.4.1(iv), EN 300 328 V2.2.2:2019, EN 300 330 V2.1.1:2017, EN 301 489-1 V2.2.3:2019, EN 301 489-3 V2.1.1:2019, EN 301 489-17 V3.2.0:2017, EN 62311:2020, BS7671:2018-amd2:2020 722.411.4.1(iv) |
| | Class of equipment | Class I |
| | EMC level | Class B |
| | Pollution degree (PD) | PD 3 |
| | Earth type | TN |
| | Warranty | 3 years |
| **Environment** | Installation | Wall-mount/Floor-stand Installation |
| | Usage environment | Indoor & outdoor |
| | Work Temperature | -30°~+50° |
| | Work Humidity | 5%~95% |
| | Work Altitude | <2000m |
| **Package** | Product Dimension | 344 x 192 x 100 mm (H x W x D) |
| | Package Dimension | 430 x 330 x 235 mm (L x W x H) |
| | Net Weight | 3.1kg |
| | Gross Weight | 3.6kg |

# Installation Guide

# 2 Product Introduction

## 2.1 Charger internal view

## 2.2 Charger visual overview

# 3 Package Contents

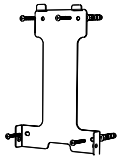
Once opened, please carry out the following inspections:

**Visual inspection**

Visually inspect the charger's external appearance. If there is any breakage or damage, please notify the supplier immediately.

**Item inspection**

Confirm that all the items listed below are included with your product. If there is a shortage in the quantity of any item, or if any items are missing, please contact the supplier immediately.

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| EV charger (x1) | User manual (x1) | 6 Wall plugs (x8) | M4*32 screw (x8) | Mounting plate (x1) |
|  |  |  |  |  |
| H2.4 hex key (x1) | Wire ferrules (x3) | RFID card (x2) | Bracket (x1) | M4x12 screw (x2) |
|  |  |  |  | |
| CT clamp (x1) | Compact wire connector (x1) | Extension cable (x1) | Extra CT clamp plug (x1) | |

# 4 Operation Instructions

## 4.1 Installation preparation

### 4.1.1 Tools required

| Tool Name | Photo | Function |
|---|---|---|
| **Multimeter** |  | Test electrical connection and electrical parameter |
| **Cross head screwdriver** |  | Tightening screw |
| **Electric drill** |  | Drilling of mounting holes |
| **Diagonal pliers** |  | Cable cutting |

### 4.1.2 Cables & materials

| Name | Specification | Quantity |
|---|---|---|
| **Power supply cable** | Single-phase power supply cable<br>Maximum Cross-Sectional Area: 6mm² | As required |
| **RCBO** | Type A or Type F Double Pole | 1 |

The use of extension cords, adapters, and converter adapters is strictly prohibited.

**Note:** Only a Type 2 male connector can be connected to the EV charger socket.

## 4.2 Installation process

### 4.2.1 Installation notice

- Electrical devices should only be installed and maintained by qualified technicians. No responsibility is assumed by the manufacturer for issues arising as a consequence of installation by an unqualified person. A qualified technician is an electrician who has certified skills and knowledge related to the construction, installation, and operation of this type of electrical device and who has received safety training to recognize and avoid the hazards involved.
- All applicable local, regional, and national regulations must be applied when installing, repairing, and maintaining this device.
- The charger is equipped with 6mA DC Current Leakage Protection function which conducts an automated test for the 6mA DC.

- An approved Type A RCBO with earth leakage protection of 30mA and 40A current rating must be installed separately in the consumer unit by the installer.
- The charger is equipped with PEN Fault Protection and an automatic disconnection system which satisfies the requirements of BS7671:2018 Amendment 2:2022 722.411.4.1 (iv) the 18th Edition IET Wiring Regulations.
- In the event of the utilization voltage at the charger between live and neutral conductors being greater than 253 V rms or less than 207 V rms within 5s., this device provides protection from electric shock by electrically disconnecting the vehicle from the live conductors of the supply and from protective earth.
- The point above implies the charger can be installed without the need for an additional earth rod. However, if the customer or local regulations require that an earth rod is installed (for instance as part of an earthed system), then this should be connected to the dedicated terminal within the charger.

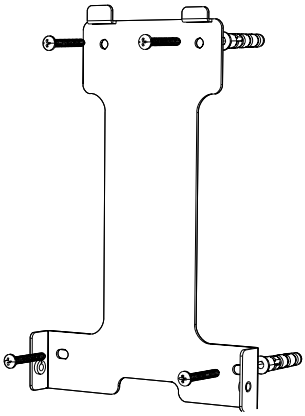
#### 4.2.2 Pre-installation checks

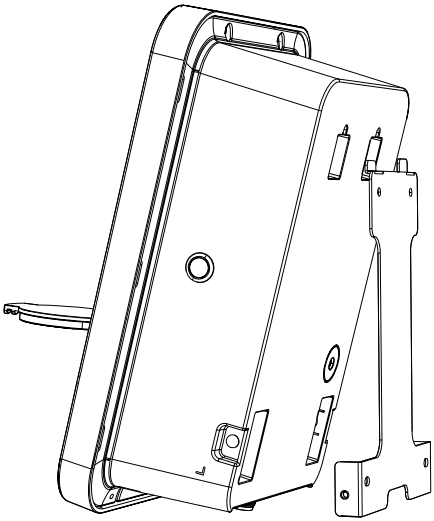
- Ensure that the site of installation meets the charger's technical specification and that there is no uncontrolled hazard arising from installation of this unit.
- Ensure the charger's location allows good operational access for normal use, repair, and maintenance.
- The AC input components for the power supply on site are to be correctly fitted with required protection devices prior to installation of the charger as per local, regional, and national regulations.
- Ensure that the charger location has good network connectivity:
    - This charger only supports 2.4GHz network. Wi-Fi signal strength between -50dBm to -60dBm is considered good.
    - A 2.4GHz Wi-Fi extender may be needed if the signal strength is below the range of -60dBm to -80dBm.
    - The Wi-Fi signal strength can be checked by utilising a Wi-Fi speed test app using a mobile phone.

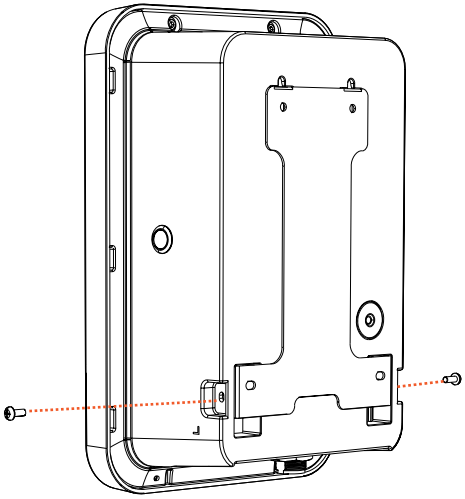
# 5 Installation Details

## 5.1 Mounting

1. Using the enclosed Mounting plate, mark the locations of the holes.
2. Drill holes at the marked spots and insert the wall plugs
3. Insert the screws into the bracket's mounting holes and tighten them into the wall plugs, leaving a 5mm gap between the screw head and the wall.







4. Hang the EV charger onto the bracket's two mounting screws, ensuring a secure fit.
5. Tighten the screws on both sides to secure the EV charger.

## 5.2 Electrical wiring

**NOTE:**

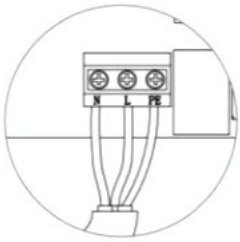
- **ENSURE TERMINAL BLOCKS ARE IN THE OPEN POSITION BEFORE WIRING THE CHARGER.**
- **THE RECOMMENDED SCREW TORQUE IS 2 NM. IT IS ADVISED TO USE AN ELECTRIC SCREWDRIVER WHEN SECURING THE INPUT POWER CABLE.**

### 5.2.1 Wiring and CT clamp connection

a. Power cable

1. Remove a length of 40mm of the cable jacket and strip the wire insulation to a length of 8~15mm.
2. Crimp the terminals with wire ferrules as shown in the figure below.

Single-phase wiring




Single-phase connection

3. Distinguish PE, N, L, then insert the wire into the corresponding wire slot. Please ensure that the line and neutral cable are installed properly without overbend. Overbent cables may loosen the connection over time and result in a critical fault.

b. 4G sim installation

- If 4G is required, install the SIM in 4G sim port (Note: This may be pre-installed).

c. CT clamp connection

- Connect the CT connector to the CT port as shown in Fig 3.
- Connect the CT clamp to the same phase of the consumer unit where the charger is connected. Make sure this step is done only after the CT connector is connected to charger to prevent electrical hazards.
- Ensure that the CT clamp is connected tightly with the correct polarity, both in the charger and distribution unit. Please check the images on the next page.

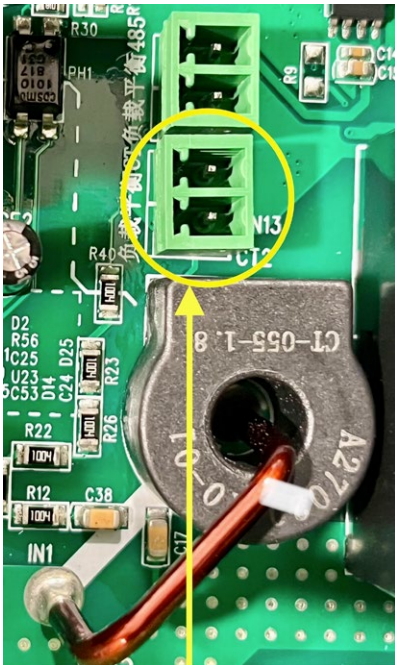



Fig 1. CT port for load balance

CT Connector

Fig 2. CT Clamp

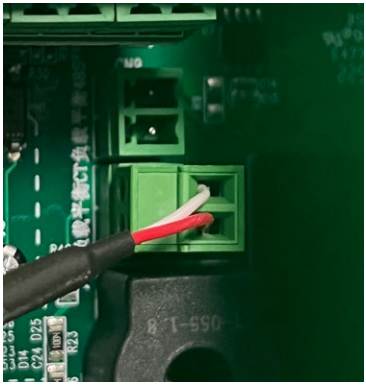


Fig 3. CT Clamp Connection

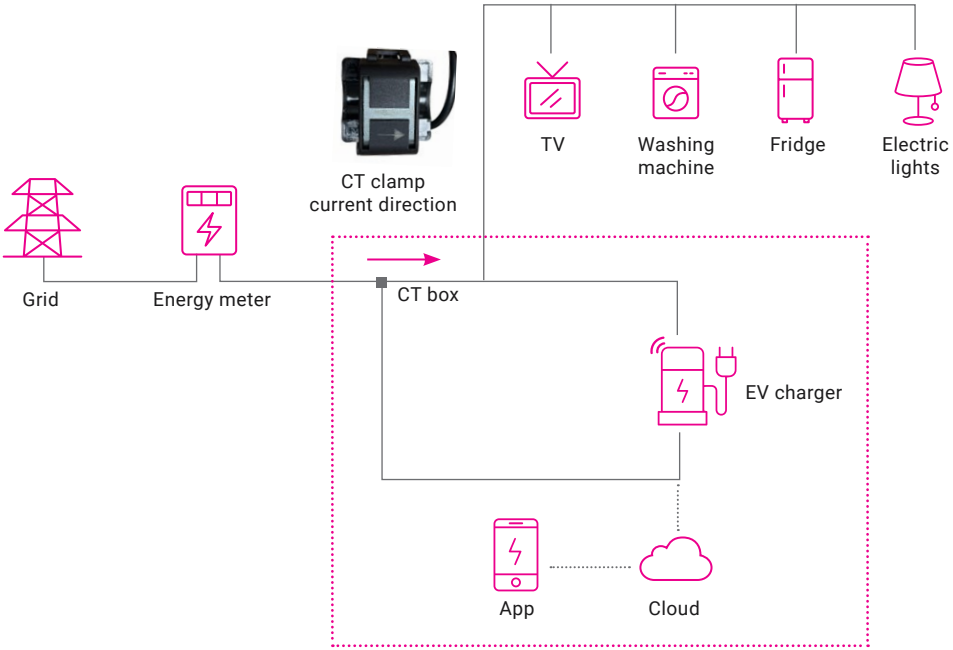



Fig.4 CT clamp connection diagram

# 6 Power-on Safety Checks

## 6.1 Power-on safety checks and network configuration

### 6.1.1 Checks before power-on

Please check / re-check the following items prior to the initial Power-On:

- The charger's location allows for good operational access to its normal use, repair, and maintenance.
- The AC input components within the power supply at the installation location are fitted correctly with the required electrical and mechanical protection components prior to installation of the charger.
- Ensure that there is no visible damage to the electrical cable and the unit.
- Confirm the charger is installed correctly, as per the instructions in this manual.

### 6.1.2 Power-on status

When powering on the charger, the LED indicator should be in standby state.

| State | Description | Led Status |
|---|---|---|
| **Ready to charge/ standby** | Standby or charge gun plugged into vehicle, charging not yet started | Pulsing green |
| **Charging in progress** | Charge gun plugged into vehicle and charging in progress | Flashing green, 200ms on, 1s off, cycle |
| **Fault has occurred** | An error condition has occurred. See Section 14 (Troubleshooting) for details of error conditions | Flashing red or constantly red |

# 7 Installation Test (Recommended)

## 7.1 Charger Access Point (AP) page configuration

This configuration applies for a single charger with residential load.

This balances energy use and adjusts the charging output to your electric vehicle in response to changes in electricity load.

**Step 1: Airplane mode**

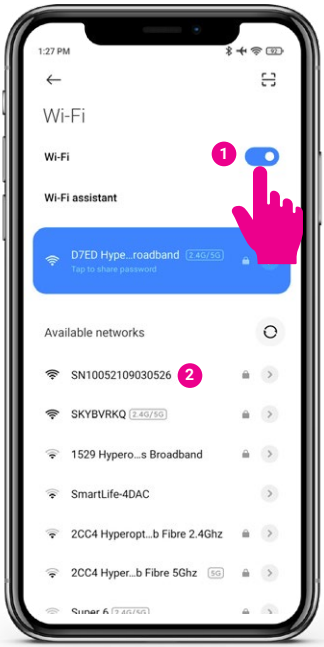
Please switch your smartphone to airplane mode.

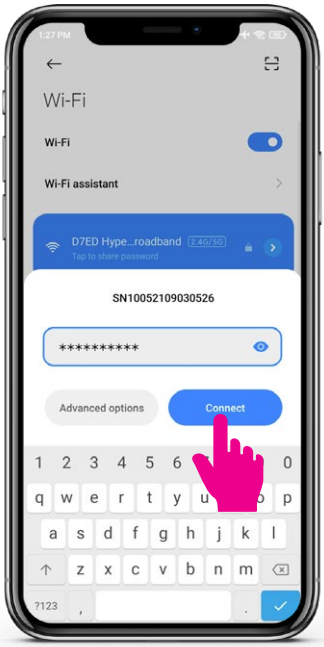
**Step 2: Power reboot**

- Restart the power of the charger and ensure the LED displays a pulsing green light pattern.
- Please note that network configuration setting is only accessible 15 minutes after the power reboot.

**Step 3: Charger Wi-Fi**

- Turn on your smartphone Wi-Fi.
- Select the Wi-Fi hotspot that contains your charger's serial number (beginning with SN100...).



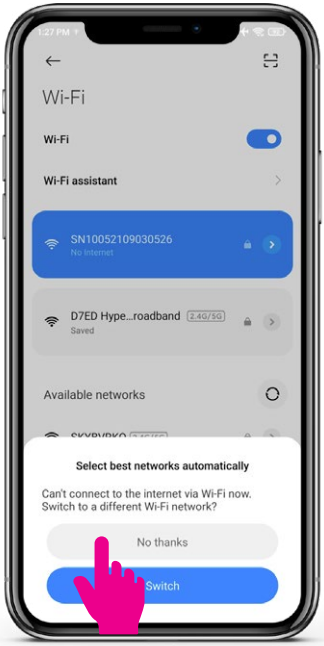



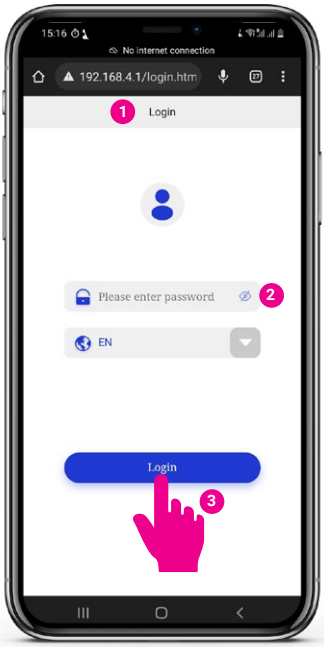

**Step 4: Input charger Wi-Fi password**

- Input the Wi-Fi password found on the sticker located on the side of the charger.
- Select 'Connect'.

**Step 5: Automatic network switch**

Select “No Thanks” when the pop-up Wi-Fi network message appears. The smartphone can communicate with the charger without internet connection.



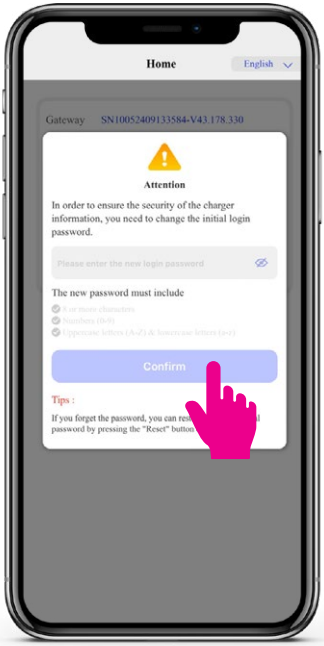



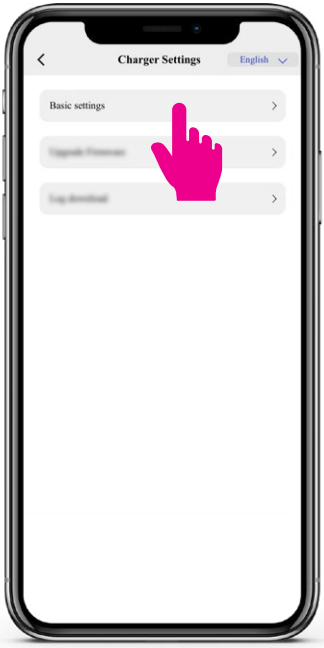

**Step 6: Login credentials**

- Enter the numbers 192.168.4.1 into your web browser.
- Input the four digit network pin from the side of the charger.
- Select ‘Login’.

**Step 7:**

- Input a new 8-digit password, following the requirements, to replace the 4-digit PIN code for accessing the charger settings.
- Select ‘Confirm’.
- The charger will redirect to the login page, allowing them to log in using their newly updated password.




## 7.2 RCD test setup (recommended step)

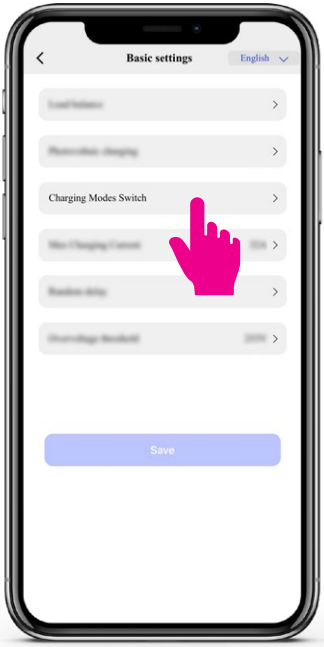
Testing the RCD can ensure that it is working properly and will provide shock protection in case of an electric fault.

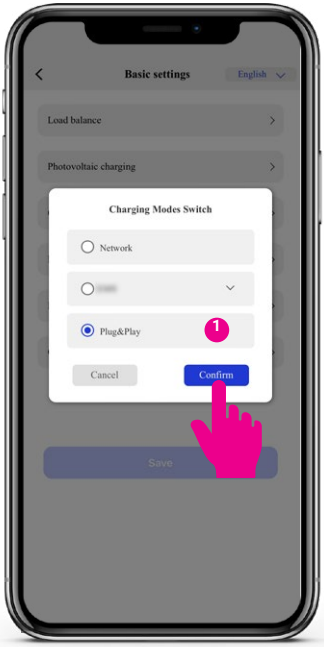
This test should only be carried out by a qualified technician.

**Step 1: Charger AP page login**

- Refer to 7.1 (Steps 1-6).
- Select ‘Charger Setup’.

**Step 2: Selecting the charging modes**
Select ‘Switch Charging Modes’.




**Step 3: Plug & Play mode option**

This mode enables the user to charge the vehicle without any authorisation.

Charging starts as soon as the charger is plugged into the vehicle.

- Select ‘Plug & Play’ mode.
- Confirm.
- The charger will reboot after switching modes.

**Plug & Play mode should be used for RCD testing and should only be carried out by a qualified technician.**

**Step 4: Test setup**

- Connect the EVSE adapter to the charger.
- Connect the installation tester 3-pin plug into the EVSE adapter.
- An installation tester can be used to test the RCD of the charger by changing the load.
- Change the CP state of the EVSE adapter from ‘A’ to ‘C’ to start charging.
- Test the RCD is working with the installation tester by changing the load.

**Step 5: EVSE adaptor setup**

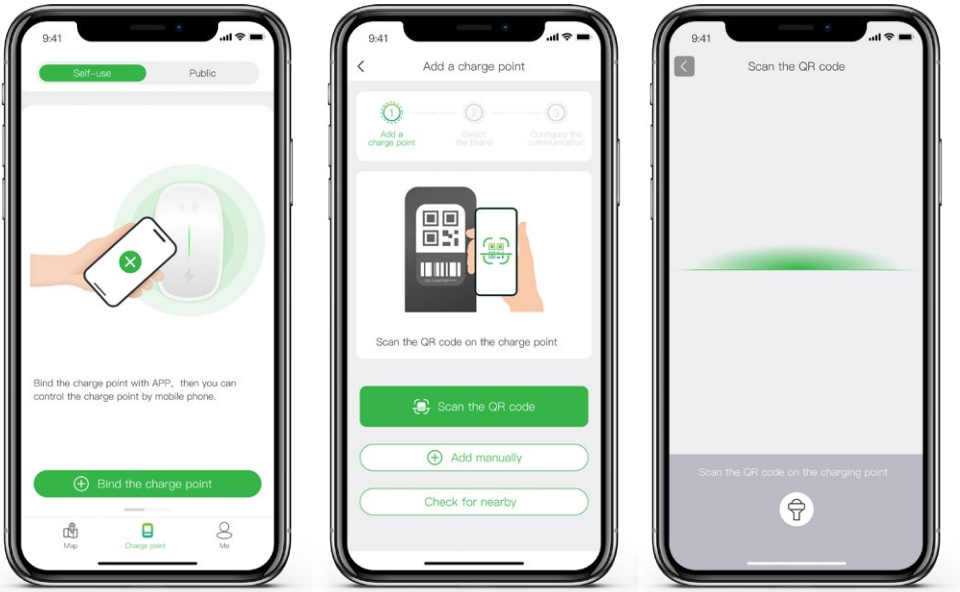
- The charger is off when CP state of the EVSE adaptor is in ‘A’ position.
- Change the CP state to ‘C’ to start charging.
- Change the CP state to ‘A’ to turn off charging.

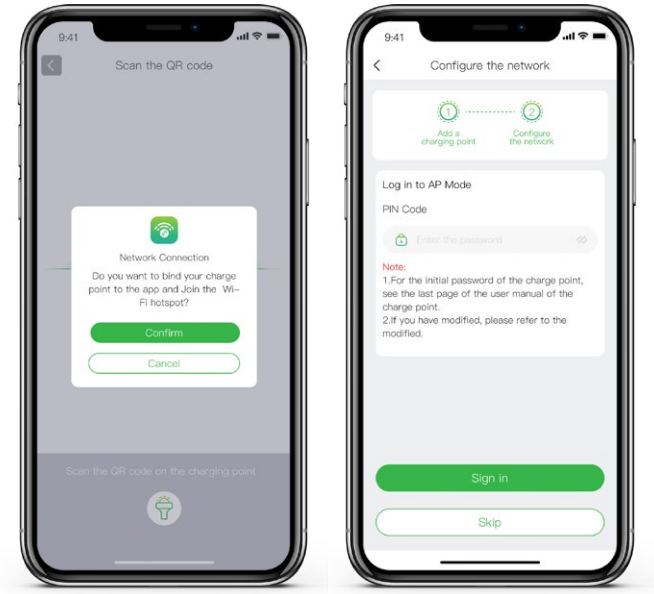

**After completing all the test steps (Steps 1-5), please change it to ‘Network’ mode.**

# 8 Commissioning on Evchargo App

## a. Evchargo QR code commissioning

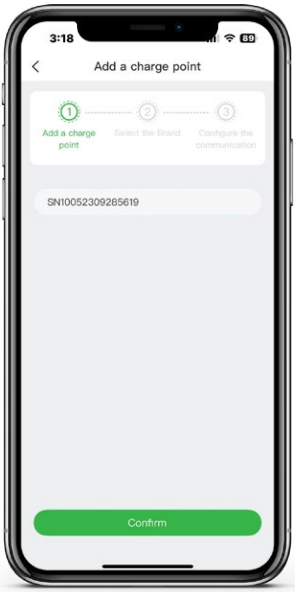
1. Select ‘Charge point’ on the bottom
2. Select ‘Bind the charge point’
3. Select ‘Scan the QR code’
4. Scan the EVchargo QR code from the side of the charger/ in the package.
5. Select ‘Confirm’
6. Input the 4-digit pin found on the side of the charger/inside package.
7. Select ‘Sign in’

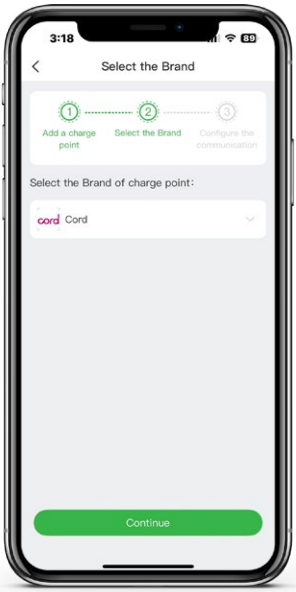


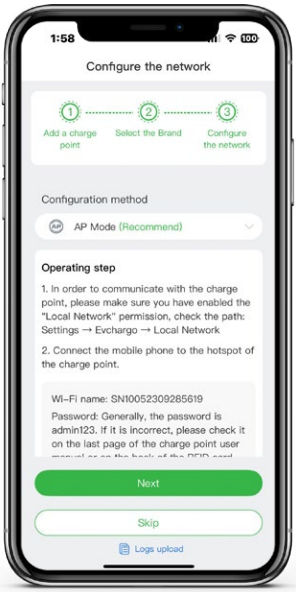



## OR b. Manual integration

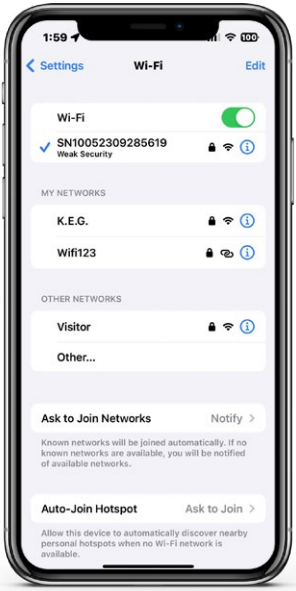
1. Select ‘Add manually’
2. Input the charger Serial Number on the app
3. Select the ‘Cord’ brand
4. Input the Charger Wi-Fi password found on the side of the charger/ package and connect to charger hotspot in the smartphone/laptop.
5. Go back to the Evchargo app > Input the 4-digit pin found on the side of the charger/inside package.
6. Select ‘Sign in’

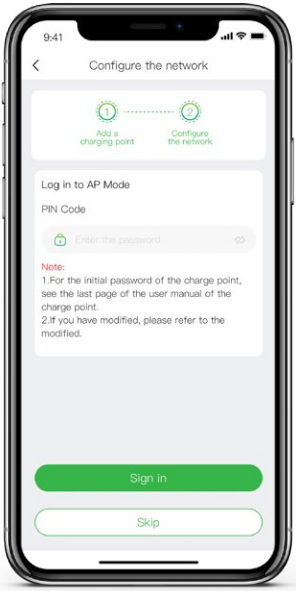

3:18
Add a charge point
Add a charge point
Select the Brand
Configure the communication
SN10052309285619
Confirm


3:18
Select the Brand
Add a charge point
Select the Brand
Configure the communication
Select the Brand of charge point:
cord Cord
Continue


1:58
Configure the network
Add a charge point
Select the Brand
Configure the network
Configuration method
AP Mode (Recommend)
Operating step
1. In order to communicate with the charge point, please make sure you have enabled the "Local Network" permission, check the path: Settings → Evchargo → Local Network
2. Connect the mobile phone to the hotspot of the charge point.
Wi-Fi name: SN10052309285619
Password: Generally, the password is admin123. If it is incorrect, please check it on the last page of the charge point user
Next
Skip
Logs upload

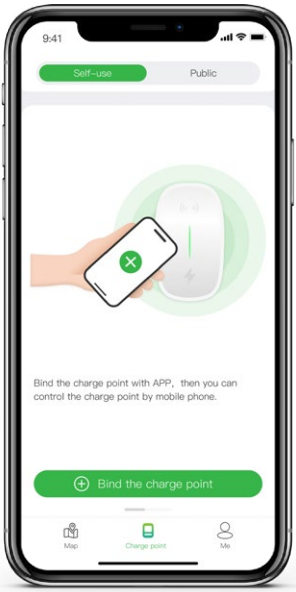

1:58
Configure the network
Add a charge point
Select the Brand
Configure the network
Note: The Wi-Fi hotspot of the charge point remains enabled for 15 minutes only after the charge point is powered on, if you fail to connect to the Wi-Fi of the charge point, please restart the charge point.
The Wi-Fi network to which the mobile phone is now connected: K.E.G.
3. After successfully connecting to the Wi-Fi hotspot of the charge point, click the "Next" button to enter the login page.
Next
Skip
Logs upload

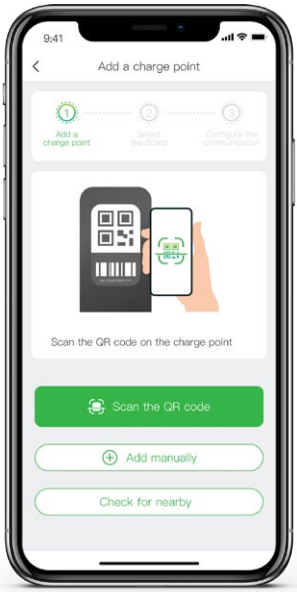

1:59
Settings
Wi-Fi
Edit
Wi-Fi
SN10052309285619
Weak Security
MY NETWORKS
K.E.G.
Wifi123
OTHER NETWORKS
Visitor
Other...
Ask to Join Networks
Notify
Known networks will be joined automatically. If no known networks are available, you will be notified of available networks.
Auto-Join Hotspot
Ask to Join
Allow this device to automatically discover nearby personal hotspots when no Wi-Fi network is available.

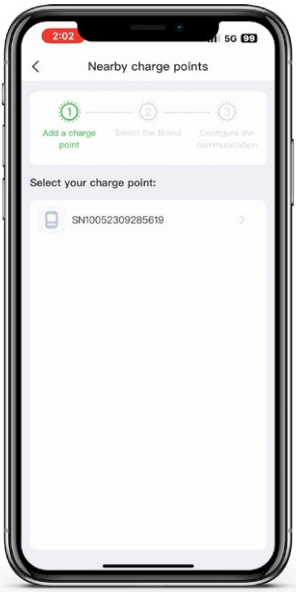

9:41
Configure the network
Add a charging point
Configure the network
Log in to AP Mode
PIN Code
Enter the password
Note:
1.For the initial password of the charge point, see the last page of the user manual of the charge point.
2.If you have modified, please refer to the modified.
Sign in
Skip

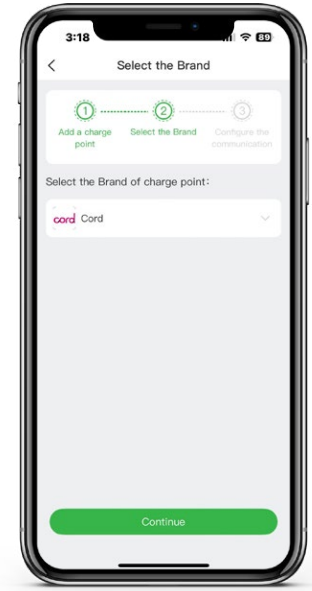
## OR c. Check for nearby chargers

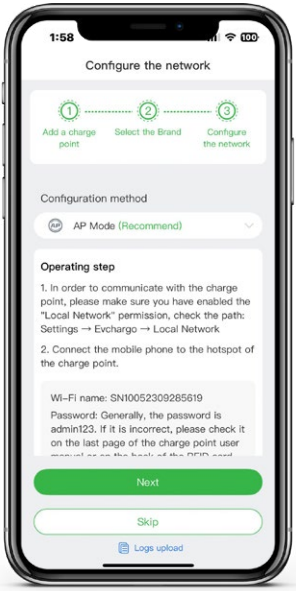
1. Select ‘Check for nearby chargers’
2. Select the charger Wi-Fi Serial Number on the app
3. Select the ‘Cord’ brand
4. Select AP mode.
5. Select the charger Wi-Fi hotspot from the smartphone/laptop Wi-Fi hotspot list available. (e.g., SN10052….)
6. Input the Charger Wi-Fi password found on the side of the charger/ package and connect to charger hotspot in the smartphone/laptop.
7. Go back to the Evchargo app > Input the 4-digit pin found on the side of the charger/inside package.
8. Select ‘Sign in’

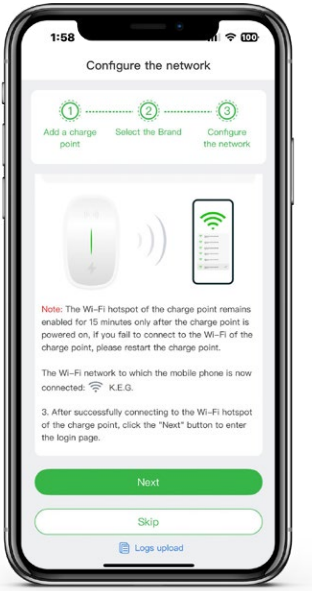


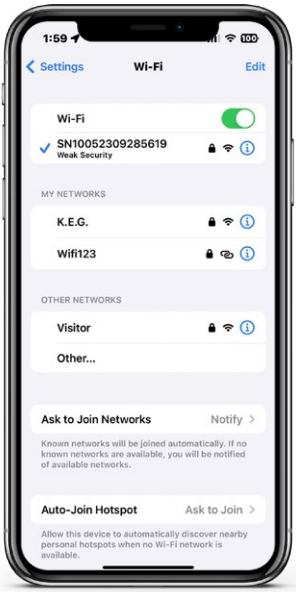



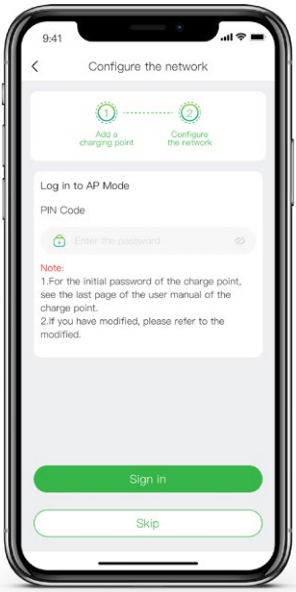




3:18
Select the Brand
Add a charge point
Select the Brand
Configure the communication
Select the Brand of charge point:
Cord
Continue

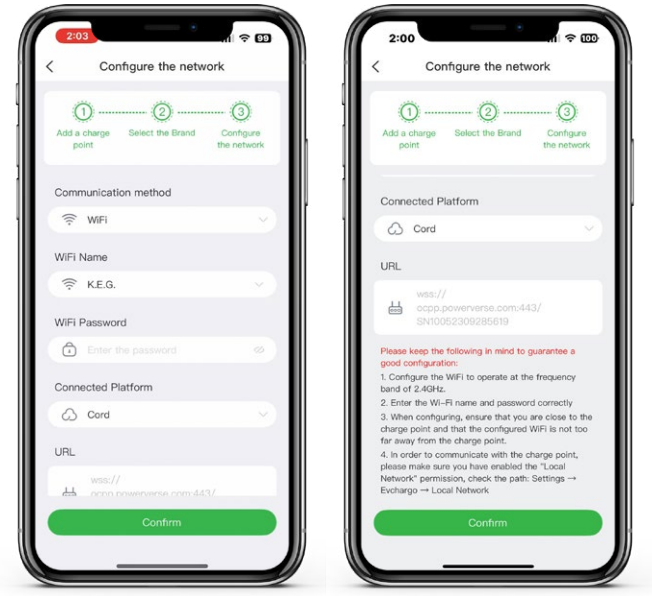

1:58
Configure the network
Add a charge point
Select the Brand
Configure the network
Configuration method
AP Mode (Recommend)
Operating step
1. In order to communicate with the charge point, please make sure you have enabled the "Local Network" permission, check the path: Settings → Evchargo → Local Network
2. Connect the mobile phone to the hotspot of the charge point.
Wi-Fi name: SN10052309285619
Password: Generally, the password is admin123. If it is incorrect, please check it on the last page of the charge point user
Next
Skip
Logs upload


1:58
Configure the network
Add a charge point
Select the Brand
Configure the network
Note: The Wi-Fi hotspot of the charge point remains enabled for 15 minutes only after the charge point is powered on, if you fail to connect to the Wi-Fi of the charge point, please restart the charge point.
The Wi-Fi network to which the mobile phone is now connected: K.E.G.
3. After successfully connecting to the Wi-Fi hotspot of the charge point, click the "Next" button to enter the login page.
Next
Skip
Logs upload

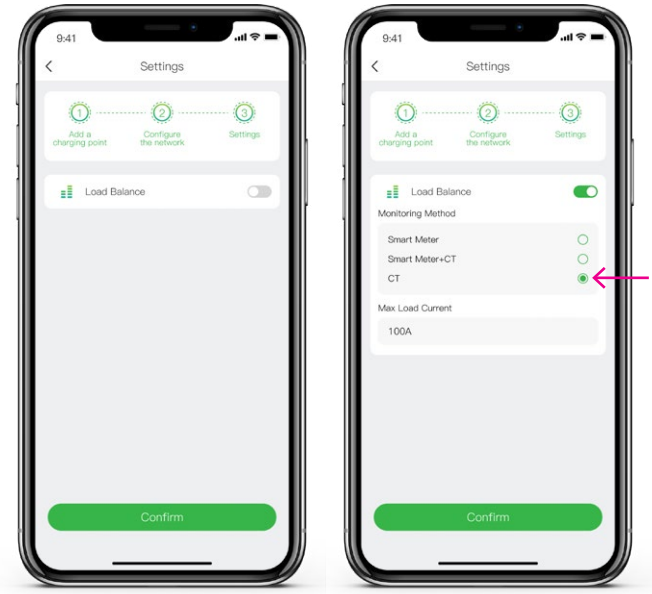

1:59
Settings
Wi-Fi
Edit
Wi-Fi
SN10052309285619
Weak Security
MY NETWORKS
K.E.G.
Wifi123
OTHER NETWORKS
Visitor
Other...
Ask to Join Networks
Notify
Known networks will be joined automatically. If no known networks are available, you will be notified of available networks.
Auto-Join Hotspot
Ask to Join
Allow this device to automatically discover nearby personal hotspots when no Wi-Fi network is available.


9:41
Configure the network
Add a charging point
Configure the network
Log in to AP Mode
PIN Code
Enter the password
Note:
1.For the initial password of the charge point, see the last page of the user manual of the charge point.
2.If you have modified, please refer to the modified.
Sign in
Skip

# 9 Network Settings

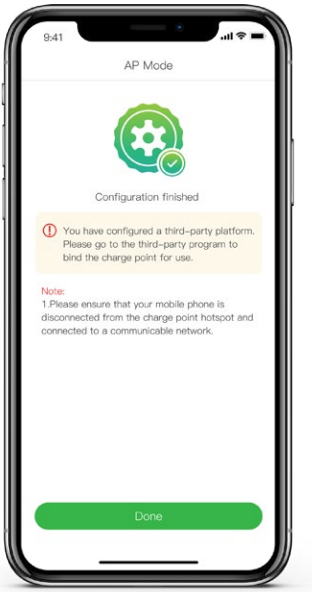



# 10 Load Balance




**MUST SELECT CT**

# 11 Final Step




- **The charger will reboot and save the settings after you select ‘Done’, completing the Evchargo commissioning.**
- **Download the Cord EV Charger app and follow the integration steps to start charging (Refer page 31).**

# End User Guide

# 12 Cord EV Charging App User Guide

**Follow the steps below to start using Cord EV app.**

1. Download the Cord EV app from Google store/App store or by scanning the QR code below.

2. Scan the QR code below to refer the Cord EV user guide and complete the steps to integrate and start charging.

# 13 Charging Operation LED Indication

### 13.1 Charging using app

**Standby**


Pulsing green,
1s on, 3s off

**Plug-in**

Flashing green,
200ms on, 1s off,
3s off, 5 times, cycle

**Charging**


Flashing green,
200ms on, 1s off,
cycle

## 13.2 Charging using Plug & Play

**Standby**


Pulsing green,
1s on, 3s off

**Plug-in**

Flashing green,
200ms on, 1s off,
3s off, 5 times, cycle

**Charging**


Flashing green,
200ms on, 1s off,
cycle

**Fully Charged**


Solid green light indicates the EV is fully charged.

**Stop charging and unplug**

Returns to standby mode after the charging has finished.

### 13.3 Charging using RFID card

**Plug-in**

Flashing green,
200ms on, 1s off, 3s off,
5 times, cycle.

**Use RFID Card**


Use the RFID card in the designated reading area.

A yellow indicator flashing, then turning green confirms the RFID card is successfully read and charging has started.

# 14 UK EV Smart Charge Point Regulation

The UK government has introduced new rules and regulations around EV charging to ensure that consumers are protected and to tackle the rising electricity demand in the country.

The rules apply to the electric vehicle private charger which are sold for use in a domestic or workplace environment in Great Britain.

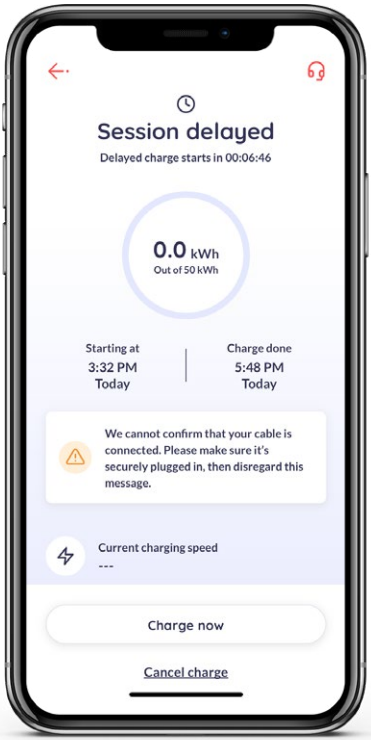
These measures were designed to help manage increasing electricity demand from the UK's transition to electric vehicles (EVs) and improve security protocols. The regulation details are as follows:

- Phase 1 of the UK government's Electric Vehicle (Smart Charge Points) Regulations 2021 came into force on 30 June 2022 and includes -
    - Randomised delay
    - Loss of communications network access
    - Default Charge settings
- On December 2022, Phase 2 of UK regulations came into effect now including built-in cyber security features -
    - Tamper boundary protection
    - Event logs for user privacy and data protection

## Phase 1

### 14.1 Randomised delay

- The regulations have made it mandatory to add the feature of ‘Randomised delay’ to protect the stability of the national electricity system from high volumes of chargers switching on or off at the exact same time.
- Under this regulation, the start or stop of a charger will be subjected to a random delay of up to 600 seconds. The user may experience that the charging session will not start at the exact scheduled time and should take this into account when checking the charging status.
- The user can override this delay in the app by selecting the “Switch to Charge now” right after the swipe to charge on each charging instances.

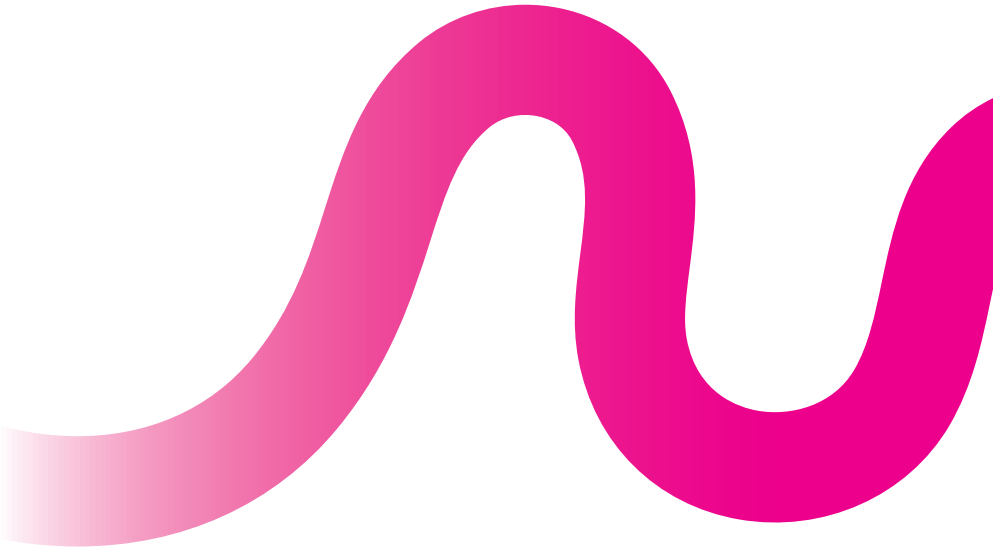



### 14.2 Loss of communications network access

- Under the UK regulations, the charger should be configured to charge the vehicle even if it loses connection to the communication network. In that situation, the charger is offline.
- To improve the experience for users, the charger should support local authorizatior of identifiers.
- The registered RFID cards can be used to charge the vehicle even if the charger is offline. (Refer 5.2.2)

### 14.3 Default charge schedule

- With the introduction of smart charge point regulations, the UK government imposed an off-peak charging feature to manage the electricity demand during peak hours.
- Off-peak charging only allows the user to charge the vehicle during off-peak hours. The chargers will not be able to operate from 8am to 11am and 4pm to 10pm which are considered as the peak hours during weekdays.
- There is no peak hour during weekends.



## Phase 2

### 14.4 Cyber security

On December 30th, 2022, Phase 2 of the UK Smart Charge Points Regulations—which includes several reinforced security measures to make owning and using an EV charger as secure as possible—went into effect .

The features that are important for the user to know are as follows:

- A “tamper-protection boundary” is included to secure the charger’s internal components. The charger will quickly log any unauthorised attempts to access it internally and notify the registered owner.
- The user’s personal information can be deleted from the Cord EV app app by calling Cord EV customer support.
- The charger firmware updates will be provided for 3 years from the date of purchase.

The following measures are recommended for charger security:

- Remove the charger network pin sticker from the charger and keep it safe.
- The charger Access Point page is only open for 15 minutes, after which the page is inaccessible as a security precaution.
- Contact the Cord support immediately if the charger sends critical security event notification in the app.
- If the user receives notification from the app to upgrade, ensure upgrade is installed.
- The RFID cards should be kept secure.
- Ensure the Cord EV account has a strong password.

# 15 Troubleshooting

## 15.1 Indicator status

| State | Description | Led Status |
|---|---|---|
| **In standby** | Normal | Pulsing green, 1s on, 3s off |
| **Charging status** | Normal | Flashing green, 200ms on, 1s off, cycle |
| **Plugged gun state** | Normal | Flashing green, 200ms on, 1s off, 5 times, 3s off, cycle |
| **Software upgrade** | Normal | Flashing white, 200ms on, 1s off, 5 times, 5s off, cycle |
| **Relay fault** | Fault | Red light normally on |
| **Leakage current** | Fault | Flashing red, 500ms, 500ms off, 3s off, 1 time, cycle |
| **CP fault** | Fault | Flashing red,500ms on, 500ms off, 3S off, 2 times, cycle |
| **Overload fault** | Fault | Flashing red, 500ms on, 500ms off, 3s off, 3 times, cycle |
| **Input polarity reverse** | Fault | Flashing red, 500ms on, 500ms off,3s off, 4 times, cycle |
| **Leakage current loop abnormal** | Fault | Flashing red, 500ms on, 500ms off, 3s off, 5 times, cycle |
| **Input terminal overtemperature** | Fault | Flashing red, 500ms on, 500ms off, 3s off, 6 times, cycle |
| **Relay overtemperature** | Fault | Flashing red, 500ms on, 500ms off, 3s off, 7 times, cycle |
| **Under voltage fault** | Fault | Yellow light, 2s on, flashing red light, 500ms on, 500ms off, flashes 1 time, 3s off, cycle |
| **Over voltage fault** | Fault | Yellow light, 2s on, flashing red light, 500ms on, 500ms off, flashes 1 time, 3s off, cycle |
| **Over frequency fault** | Fault | Yellow light, 2s on, flashing red light, 500ms on, 500ms off, flashes 2 times, 3s off, cycle |
| **Under frequency fault** | Fault | Yellow light, 2s on, flashing red light, 500ms on, 500ms off, flashes 2 times, 3s off, cycle |
| **Incorrect load balance activation/connection** | Fault | Yellow light, 2s on, flashing red light, 500ms on, 500ms off, flashes 5 times, 3s off, cycle |
| **Ground warning** | Normal | Yellow light, 2s on, flashing red light, 500ms on, 500ms off, flashes 8 times, 3s off, cycle |

## 15.2 Fault code and resolution

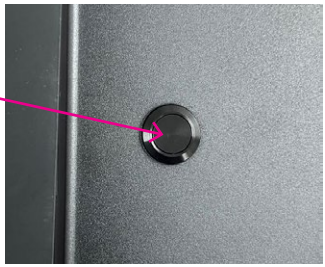
| Problems | Possible Causes | Solutions | Automated Recovery |
|---|---|---|---|
| **Overvoltage** | AC input voltage is too high | 1. Check the charger input voltage.<br>2. If the voltage is over 253Vac for a short time, please wait until the power grid recovers to the normal voltage range. | The charger immediately recovers once the input voltage is within range. |
| **Undervoltage** | AC input voltage is too low | 1. Check the charger input voltage.<br>2. If the voltage is under 207Vac for a short time, please wait until the power grid recovers to the normal voltage range. | The charger immediately recovers once the input voltage is within range. |
| **Overload/ Over-current** | AC output current is too high | 1. Shut off the breaker switch in the distribution/consumer unit immediately if it hasn't already.<br>2. Check whether there is low resistance path on the output cable and charging gun. | The charger recovers to normal state once the charging gun is plugged out from the vehicle. |
| **Overfrequency** | AC input frequency is too high | 1. Check the input voltage frequency from the backend.<br>2. If the frequency exceeds 63Hz for a short time, wait till power grid recover to normal voltage range. | The charger immediately recovers once the electrical frequency is within range. |
| **Underfrequency** | AC input frequency is too low | 1. Check the input voltage frequency from the backend.<br>2. If the frequency is lower than 47Hz for short time, wait till power grid recover to normal voltage range. | The charger immediately recovers once the electrical frequency is within range. |
| **Input terminal over-temperature** | Temperature inside the charger is too high | 1. Check the surrounding conditions of chargers installed whether there is heat source nearby. Make sure surrounding temperature is under 60°C.<br>2. Please ensure the electrical cable and terminal integrity before powering the charger. | The charger recovers when the temperature is back to normal. |
| **Leakage current** | Leakage current to earth is too high | 1. Shut off the breaker switch in the distribution/consumer unit immediately.<br>2. Shut off the breaker switch in the distribution/consumer unit immediately. | The charger recovers to normal state once the charging gun is plugged out from the vehicle. |
| **Reversed input polarity** | Reversed connection of L/N input cable | 1. Shut off the breaker switch in the distribution/consumer unit immediately.<br>2. Check if AC input/output cables are connected in the correct polarity and rectify accordingly. | The charger immediately recovers once the input terminal is connected in the correct polarity. |
| **Faulty Leakage Current Monitoring System** | Connection issue on the leakage detection current transformer | 3. Please check the port connection of the current transformer clamped to the outgoing line and neutral cable. | The charger recovers when the connection of leakage detection current transformer is resolved. |
| **Ground Warning** | Loose connection on incoming CPC cable or unstable incoming voltage | 1. Please tighten the incoming CPC/ grounding cable inside the charger.<br>2. If tightening does not resolve the issue, please wait until the incoming voltage stabilize. | The charger immediately recovers once grounding cable is tightened and the voltage is stable. |

Note: If the problem occurs, please visit: www.cord-ev.com

### 15.3 Forgot the Access Point password?

**Reset the password by following the steps below:**

1. Power reboot the charger
2. Press and hold the reset button for 10s. This will revert to the default PIN code.
3. Access the AP page (Refer to 7.1, steps 1-7). Input the default 4-digit PIN code in the charger sticker.
4. Input the new 8-digit password.



# 16 Maintenance

| No. | Item | Operating Process |
|---|---|---|
| 1 | Charger components | Use a dry non-static cloth to clean the charger surface.<br>If there is any damage on the vehicle connector, charging cable, or vehicle connector holder, please contact customer service immediately. |
| 2 | Charger casing | Do not hit or press hard on the case. If the case is damaged, please contact customer service. |
| 3 | Moisture and water notice | If you notice any water or moisture inside the charger, it is important to immediately turn off the electricity supply to prevent any potential danger. Before using the station again, contact a qualified electrician. |
| 4 | Flammable substance | It is important to ensure that the charger is kept away from hazardous materials, such as flammable gases and corrosive substances. |

# 17 Security Events and Customer Support

## 17.1 Security events

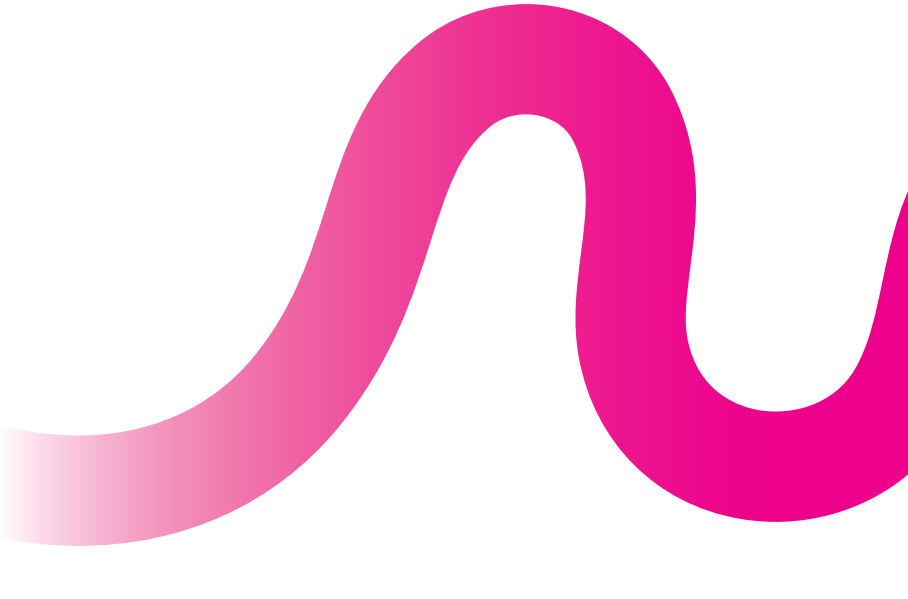
| Notification | Function |
|---|---|
| **Firmware updated** | The Charger firmware is updated |
| **Startup of the device** | The Charger has booted |
| **Reset or reboot** | The Charger was rebooted or reset |
| **Security log was cleared** | The security log was cleared |
| **Memory exhaustion** | The Flash or RAM memory of the Charger is getting full |
| **Tamper detection activated** | The physical tamper detection sensor was triggered |

## 17.2 Cord customer support

Need some assistance?
For additional support, contact our customer service team.

**Telephone:** +44 (0) 330 102 5656
**Email:** hello@cord-ev.com
**Visit:** www.cord-ev.com

www.cord-ev.com/knowledgebase



cord

## Get in touch

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Smart
Charge Points
Regulations
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June 2025, SKU: P350690007-00 (A01)