

Indra Smart PRO

Installation Guide

Be at the forefront of EV charging with
Indra's pioneering technology



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General Description

This manual describes the method of installation and hardware operation of the Smart PRO, where the Smart PRO is a permanently installed electric vehicle charging solution for resistive domestic and commercial loads of at least 6A and up to 32A at 230V, 50Hz.

Smart PRO Type 2 (190105A102) has an IEC 62196 (Type 2) 4.6M tethered charging connector to be used with Type 2 socket fitted EVs.

Smart PRO Type 2 Socketed (190105A103) has an IEC 62196 (Type 2) socket as part of the front body.



General Warnings and Safety

- The Smart PRO should only be installed and maintained by a suitably competent electrician, who has successfully completed Indra product training. Failure to comply will VOID the product warranty.
- The Smart PRO is designed for permanent installation and should only be used within the parameters set out in the technical specification and on the product label.
- The Smart PRO should be installed in accordance with the extant wiring regulations (BS7671).
- Use of an upstream O-PEN protection device is NOT permitted with the Smart PRO. Use of such devices will VOID the Smart PRO warranty.
- Before commencing installation or maintenance, the electrical power supply MUST be safely isolated.
- The Smart PRO should be installed in a location that is structurally sound and free from excessive vibration, dust, or other material build up that could affect normal operation.

Overview and Intended use environment

The Smart PRO can be classified as a 'smart' electric vehicle charging solution because of its communications infrastructure which allows charging to be remotely optimised by the Indra App; where charging can take place when electricity is cheapest; or if immediate charging is required, its 'Boost' functionality **overrides** any smart grid criteria and provides instantaneous charging capability.

Charging using the Smart PRO can take place at up to 7.4kW, but due to modulation capability (measured by the external CT clamp) this power output level can also be reduced.

The Smart PRO is intended for both indoor and outdoor installation, securely mounted to a wall or appropriately design pedestal.



Indra Smart PRO Features

The Smart PRO is the most feature-rich EV charger available on the market, ensuring your EV is always ready when you need it whilst maximising opportunities to charge from local solar and from the Grid when it is cheapest to do so. The Smart PRO features a simple on-unit interface and a supporting App that provides current status and historical information, as well as enabling easy configuration of the unit.

The Smart PRO is fully compliant with all relevant standards and works with all EVs, those available today and those coming in the future. It is quick and easy to install. The Smart PRO comes with a 5-year warranty as standard, and will never let you down, ensuring you are always charged and ready to go when you need to be.



Track your charging history to help you make the most of your charger

See your past charge history and spend in the feature rich Indra App.



Charge with solar. Make the most of your panels.

As a solar compatible EV charger, you can utilise your free green electricity from your solar panels to power your electric vehicle.



Flexible charging schedules that fit your needs perfectly

The Smart PRO automatically generates a personal charging schedule each time you plug-in based on your preferences to ensure you're always topped up.



Everything you need to know about charging at your fingertips

Comprehensive and intuitive help section in the Indra App lets you get help whenever you need it.



Set how much charge to add by miles, kWh or cost. Or just do a full charge.

Smart scheduling allows the user to create a schedule window, this is when the charger will start and stop charging, but also, how many miles to add, how many kWh to add or how much money's worth of energy to add to the car.



Quickly start a boost charge from the app

Plans changed? The Smart PRO Boost feature lets you temporarily override your schedule to get your car fully charged as soon as possible.

O-PEN Fault Detection

The Smart PRO has built in O-PEN protection in the form of Indra's patented PESTs. This offers multiple options to comply with the PEN fault regulations, including Line to Neutral Voltage monitoring (PEST mode B) and CPC to true earth voltage monitoring (PEST mode A).

House Fuse Protection (Load Curtailment)

Is a function that allows an EV charger to be installed at a property that may not have enough spare power capacity to accommodate the charger always operating at full capacity.

It works by monitoring the amount of power the installation is using via an external CT clamp and comparing that to the rating of the main fuse supplying the installation. If the difference is greater than 32A then the charger will offer full charge. If the difference is less than 32A then the charger will only offer as much power as there is spare capacity.

Note: G100.2 defines how load curtailment is managed. If the charger is configured to use load curtailment and it loses contact with the External CT clamp, then the charger will de-rate its power output to 6A to protect the main cut-out, thus 6A is the figure that should be considered when carrying out the maximum demand survey.

DC Leakage Protection

An RDC-DD is fitted into the Smart PRO offering 6mA DC leakage protection. This means the Smart PRO can be installed with a Type A or Type F RCD up stream.

Over-The-Air Updates

The Smart PRO can be updated remotely while connected to the internet . These updates can offer improvements to the function of the charger, be pre-emptive fixes for known issues, or used to rectify faults if they occur.

Tariff Intelligence

Indra Smart Chargers can optimise charging based on the customer's tariff, where they have a time of use tariff. We support any time of use tariff including Octopus Agile. For more information follow this link here.

Solar Mode

This mode can be selected in the Indra App and can enable the customer to use surplus solar energy (or any other form of micro-generation) to charge their car.

The external CT monitors how much energy is being exported from the installation. If the installation is exporting more than 1.4kW , then the charger will offer the car a charge. (1.4kW is the minimum amount of power required for all in-car chargers to accept a charge).

Note: The external CT clamp can only measure what energy is being exported back to the grid, therefore, if the micro-generation is generating 2kW, and the installation is using 1kW, the charger will only detect the remaining 1KW being exported to the grid. This means the charger will not offer a charge to the car because there isn't enough power to trigger the in-car charger (1.4kW). Export to the grid needs to be 1.4kW or greater before the car will be offered charge.

Smart Scheduling

Smart scheduling enables the user to create a schedule window, this is when the charger will start and stop charging, but also, how many miles to add, how many kWh to add or how much money's worth of energy to add to the car.

Charge Analytics

The Indra App allows the user to control the charger, use the boost function, set charging schedules, etc., and provides detailed information on their charging behaviour and their charging history, including how much money they have spent, and how many miles-worth of charge have been added to the car.

Specifications

Key features



Solar
matching



Quick
Boost



House fuse
Protection



Over-the-air
updates



Charging
schedule

Electrical

Rated power	7.4kW
Charging current	6A-32A variable
Protection	6ma DC leakage detection
Standby consumption	<5W

Mechanical

Dimensions	200mm x 420mm x 130mm (WxHxD)
Weight	3.5kg
Operating Temperature	-20°C to +50°C
Operating Humidity	5% - 95%
Enclosure	Polycarbonate, IP66 rated
Protection	IK10

Compliance

CE Marked and UKCA	✓
Standards and regulations	The Electric Vehicles (Smart Charge Points) Regulations 2021, BS EN 50581, BS EN 60529, BS EN 61010-1, BS EN 61851-1, IEC 61851-21-2, IEC 61851-22, BS 7671, BS 7671 Amendment 1, G100

PEN Fault, Earthing, Simultaneous Touch (PESTs) Protection

The Smart PRO PESTs solution can operate under four of the indents of BS 7671:2018 A1:2020+A2:2022; section 722.411.4.1, for the purposes of design/installation we have two modes of operation which Indra call A & B. Mode A can be configured with or without a reference electrode. The safest installation configuration is, mode A with reference electrode.

- Mode A with reference electrode – Indent iii – PME (Protective Multiple Earthing) as CPC with a reference electrode and the only method for compliant install on a 3-phase installations. Using this method negates nuisance tripping from fluctuating supply voltage.
- Mode B – Monitors the L-N voltage and will disconnect from the car if the voltage goes out of range (253V-207V). PME is used as CPC and no earth rod or reference electrode is required if there are no simultaneous contact or touch voltage risks present. Consideration should be given to nuisance trips where the line to neutral voltage may regularly exceed 253v, especially where local solar panel or other forms of micro-generation are present.
- Mode A without reference electrode – For installations that do not fall under the requirements of 722.411.4. E.g.E.g., TT installations, indoor installations, installations where PME is bonded to Earth in accordance with indent ii.

PESTs Mode A essentially works by comparing three voltage readings:

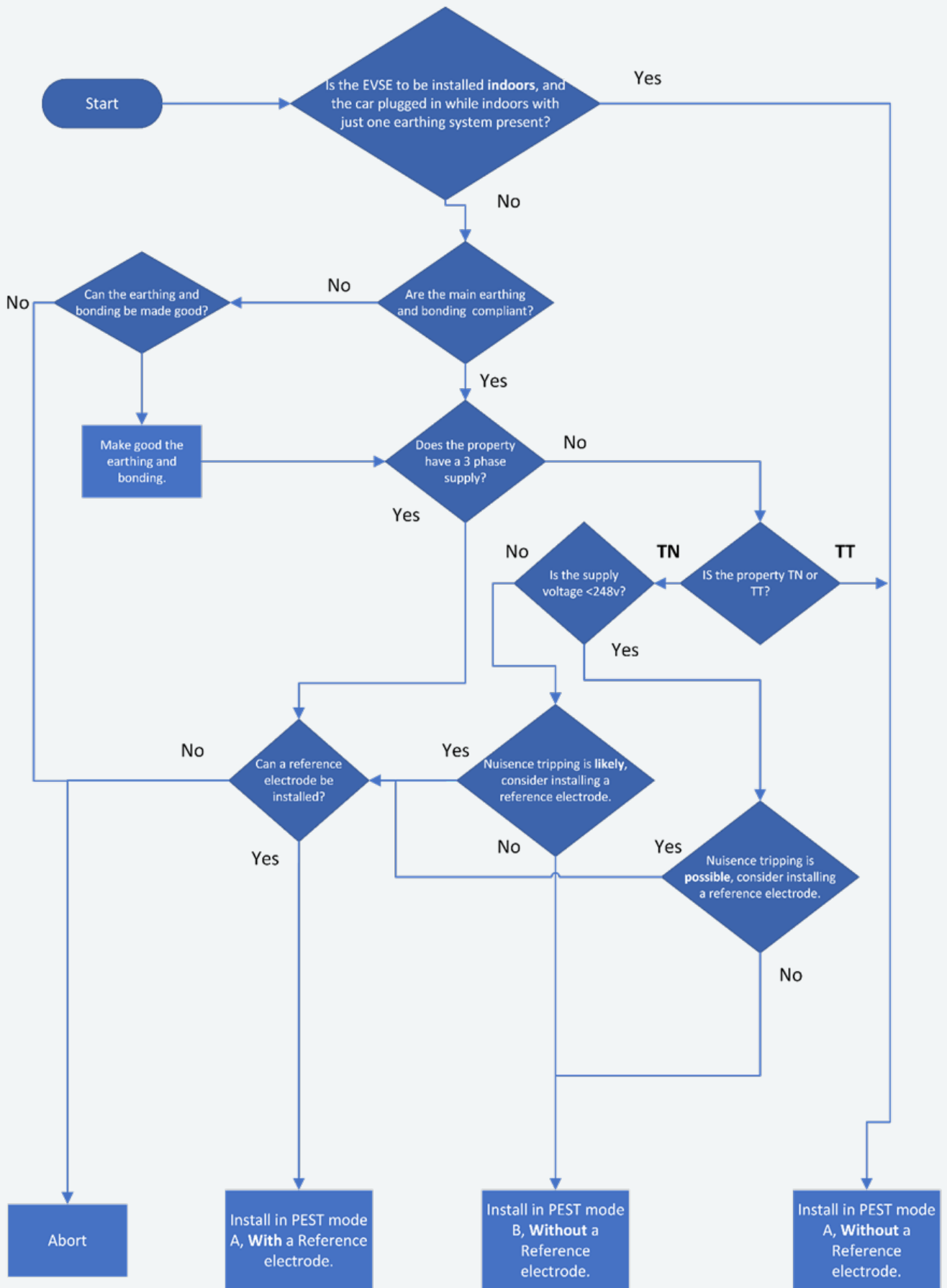
1. L - N (Disconnects above 257.6V and below 184V. 230v +/- 12%)
2. L - Ref Electrode (Disconnects above 257.6V and below 184V. 230v +/- 12%)
3. CPC (PME) – Ref Electrode (Disconnects above 30v RMS)

- Mode A without reference electrode – For installations that do not fall under the requirements of 722.411.4. E.g., TT installations, indoor installations, installations where PME is bonded to Earth in accordance with indent ii.

PESTs Mode A essentially works by comparing three voltage readings:

1. L - N (Disconnects above 257.6V and below 184V (230v +/- 12%)
2. L - Ref Electrode (Disconnects above 257.6V and below 184V (230v +/- 12%)
3. CPC (PME) – Ref Electrode (Disconnects above 30v RMS)

PEST's Decision Workflow



General Installation Notes

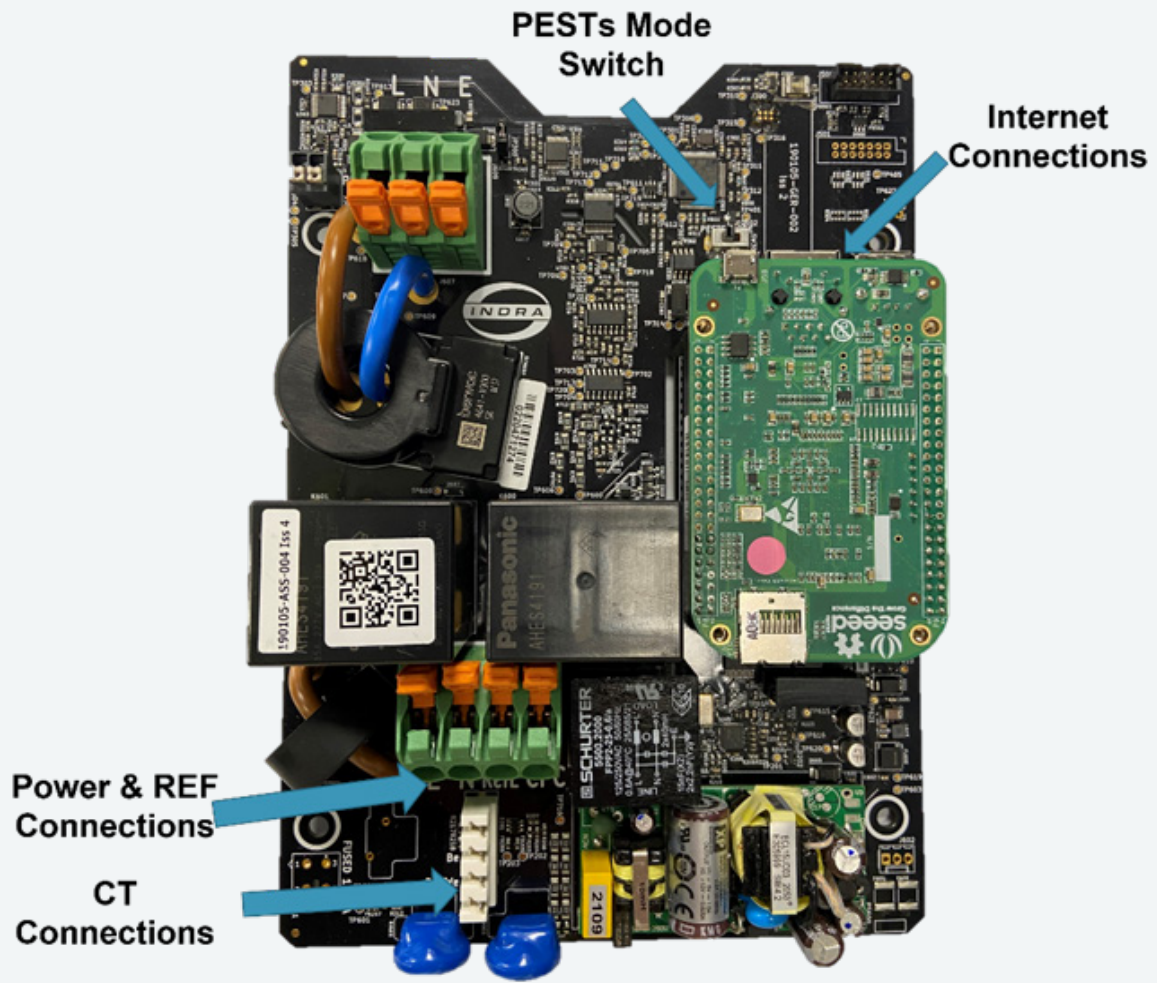
WARNING: FAILURE TO COMPLY WITH THESE INSTRUCTIONS COULD PRESENT A HAZARD

- A. Indra Smart PRO must be installed by a qualified electrician who has completed Indra Academy Training. Any servicing or tampering by a non-qualified professional electrician will void the warranty.
- B. Read these instructions fully before installing or using the Smart PRO.
- C. The power supply to the Smart PRO **MUST** be isolated and checked for dead before installation or maintenance.
- D. The Smart PRO is designed for permanent installation and is suitable for operation on an AC electricity supply having the same voltage and current rating as shown on the product label.
- E. The Smart PRO should be installed in accordance with existing wiring regulations.
- F. The Smart PRO **MUST NOT** be fitted alongside an upstream protection device which claims to meet ident (iv) of BS 7671:2018+A1:2020+A2:2022; section 722.411.4.1. Voltage upstream PEN Fault protection and curtailment devices may damage any Smart PRO device through frequent removal of the grid supply under load.

WARNING: Protection against electric shock shall not be automatically reset.

- G. The Smart **PRO MUST** be connected to CPC (either supplied from a TT electrode or the PME earth).
- H. The installation location **MUST** be structurally sound and **MUST NOT** be subject to excessive dust, vibration, lint, or other material build-up which could affect the Smart PRO's proper operation.
- I. The customer should have agreed to the position of the charger, any additional enclosures, and cable routing prior to installation.

Charger Layout



Pre-Installation Survey

Before installing an Indra Smart PRO, we recommend surveying the installation to ensure that an install can go ahead and that the Smart PRO is appropriate for the requirements. Therefore, you should:

- Identify the earthing arrangement of the property and the required PEST mode that will be required.
 - If a reference electrode will be required, identify a suitable location for it.
- Establish the maximum demand of the existing installation and compare this with the rating of the main cut out supplying the property. If there is less than 32A capacity remaining, then the Load Curtailment (House fuse protection) feature on the Smart PRO will be required.
 - If Load Curtailment or Solar Mode is required by the customer, establish where the external CT would be placed.
- Identify which connectivity method would be most appropriate.

Installation Procedure

The Smart PRO is supplied with the screws and wall fixings that are required to permanently fix it in position. However, it remains the responsibility of the installer to evaluate the suitability of the installation surface and use the appropriate fixings for each install.

- All parts of the existing installation that will comprise part of the EVSE charging circuit, **MUST** be inspected for damage, suitably rated and compliant with the appropriate regulations.
- Ensure the installation earthing conductors are tested and compliant with BS 7671:2018 A1:2020+A2:2022

WARNING: ANY DAMAGED OR UNSUITABLE CABLES OR EQUIPMENT MUST BE REPLACED

- Inspect the Smart PRO to ensure the charger has not been damaged in transit and is safe to connect.

Switchgear

The Indra Smart PRO does not have in-built RCD protection, which means it must be fitted upstream. Indra recommends installing the following to minimise potential nuisance tripping and to ensure compliance with BS7671:2018 A1:2020+A2:2022 section 722. (These requirements can be met in whatever configuration suits your design.)

- a) Type A 30maA Double Pole RCD protection
- b) C Curve 40A Overcurrent protection

In accordance with BS 7671:2018 A1:2020+A2:2022 Regulation 443.4.1, a surge protection device will need to be installed to protect the charger unless the customer has signed a waiver acknowledging they accept the risk of any potential damage caused.

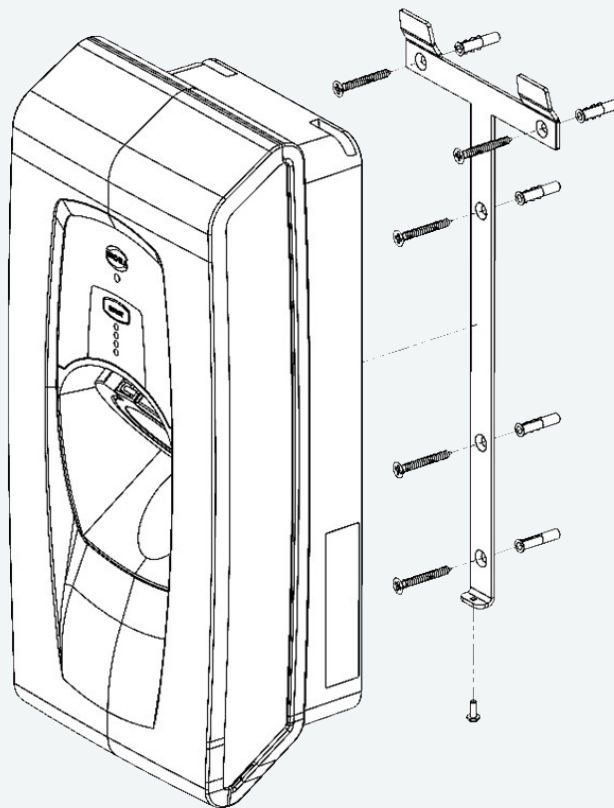
Choosing the charger Location

- Select an installation location that ensures future servicing of the Smart PRO, where the back plate can be mounted **flush** to a flat wall and screws can be used to permanently secure the charger in position.
- Make sure the install location will not allow any flammable material to come within 100 mm of the unit.
- The control panel of the unit should be installed between 0.75-1.20m from the ground.
- The charger should be placed such that the potential risk of tripping over trailing charging leads is minimised as far as reasonably practicable.

Wall Mounting

Note: The fixing holes in the bracket are spaced to meet standard brick sizes so they can all fall within a brick centre.

- Offer the mounting bracket against the surface you intend to fix to and level using a spirit level
- Mark and drill four holes with a 6 mm drill bit (Masonry/+1.5mm Plasterboard)
- Fit the supplied wall plugs into the holes and secure the bracket with the four screws supplied.



Hanging the charger

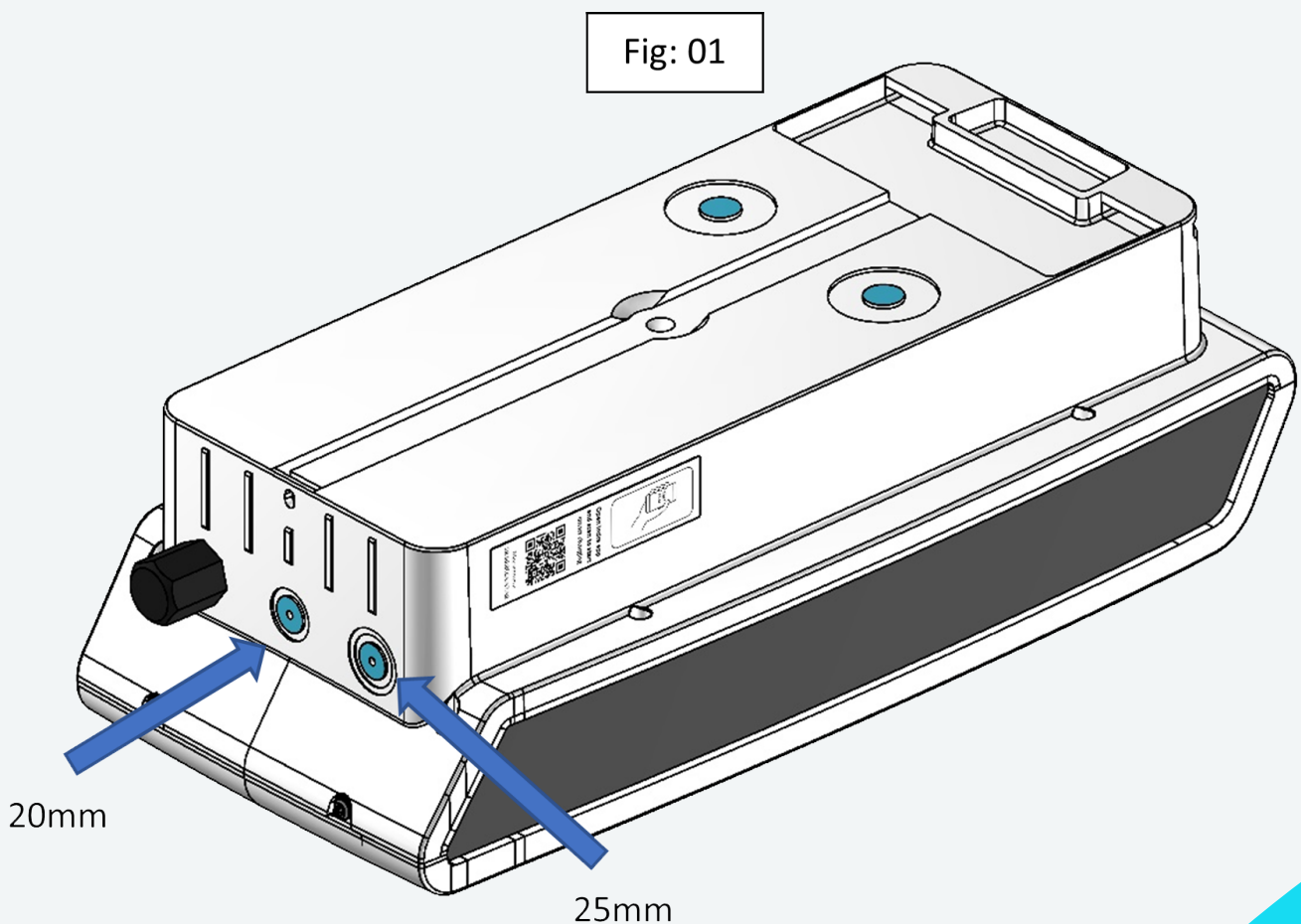
- Hold the top of the charger just above the wall bracket tilted upwards away from the wall
- Lower the charger onto the two prongs at the top then hinge the charger back flush with the bracket
- Secure the charger to the bracket by fitting 2 x 4x8mm button head, T20 Torx screws into the bottom of the charger with a T20 screwdriver. Torque setting 2.0-2.5 N/m.
- Carefully remove the front of the charger and hinge it to the side to allow access, the front body is secured to the main body to protect the ribbon cable to the front panel.

Cable Entry

The Smart PRO is designed with four cable entry points, two in the bottom edge and two in the rear (Identified in blue on Fig 01).

- Cable entry point 1 is designed for a 25mm hole
- Cable entry point 2 is designed for a 20mm hole
- The rear entry points are designed for a 25mm hole
- Install the appropriately sized IP68 rated gland for the cable used, or, for rear entry, enter using a method that will ensure the IP rating of the enclosure.

All swarf and shavings should be removed from the charger and the hole deburred.



Connect Mains Cables

- Remove the outer insulation of the cable, leaving 10mm showing at the gland
- Cut the cables to approximately the following lengths:
 - o Live – 200mm
 - o Neutral – 200mm
 - o CPC – 240mm
 - o Data Cable (For CT only) -180mm
 - o Data Cable (For Internet) – 400mm
- Route the wires as per Fig: 02
- Insert wires into the lever type connectors labelled L (Live), N (Neutral) and CPC (Circuit Protective Conductor)

Note: Indra recommends the use of bootlace ferrules on class 5 & 6 cables ONLY

Note: Indra recommends using EV Ultra Cable from Doncaster Cables as it contains power and data in the same cable.





Fig: 02

Installing a Reference Electrode

When operating under PEST mode A, a reference to true earth may be required to protect against O-PEN faults in the distribution network. This reference allows for voltage to be measured between the installation earth (CPC) and true earth, so that if CPC becomes live because of a broken PEN this will be detected and the charger will disconnect Live, Neutral and CPC from the car.

The reference electrode is NOT serving as a fault path, thus does not need to comply with the requirement for a TT earth electrode.

The reference electrode should be a copper plated 3/8" electrode with a lug terminal clamp.

- If installing straight into soil or equivalent soft terrain, then the electrode can be cut down, to reduce the necessary length driven into the ground (as short as 300mm). For hard aggregate, the full four-foot length **may** have to be maintained.

Before driving the electrode into the ground, ensure there are no buried services in the area.

- Using a lump hammer, or similar, drive the electrode straight into the ground. Leaving enough length at its tip to secure the clamping terminal.
- Attach the lug clamp terminal and run a length of cable (clipping against walls where necessary) back to the Smart PRO unit; terminate in the lever type connector labelled "REF"

Note: Indra recommend the use of Solar PV cable (EN5061) with double insulation

- Using a Multi-Function Tester or electrode tester, measure the resistance of the newly installed reference electrode and ensure it is less than **600Ω**.

Hardwired

Note: Indra recommend the use of hardwired internet back to the customers router as the best option based on reliability.

- Route a cable from the customers Wi-Fi router back to the charger and use an appropriately sized IP68 gland to enter the bottom of the charger

Note: If using EV Ultra with CAT5e data cable built in, the orange and green pairs of wires can be terminated into an RJ45 connector and used for the internet connection and the blue pair, used for the CT clamp. This means you would only need to route a separate data cable from the router to the maintenance free enclosure the CT clamp is terminated into.

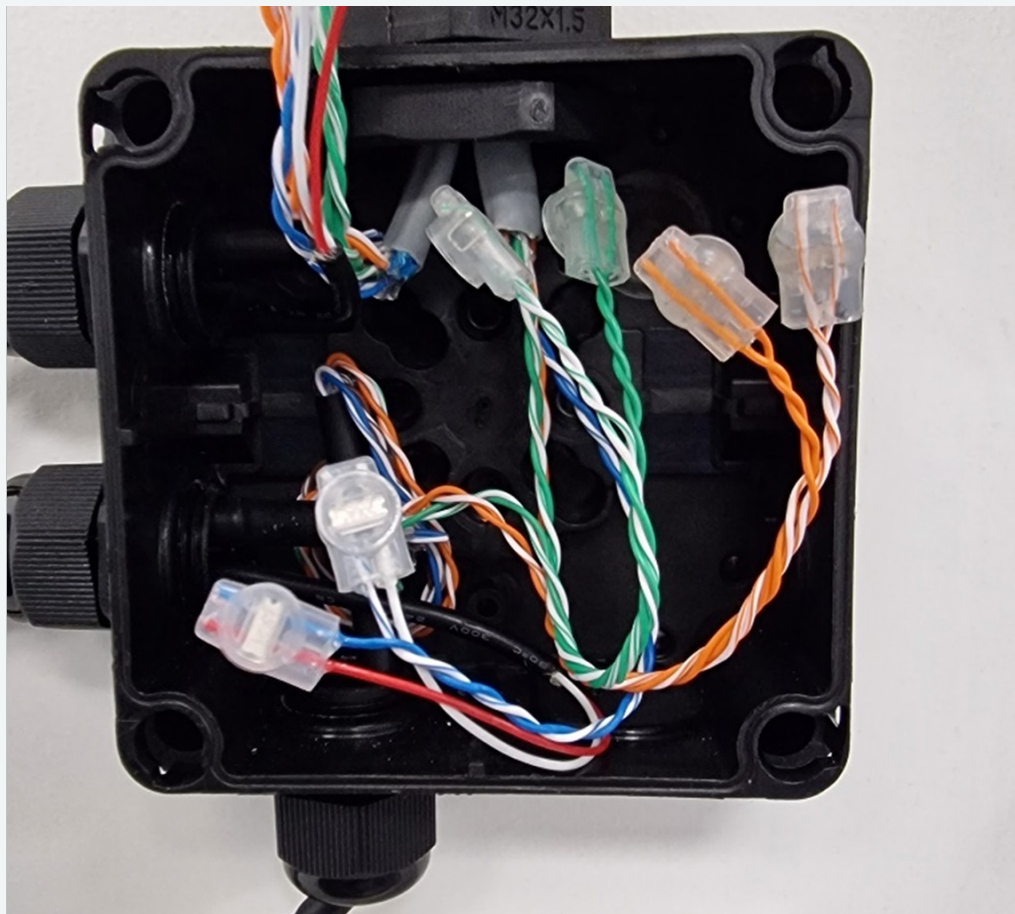


Fig: 03

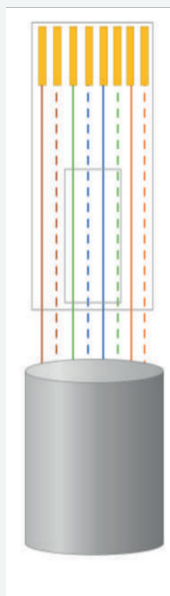
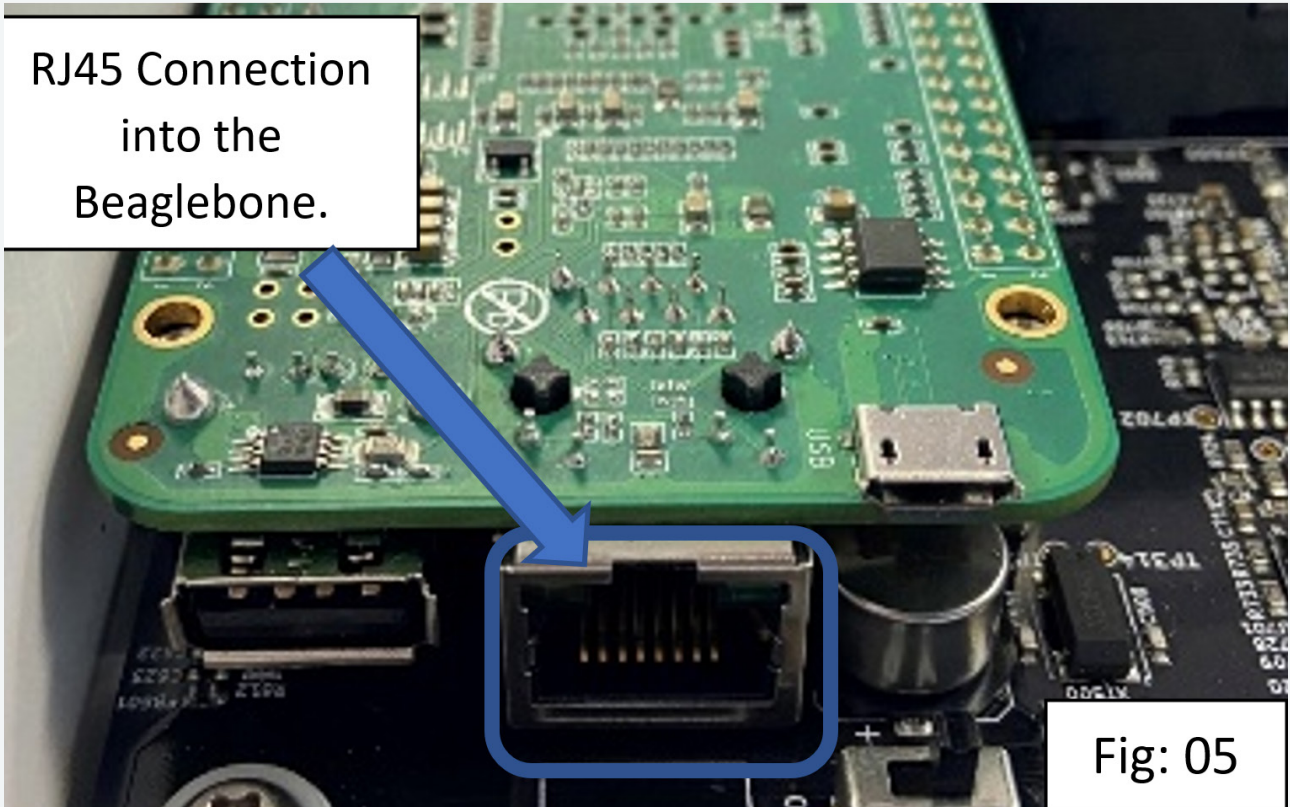
- Cut the data cable to length (approx. 400mm)
- Route the data cable as per (Fig: 04)

Fig: 04



- Terminate the required data cable pairs into a RJ45.
- Using a network tester, confirm correct connection order and continuity of the data cable before connecting at either end.
- Connect the RJ45 connector into the RJ45 socket on the Beaglebone (Fig: 05).

Note: If it isn't feasible to get a data cable back to the customer's router, you can use a Wi-Fi extender with an RJ45 socket built in and plug into that.



RJ45 Connection

- Brown
- Brown & White
- Green
- Blue & White
- Blue

Wi-Fi

The Smart PRO can be connected to the internet via a Wi-Fi dongle installed inside the charger. This method is ideal when cable routing to the router is not feasible, or the customer wants to reduce visible cables.

- Before installing a Wi-Fi dongle, check the speed and strength of the Wi-Fi signal at the charger location. This can be done by connecting your phone or Tablet to the customer's Wi-Fi and running a signal speed checker. The Smart PRO requires a minimum of 10Mbps.

Note: The Wi-Fi dongle connects to the customer's router via the WPS function. If the customer's router doesn't have a WPS button, you can use a Wi-Fi extender that has a WPS button on it.

- Connect the USB cable supplied with the dongle into the Beaglebone and route as per Fig: 06.
- Connect the dongle and place it in the recess on the accessory tray and secure with the supplied tie wrap.
- Record the WCD number of the dongle, on the installer app during commissioning.

Connecting the charger to the Wi-Fi can be carried out after the charger has been Sealed and powered up.

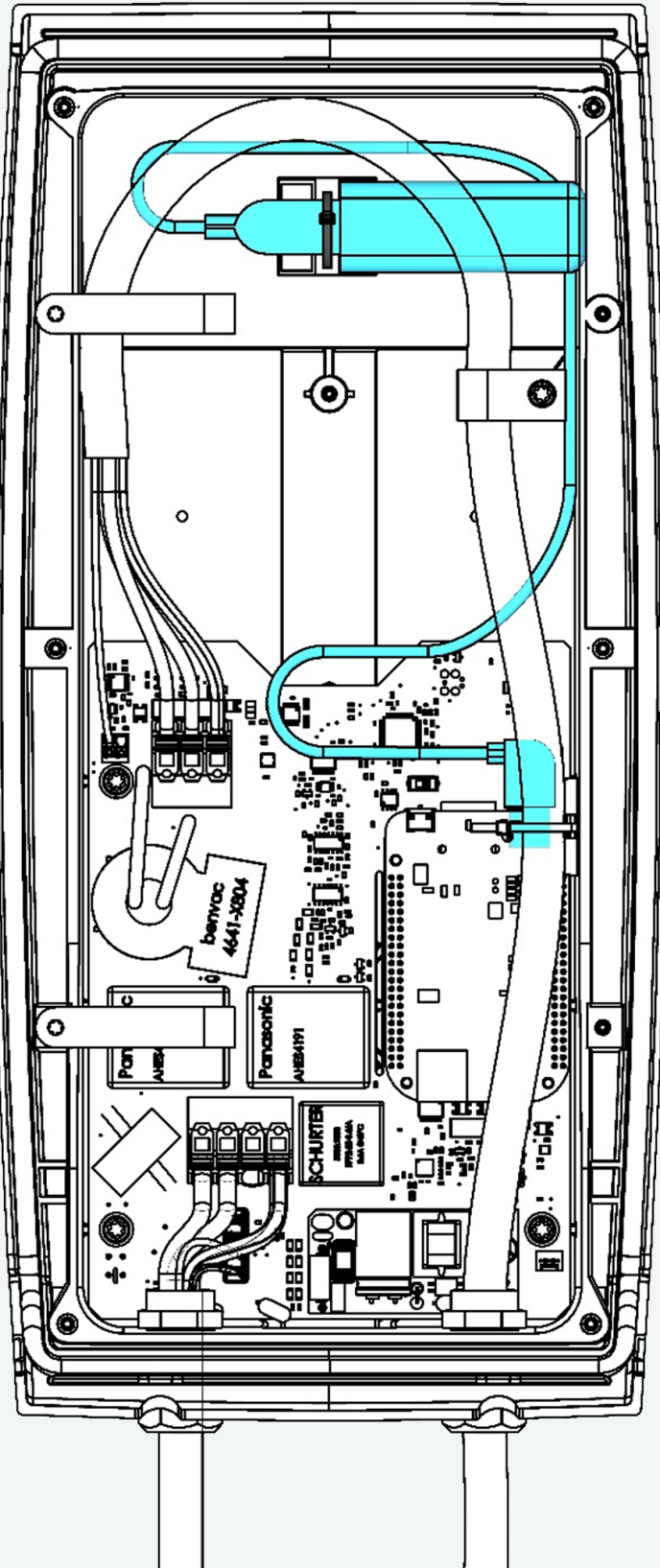
Wi-Fi Pairing

1. Press and hold the BOOST button until the Main LED turns Orange
2. Release the BOOST button (before it turns Green)
3. Set Router to WPS mode (refer to Router instructions on how to do so)

Note: The above routine times out in 2 minutes and the LED will turn Red if unsuccessful

4. The main LED will flash Orange whilst Pairing is taking place
5. If pairing is successful, the main LED will flash Green for 5 seconds, before reverting to its last state, whether awaiting commissioning (Purple) or successfully commissioned (White)

Fig: 06



4G

The Smart PRO can be connected to the internet via a 4G dongle installed inside the charger. This method is ideal when cable routing to the router is not feasible, the Wi-Fi signal strength is too low in the area, or the customer wants to reduce visible cables.

- Before installing a 4G dongle, check the speed and strength of the 4G signal at the charger location. This can be done by using a signal strength tester. The Smart PRO requires a minimum speed of 10Mbps.

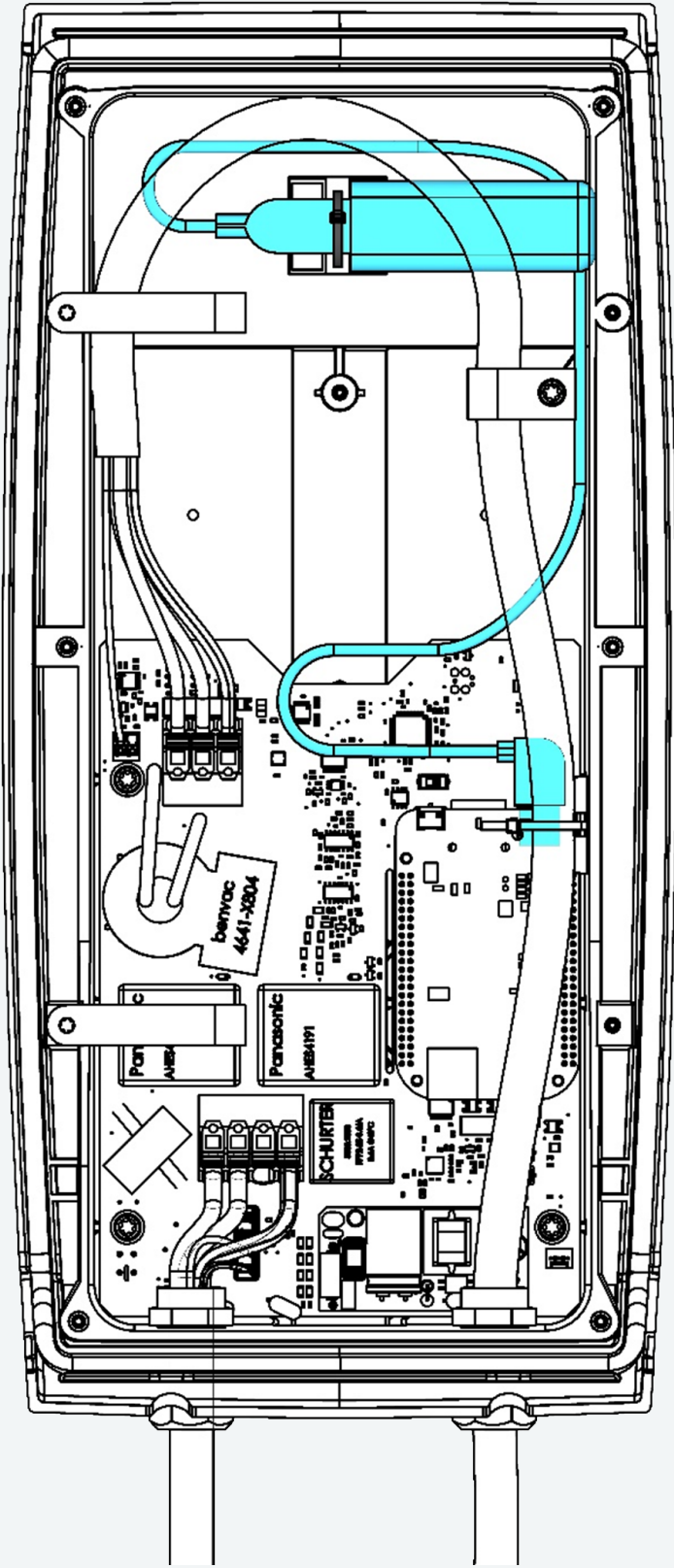
Note: 4G internet signal strength can vary based on usage in the area, provider maintenance, and, in some extreme cases, the weather. This means that connectivity can be unreliable by with 4G in some circumstances.

- Connect the USB cable supplied with the dongle into the Beaglebone and route as per Fig: 07
- Connect the dongle and place it in the recess on the accessory tray and secure with the supplied tie wrap.
- Record the WCD number of the dongle; this will aid in fault-finding if required after installation.

4G Pairing

Once powered up, the 4G dongle will find the strongest signal network it can. If the signal strength is strong enough, the charger will indicate it is connected to the internet by either going Purple with a single flash (awaiting commissioning) or solid White (successfully commissioned).

Fig: 07



External CT Clamp

Chargers required to utilise Load Curtailment or Solar Mode features, need to have an External Current Transformer fitted, so the charger can monitor total demand on the installation and total export of any micro-generation.

- The External CT clamp must be clipped around a live cable which will enable it to measure the total import and export of the entire installation. This is usually the main tails at the meter.

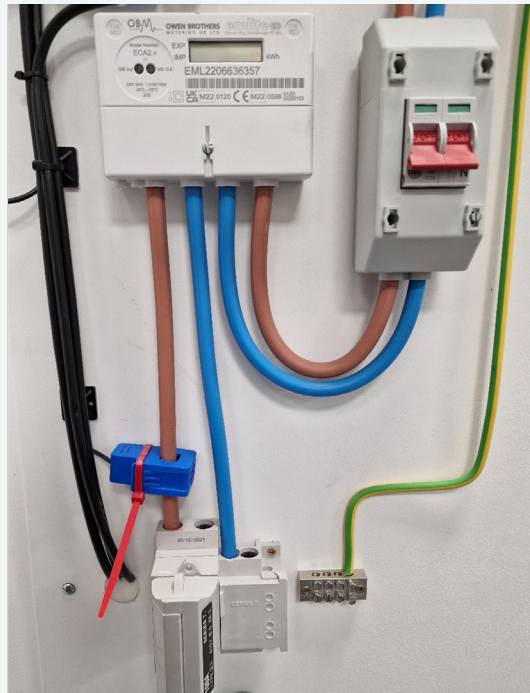


Fig: 08

Note: The smart charge regulations dictate that metering equipment for EVSE is designed in such a way as to prevent/deter tampering.

- The hard-wired cable of the CT should be routed to a location where it can be joined with a data cable. This would usually be a junction box near the switchgear of the charger circuit.

Note: INDRA Recommend the use of EV Ultra Cable from Doncaster Cables as it contains power and data combined in one cable.

- Using the jelly crimps provided, join the CT clamp wires to the Blue/Blue White pair of your data cable and secure it inside a maintenance free enclosure
- Route the data cable to the charger and enter the bottom through an appropriately sized IP68 gland (If using EV Ultra, it will go through the hole drilled for the power cable)
- Using an IDC punch-down tool terminate the Blue/Blue White wires into the CT connector

Testing

All tests should be documented on an Electrical Installation Certificate (EIC).

Continuity of protective conductors

In accordance with (IAW) Guidance Note 3 to BS7671:2018+A2:2022 Section 2.6.5. This should be carried out between the live and CPC of the mains cable that will connect to the L & CPC lever connectors of the charger.

Insulation resistance (IR)

IAW Guidance Note 3 to BS7671:2018+A2:2022 Section 2.6.7, example (ii)

The Smart PRO should be disconnected from the circuit and the exposed cable end made safe before carrying out IR tests.

Polarity

IAW Guidance Note 3 to BS7671:2018+A2:2022 Section 2.6.12

Earth Electrode Resistance Testing (If required)

IAW Guidance Note 3 to BS7671:2018+A2:2022 Section 2.6.13. This will be required when installing the charger on a TT installation or when using a reference electrode.

Earth Fault Loop Impedance (EFLI) Verification

IAW Guidance Note 3 to BS7671:2018+A2:2022 Section 2.6.15.

Zs can be measured using a multi-function tester (MFT) and a compatible Electric Vehicle Service Equipment (EVSE) tester as follows:

- Connect the MFT to the EVSE tester as per the manufacturer's instructions and set to mode A.
- Set the MFT to 6mA. If the tester does not go to 6mA then the calculation method should be used for Zs as the in-built RCD-DD protection will trigger and isolate the power relays.

- Power the charger up, once the boot up is complete, connect the EVSE tester to the charger.
- Change the mode on the EVSE tester to B, the 4 status lights should begin to flash.
- Press the boost button on the charger, the primary LED and status LED's will go blue.
- Change the mode on the EVSE tester to mode C. The status lights will go solid blue and a voltage should be indicated on the MFT
- Carry out the Loop test as per the MFT manufactures instructions.

RCD Testing

IAW Guidance Note 3 to BS7671:2018+A2:2022 Section 2.6.18

RCD tests can be carried out using a multi-function tester (MFT) and a compatible Electric Vehicle Service Equipment (EVSE) tester as follows:

- Connect the MFT to the EVSE tester as per the manufacturer's instructions and set to mode A.
- Set the MFT to **6mA**. If the tester does not go to 6mA then the calculation method should be used for Zs as the in-built RDC-DD protection will trigger and isolate the power relays.
- Power the charger up, once the boot up is complete, connect the EVSE tester to the charger.
- Change the mode on the EVSE tester to B, the four status lights should begin to flash.
- Press the boost button on the charger, the primary LED and status LED's will go Blue.
- Change the mode on the EVSE tester to mode C. The status lights will go solid Blue and a voltage should be indicated on the MFT
- Carry out the Loop test as per the MFT manufactures instructions.

Sealing the Unit

Once all works have been carried out inside the charger, it can be closed and sealed.

- Front cover should be secured to a torque rating of between 2-2.5 N/m with 6x 4x8mm Button Head T20 screws.

Note: It may be worth carrying out commissioning and calibration of the charger before completing the sealing process

- Fix the tamper seal (provided) as per Fig: 10
- During the commissioning process you will be required to input the tamper seal number.
- Fix the CT tamper seal (Red tie wrap) around the CT clamp as per Fig: 11

Note: If required, now is the time to pair the Wi-Fi dongle.

- Power the charger up, once the boot up is complete, connect the EVSE tester to the charger.
- Change the mode on the EVSE tester to B, the 4 status lights should begin to flash.
- Press the boost button on the charger, the primary LED and status LED's will go blue.
- Change the mode on the EVSE tester to mode C. The status lights will go solid blue and a voltage should be indicated on the MFT
- Carry out the Loop test as per the MFT manufactures instructions.

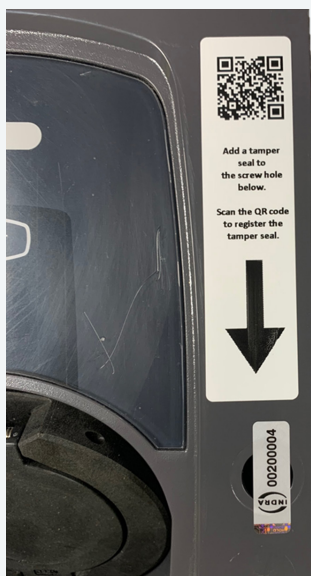


Fig: 10

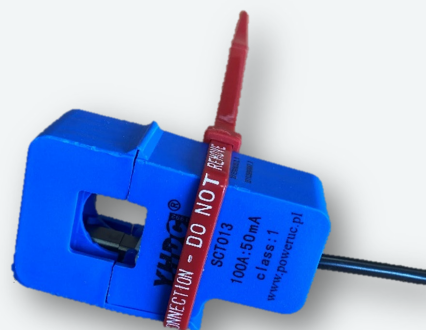


Fig: 11

Commissioning

Once you have completed the Indra Academy training, you will receive an email containing access to DynaMO. Scan the QR code located on the left-hand side of the charger body, and it will take you to the DynaMO login page, then follow the installation procedure.

You can watch a video on how to commission a unit via DynaMO [here](#).



Customer Handover

Hand over the Smart PRO Customer **Welcome Pack**, which includes:

- Product Brochure
- FAQ's
- Warranty Statement

Fill out and hand over the Smart Charge Act Statement of Compliance. Recommend that the customer retains this document as it may be used as evidence of a compliant EVSE install. It is also recommended that the installer retains a copy, or evidence of its completion and handover, for their records.

Charger Familiarisation

Offer the customer a demonstration of how the charger works, for example, plug it in and show them how to start and stop a boost charge.

Show the customer where the switchgear is and how they would safely isolate or power cycle the charger if required.

Offer the customer a brief walk-through of the Indra App.

Customer Support

Remember, if you have issues at any point, please contact the customer support team:

Phone: 01684 770631 (option 1)

Email: support@Indra.co.uk

Monday-Thursday: 0800-1700

Friday: 0800-1600

Saturday-Sunday: Closed

Troubleshooting

Powerline adapters

Powerline adapters should not be used on chargers that will service an MG.

4G

4G dongles have an indicating LED on the front, which shows what the dongle is doing.

To enable you to see the dongle status LED without exposing live conductive parts, dangle the dongle out of the side of the charger and loosely secure the front of the charger in place as per Fig: 12

The 4G dongle may take up to seven minutes to connect to the internet. If it has not connected within seven minutes, power cycle the charger and try again.

If the dongle connects to a 2G signal, consider using another means of internet connection as this may not be reliable.

What do the LEDs on my charger mean?

There are two separate LED indicators on the Smart PRO. The Primary LED indicates the charger status, while the four panel LEDs highlight the charger's current mode. Each of these will illuminate a different colour and will emit a sequence of flashes that indicates the charger's current state.



LEDs relating to the primary LED light:



ALL LEDs are off

The Smart PRO is not receiving power. It may be disconnected from the mains. Check all the switches in your RCD consumer unit are correctly set.



Primary LED lit, white

A solid white LED indicates that the Smart PRO is set up and ready to go. The charger is now in smart mode and will charge based on the schedule set up in the Indra App.



Primary LED flashing, white

The Smart PRO has successfully connected to the Internet and is almost ready to start charging. If the unit has been switched off for a long period without being connected to the Internet, then this process could take up to 10 minutes.



Primary LED lit, blue

The Smart PRO is in Boost mode, which is activated using your Indra App or by pressing the Boost button on the charger.



Primary LED lit, yellow

The Smart PRO is in Solar mode and is accessing energy generated from solar panels to charge the EV. This function is activated on the Schedule menu of your Indra App. When selected, the charger will automatically use energy from your solar panels when it's available.



Primary LED flashing, blue

The Smart PRO is processing a software update. Ensure the charger is not disconnected from the Internet or that power is removed from the unit during this process.



Primary LED lit or flashing, red

The Smart PRO has encountered an error or a fault. Reset the charger by turning the rotary isolator switch to the 'off' position, or by resetting the main power switch in your RCD consumer unit. If the red light persists, then contact Customer Support.



Primary LED flashing, purple

A flashing purple light on the Smart PRO indicates that it has lost communication with the Internet or the Indra App. The following flashing sequences identify what is causing the issue.



1 flash, repeating

A single, repeating flash indicates the Smart PRO is connected to the internet, but is unable to communicate with the Indra App. In this instance you should contact Customer Services.



2 flashes, repeating

A cycle of 2 repeated flashes indicates the Smart PRO is having difficulty connecting to your Internet router. Check all cables are plugged in and that other devices in the home are able to connect to the internet. If everything is in order, try restarting the router. This is not available when using a 4G dongle connection.



3 or more flashes, repeating

A cycle of three or more repeated flashes indicates that there is a problem with your Internet router. Check that any other devices in the home are successfully connected to the internet, then try restarting the router. This is not available while using a 4G dongle connection.

○○○○○ LEDs relating to the primary LED light:



4 panel LEDs are off

If the four panel LEDs below the primary LED are off, then the Smart PRO is not connected to the EV.



4 panel LEDs are lit

With the four panel LEDs illuminated, the Smart PRO is connected to the EV and is currently in 'idle' mode, waiting to charge.



4 panel LEDs are racing downwards

The Smart PRO is in charging mode and your EV is currently being charged.



Green when a charge is scheduled

The Smart PRO is not currently charging, but the EV is connected and a charging session has been scheduled.



Flashing Green - Fixed Load Calibration

The installation engineer has triggered the Fixed Calibration Load function as part of the charger's set-up process.



4 panel LEDs flashing, white

The vehicle is no longer accepting charge. It is likely that the battery is fully charged.



Contact us

For more information, please contact us;



Email us
support@indra.co.uk



Call us:
(+44) 01684 770 631



Online support
[www.indra.co.uk/
support](http://www.indra.co.uk/support)