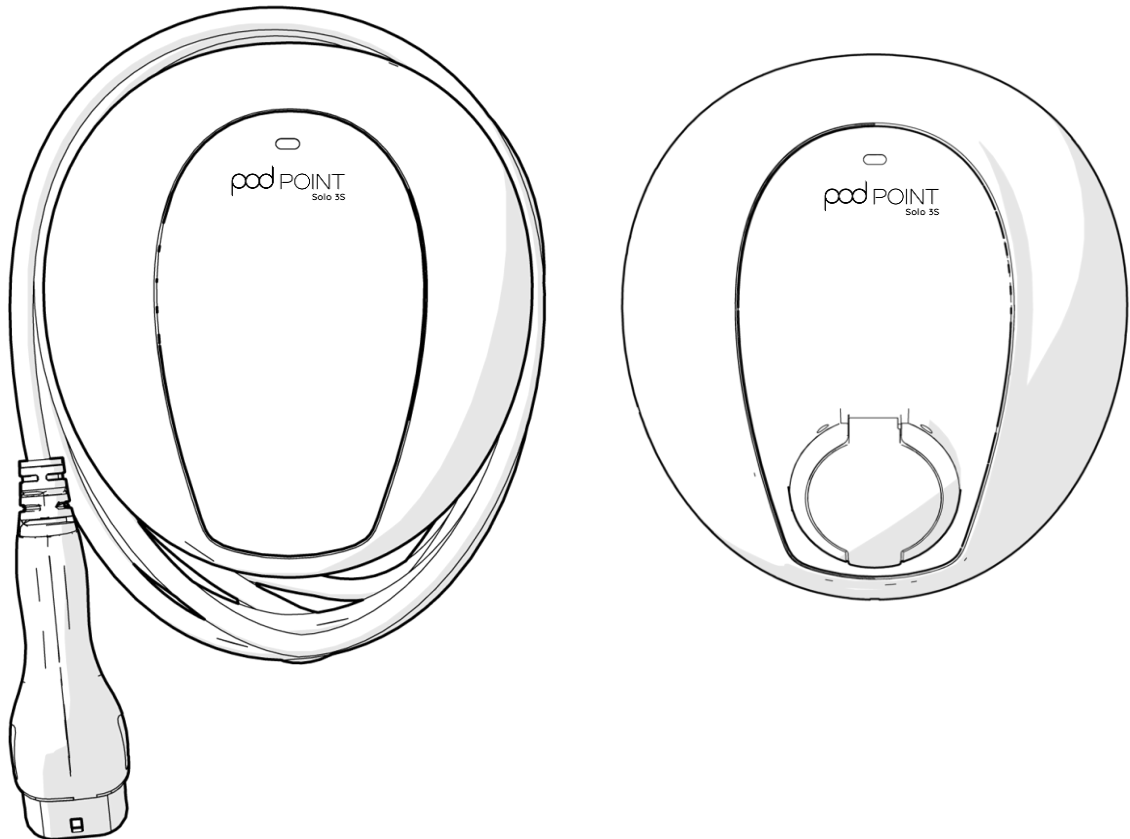


# Install Guide

## Solo 3S Domestic

pod POINT



### Pod Point Installer App Required

Use the Pod Point Installer App to configure the charger and hand over warranty care to Pod Point.

This allows our customer service team to resolve future customer issues remotely on your behalf.

[www.pod-point.com](http://www.pod-point.com)  
020 7247 4114



PP-2300436-3

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Pod Point is not responsible for the installation and/or commissioning works performed by any third-party installer.

In the absence of any negligence or other breach of duty by Pod Point, Pod Point is not responsible for any injury, loss or damage caused by any works, services, products or equipment provided or performed by the customer or the customer's third-party installer in relation to the installation, moving, modification, re-wiring and/or commissioning of the chargepoint.

Any installation or commissioning must comply with Pod Point's latest technical guides and recommendations, available from [pod-point.com/technical/hardware](https://www.pod-point.com/technical/hardware).

If Pod Point does not perform the installation and/or commissioning of the charger, it is the customer's responsibility to ensure that any third-party appointed to install, commission, move, modify and/or re-wire the chargepoint meets all technical Standards reasonably required to carry out such work. These Standards include, but are not limited to, compliance with the latest edition of BS 7671 and Part 722 of the same Standard for all electrical installation work, which refer directly to electric vehicle charging installations.

Installation of Pod Point charging equipment must comply with all applicable Building Regulations and Standards (including Part P of the Building Regulations for works in England and Wales) and must be carried out by a Competent Persons Scheme (CPS) registered installer.

Pod Point requires that any individual or business engaged in installing, commissioning and notifying for Part P of the Building Regulations be registered with a CPS, and whose remit and scope of works include electric vehicle charge point (EVCP) installation and commissioning. Pod Point only recognises the following CPSs:

- National Inspection Council for Electrical Installation Contracting (NICEIC)
- Electrical Contractors Association (ECA)
- National Association of Professional Inspectors and Testers (NAPIT)
- The Electrical Contractors Association for Scotland (SELECT)

Do not open, move, modify, or rewire your chargepoint and associated components once it has been commissioned. Failing to adhere to these requirements may affect any warranties in place for your chargepoint.

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## What's in the box

**1 x Solo 3S Charger**  
(Universal or Tethered)

**1 x Drilling Template**

**1 x Connection Details**

**1 x Power Balancing Sensor (CT clamp) + Cable tie**  
(Must be installed)

If any items are missing or damaged, please visit [www.pod-point.com/fault](http://www.pod-point.com/fault)

## What's required

- Drill
- Appropriate mounting screws and plugs (See Section 5)
- Supply cabling, insulation and related cabling support materials
- Appropriate circuit protection (See Section 2)
- Cable glands, grommet and sealant
- Cable ties
- EV simulator device
- Multi-function tester
- Smartphone with the Pod Point Installer App



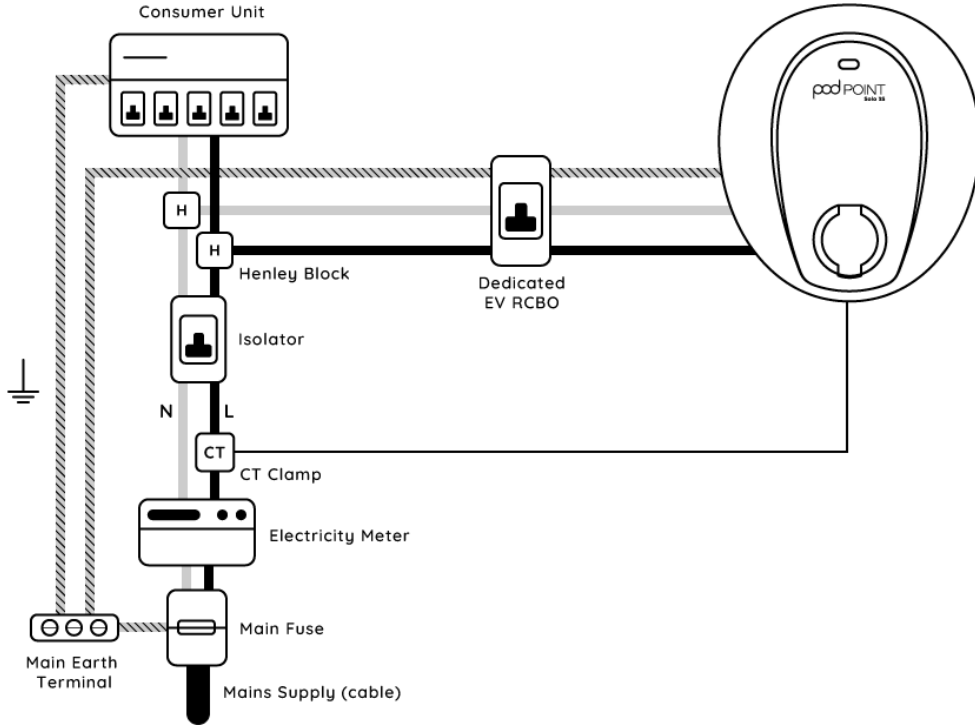
The Solo 3S charger and its installation guidance are intended for restricted access locations, such as a private domestic residence. It is not intended for installations where public access or use is intended. It is suitable for both outdoor or indoor installations and is intended for use by ordinary persons.

The Solo 3S is intended to be permanently connected to a TN-S, TN-S-C or TT AC supply network, and provides an AC charging output only.

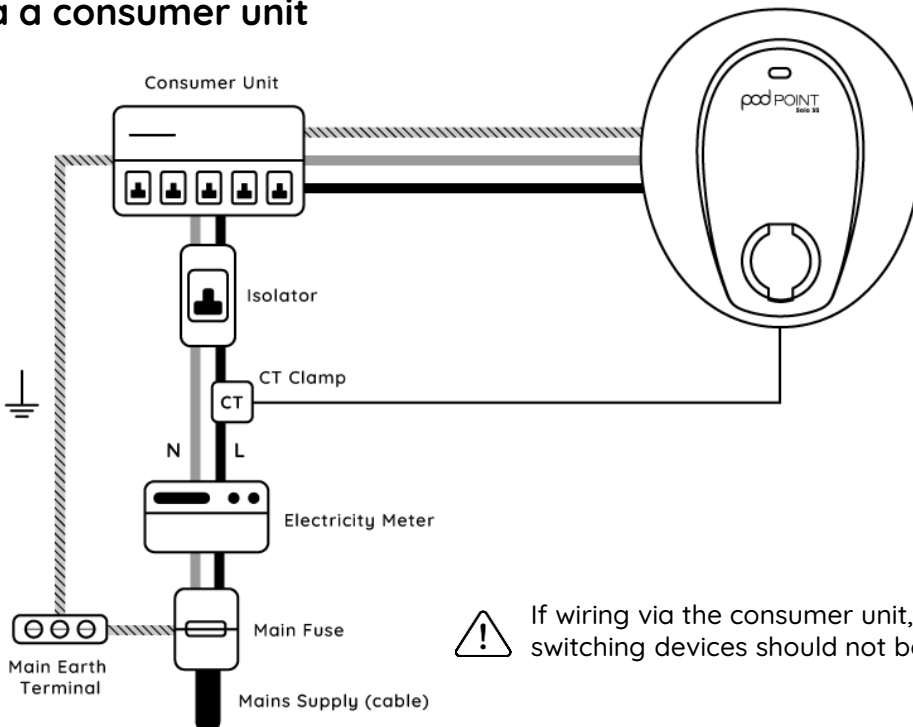
The charger is suitable for Mode 3 charging only. This charger does not support the optional function for ventilation.

<b>Charging Type</b>	Mode 3
<b>Connector</b>	Universal - Mennekes Type 2 Socket (IEC 62196-2) Tethered - Type 2 Connector (IEC 62196-2)
<b>Electric Shock Protection</b>	Class I - When charging Class II - When not charging
<b>Rated Voltage</b>	230V (400V) 50Hz
<b>Rated Current</b>	Up to 32 A per phase
<b>Operating temperature</b>	-25°C to 40°C  Please note during periods of high temperatures, charging speeds may reduce to maintain correct operating temperature.
<b>Types of earthing system</b>	TN-S, TN-C-S or TT
<b>Ingress Protection Rating</b>	IP54
<b>Impact Resistance Rating</b>	IK10
<b>Overvoltage (installation)</b>	Category III
<b>Pollution Degree</b>	3
<b>Product Dimensions (H x W x D)</b>	Universal - 330mm x 290mm x 167mm Tethered - 330mm x 290mm x 112mm
<b>Weight</b>	Universal - 3.5kg Tethered - 6kg

## Wiring via a dedicated breaker (preferred)



## Wiring via a consumer unit



If wiring via the consumer unit, single-pole switching devices should not be used.

## 1. Initial checks

To ensure the customer is prepared for any potential issues, relevant checks must be performed on the existing electrical supply prior to installation commencing.

Check the supply voltage, resistance at supply ( $Z_e$ ), adequate bonding is present, presence of looped supply or any other reportable supply issues prior to starting the installation. Ensure you follow relevant ENA Guidance when registering the charger, as this may impact the maximum current rating configuration of the charger.

## 2. Choosing the right circuit protection

For all installations, individual short circuit, overload and residual current protection is required. It is possible to use an RCD in conjunction with an MCB, or an RCBO, depending on connection type and location.

- RCDs must be 30mA Type A, Type B, or Type F.
- MCBs must be 6kA interrupt rated, class 3 devices. A typical 7kW installation should be rated at 40A however the rating will depend on your installation type and grouping factors. MCBs must be curve B or curve C only.
- For ease, RCBOs can be used instead of an RCD in conjunction with an MCB. The RCBO must be a **double-pole switched device**, and disconnect both Live and Neutral conductors.



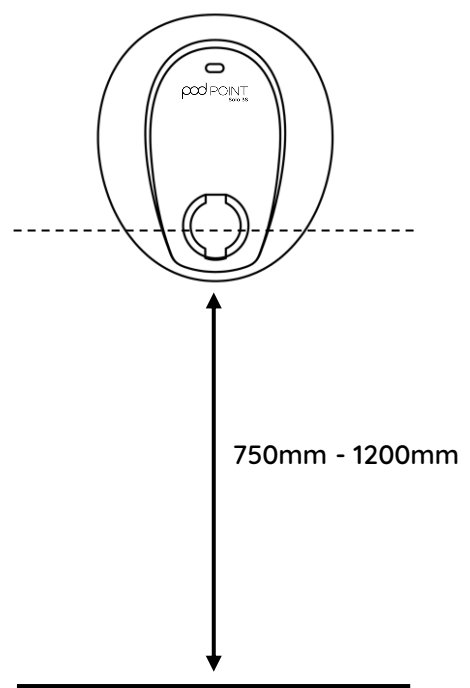
**Selectivity should be considered when choosing relevant circuit protection.**

## 3. Charger location

Consult with the charger owner on their desired charger location, taking into account charging cable lengths, parking location and potential cable trip hazards or vehicle impact risks.

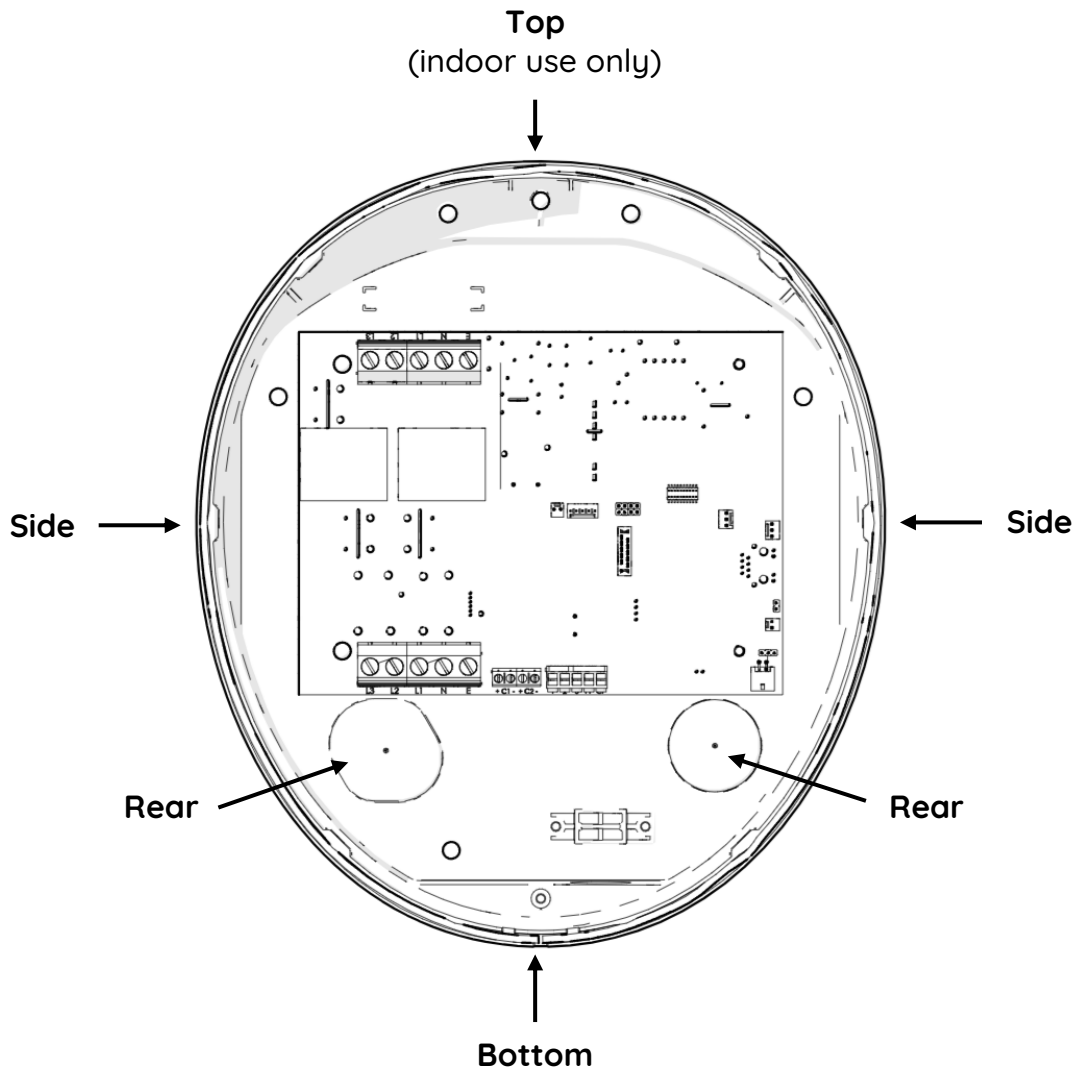
The charger must be installed on a suitably flat, rigid and permanent surface. Fences or other non-permanent structures **must not** be used. If the surface is uneven, additional preparation works may be necessary.

EV chargepoint heights should be installed between **750-1200mm** from the ground to the centre line of the socket-outlet, in accordance with BS 8300-1:2018



## 4. Preparing the charger

Open the charger by removing the 6 casing screws. Drill a suitably sized hole on a flat surface of the casing to allow for supply cable entry. Depending on cable entry point, a grommet, gland and/or sealant must be appropriately used to maintain the products IP rating. The following cable entry points are available:



Only use the top entry point for indoor installations that are suitably distanced from sources of water ingress. Take care when drilling not to damage any internal wiring or components.



If damage does occur to the internal components **do not connect the charger**. Please contact Pod Point for further advice.



## 5. Mounting the charger

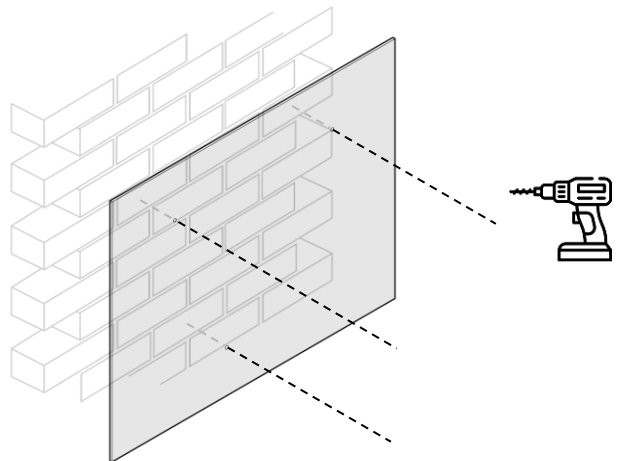
After checking the surface for cabling and pipework, use the drilling template provided to drill three suitably sized holes and fill with suitable plugs if required.

For most common brick wall installations we recommend:

**3 x No.12 (ø5.5mm.) x 35mm long self-tapping screws.**

**3 x Suitable wallplugs  
(for ø4.5-5.5mm screws)**

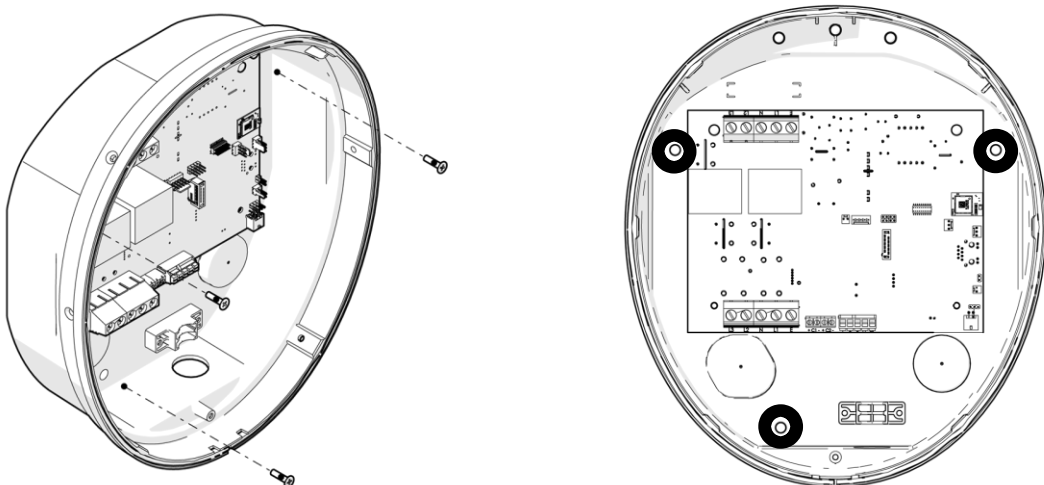
- ✓ Mushroom, flanged or pan head only.
- ✗ Countersunk head types are not recommended.



**Do not use the charger as a drilling guide as masonry dust will damage internal components.**

**Appropriate fixings must be used depending on the mounting surface.**

Secure the charger to the mounting surface using the three fixing points as shown. Apply sealant around fixing holes or use rubber washers (Nitrile/TPR Material, ID 5.3-5.5mm, OD 12-15mm, Thickness 1.2-2mm) between the screw heads and inside of product enclosure to ensure the IP rating is maintained

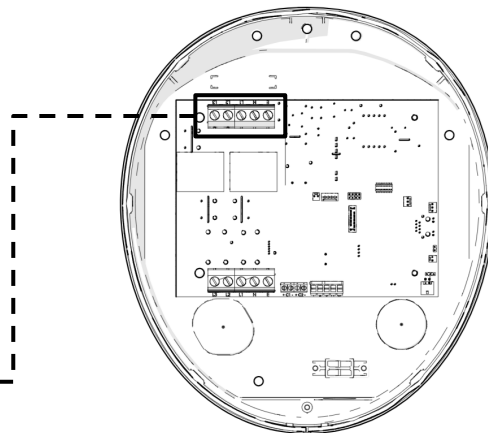
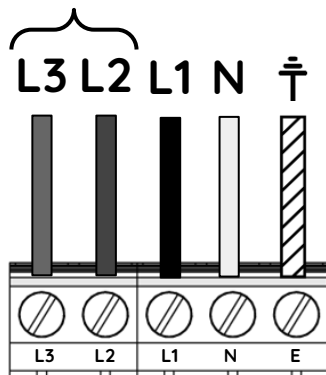


## 6. Wiring the charger

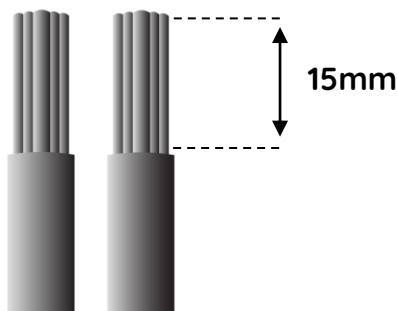
Wire the supply to the charger as shown, securing the terminals to 1.75Nm of torque. For a 7kW (or 22kW 3-phase) installation we recommend cables are rated to a minimum current of 40A, and compliant to the latest version of BS 7671.

 **To prevent damage, avoid touching any part of the PCB other than the connection terminals.**

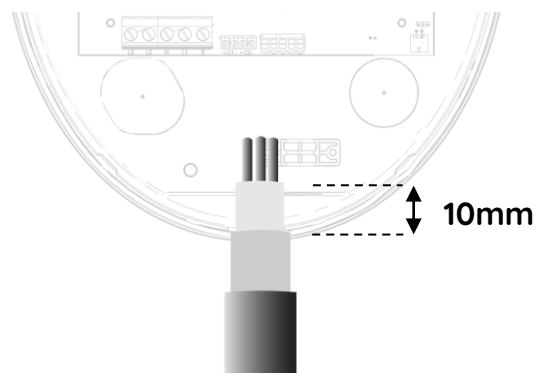
3-phase only



Ensure at least 15mm of insulation has been removed from the end of the cables to allow for good contact with the terminals.



Allow at least 10mm of inner insulation to enter the Solo 3S housing to avoid chafing with the gland or SWA.



 **Allow adequate supply cable length for easy termination and avoid any stress on cables or PCB. Do not route cables over the PCB.**

 **Ensure the terminations are adequately clamped to the terminal block, using light force only.**

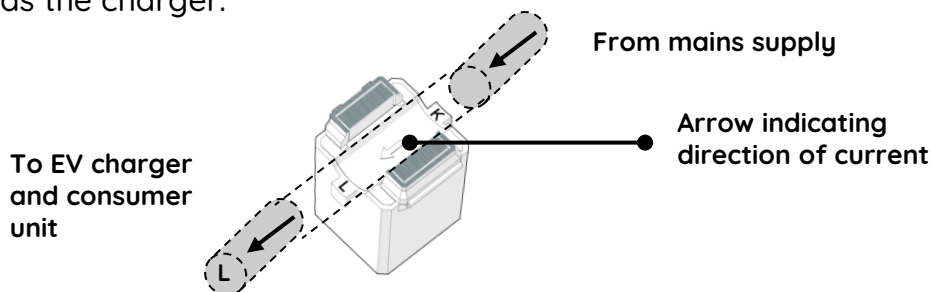
## 7. Wiring the Power Balancing Sensor (CT clamp)

The following step is only required for single-phase installations. This must be installed else some customer features such as solar charging will not work.

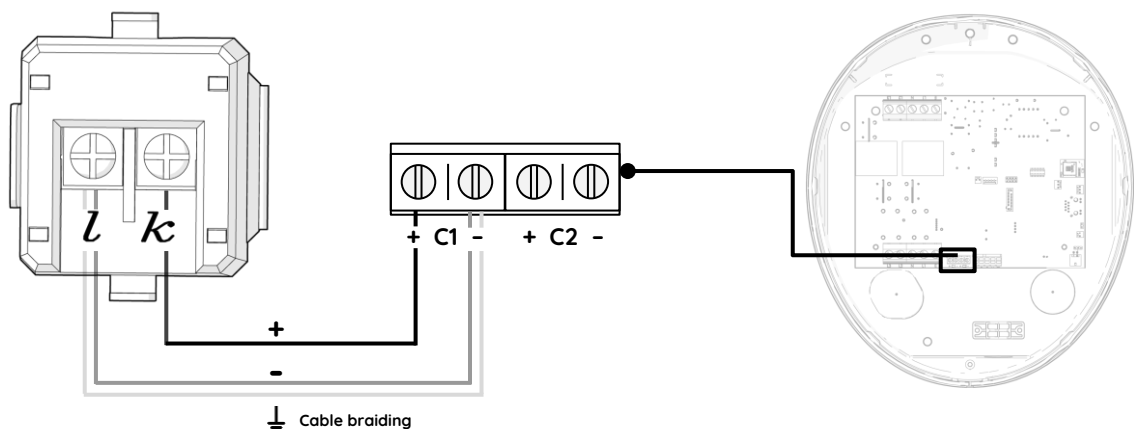
The CT clamp will monitor the current going to the property and allow the EV charger to de-rate if necessary in order to protect the upstream main fuse from overload. It is also necessary for the charger to be compatible with current or future solar PV installations.

The CT clamp should be installed and clamped around the live wire from the incoming supply feed to the property, upstream of any additional power supply such as solar PV or battery storage. Please refer to the wiring diagrams in the beginning of this guide for more information.

The clamp has a directional arrow in the middle of the core. This should be installed on the live conductor pointing in the same directional flow of the current, from the supply towards the charger.



The CT clamp should be wired using a screened, 2-core Defence Standard cable. The use of crimps and ferrules is not required, direct connection of the defence standard cable in terminals is sufficient. Wire the CT clamp to the charger as shown to a torque of 0.5Nm:

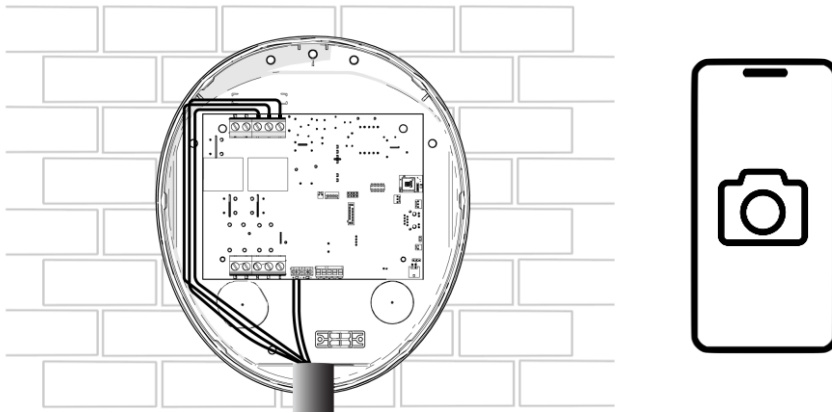


 The CT clamp must be secured in the clamped position with a cable tie.

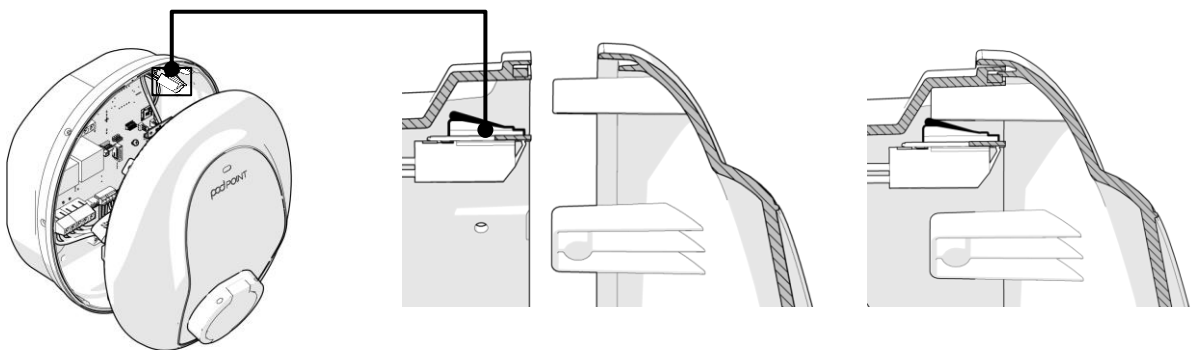
 Ensure correct torque is not exceeded, as overtightening can damage cables and/or terminals.

## 8. Closing the charger

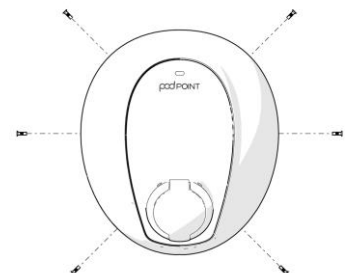
Prior to closing the charger, please take a picture of the inside of the charger, showing all the terminal connections clearly. You will need this later as part of the registration process. Without this image, Pod Point cannot take ownership of post-installation customer support enquiries on your behalf.



Once you have taken an image, close the lid of the charger, ensuring the tamper detection switch at the top of the charger is engaged correctly.



Apply sealant to the supply cable entry point to ensure the IP rating for the charger is maintained then secure the housing using the 6 fixing screws provided.



## 9. Log in to the Installer App

If not already installed, download the Pod Point Installer App and create an account. To download the app, scan the QR code on the right, or search for 'Pod Point Installer' in your phone's app store.

If the charger is configured and registered using the Installer App, Pod Point's customer service team will be able to handle customer issues remotely on your behalf.

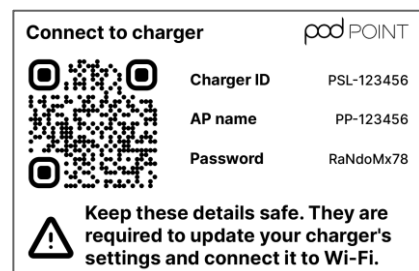
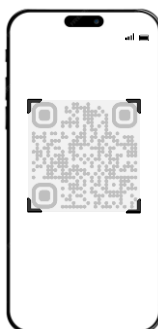


## 10. Connecting to the charger

When ready to configure the charger, ensure the lid is securely closed and turn the charger on at the breaker switch. The charger LED will be flashing white whilst it's powering on. Once the LED has turned solid blue, you will be able to connect to the charger with the Installer App.

You will have 60 minutes to connect to the charger. If you need to connect to the charger again at a later point, you will have to turn the charger off and on again.

In the Installer App, tap the **Connect** button to open your smartphone's camera. Scan the QR code on the connection label provided in the box to connect to the charger.



**Please keep this label safe** as you will need to provide this to the customer for safe-keeping. Once connected to the charger, we recommend sticking the label to the consumer unit, however please discuss this with the customer.

If the label has become lost or damaged, please contact our customer support team on 020 7247 4114.

## 11. Configuring the charger

Once connected check the readings for **Main Fuse Current**, **Mains Voltage** (measured across live(s) and neutral) and **Charging Current (A)** are within expected ranges.

Next, head to the settings page and enter the:

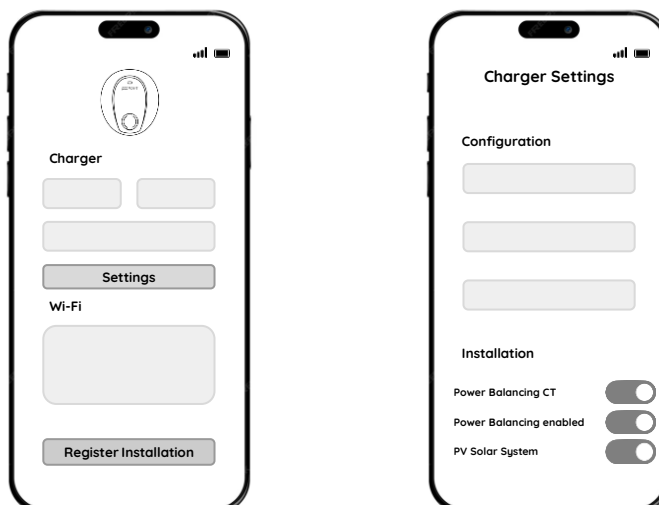
- **EV charger RCBO rating (Amps)**  
The rating of your RCBO or RCD+MCB protective device(s).
- **Charger Rating (Amps)**  
The maximum operating current of the charger.
- **Max Supply at CT clamp (Amps)**  
The maximum current allowed at the connection point to the property.

Toggle the **Power Balancing CT Installed** on to confirm the CT clamp has been installed.

Toggle the **Power Balancing Enabled** on to activate the power balancing feature.

Toggle the **PV Solar system installed** if there are solar panels installed at the property.

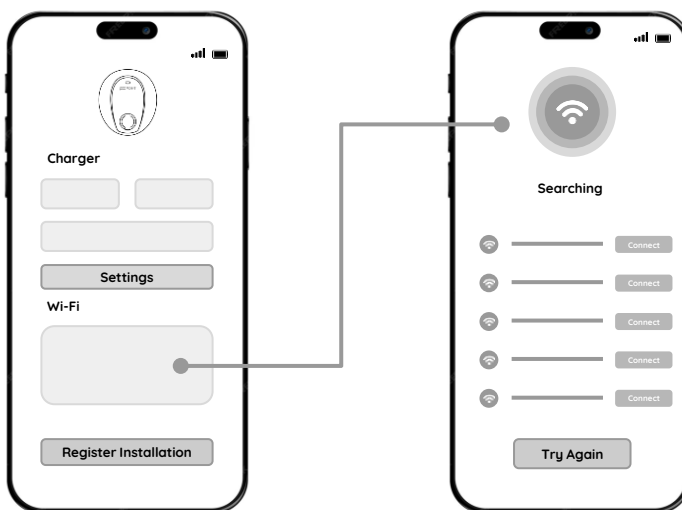
Note: should you need to, toggle the '**Service Mode**' on to set the charger to '**Out of Service**'. In this mode, the charger will remain powered on and connected to Wi-Fi but will not deliver energy.



## 12. Connecting to customer's Wi-Fi (where available)

Where possible, you should connect the charger to the customer's home Wi-Fi to allow them to access smart features within their Pod Point App (not required for new build developments or where Wi-Fi isn't available).

To connect to the customer's home Wi-Fi, head to the charger information screen in the Pod Point Installer App. Tap the 'Select a network' button and then choose the customer's router SSID from the list, entering their router password when prompted.



### Note:

Once connected to Wi-Fi, a default overnight charging schedule including randomised charging delay is applied as part of the Smart Charging Regulations.

Customers can amend or turn off this schedule within the Pod Point App.

## Having Wi-Fi troubles?

If a charger is struggling to locate the customer's router, or maintain a connection, please investigate the following:

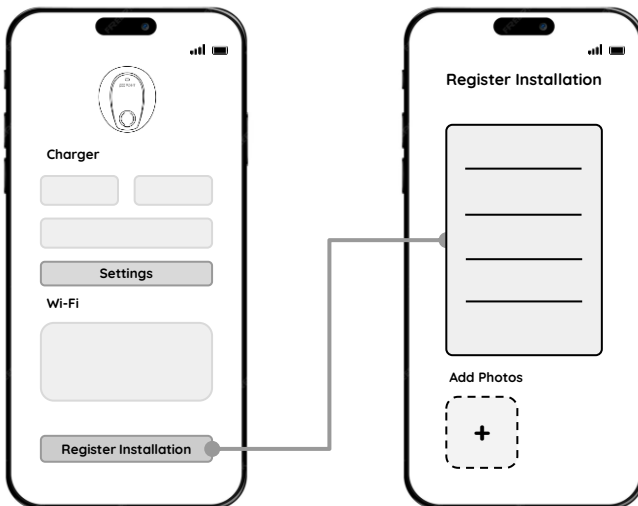
- Restarting the router and/or charger can sometimes refresh the connection and improve signal strength.

If restarting both router and charger doesn't work, the customer may need to:

- Relocate the router to a location within the home, nearer to where the charger is installed.
- Consider upgrading to a more powerful router. Standard routers provided by internet service providers are not always the most reliable.
- Purchase a powerline Wi-Fi Access point and place it in a plug socket nearer the charger. It creates an additional Wi-Fi network closer to the charger.

## 13. Registering the charger (required)

Once the charger has been correctly configured, tap **Register Charger**. You will then be prompted to submit photos of your installation.



### Photos Required

Please submit the following images:

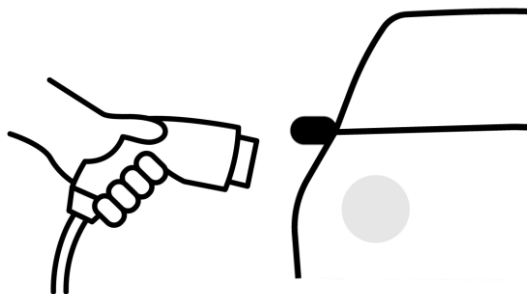
- The inside of the charger, showing all the terminal connections clearly.
- The wiring of the CT clamp (if installed).
- The RCBO used and associated wiring.
- Image of the installed charger (closed) taken from a distance.

Including photographs of the wiring and installation allows us to verify the charger has been installed correctly and allows us to provide post-installation remote support to the customer, minimising the risk of you having to return to site.



## 14. Performing the tests

Where possible, connect the charger to an EV. The status light on the charger should turn solid green. Leave on charge for 2 minutes to confirm charger is working as expected.



If not possible, then an EV simulator must be used:

### Not plugged in



### Plugged into Solo 3S

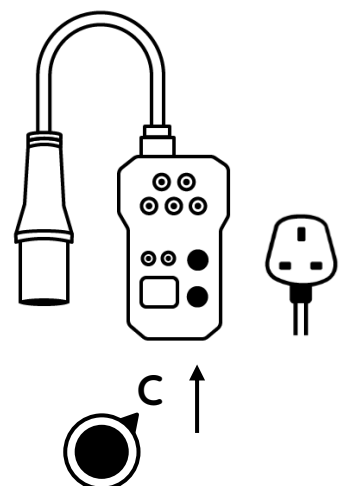
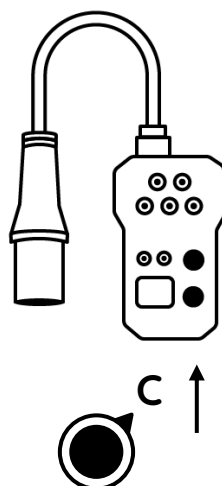
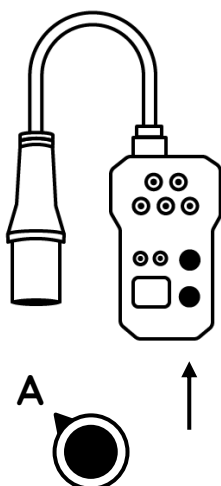


### Plugged in & appliance

Before inserting, set your simulator to Off / State A / Unlocked.

Once inserted, change the setting on your EV simulator to 'State C'. Ensure the status light on charger turns solid green to indicate charging and cable is locked into the socket (universal charger only)

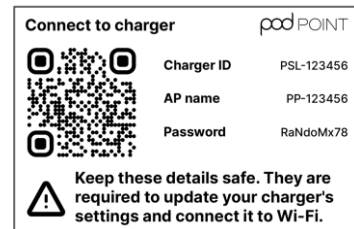
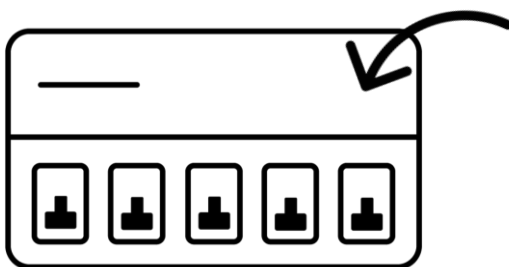
Connect a suitable load according to your EV simulator specification and leave for 2 minutes. The charger's LED should remain green throughout, and CT clamp reading (labelled Main Fuse Current) should increase accordingly in the Installer App.



## New Build Developments

If installing a charger on an empty property or new build development site:

- ❑ After functional testing is complete, ensure the circuit protection device is set to the **'off'** position.
- ❑ Apply the **'Connect to Charger'** sticker to the consumer unit in the property for safekeeping.



Installation of the CT clamp and presence of the **'Connect to Charger sticker'** are both listed on new build developers' snagging checklists.

## Residential customers

If installing a charger on a residential property for a customer:

- ❑ Hand the **'Connect to Charger'** sticker to the customer and make sure they're aware to keep this safe. We advise placing on the consumer unit if possible.
- ❑ If the customer's car is available, allow the customer to plug it in. The light should turn green and charging should begin.
- ❑ Direct the customer to their App store to download the Pod Point App. If possible, assist them through the setup process which should only take a few minutes.
- ❑ Direct the customer to find their charger user and app guides online at [pod-point.com/customerdocuments](https://pod-point.com/customerdocuments)

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<b>Flashing white</b>	The charger is powering on or is performing a software update. You cannot connect to the charger in this state.
<b>Solid blue</b>	The charger is in standby mode, and ready to connect to via the Installer App.
<b>Blue-flashing-pink</b>	The charger is in standby mode, connected to Wi-Fi and able to communicate with Pod Point.
<b>Solid green</b>	The vehicle is charging.
<b>Flashing green</b>	The vehicle is fully charged (or the in-vehicle settings have paused charging).
<b>Solid yellow</b>	The scheduled charge is set and the charger is waiting to start its charge.
<b>Flashing yellow</b>	Charging is paused by the Auto Power Balancing system.
<b>Red-flashing-yellow</b>	The tamper detection switch is not properly engaged. Re-fit the charger casing and ensure switch is not damaged or has become dislodged.
<b>Solid red or flashing red</b>	<p>There is a fault with the charger. Reset the charger by turning it off and on again at the fusebox before attempting to troubleshoot.</p> <p>See Troubleshooting guide on next page for further information. If troubleshooting in this guide does not work contacting technical support on 020 7247 4114.</p>

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## Common red LED faults

When your charger is displaying a red LED to indicate a fault, please check the following:

- Visual check that terminals are wired correctly and securely terminated.
- Visual check that pre-installed wiring from PCB to socket/tethered cable is securely terminated.
- Perform a Voltage check across the supply terminals. If outside the range of 207 V to 253 V, then the Distribution Network Operator needs to be contacted. Chargers will be in fault mode whenever voltage is outside this range.
- Ensure system Earthing arrangements are correct and any required protective bonding is in place, and meets Local wiring Regulations, Standards and/or Building Regulations.
- Water may be present in the charging socket or charging cable head.
- There may be a fault with the CT clamp wiring or location. See next page for further information.
- Vehicle may be drawing too much current if non-compliant 'adaptors' are being used.

## CT clamp troubleshooting

If there is a fault with the CT Clamp during testing, the LED on the charger should turn **Red**.

If you receive a CT clamp fault, please check the following:

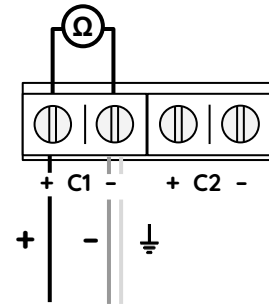
- Is the clamp correctly located, and fully closed around the cable and cable tie secure?
- Are the connections on the PCB and clamp wired correctly?
- Do you have a damaged cable or clamp?
- Check the CT Clamp has been enabled in the charger settings menu.

The PCB could be damaged - swap only after checking all of the above.

## Testing for a fault

 **First ensure the charger is de-energised.**

With the CT Clamp wired correctly, place an Ohmmeter across the C1 terminals and refer to reading below:



<u>Reading</u>	<u>Status</u>	<u>Why?</u>
~ 75 $\Omega$	Correct Connection	CT Clamp is wired correctly.
Over 95 $\Omega$	Open Circuit Fault	<ul style="list-style-type: none"><li>- Cable is not terminated correctly.</li><li>- One or more cores in the cable is broken.</li></ul>
Under 10 $\Omega$	Short Circuit Fault	<ul style="list-style-type: none"><li>- Poor connections at the PCB and/or at the Clamp where by the cables touch each other.</li><li>- The cable is damaged causing the 2 cores (red and blue) to touch. If this happens the cable needs replacing.</li></ul>

When connecting to the **K & L** terminal with the CT clamp in isolation, the value should typically be around **332  $\Omega$**  for both an open and closed clamp, but can be between **260  $\Omega$  - 340  $\Omega$** .

Visit our help centre at [help.pod-point.com](http://help.pod-point.com)  
or contact our technical support teams on **020 7247 4114**.



## EU DECLARATION OF CONFORMITY

**We:** Pod Point Ltd.  
**Of:** Floor 6, 222 Grays Inn Rd, London, WC1X 8HB

Hereby declare under our sole responsibility as manufacturer of the following products, that:

**Brand:** Pod Point  
**Model:** Solo 3S  
**Model Numbers:** S7-UC-05, S7-2C-05, S7-UCB-05, S7-1C-05, S22-2C-05, S22-UC-05

Comply with all applicable essential requirements of the listed Directives by meeting the standards detailed below when operated and installed according to our instructions:

### Directives:

2014/53/EU The Radio Equipment Directive (RED)  
2014/30/EU The Electromagnetic Compatibility Directive (EMC)  
2011/65/EU (including 2015/863) The Reduction of Hazardous Substances Directive (ROHS)

### Harmonised Standards:

EN IEC 61851-1:2019  
EN IEC 61851-21-2:2021  
BS EN IEC 63000:2018  
ETSI EN 301.489-1 V2.2.3:2019  
ETSI EN 300.328 V2.2.2: 2019

### Signed:

*Arjan Van Rooijen*

Arjan Van Rooijen, CTO, Pod Point Ltd. Registered in England: 6851754

**Date:** 23/02/2024



## UKCA DECLARATION OF CONFORMITY

**We:** Pod Point Ltd.  
**Of:** Floor 6, 222 Grays Inn Rd, London, WC1X 8HB

Hereby declare under our sole responsibility as manufacturer of the following products, that:

**Brand:** Pod Point  
**Model:** Solo 3S  
**Model Numbers:** S7-UC-05, S7-2C-05, S7-UCB-05, S7-1C-05, S22-2C-05, S22-UC-05

Comply with all applicable essential requirements of the listed Regulations by meeting the standards detailed below when operated and installed according to our instructions:

### Regulations:

The Radio Equipment Regulations 2017

The Electromagnetic Compatibility Regulations 2016

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

### Designated Standards:

EN IEC 61851-1:2019

EN IEC 61851-21-2:2021

BS EN IEC 63000:2018

ETSI EN 301.489-1 V2.2.3:2019

ETSI EN 300.328 V2.2.2: 2019

### Signed:

*Arjan Van Rooijen*

Arjan Van Rooijen, CTO, Pod Point Ltd. Registered in England: 6851754

**Date:** 23/02/2024