

ANDERSEN

A2

Installer
manual



www.andersen-ev.com

Revision 2.9

ANDERSEN DISCLAIMER

The Andersen A2 should only be installed by an electrician with the appropriate knowledge and qualifications. The installation must comply with the current editions of the **IET Code of Practice for Electric Vehicle Charging Equipment installation** and **IET BS 7671 Requirements for Electrical Installations**. Failure to do so could result in injury or death.

It is the responsibility of the installer and/or designer to determine the correct cabling and protective devices where external influences could have an effect on inbuilt protection.

It is also the responsibility of the installer to apply or notify the relevant DNO with the installation details of the charge point and property in accordance with ENA guidance.

Opening of containment should only be carried out when the supply is isolated from the mains. The undertaking of any live testing should only be carried out by a person or persons qualified to do so.

The installation instructions should be followed closely to ensure correct installation and commissioning. Failure to follow these instructions could result in damage to the Andersen Charge point, existing installation or supplier's equipment,

During and on completion of the installation, it shall be inspected, tested and certified to verify that it complies with the current electrical regulations and standards as applicable.

Before the Andersen A2 is put into service, we as the manufacturer require the installer to simulate a charge with a recognised EVSE adaptor and multifunction tester to prove operation and functionality. Use of this equipment should only be undertaken by someone who has an understanding of its functions and has the experience and knowledge to do so.

ANDERSEN

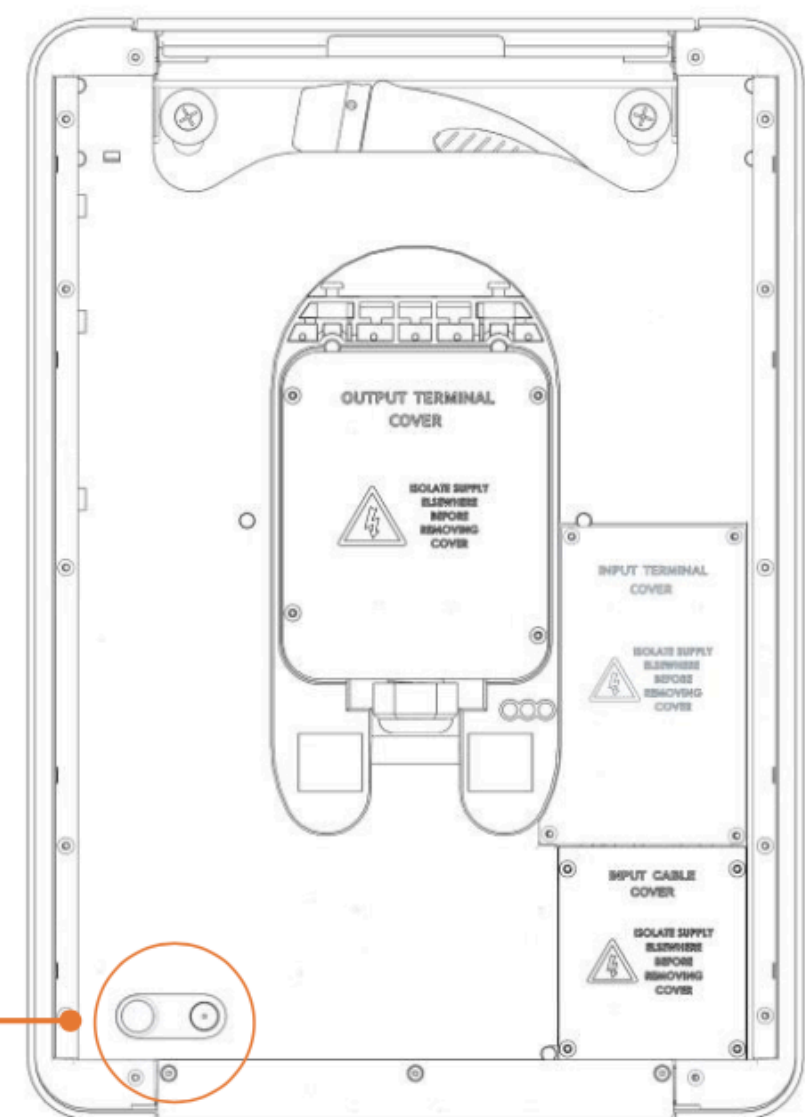
A2



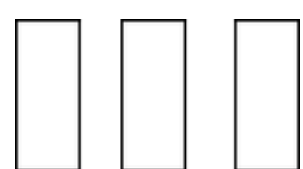
SETUP MULTI FUNCTION OPERATION

-  **x2** Reset RCM (Two button presses)
-  **x3** Enter Network setup mode (Three button presses)
-  **x1** Exit Network setup mode (One button press)
-  **x5** Enter unit reset mode (Five button presses)

Multi function
button located at
the bottom left,
inside the cable
slot.



OPERATION LED STATUS LIGHT



Solid white LED - charge point is in standby mode



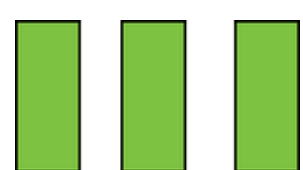
Solid magenta LED - waiting for scheduled charge to start



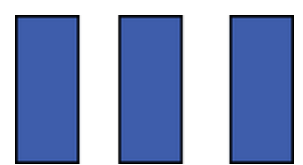
Solid orange LED - waiting for sufficient solar to start charge



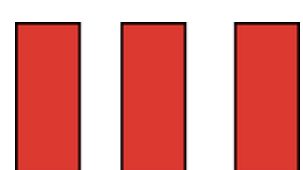
Pulsating green LED - vehicle is charging



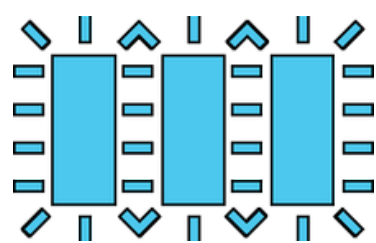
Solid green LED - vehicle has finished charging



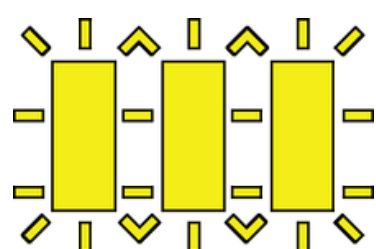
Solid blue LED - charge point is locked by user



Solid red LED - charge point has detected an error



Flashing cyan LED - charge point is in setup mode



Pulsating yellow LED - charge point is rebooting

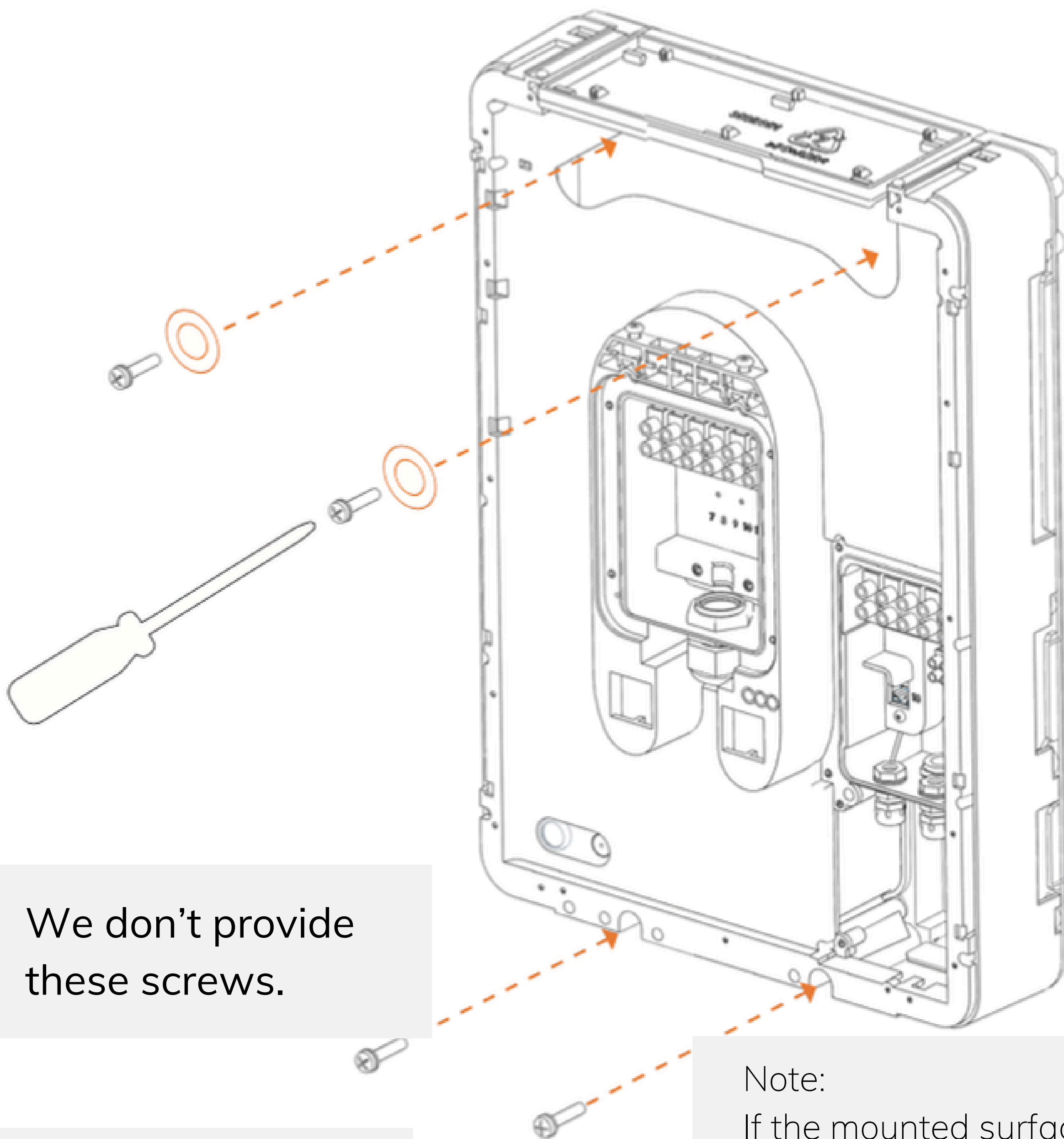
All colours in a pulsating sequence - Firmware update in progress

Step 1: Fix A2 unit to the wall

 x2
6mm penny washer

 x2
6mm washer

The mounting hardware (screws, wall plugs etc) must be selected to be appropriate for the specific structure of the mounting wall.



We don't provide these screws.

Tip: Install top mounting screws first then hang unit, using the keyed holes. This will allow you to mark the bottom mountings more accurately.

Note:
If the mounted surface is uneven, use spacers to ensure the unit core is sitting flush to the wall.

Step 2: Prepare A2 core for supply cable entry

Default cable entry is from the rear See Fig: 1

this can be done on wall

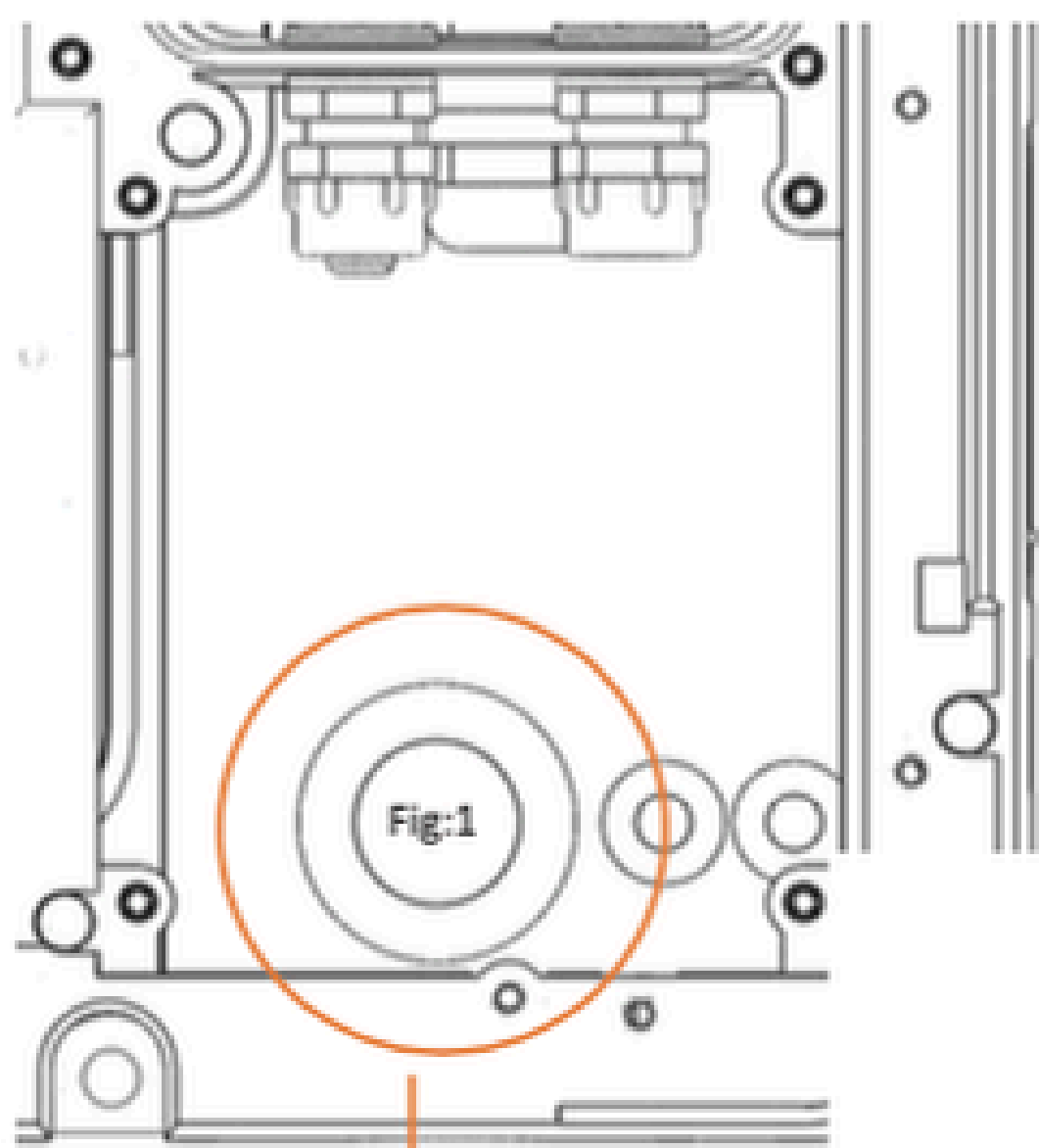


Fig 1

Bottom entry. Drill out cable entry section with 20-25mm hole saw, see fig 1

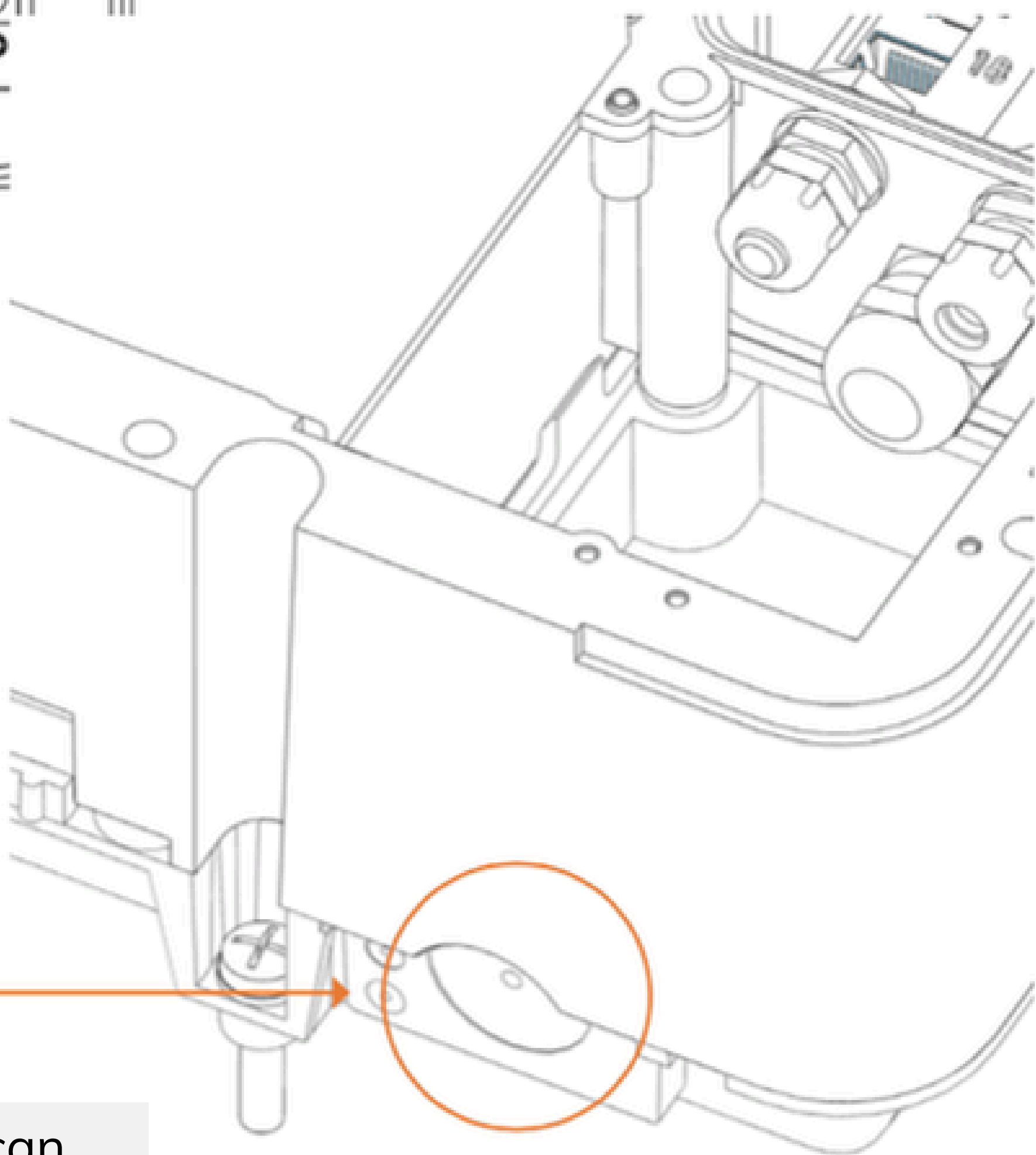
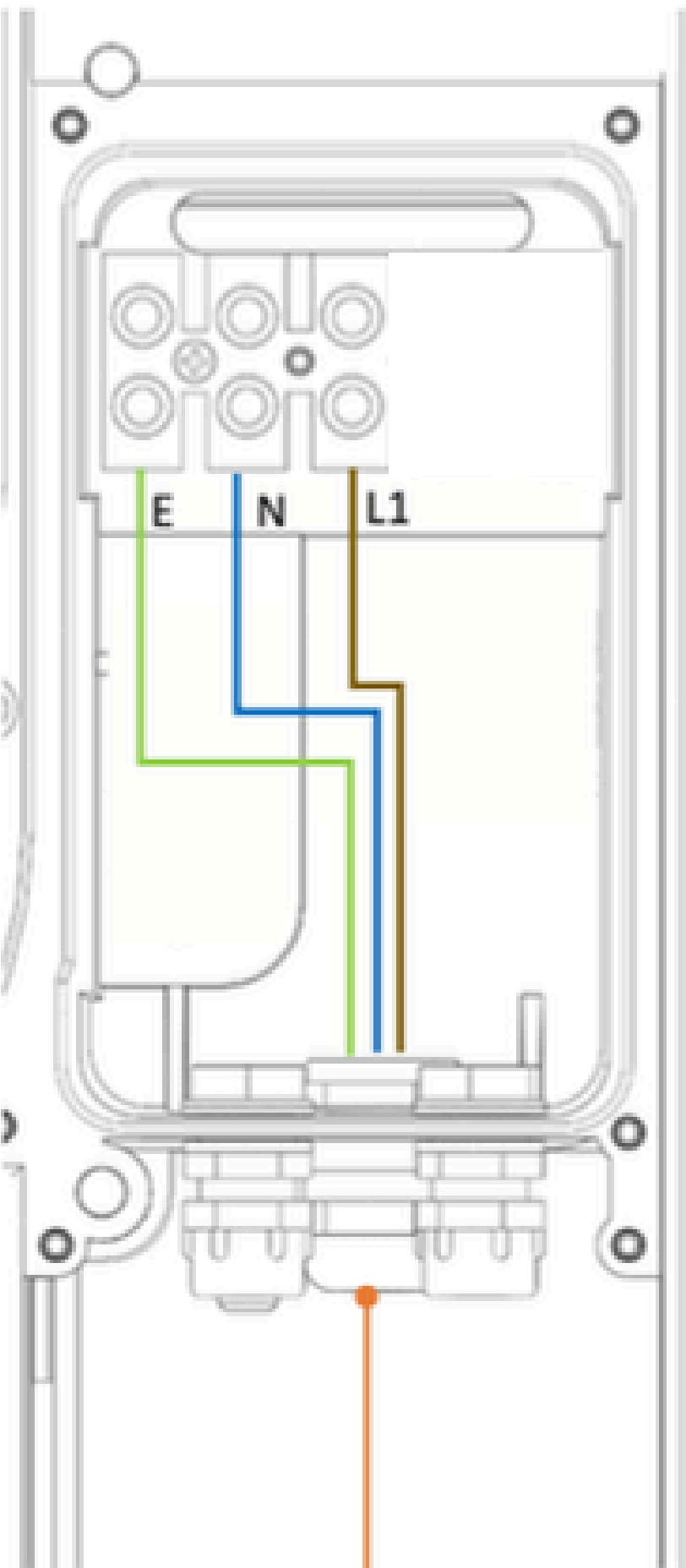


Fig 2

Note: This step can be done once mounted on to the wall.

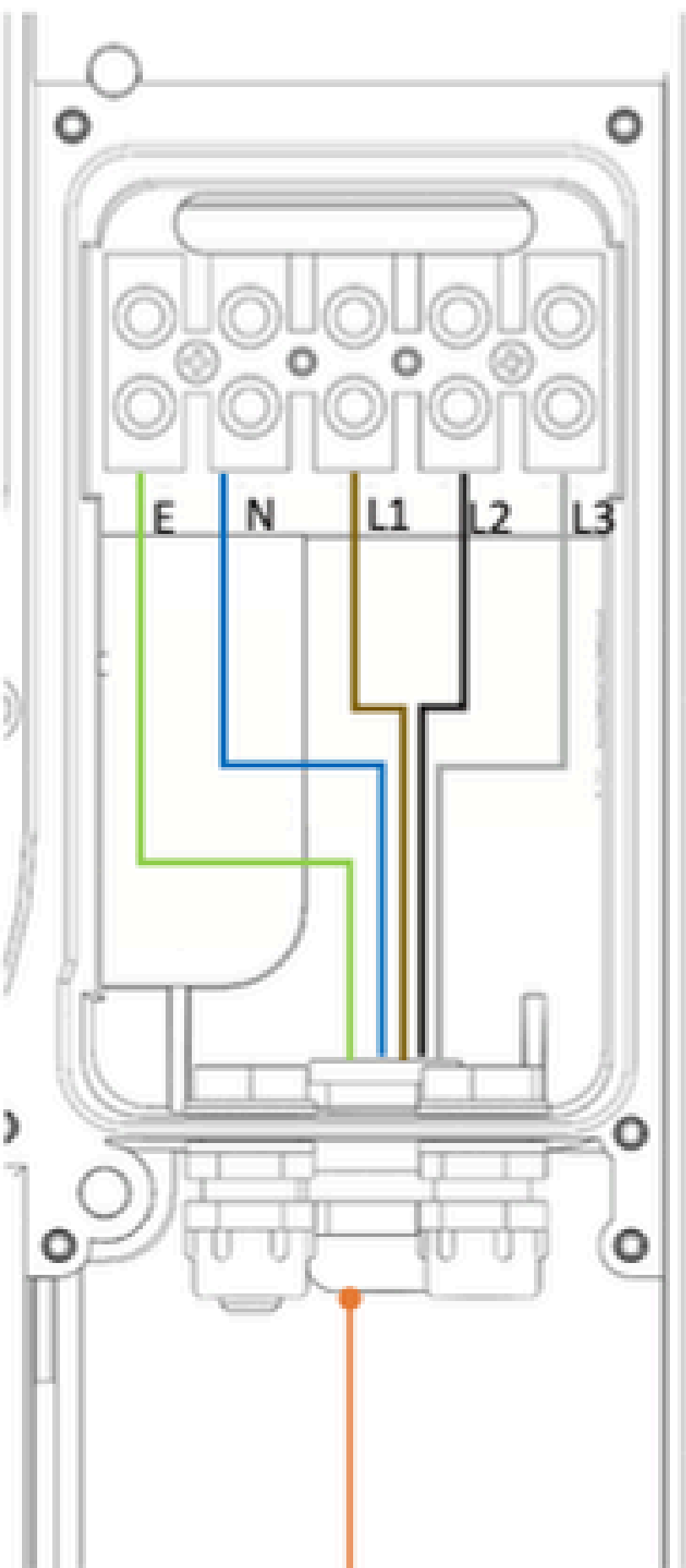
Step 3: Terminate supply power cable

Single Phase installation



Incoming single phase supply

Three Phase installation

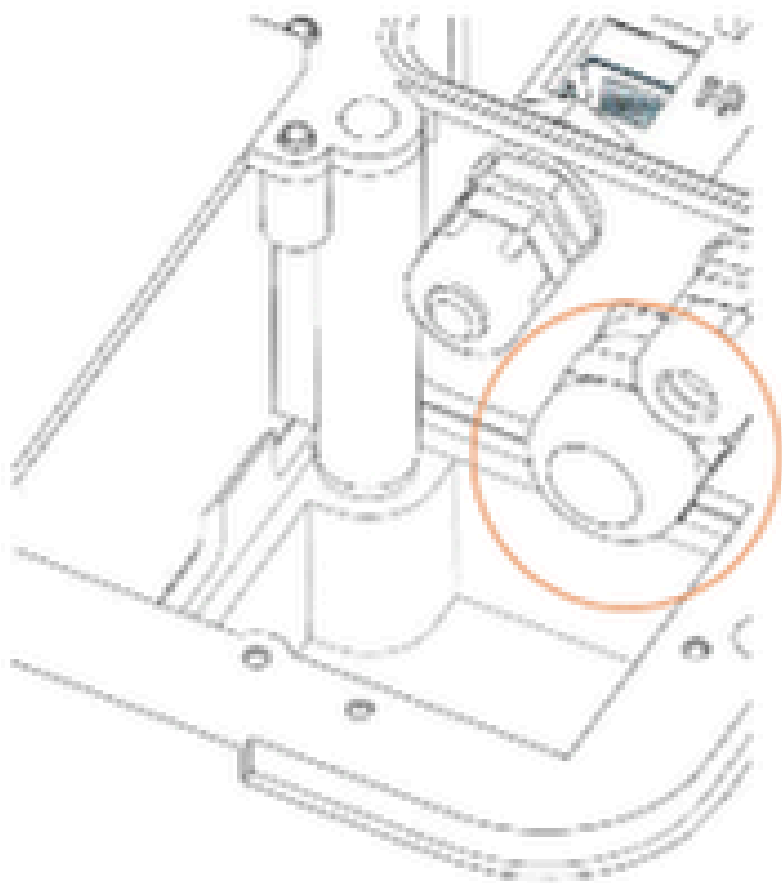


Incoming three phase supply



Torque setting must be 1.2Nm. Check both sides of connector block.

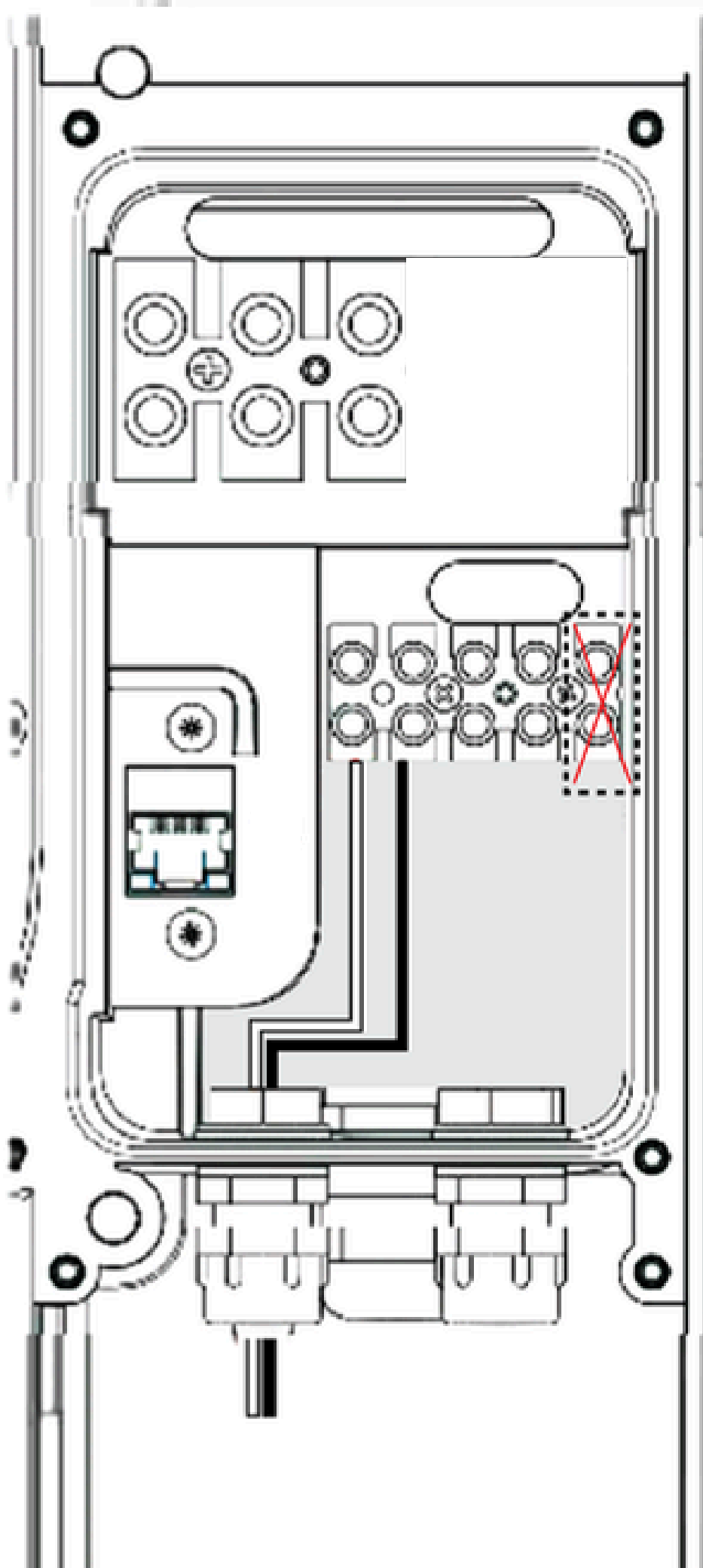
TIP: Recommended supply cable type is CAT5e/6 EV Cable.



Ensure the gland is tightened after cable installation.

Step 4: Terminate sensor cables

Solar Advanced CT
sensor cable*
Optional



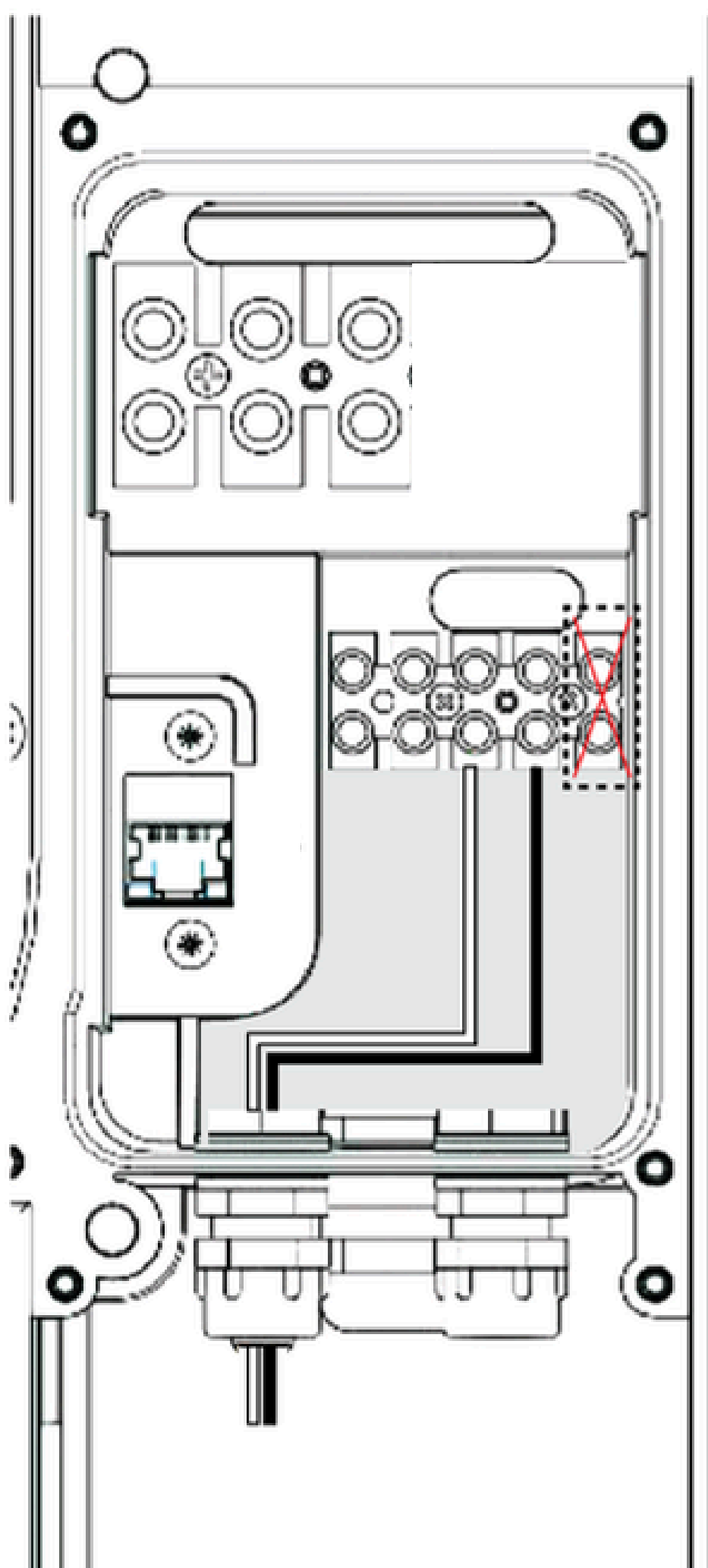
Solar Advanced CT

Note: Fit CT clamp to PV inverter supply. Orientation can be determined during testing.

Recommended Cable:
Shielded twisted
pair e.g. CAT5e/CAT6

Please refer to installer
commissioning guides to
complete this setup
correctly.

Solar Basic/Adaptive
Fuse CT sensor cable*
Optional



Solar Basic/Adaptive CT

Note: Fit CT clamp
to incoming supply.
Orientation can be
determined during
testing. CT orientation can
be confirmed in
dashboard using a load
reference i.e. kettle 3Kw

Recommended Cable:
Shielded twisted
pair e.g. CAT5e/CAT6

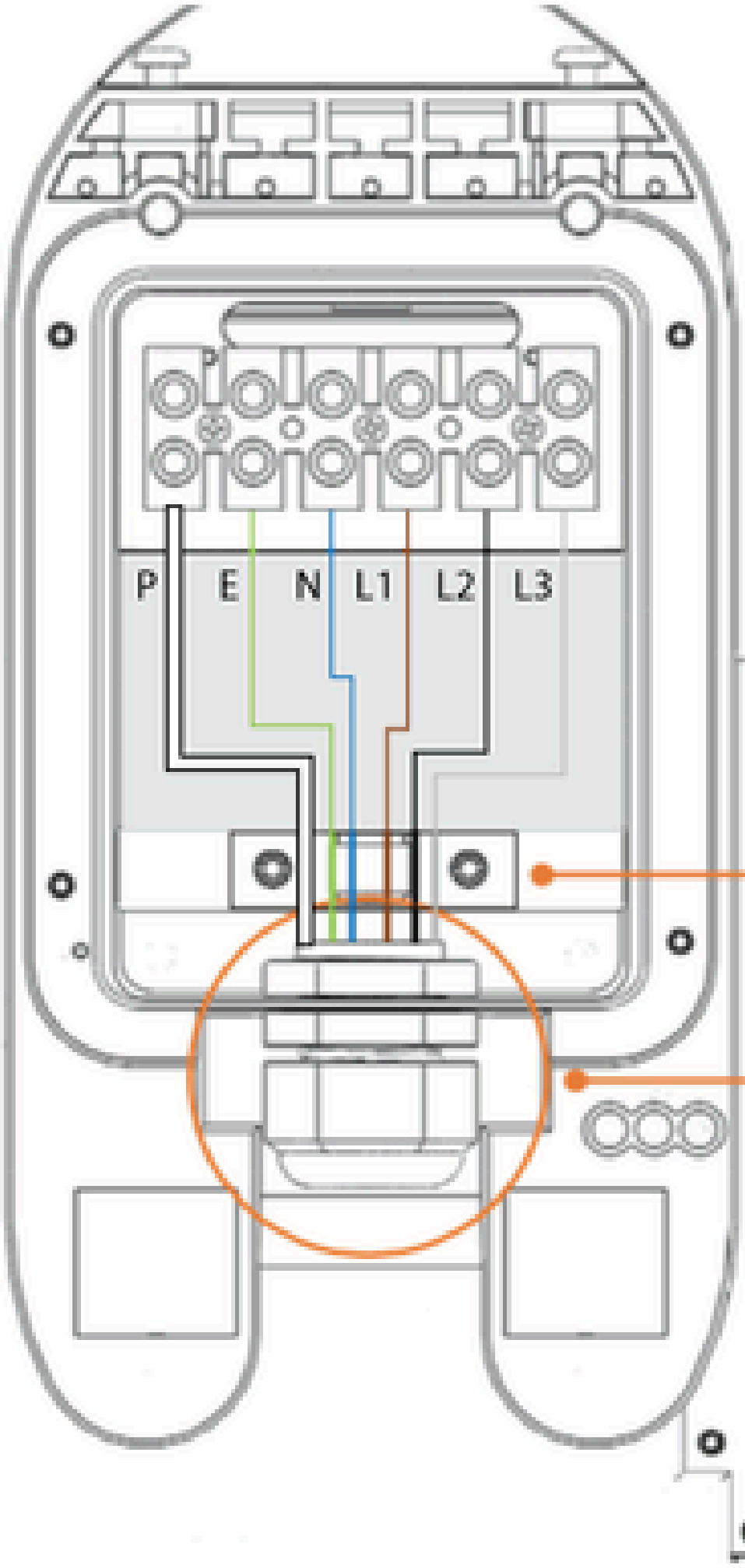
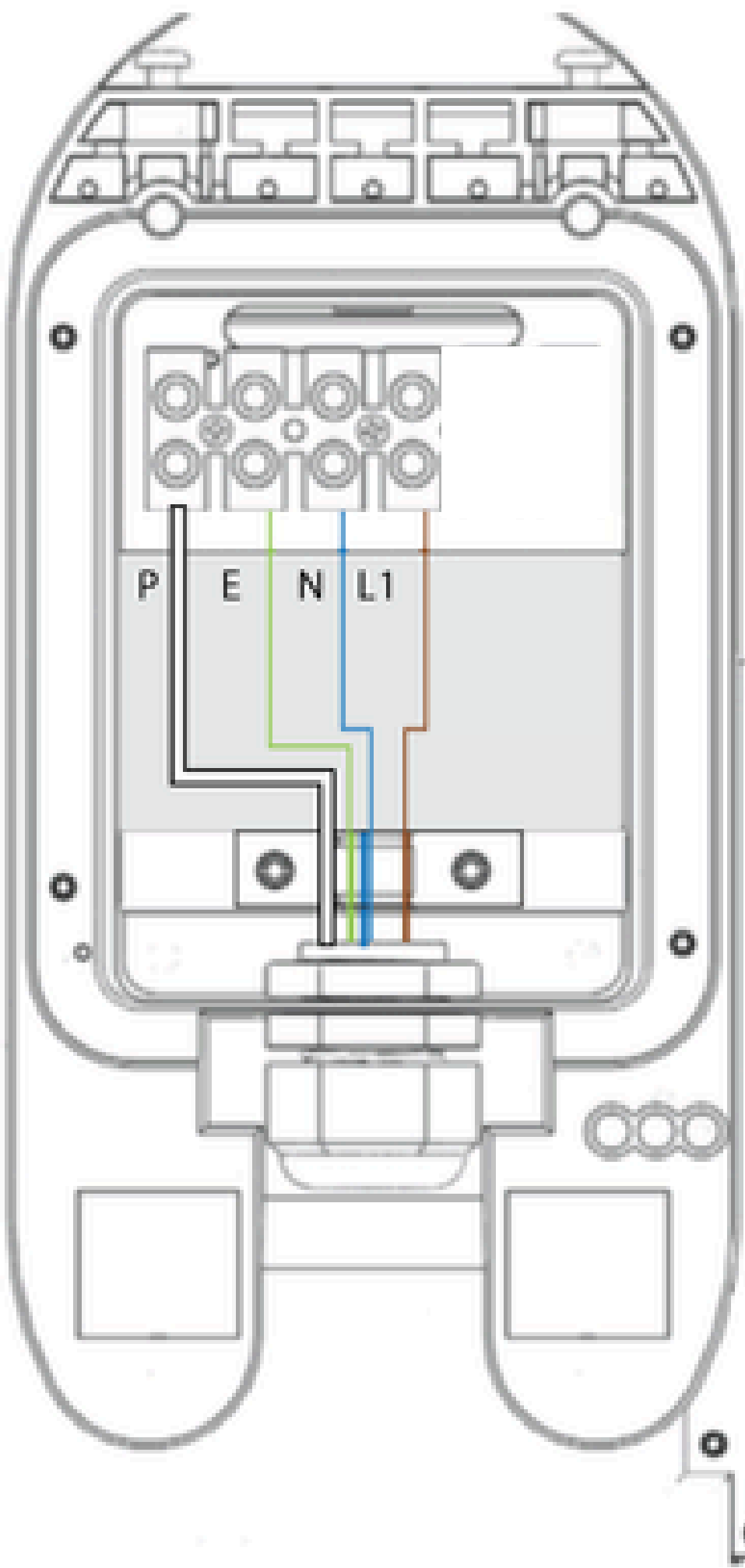
Step 5: Terminate vehicle side charging cable



SINGLE PHASE CABLE

THREE PHASE CABLE

Torque setting must be 1.2Nm. Check both sides of connector block.



Important. Ensure cable stress relief clamp is correctly tightened

Important. Make sure the gland is tightend after cable installation!

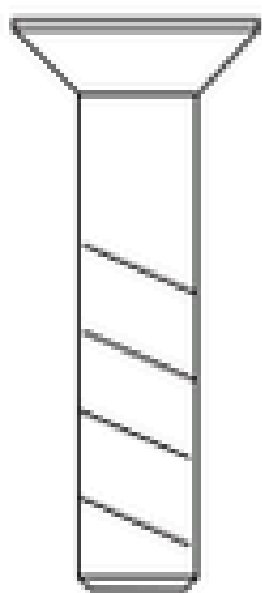
Please note: On older A2 units orange cable is not used.



Cable entry can enter the unit from two positions. Both of these positions must include the installation of the provided gland.

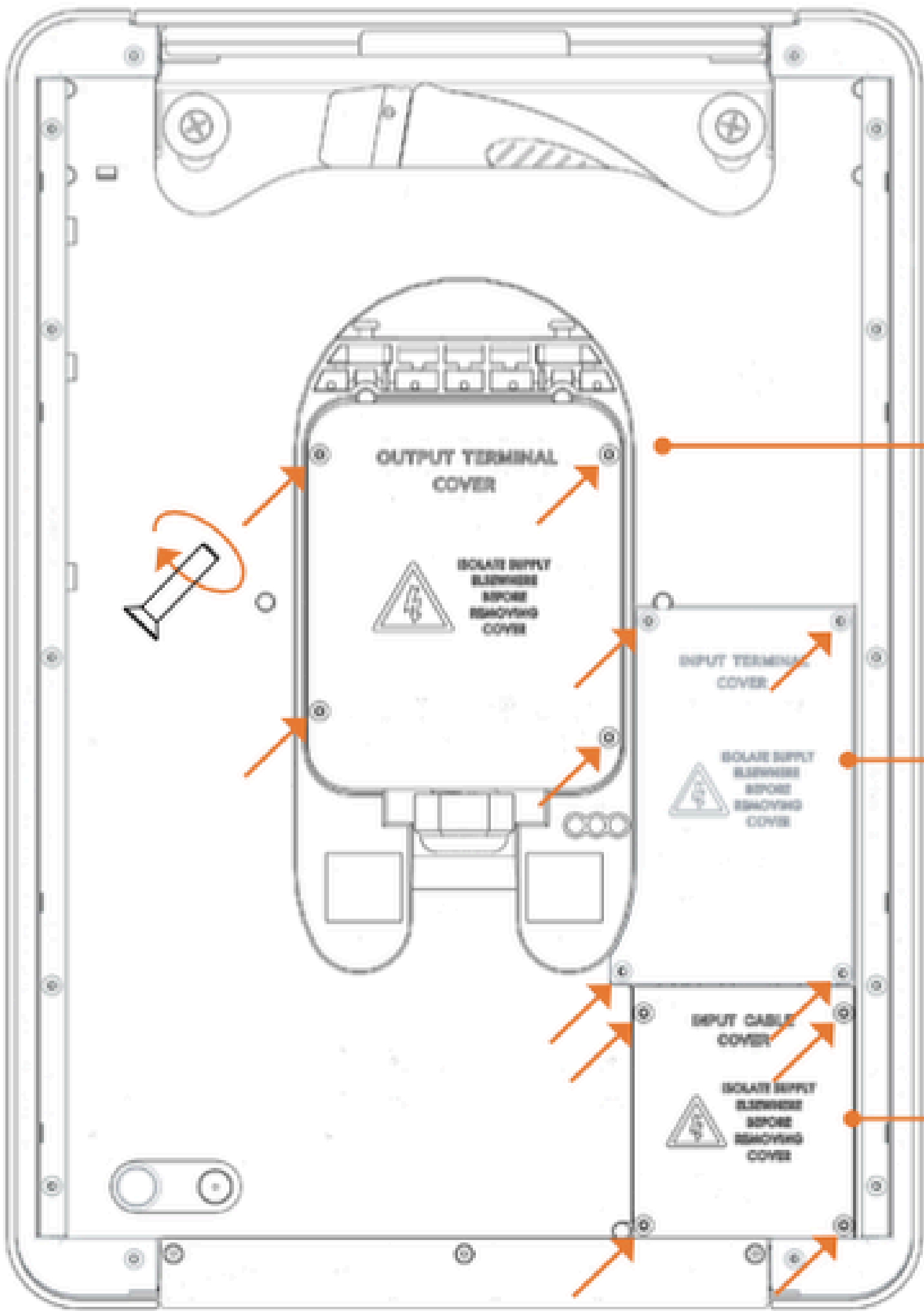
Warranty will be void if these steps aren't followed.

Step 6: Fit weather project covers



x12
M3 x 16mm long
countersunk screw
steel

Torque setting must be 0.7Nm

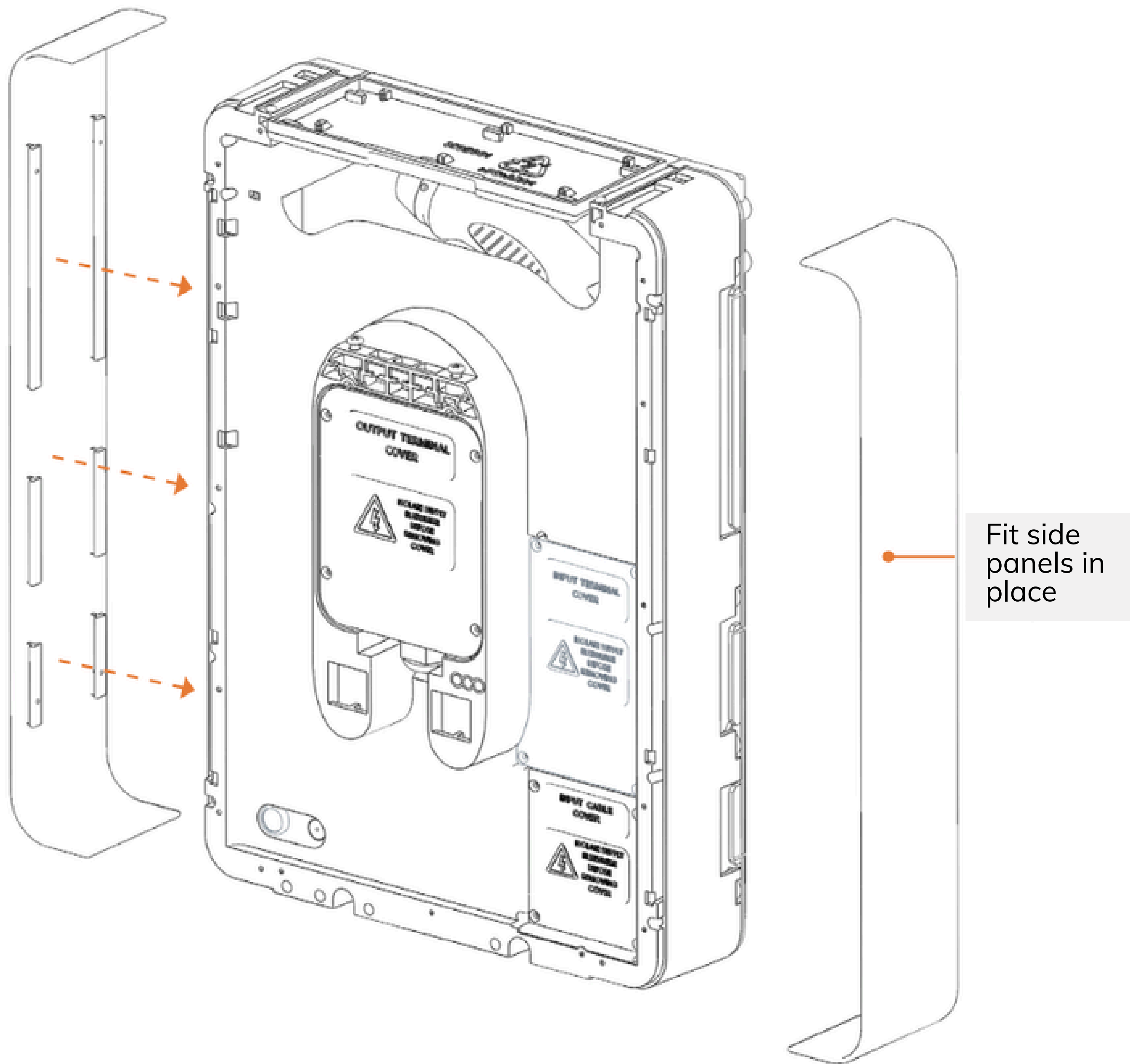


A: Fit output terminal cover. Ensure seals are correctly positioned and fixing screws correctly torqued to 0.7Nm

B: Fit input terminal cover. Ensure seals are correctly positioned and fixing screws correctly torqued to 0.7Nm

C: Fit cable entry cover. Ensure cable entry cover is correctly positioned and fixing screws correctly torqued to 0.7Nm

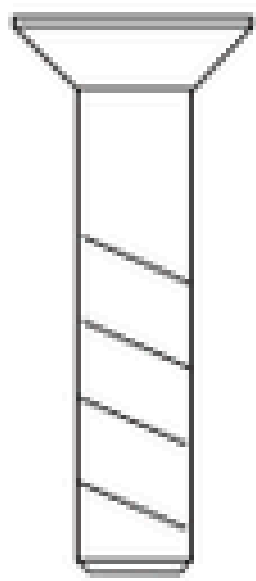
Step 7: Fit side panels



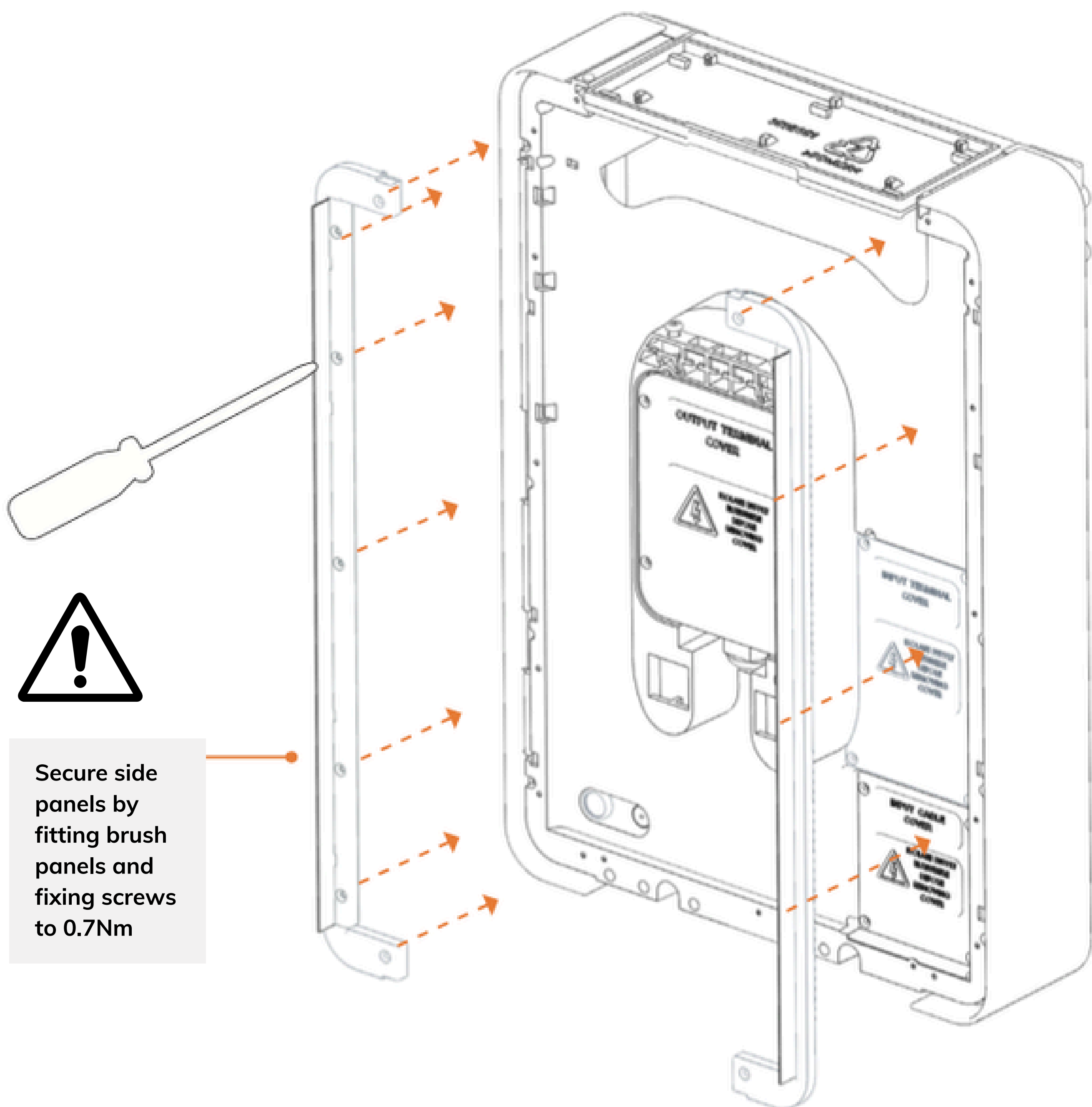
TIPS: Once side panels are located in the slots apply pressure on the top and outwards. Tighten the holding screws on unit brushes to clamp the side panel in.

Please remember the unit must be mounted as flush & flat against the wall as possible.

Step 8: Fit cable brushes

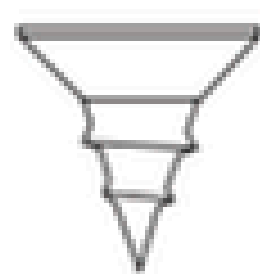


x14
M3 x 16mm long
screw



Secure side
panels by
fitting brush
panels and
fixing screws
to 0.7Nm

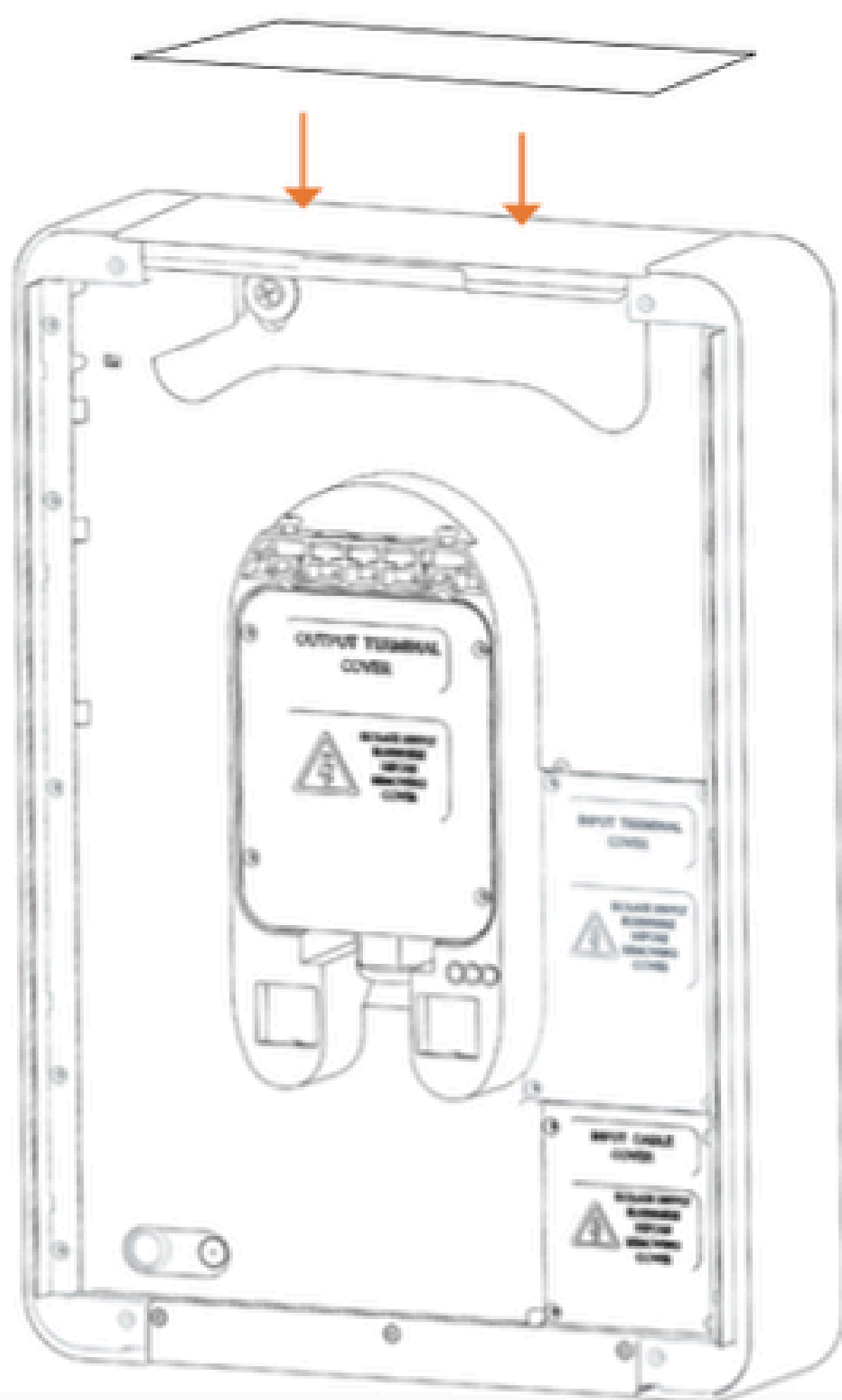
Step 9: Fit lid panel



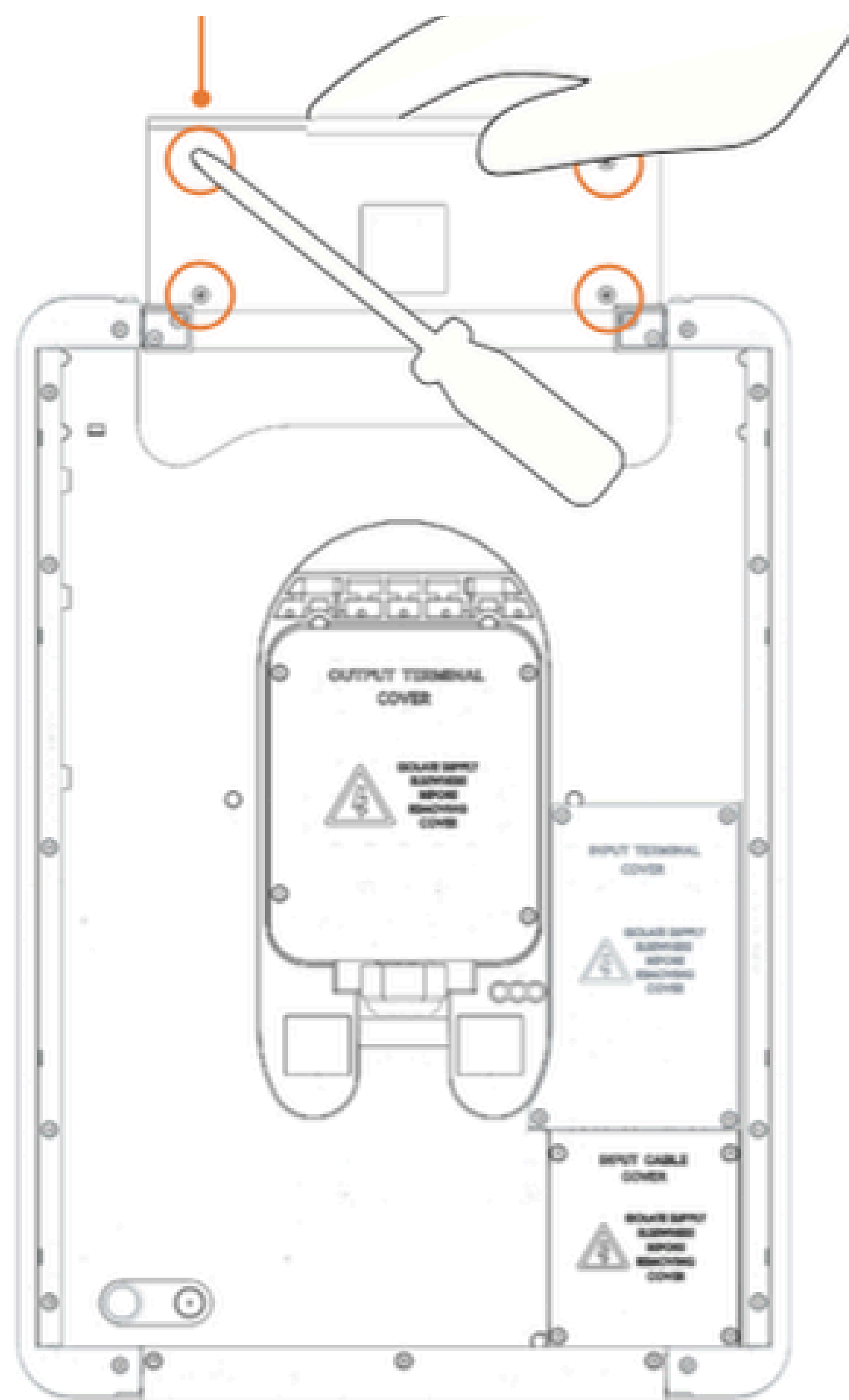
x4
M5 x 8mm counter sunk screw

**A: Install lid panel into
the lid core**

TIP: Position the lid evenly
between the side panels which
have already been fitted. Squeeze
these parts together until it clicks
in to place.

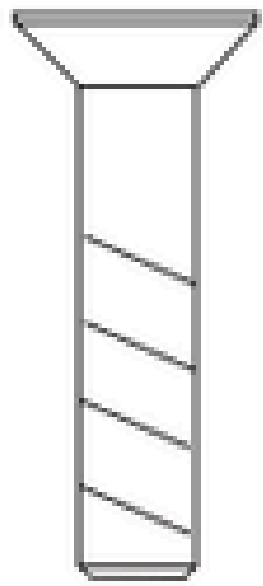


**B: Insert and tighten lid
fixing screws**

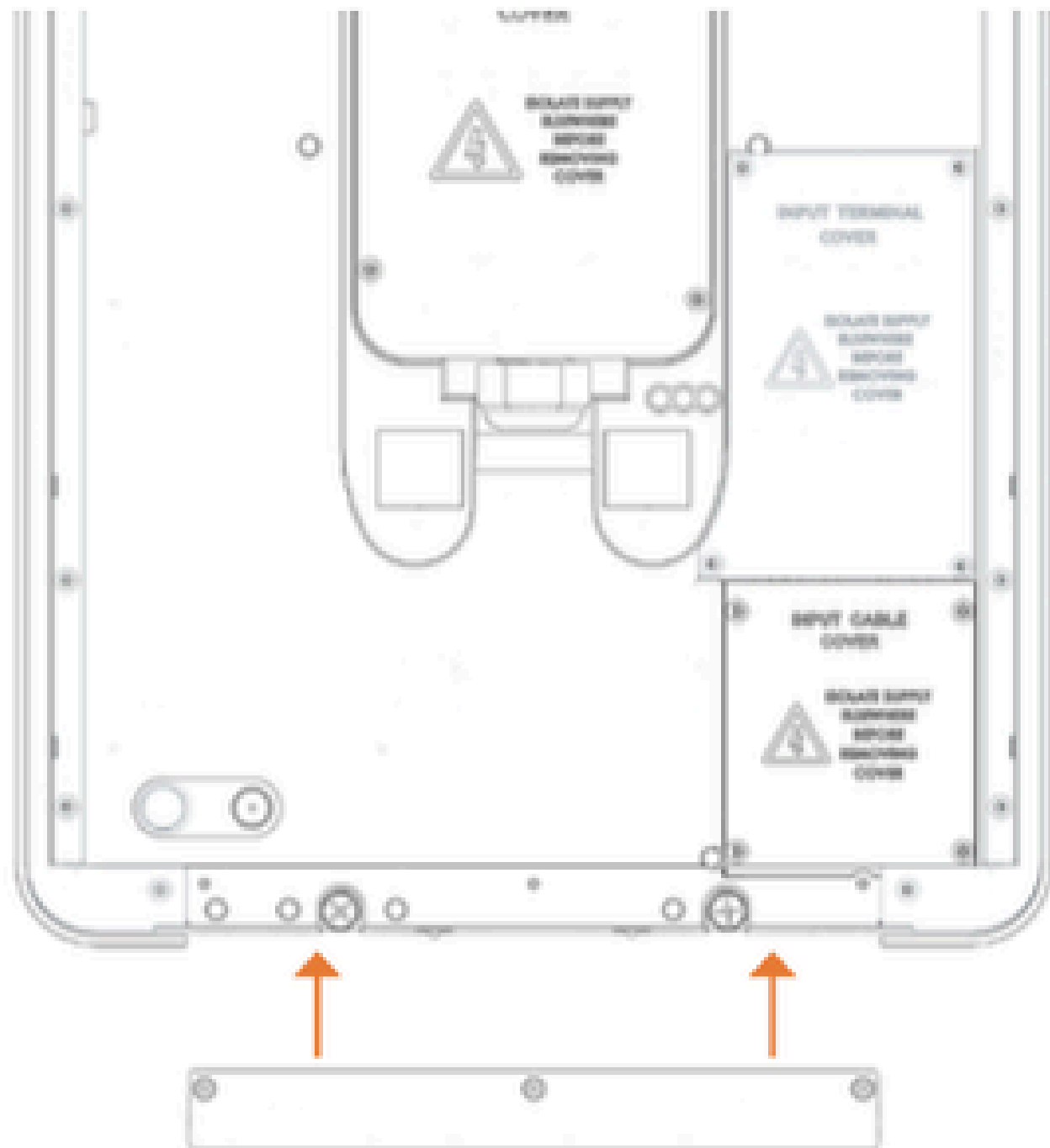


TIP: Grip lid tightly whilst
tightening locating screws,
to make sure lid does not
roll to the right.

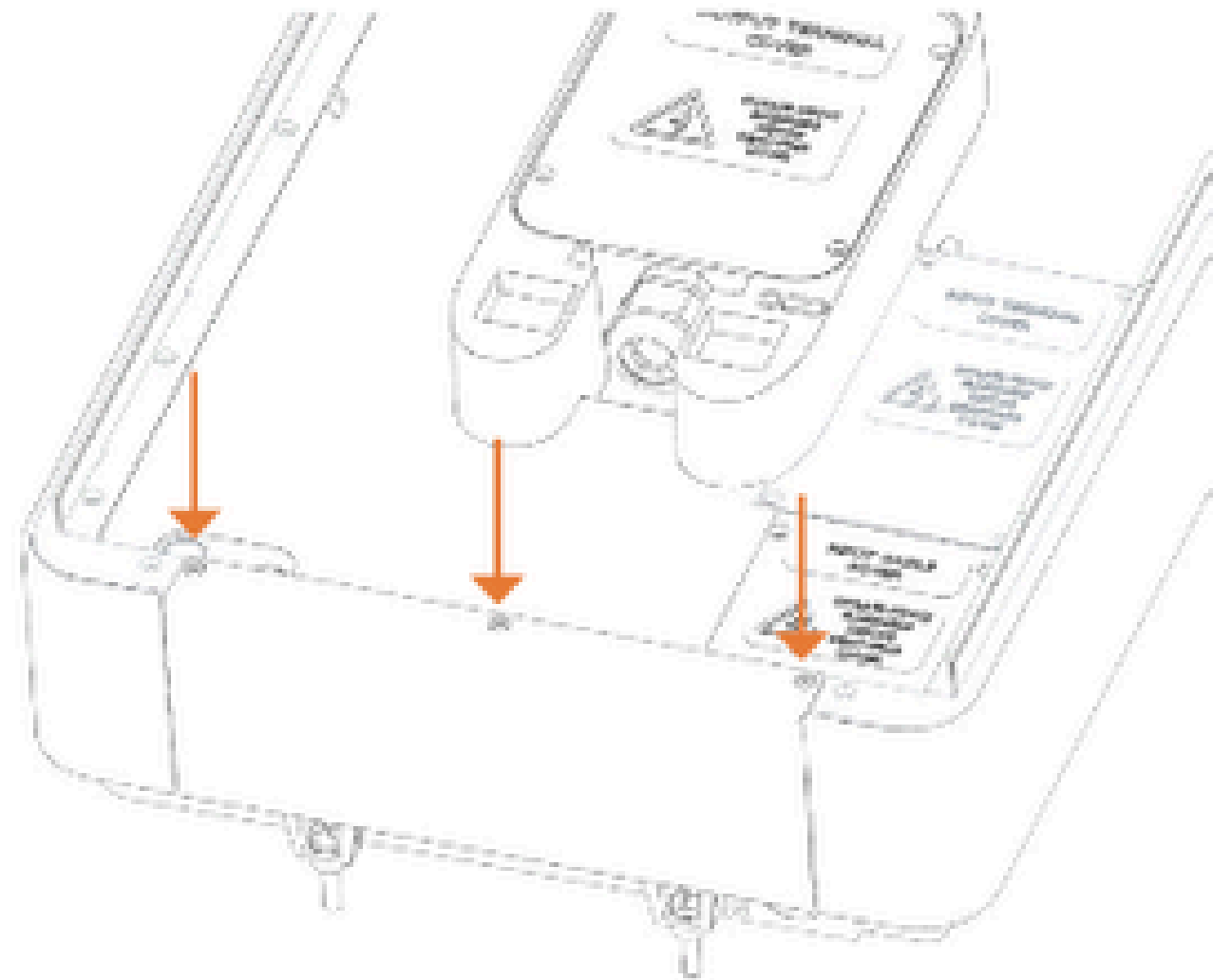
Step 10: Fit bottom panel



x3
M3 x 16mm long screw

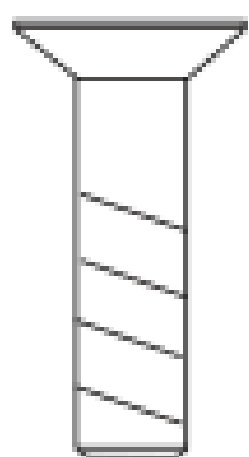


A: Fit bottom cover

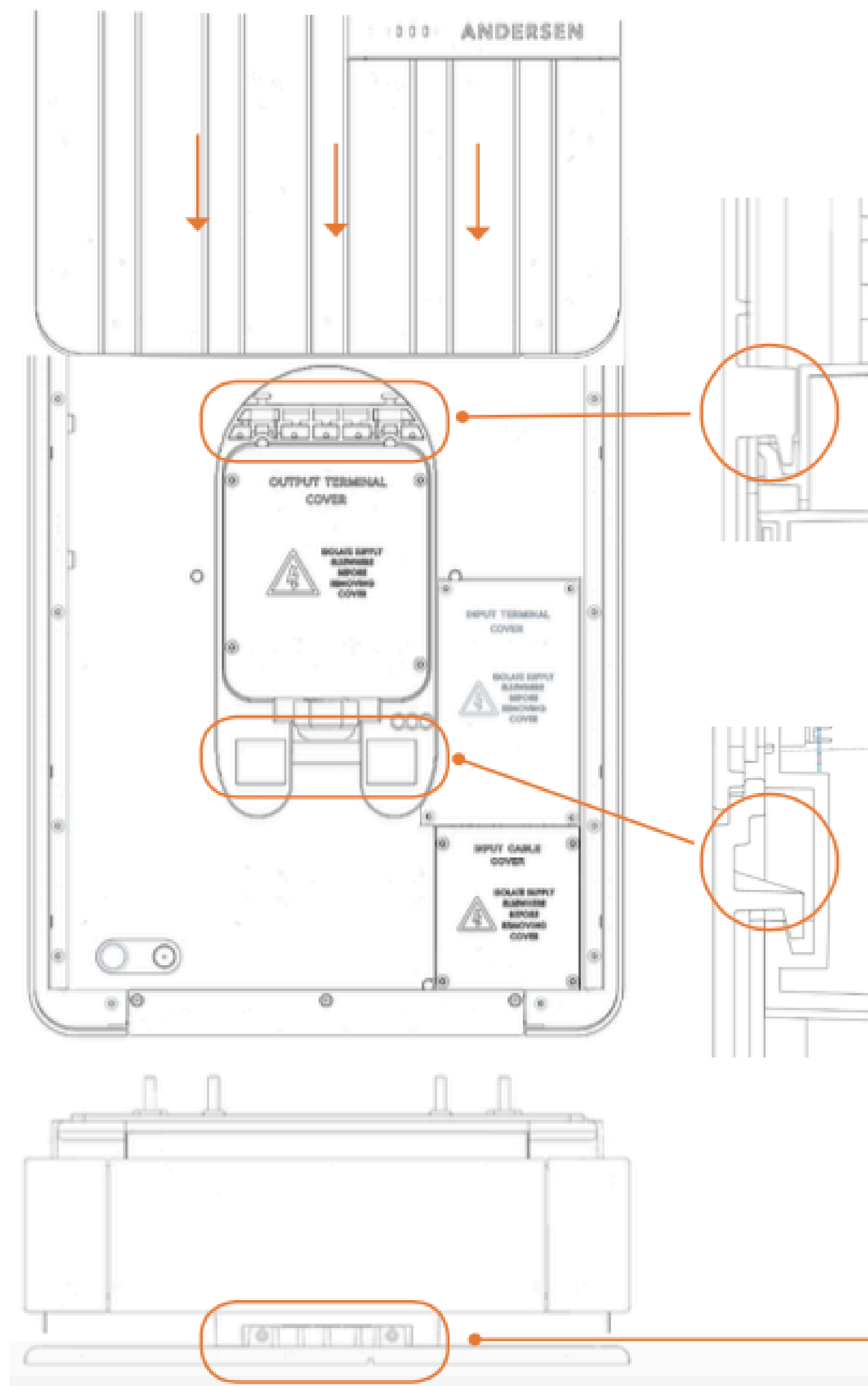


**B: Tighten screws
to 0.7Nm**

Step 11: Fit front panel



x2
M5 x 12mm long screw



A: Ensure the front panel mounts are located into the slots correctly

B: Insert and tighten front panel screws correctly torqued to 2.5Nm

Commissioning an Andersen charge point

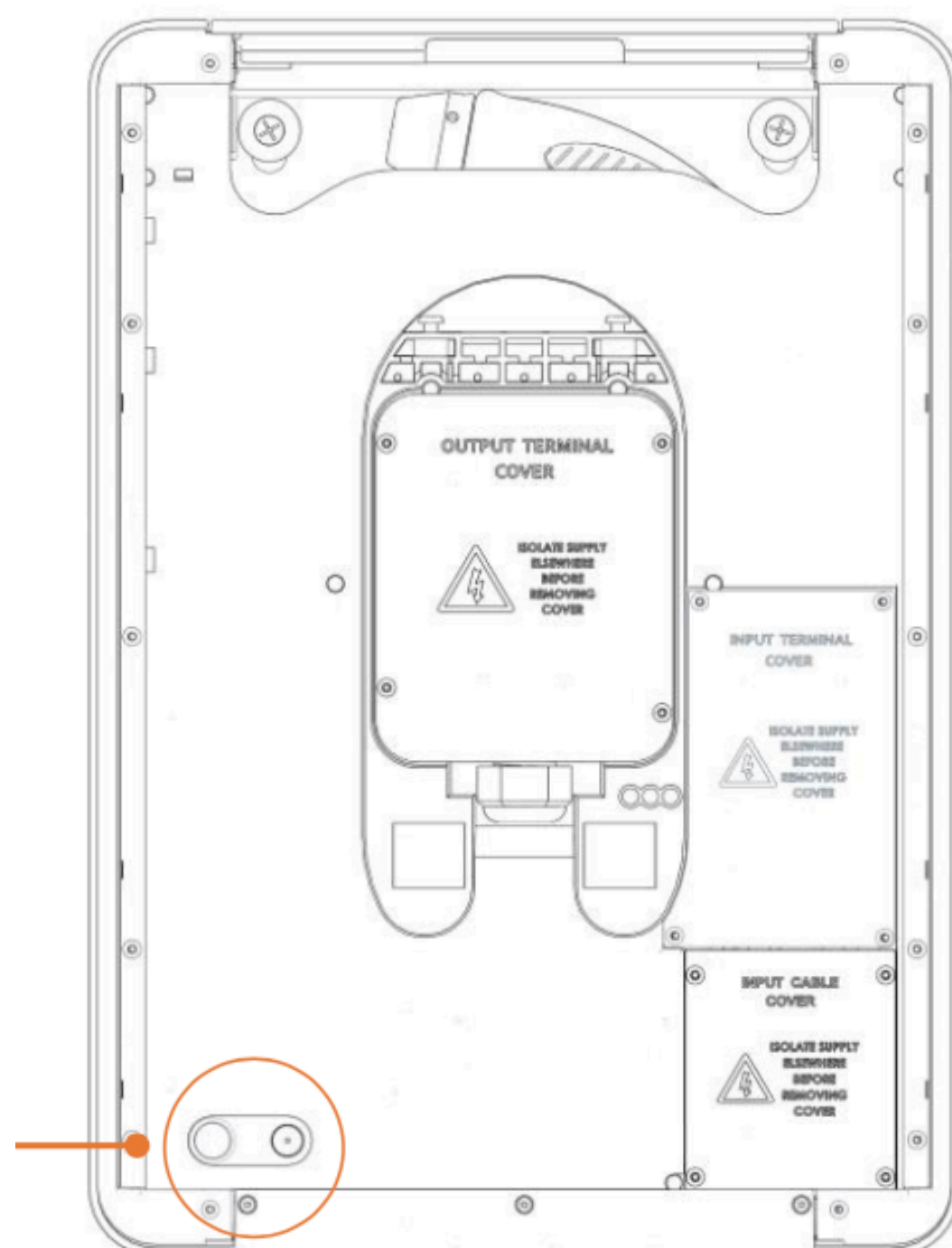
What you will need

A smart phone (iPhone or Android) with
Bluetooth enabled

A wireless broadband router and the Wi-Fi
password

The multi-function button

You will need to use the multi-function button, during this process, to put the charge point into the network set-up mode. The button can be found on the underside of the of your charge point, on the lower left hand side.



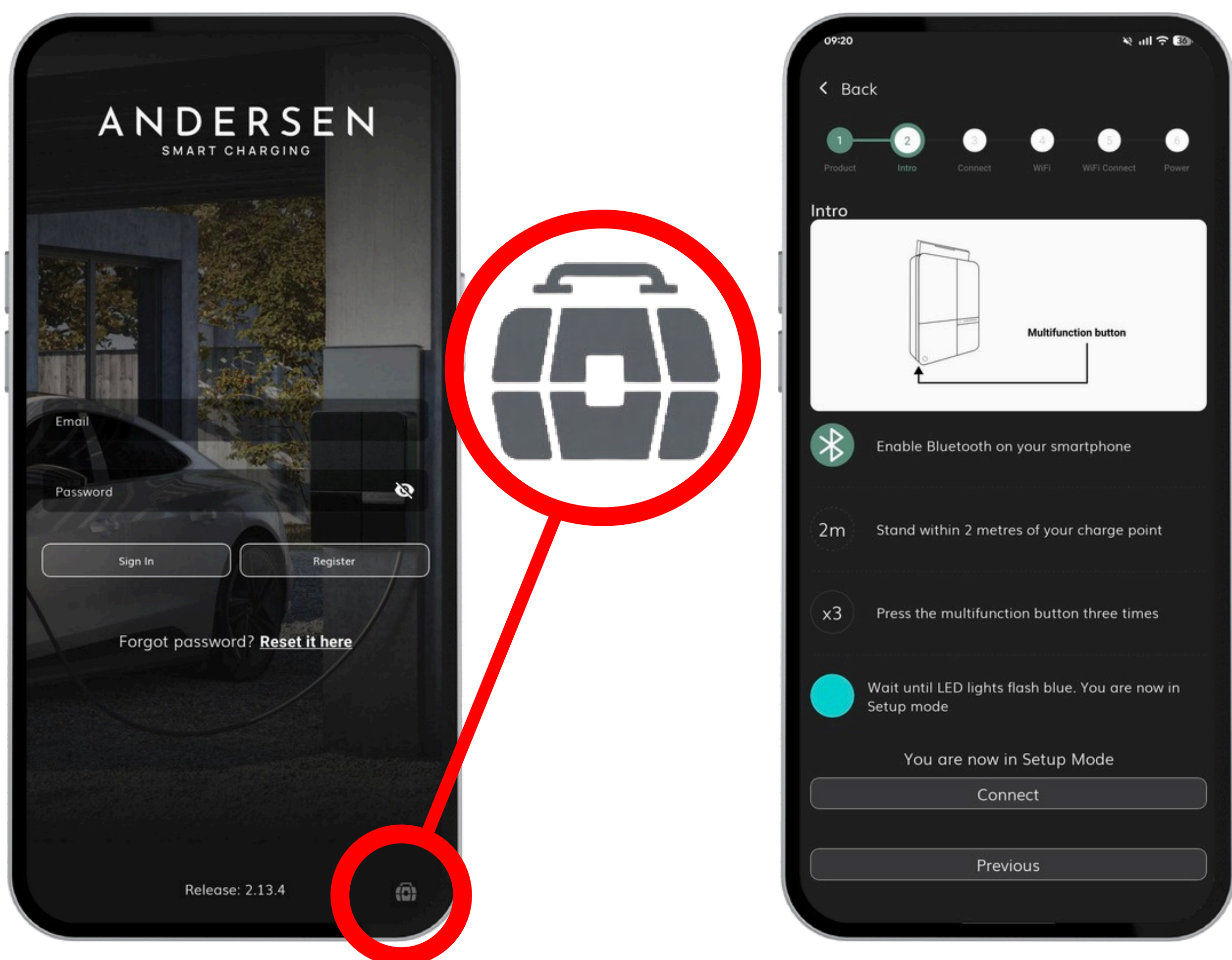
Commissioning

Open the Andersen App

Ensure you are logged out

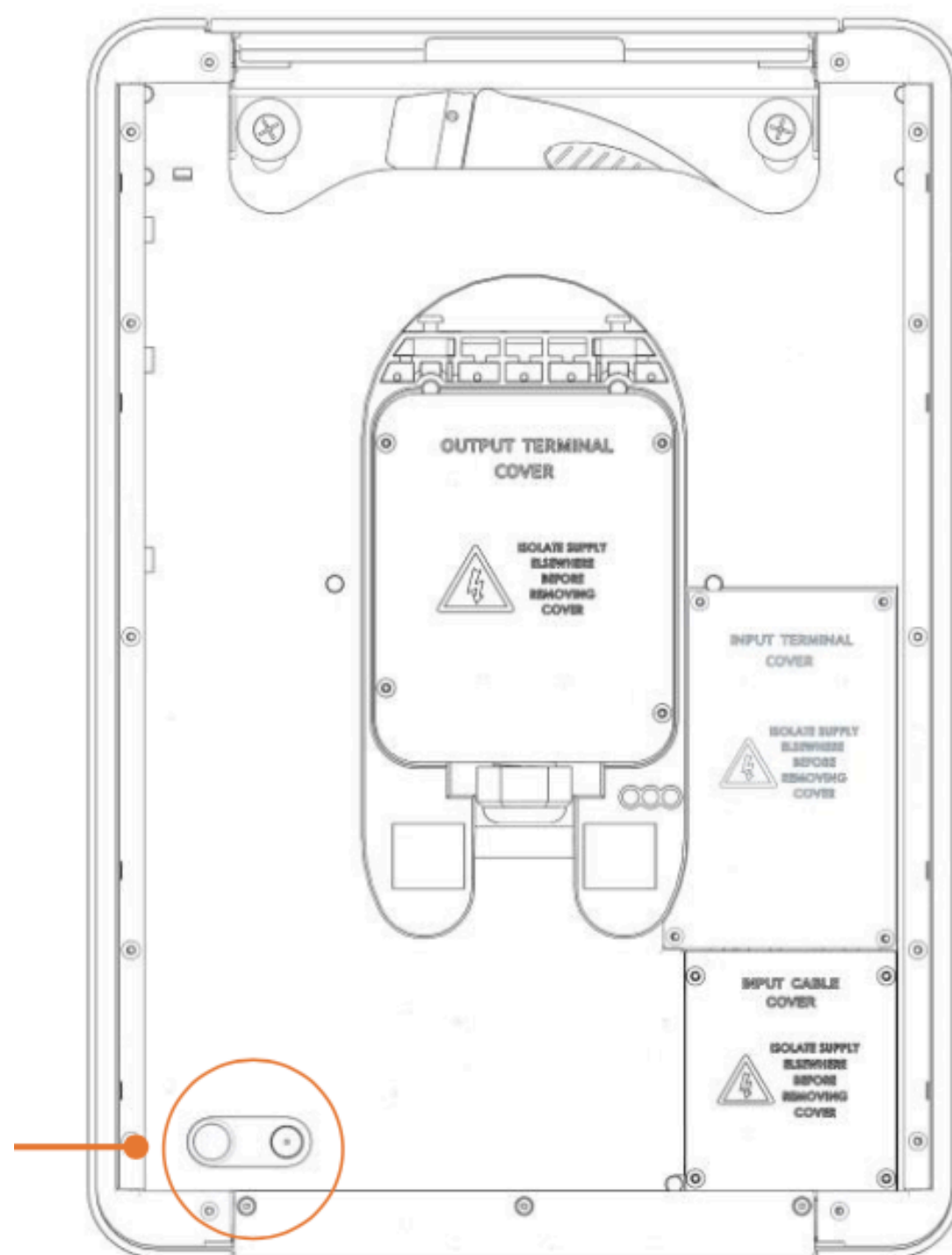
Press the toolbox located in the bottom right of the screen.

Follow the steps on the next screen to connect your charge point.

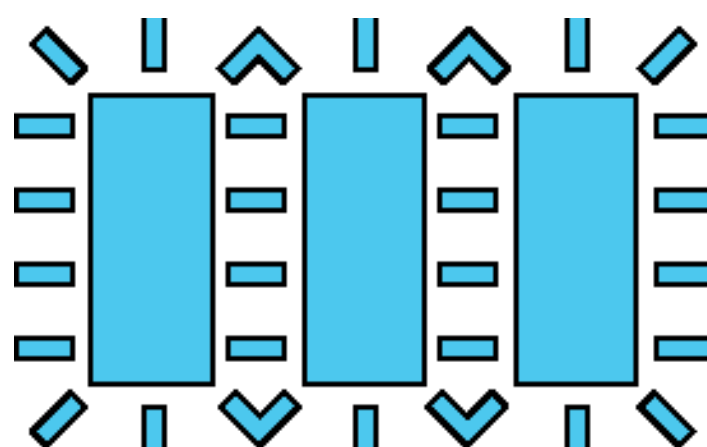


Commissioning

On your charge point, find and firmly press the multi-function button three times.



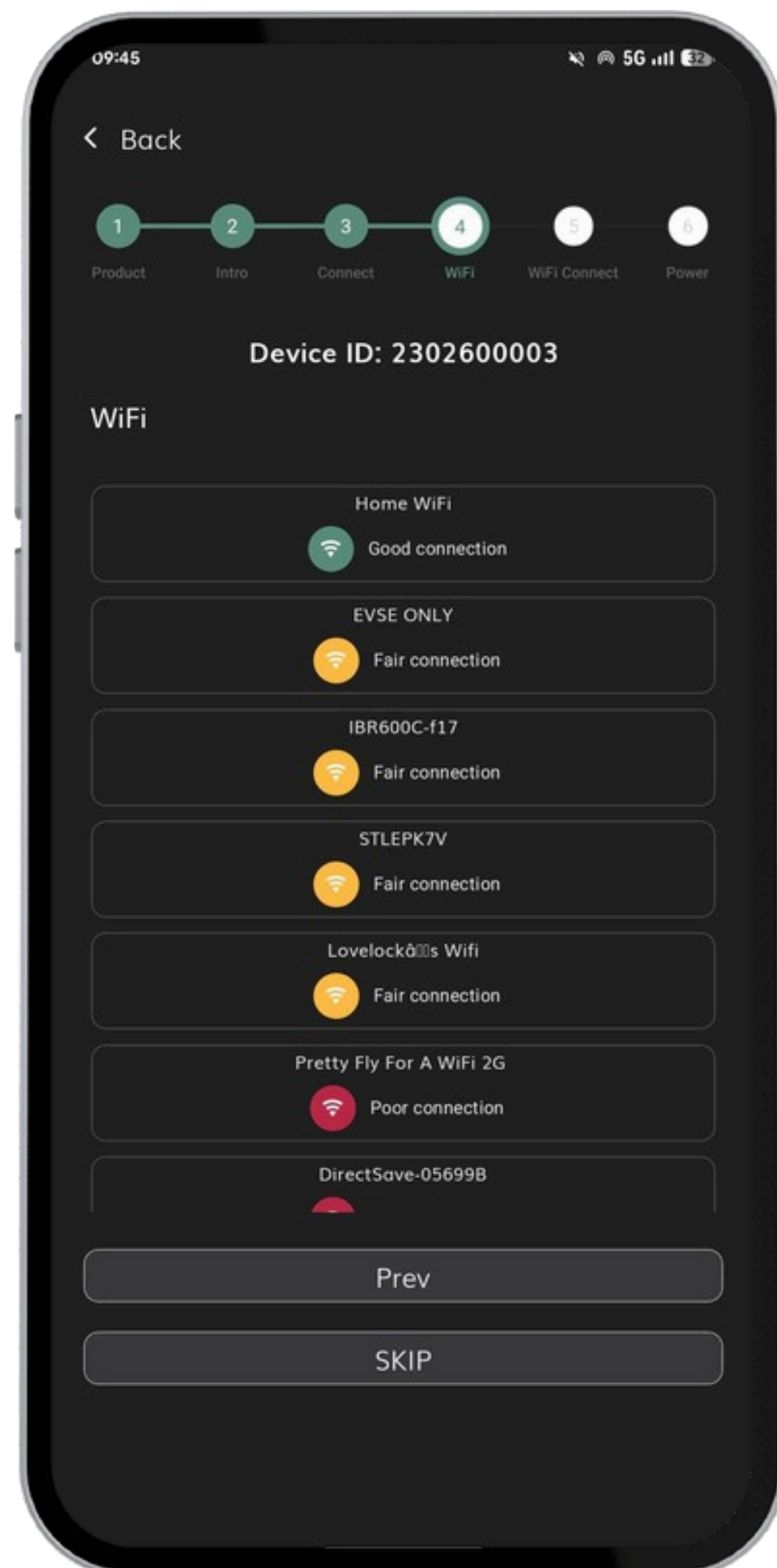
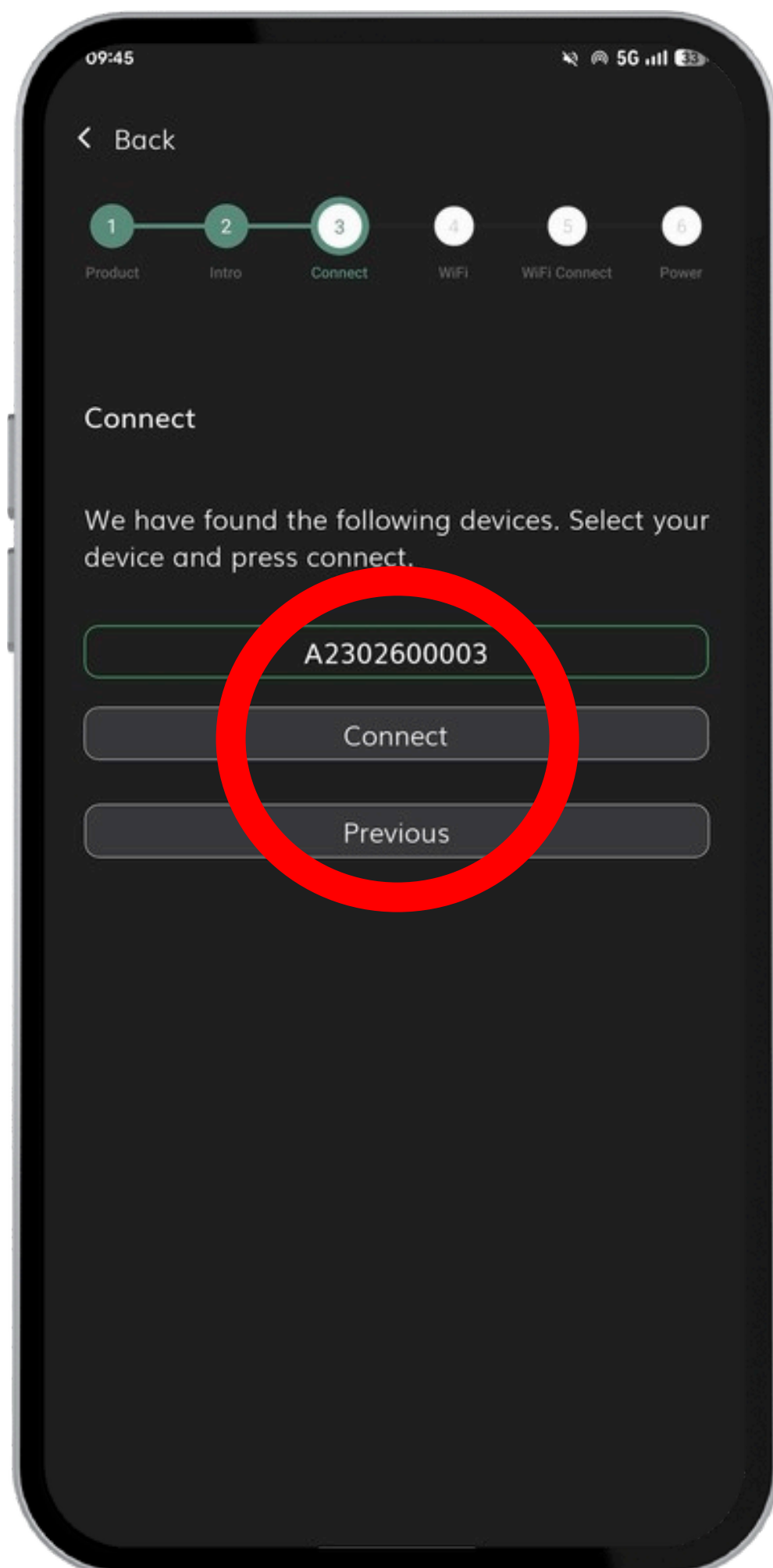
You should now see the LED status light flash cyan.



Commissioning

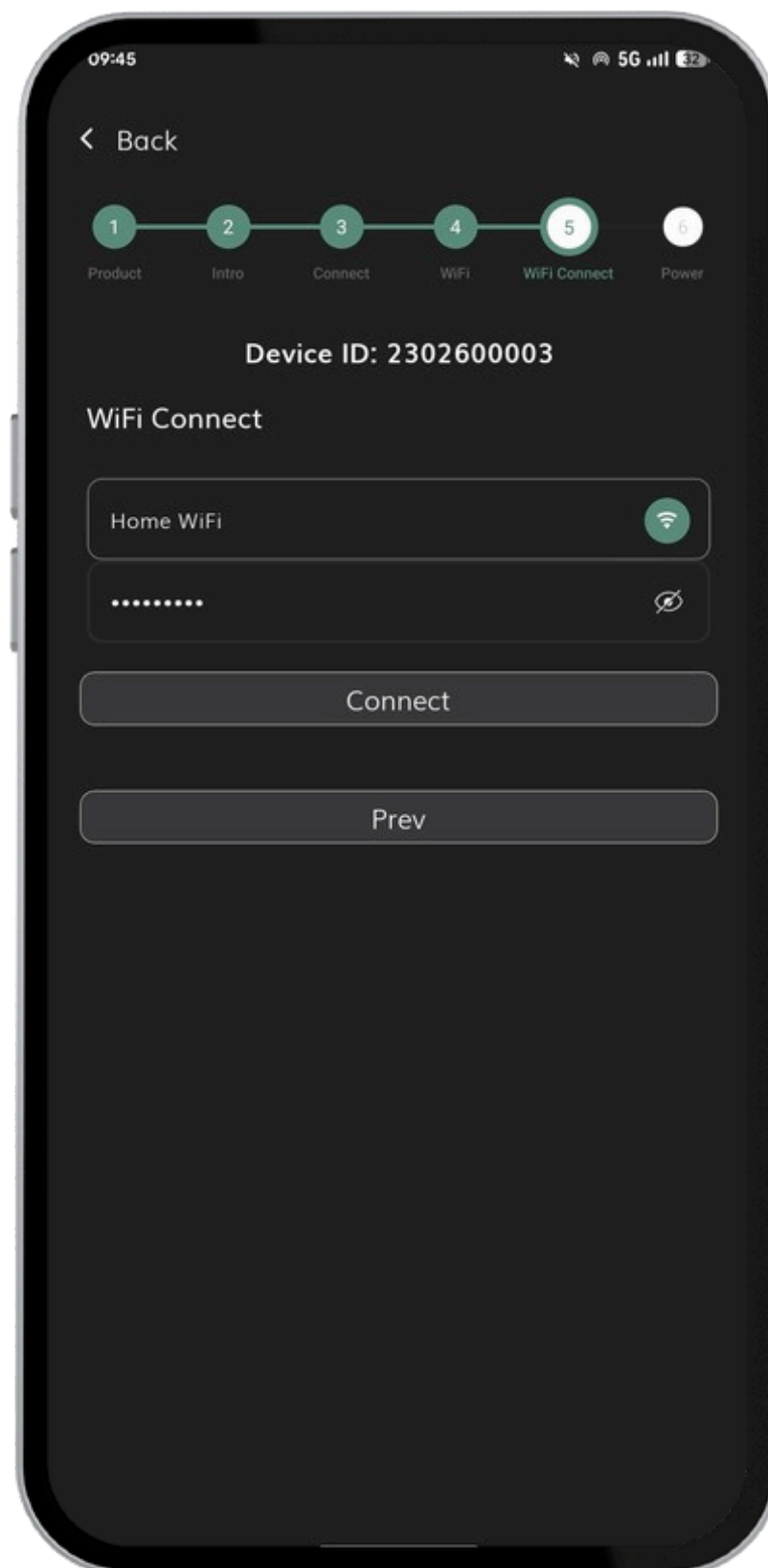
The Andersen App will start scanning for your charge point using Bluetooth. Tap the 'Connect' Button on the app to enter set-up.

Once the Andersen App has found all available networks, please select the Wi-Fi you wish to connect to and enter the Wi-Fi password.



Commissioning

Once you have connected to the Wi-Fi network successfully your signal strength will be displayed here along with confirmation of connection



You will now be prompted to enter a pin. If you are a current Andersen affiliate you may already have this pin. Alternatively, please contact us.

Telephone:
01234 916125

Your installer commissioning is now complete.

Commissioning

We recommend you become an Andersen affiliate.

Please scan the QR code below to submit an application to allow us to fully support you.



Become an Andersen Affiliate

3 great reasons to join our affiliate scheme today



Enhance your profits

Andersen affiliates have access to exclusive discounts - the more you sell, the more you earn



Market-leading support

As well as training and technical documents, our affiliate programme gives you access to our experienced technical experts, ready to help with any query you may have



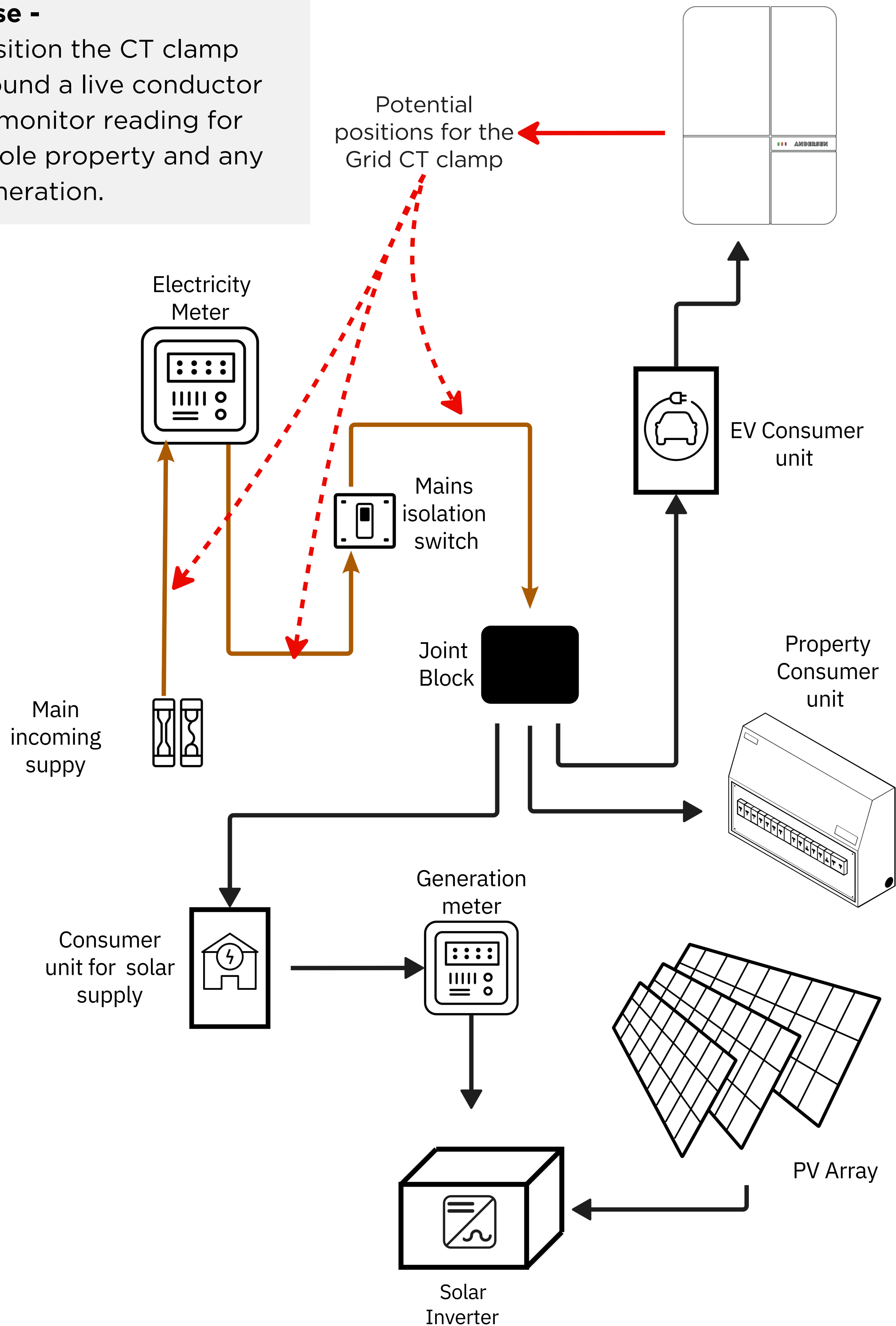
Simplified business

The Andersen affiliate portal means managing your Andersen orders is easy, leaving you free to concentrate on your business

CT CLAMP POSITIONS

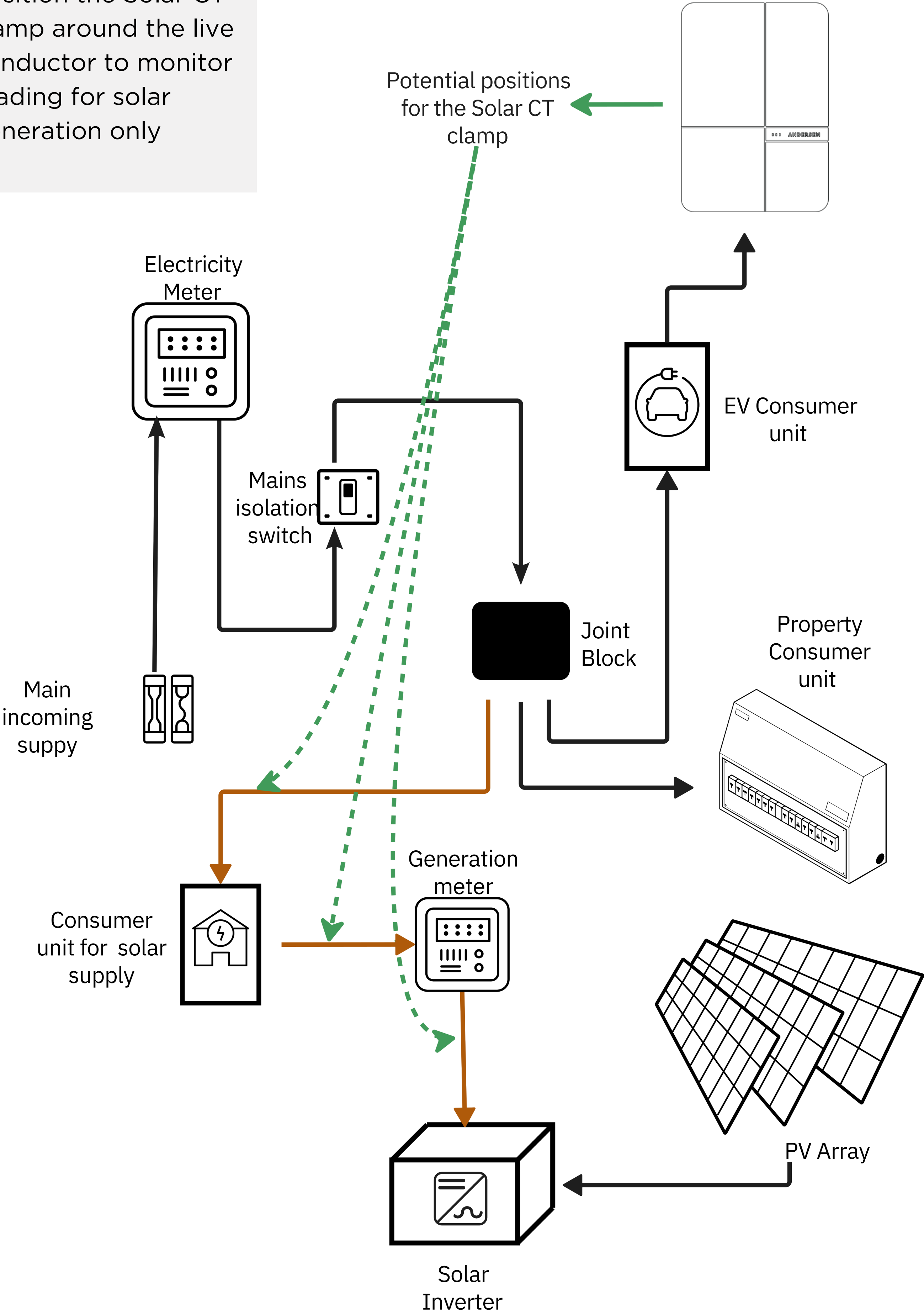
Solar Basic / Adaptive Fuse -

Position the CT clamp around a live conductor to monitor reading for whole property and any generation.



CT CLAMP POSITIONS

Solar Advanced -
Position the Solar CT clamp around the live conductor to monitor reading for solar generation only



Technical Data	
Mounting Location ¹	The mounting wall must be capable of supporting at least four times the weight of the unit (44kg) and must follow code of practice guidelines
Charging Mode	Mode 3 (IEC 61851-1 complaint communication protocol)
Display	Status lights- Warm white, Hall sensor operated and internal courtesy light.
Charging Current	Single Phase / 3 phase units 6A to 32A Per Phase
Variable Current	Singe Phase Only 6A - 32A CT Monitored (Adaptive Fuse)
Connector Type	Type tethered cable IEC 62196-2 compliant
Compliance	RED 2014/53/EU, LVD 2014/35/EU, EMC 2014/30/EU, EN 61851-1:2019, EN 62196, EN 62955:2018, ROHS 2011/65/EU, WEEE 2012/19/EU, CE and UKCA Certified.
Ingress Protection	Enclosure core assembly IP65 - Type 2 cable IP44
Operating Specification	Humidity to 95% RH non condensing -25 Celsius to +40 Celsius
Security	Remote software enabled charge point locking, 128-bit data SSL AES encryption for smart connectivity, Bluetooth with TLS encryption.
Fault Monitoring	Realtime health monitor system, start-up self-test, Earth monitoring, Welded contactor monitor, PME monitoring.
Enclosure Core Material	Polycarbonate Blend
Finish Material	Aluminium Nylon Coated, Accoya
Shipped Weight	15-16kg

Electrical Specifications	
Rated Power	7kW (1-phase) / 22kW (3-phase)
Rated Supply Voltage	230V AC Single Phase or 400V AC 3-Phase (+/- 10%)
Operating Voltage / Frequency	207V - 253V AC at 5Hz
Rated Current	32 Amps
PEN fault detection	Conforming to 722.411.4.1 (iii) (iv)
Earth Leakage Protection ²	Internal 6mA DC protection (EN 62955) 30mA AC
Standby Power ³	10 Watts
CT Sensor Voltage	0.333V
CT Sensor Specification	0 - 120 Amps / 25mm ² maximum cable size split core
EVOFLEK Charging Cable ⁴	4mm ² Live Conductors / 32 A max current. High Performance ultra flexible cable
Installation	
Mounting	Flush mounting location using 4x fixing points
Cable Entry	Rear / Bottom (Lower left below cable terminations) 25mm removable compression gland.
Cable Sizing	4mm ² - 10mm ²

Dimensions Unboxed	494 x 348 x 148 mm (metal) 156mm (wood)
Height	Installed between 0.75m - 1.2m from ground level
CT Sensor Cable	Maximum extended length 30 metres unshielded CAT5/6 OR 50 metres shielded CAT6 data cable.
Recommended Upstream Protection	40A RCBO (BSO EN 61009)) or Type A RCD / RCCB (BSO EN 61008) + 40A MCB (BSO EN 60898) - B curve for 1 phase / C curve for 3 phase.
Installed Weight	9.5kg - 11.2kg
Device Connection	
Internet Connection	Wi-Fi - 802.11 b/g/n support, 802.11 n (2.4 GHz), up to 150 Mbps
Bluetooth	Bluetooth BLE 5 (set-up only)
Device Support	Apple iOS mobile device / Android mobile devices
EVSE Regulations	Compliant with The Electric Vehicles (Smart Charge Points) regulations 2021.

1. The mounting wall must be capable of supporting at least four times the weight of unit (44kg) and must be fire resistant.
2. The mounting hardware (screws, wall plugs etc) must be selected to be appropriate for the specific structure of the mounting wall.
3. The cable used must be approved to a local national regulations and standards.
4. The upstream protection must be approved to local national regulations and standards. The disconnection devices, isolators, etc. must be nearby and easily accessible at all times.

 DANGER

Danger to life due to electrical voltage! Injuries due to electric shock! and/or burns, possibly resulting in death, are possible.

During all work, make sure at all times that power to the system is switched off and secured so it cannot inadvertently be switched on.

- Before commissioning the device, check that all screw and terminal connections are tight.
- The termination panel covers must never be left opened without supervision. Fit the termination panel cover when you leave the charge point.
- Do not make any unauthorised changes or modifications to the charge point
- Repair work to the charge point may only be completed by the manufacturer or a trained expert.
- Do not remove any identifiers such as safety symbols, warning instructions, rating plates, labels or cable markings.
- Ensure that the charging cable is not mechanically damaged (kinked, jammed or run over) and that the contact area does not come into contact with heat sources, dirt or water.

 WARNING

Safety notice:

- Switch off on all poles and from all sources.
- Secure to prevent it being switched on again.
- Verify isolation from the supply.
- Earth and short-circuit.
- Cover neighbouring live parts and cordon off danger areas.

 CAUTION

Ensure that the charge point is not damaged by incorrect handling (housing cover, internal parts, etc.)

On outdoor installations, do not open the termination panel cover in damp conditions.

- Do not tighten the securing screws with force.
- The installation area must be completely flat, do not bend the housing.
- Electronic components may be damaged if handled. Before handling modules, perform an electrically discharge process by touching a metallic earthed object.

A failure to follow the safety information may result in a danger of death, injury and damage to the device. The device manufacturer cannot accept any liability for claims resulting from this.

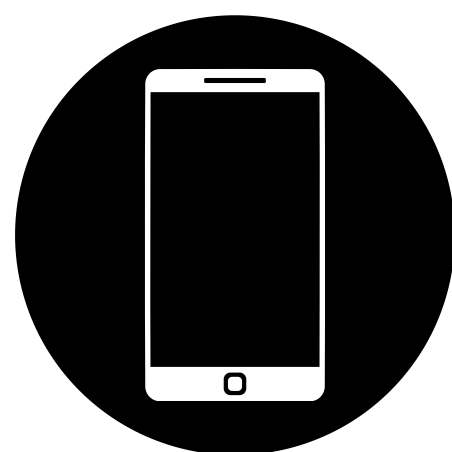
We're here to help

Send us an email



helpdesk@andersen-ev.com

Call us



Mon-Fri 08:00 - 19:00

Sat 09:00 - 14:00

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www.andersen-ev.com