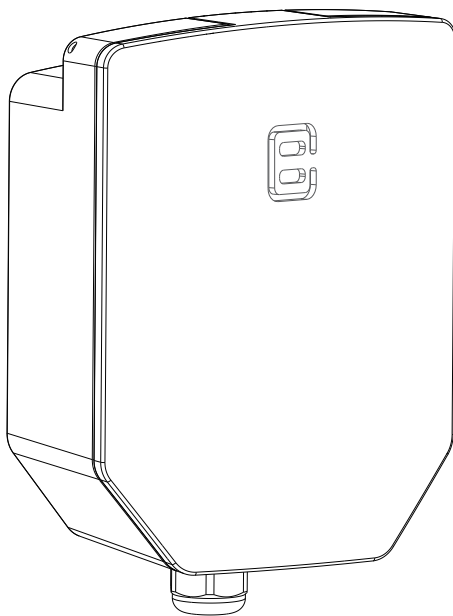


# BC1 Installation and User Guide



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## 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!

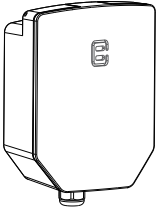
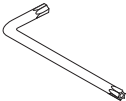
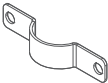
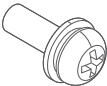
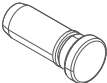
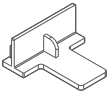
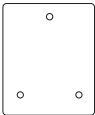
The device can be in an electrically energised state. There is a risk of shock and electrical hazards. Please strictly observe all warnings on the device and user manuals. The cover of the charger is only to be removed by a qualified electrician.

# Specification

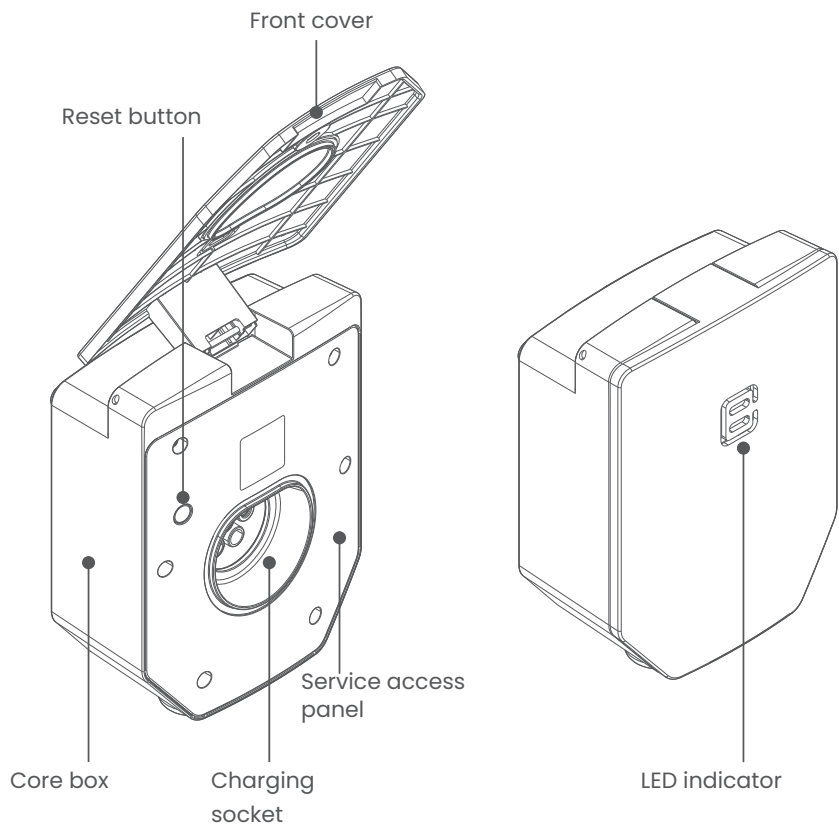
|                     | Model                 | BC1                                                                                                                                                                                             |
|---------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input               | Power Supply          | 1P+N+PE                                                                                                                                                                                         |
|                     | Rated Voltage         | 230V AC±10%                                                                                                                                                                                     |
|                     | Rated Current         | 32A                                                                                                                                                                                             |
|                     | Frequency             | 50HZ                                                                                                                                                                                            |
| Output              | Output Voltage        | 230V AC±10%                                                                                                                                                                                     |
|                     | Maximum Current       | 32A                                                                                                                                                                                             |
|                     | Output Power          | 7kW                                                                                                                                                                                             |
| User Interface      | Start Mode            | EVTEC charge APP/ Plug and Play                                                                                                                                                                 |
| Structure Design    | Charging Outlet       | Type 2 socket                                                                                                                                                                                   |
|                     | Housing Material      | PC                                                                                                                                                                                              |
| Communication       | Wi-Fi                 | Wi-Fi(2.4GHz)                                                                                                                                                                                   |
|                     | 4G                    | 4G                                                                                                                                                                                              |
|                     | Ethernet              | Ethernet                                                                                                                                                                                        |
|                     | Protocol              | OCPP 1.6J                                                                                                                                                                                       |
| Security Protection | RCD                   | 30 mA Type A+6mA DC                                                                                                                                                                             |
|                     | Ingress Protection    | IP54                                                                                                                                                                                            |
|                     | Impact Protection     | IK08                                                                                                                                                                                            |
|                     | Electrical Protection | Over current protection,<br>Residual current protection,<br>Surge protection,<br>Over/Under voltage protection,<br>Over/Under frequency protection,<br>Over temperature protection<br>PEN-fault |
| Certification       | Certification         | UKCA, RoHS                                                                                                                                                                                      |
| Environmental Index | Installation          | Wall-mount/Post mount                                                                                                                                                                           |
|                     | Work Temperature      | -30 °C~+50°C                                                                                                                                                                                    |
|                     | Work Humidity         | 5%~95%                                                                                                                                                                                          |
|                     | Work Altitude         | <2000m                                                                                                                                                                                          |
|                     | Cooling Method        | Natural cooling                                                                                                                                                                                 |
|                     | Application Site      | Indoor/Outdoor                                                                                                                                                                                  |
| Package Information | Product Dimension     | 178mm x 240mm x 99mm (W*H*D)                                                                                                                                                                    |
|                     | Package Dimension     | 320mm x 260mm x 155mm (L*W*H)                                                                                                                                                                   |
|                     | Gross Weight          | 2.4Kg                                                                                                                                                                                           |
|                     | Net Weight            | 1.8Kg                                                                                                                                                                                           |

# Package contents

Please check the items you received against the packing list below. If anything is missing or incorrect, feel free to contact us.

| Item                 | Icon                                                                                | Quantity |
|----------------------|-------------------------------------------------------------------------------------|----------|
| EV charger           |    | 1        |
| Torx key             |    | 1        |
| Cable clamp          |    | 1        |
| M4*12 screw          |    | 2        |
| Wall plug            |    | 3        |
| Wall mounting screw  |  | 3        |
| Rubber seal cap      |  | 1        |
| Front cover retainer |  | 1        |
| Mounting template    |  | 1        |

# Product overview



## Installation

Ensure you have prepared the required tools and materials before installation.

### Required tools

- Tape measure
- Crimping tool
- Spirit level
- Marker
- Wire stripper
- Utility knife
- Adjustable wrench (12-inch)
- Cable cutter
- Multimeter
- Drill (Drill bit:  $\Phi 6\text{mm}$ )
- Insulated gloves
- Safety glasses
- Torque wrench
- Hammer
- Torx key (provided comes with charger)
- Phillips screwdriver

### Required items

- RJ45 connector (Standard)
- Network cable: Cat5e
- Power cable:  $6\text{mm}^2$
- RCBO: 40A, 230VAC, 1P+N, 30mA, Type A

# Installation process

## 1. Prepare installation site

### Tools:

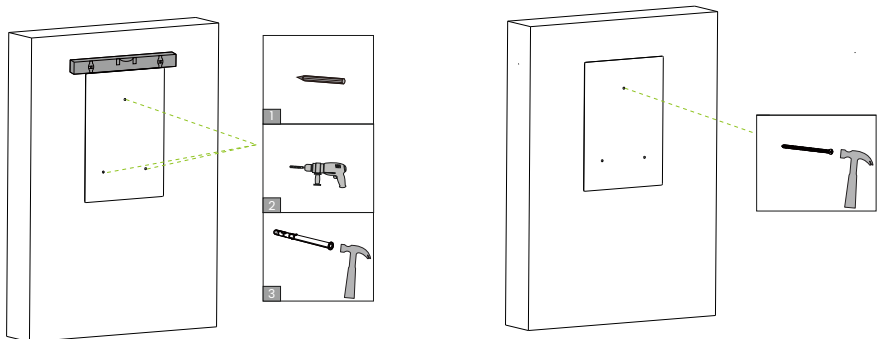
- Drill
- Level
- Tape measure
- Marking tool
- Hammer
- Screwdriver

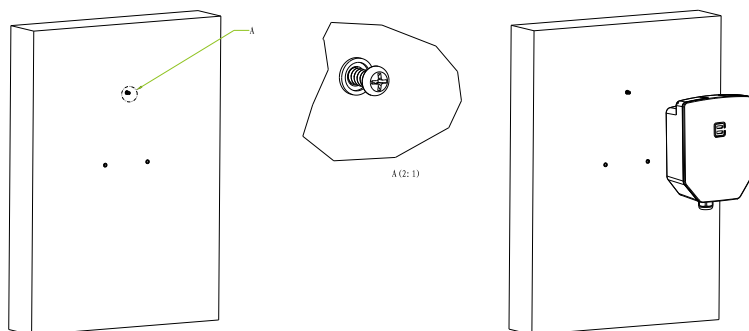
### Materials:

- Wall plugs (\*3)

### Steps:

1. Use a tape measure to mark the recommended installation height on the wall.
2. Align the charger's mounting template on the wall. Use a spirit level to ensure it is straight, then mark the drilling points through the template holes.
3. Drill holes (Depth: 70mm) at the marked points. Insert wall plug into the holes using a hammer.
4. Insert a wall mounting screw into the upper wall plug and keep a 5mm gap between the screw head to the wall surface.





## 2. Remove the service access panel

### Tools:

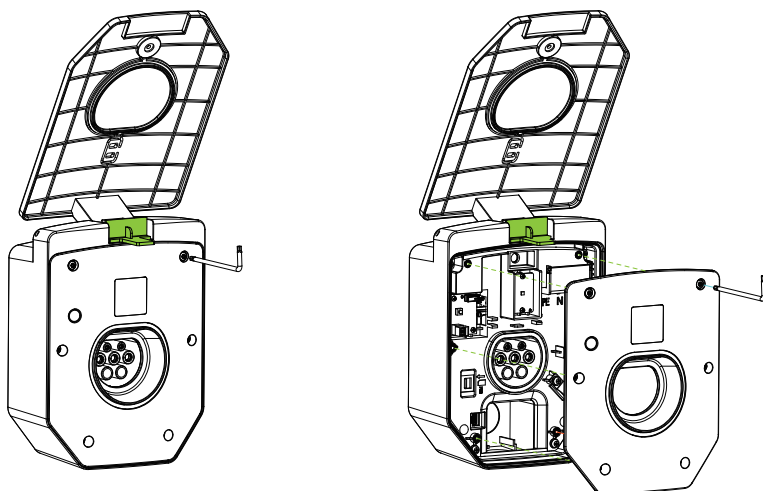
- Torx key

### Material:

- Front cover retainer (\*1)

### Step:

1. Hang the charger on the protruding screws on the wall.
2. Open the front cover and secure it using the front cover retainer.
3. Use the torx key to loosen the six captive screws securing the service access panel.



### 3. Securing the charger to the wall

#### Tools:

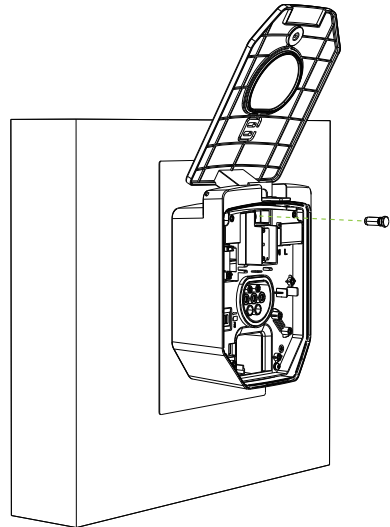
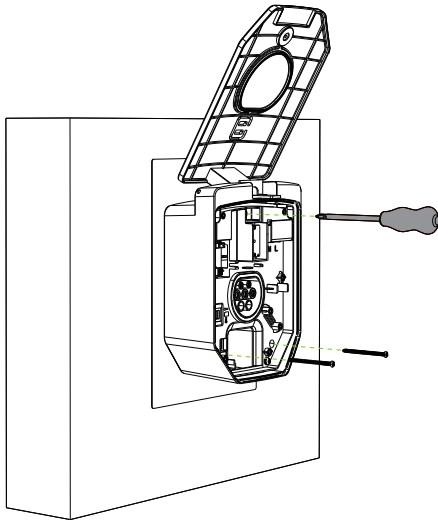
- Phillips screwdriver

#### Materials:

- Wall mounting screws (\*3)
- Seal cap (\*1)

#### Steps:

1. Secure the lower two mounting screws.
2. Secure the upper wall mounting screw.
3. Plug the rubber seal cap into the upper wall mounting hole.



## 4. Power cable connection

### Tools:

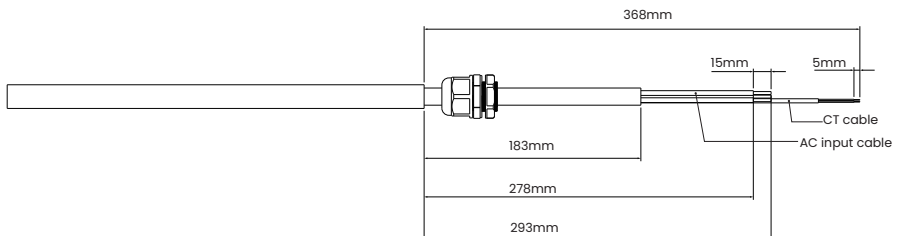
- Cable cutter
- Wire stripper
- Screwdriver
- Crimping tool
- Utility knife
- Adjustable wrench
- Torx key

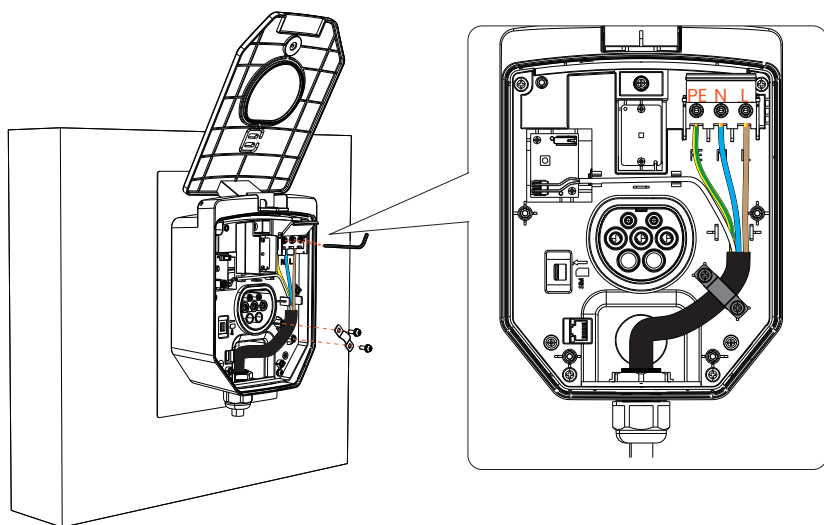
### Materials:

- Wire ferrule (\*3)

### Steps:

1. Loosen the gland using the adjustable wrench.
2. Strip the wire insulation and insert the exposed conductor into the wire ferrules (not required for solid stranded cables).
3. Use the crimping tool to secure the ferrules.
4. Loosen the screws securing the wires in the terminal block.
5. Open the screw flap (image below) , terminate the wires and close the flap.
6. Use the cable clamp to secure the cable routing.





## 5. CT connection (If required)

**Note:** CT Clamp is not a standard accessory. Please skip this step if not provided separately.

### Tools:

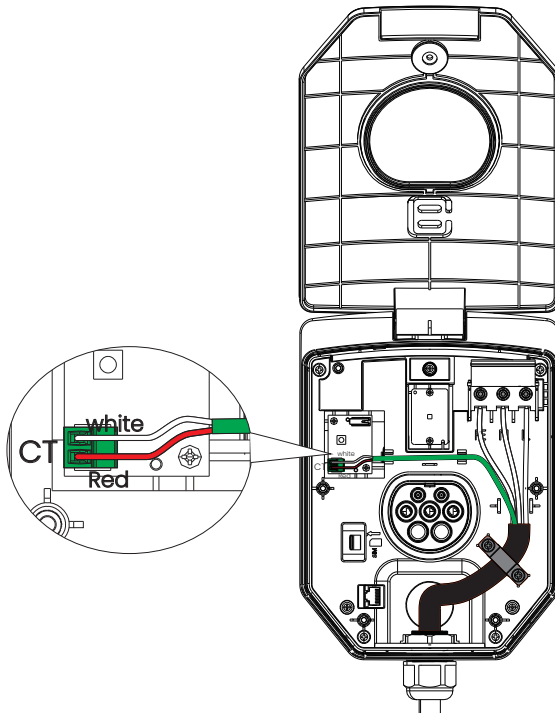
- Wire stripper

### Material

- CT connector (\*1)
- CT clamp(\*1)

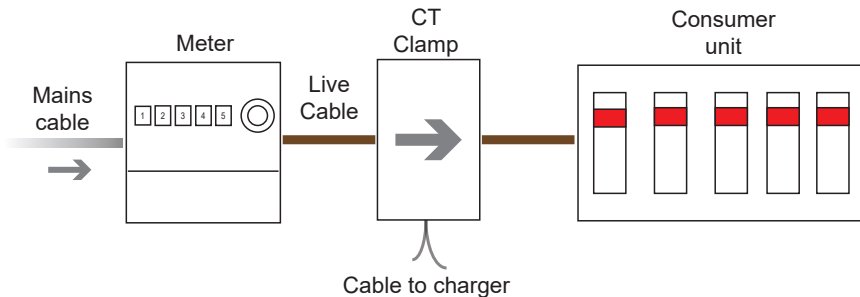
### Steps:

1. Insert the CT cable through the cable inlet.
2. Strip the outer cable insulation using a wire stripper.
3. Loosen the screws in the CT connector plug.
4. Insert the wires into the two ports of the connector plug then fasten the screws to secure the wires.
5. Plug the connector plug into the CT port (image below).



The CT clamp should be positioned around the Live (positive) cable between the Meter and the Consumer Unit.

The arrow shown on the CT clamp must point in the direction of electrical flow TOWARD the consumer unit.



## 6. Network cable connection (if required)

### Tools:

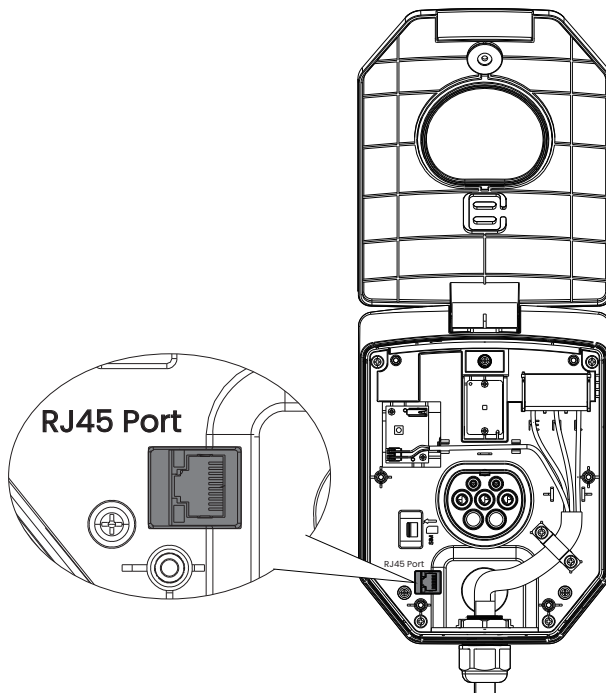
- Wire stripper
- Utility knife
- Crimping tool

### Material:

- RJ45 connector
- Network cable

### Steps:

1. Insert the network cable through the cable inlet.
2. Strip the outer cable insulation using a utility knife/wire stripper.
3. Strip the inner wires using a wire stripper.
4. Insert the wires into an RJ45 connector and use the crimping tool to secure them.
5. Plug the RJ45 connector into the designated port.



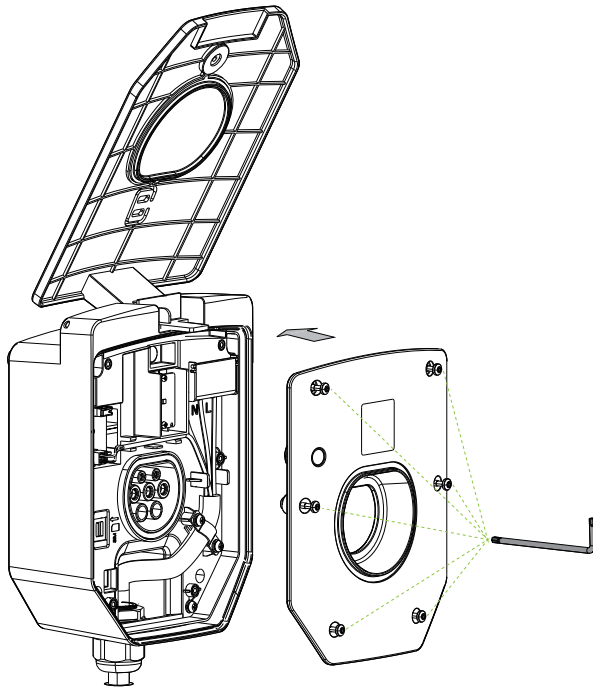
## 7. Final installation step

### Tools:

- Torx key

### Steps:

1. Place the service access panel back in position.
2. Secure it with screws.
3. Remove the front cover retainer and close the front cover.



# Configure network for the charger

## Download Evcharge App

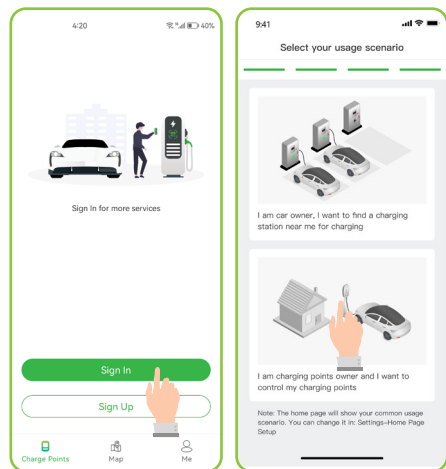
Download the commissioning App.



Scan the QR code to download the Evcharge app

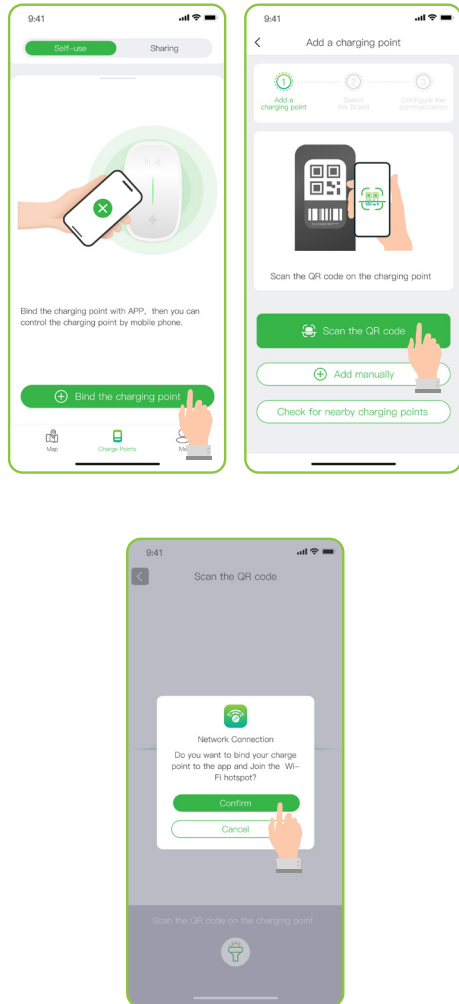
## Sign in

1. Open the app and tap "Sign Up" to create a new account.
2. Enter your E-mail address, set a password and confirm your details.



## Charger commissioning

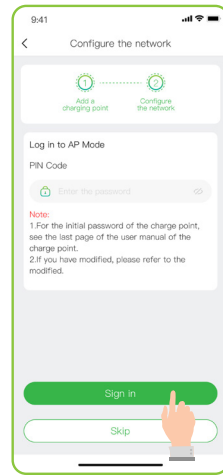
1. In the Evcharge app, tap 'Bind the ChargePoint'.
2. Tap 'Scan the QR Code'.
3. Scan the Evcharge QR code found in the manual or on the charger label.



4. The QR code scanning will direct you to the AP mode login page.

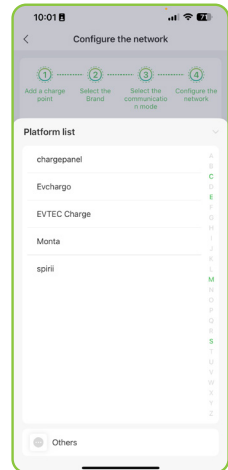
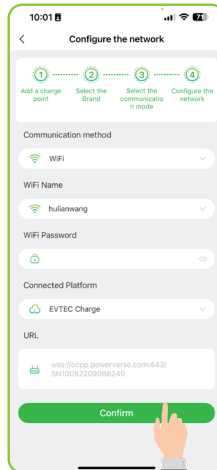
5. Enter the 4-digit PIN code.

**Note:** The PIN code can be found on either in the last page of this manual or label on charger.

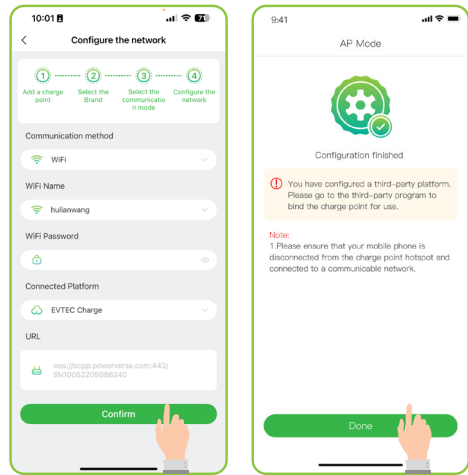


6. Configure the network details and confirm.

**Note:** If you need to connect your charger to a third party platform(if required), you can tap the down arrow in the connected platform menu and choose the platform.



## 7. Configure the network details and confirm.



Charger commissioning is completed. Please follow the next steps to download the charging app and start charging.

## Charging by App

Please let the end user install the EVTEC Charge App below.



## Indicator status

| Indicator Colour | Charging station status<br>European/British/<br>American standard status                                                          | Indicator light effect                                                                                 | Remark                                                                                      |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Green            | Standby                                                                                                                           | Slow flashing, on for 1S, off for 3S, cycle                                                            | No gun inserted                                                                             |
|                  | Charging started successfully, waiting for the vehicle to respond                                                                 | Flash quickly, on for 200ms, off for 1000ms, twice, then off for 3000ms. Cycle                         | Suspended EV status                                                                         |
|                  | The gun is plugged in and waiting to be charged                                                                                   | Flash quickly, on for 200ms, off for 1000ms, 5 times, then off for 3000ms. Cycle                       |                                                                                             |
|                  | Charging process                                                                                                                  | Gradually light up and fade out, breathe, light up for 1S and fade out for 1S                          |                                                                                             |
|                  | Charging complete                                                                                                                 | Always on                                                                                              | In this state, if the gun is drawn, it will switch to standby mode.                         |
| Yellow           | No network/Not connected to server status                                                                                         | Green light on for 1S, yellow light on for 1S, off for 3S, cycle                                       | No gun inserted                                                                             |
|                  | When the allocated power is insufficient, the charging standby state is suspended.                                                | Flash quickly, on for 200ms, off for 1000ms, 5 times, then off for 3000ms. Cycle                       | Suspended EVSE                                                                              |
|                  | Card recognition successful                                                                                                       | Flashing, on for 100ms, off for 100ms, up to 5 times                                                   |                                                                                             |
|                  | Alarm (relay overload, grounding alarm, voltage load reduction, input terminal overtemperature load reduction, disassembly alarm) | Yellow light is on(solid)                                                                              |                                                                                             |
|                  | Reservation                                                                                                                       | Yellow light on for 2S, off for 2S, cycle                                                              | After the fault disappears and the system recovers, please notify the after-sales personnel |
| Red              | Relay sticking                                                                                                                    | Red light is on(solid)                                                                                 | After the fault disappears and the system recovers, please notify the after-sales personnel |
|                  | Leakage current fault                                                                                                             | The red light turns on for 500ms, turns off for 500ms, flashes once, then turns off for 3S, in a cycle | Draw the gun to recover                                                                     |

|        |                                                 |                                                                                                                                   |                                                                                                                 |
|--------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Red    | CP Failure                                      | The red light flashes twice, turns on for 500ms, turns off for 500ms, and then turns off for 3S in a cycle.                       | After the fault disappears and the system recovers, please notify the after-sales personnel                     |
|        | Overcurrent fault                               | The red light flashes 3 times, then turns off for 3 seconds, on for 500ms, and off for 500ms, in a cycle                          | Draw the gun to recover                                                                                         |
|        | Input reverse connection fault                  | The red light flashes 4 times, then turns off for 3S, on for 500ms, and off for 500ms, in a cycle                                 | After the fault disappears, the system will recover. Please check the wiring.                                   |
|        | Leakage current circuit abnormality (self-test) | The red light flashes 5 times, turns on for 500ms, turns off for 500ms, then turns off for 3S, in a cycle                         | After the fault disappears and the system recovers, please contact the tech support                             |
|        | Input terminal over temperature fault           | The red light flashes 6 times, then turns off for 3S, on for 500ms, and off for 500ms, in a cycle                                 | Restore after the fault disappears. Please wait 10 minutes before trying again.                                 |
|        | Relay over temperature                          | The red light flashes 7 times, then turns off for 3S, on for 500ms, and off for 500ms, in a cycle                                 | Restore after the fault disappears. Please wait 10 minutes before trying again.                                 |
|        | Output voltage fault                            | The red light flashes 9 times, then turns off for 3S, on for 500ms, and off for 500ms, in a cycle                                 | After the fault disappears and the system recovers, please notify the after-sales personnel                     |
|        | Gun temperature is too high                     | The red light flashes 10 times, turns on for 500ms, turns off for 500ms, then turns off for 3S, in a cycle                        | After the fault disappears and the system recovers, please notify the after-sales personnel                     |
| Orange | Emergency stop fault                            | The yellow light is on for 2s, then the red light is on(solid)                                                                    | Restore after the fault disappears                                                                              |
|        | Undervoltage fault                              | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes once, then off for 3S, repeats     | Restore after the fault disappears. The power grid is abnormal. Please wait for 10 minutes before trying again. |
|        | Overvoltage fault                               | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes once, then off for 3S, repeats     | Restore after the fault disappears. The power grid is abnormal. Please wait for 10 minutes before trying again. |
|        | Over frequency fault                            | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes twice, then off for 3S, in a cycle | Restore after the fault disappears. The power grid is abnormal. Please wait for 10 minutes before trying again. |

|        |                                                                                                                 |                                                                                                                                   |                                                                                                                     |
|--------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Orange | Underfrequency fault                                                                                            | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes twice, then off for 3S, in a cycle | Restore after the fault disappears. The power grid is abnormal. Please wait for 10 minutes before trying again.     |
|        | Meter communication abnormality (required for devices with meters)                                              | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes 3 times, then off for 3S, repeats  | After the fault disappears, the system will recover. Please check the meter connection and load balancing settings. |
|        | Smart meter communication abnormality                                                                           | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes 4 times, then off for 3S, repeats  | After the fault disappears, the system will recover. Please check the meter connection and load balancing settings. |
|        | CT abnormalities                                                                                                | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes 5 times, then off for 3S, repeats  | After the fault disappears, the system will recover. Please check the CT wiring.                                    |
|        | Gun lock abnormality                                                                                            | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes 6 times, then off for 3S, repeats  | After the fault disappears, it will be restored. Please check the gun lock.                                         |
|        | Abnormal gun current                                                                                            | The yellow light is on for 2 seconds, the red light is on for 500ms and off for 500ms, flashes 7 times, then off for 3S, repeats  | After the fault disappears, please check the gun.                                                                   |
| White  | Program upgrade in progress                                                                                     | Flash quickly, on for 200ms, off for 1000ms, 5 times, then off for 5000ms. Cycle                                                  |                                                                                                                     |
|        | Power-on self-test                                                                                              | Gradually light up and fade out, breathe, light up for 1S and fade out for 1S                                                     |                                                                                                                     |
|        | The charging station is in a disabled state (including downloading upgrades and platform-issued disabled state) | White light is on(solid)                                                                                                          |                                                                                                                     |

PIN CODE

## **Evttec Customer Support**

### **Operating Hours:**

Mon – Thur: 7:30AM – 4:15PM

Fri: 7:30AM – 12:30PM

**Phone:** 024 764 27000

**Email enquiries or report problems:** [enquiry@evtec-automotive.co](mailto:enquiry@evtec-automotive.co)