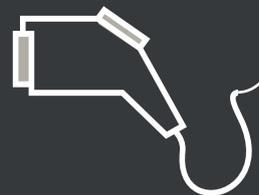


SIMPSON & PARTNERS

INSTALLATION MANUAL

Let's get set up.



Safety disclaimer



This equipment should only be installed by a qualified electrician with an understanding of the electrical and building regulations.

The installer and/or designer is responsible for the installation in its entirety, any internal protection provided by the manufacturer must be confirmed through commissioning and testing of the equipment installed.

This equipment must be tested and commissioned with a recognised EVSE adaptor and multifunction tester, test results should be recorded and the installation be registered with a recognised governing body and building control at the local authority.

Particular environments and locations may have an effect on internal protection and the reliability of the equipment.

Physical location of the equipment may need to be considered when exposed to direct sun for long periods or located in an area prone to excessive driven rain.

The installation instructions should be followed closely to ensure correct installation and commissioning, failure to follow these instructions could result in damage to the charger, exiting installation or supplier's equipment.

Internal protection

The S&P Home 7, Home 7 Plus and Home 22 Plus all provide the installer with 30mA Type A RCD protection with the addition of 6mA DC.

Overcurrent device recommended at 40 amps.

Upstream residual protection via a Type A RCD/RCCB/RCBO dependent on reference method of cable installation. Not required for clipped direct.

Should an upstream RCD be required due to the reference method this is to be a Type A. Ensure that no Type AC residual protection is upstream of an EV charger, the DC leakage could cause this not to function correctly under fault conditions.

All S&P's chargers have built in patent pending Gen 2.0 O-PEN technology allowing for a much simpler install and the peace of mind that the installation is as safe as it can be.

Our GEN 2.0 O-PEN design allows the charger to be installed on a single phase of a 3 phase supply and any type of earthing arrangement in the UK.



This equipment should be installed, repaired and maintained only by a qualified person. S&P take no responsibility for any consequences arising out of the use of this documentation. A qualified person is one who has skills and knowledge related to the construction, installation and operation of electrical equipment and who has received the appropriate safety training to recognize and avoid the hazards involved.

All applicable local, regional and national regulations must be followed when installing, repairing and maintaining this equipment.

Read this guide carefully and examine the equipment to become familiar with its operation before using it to charge your vehicle.

Hazard of electric shock, explosion or arc flash

Do not use this equipment if it appears to be damaged or if the charging cable appears to be damaged.

Do not try to touch the contacts of the connectors of the cable or the power socket or try to insert objects.

Never plug the charging cable into a multiple socket or extension cable.

Do not modify the equipment in any way.

Do not wash the electric vehicle while it is charging.

Vehicle adapters and extension cords cannot be used.

Failure to follow these instructions could result in death or serious injury.

These instructions should be kept for future reference.



PRODUCT ATTRIBUTES

Dimensions (mm) H: 286 x W: 196 x D: 111
Operating Temperature: -25°C to 50°C
Weight: 3.3 kg
IP Rating: IP54 enclosure
Standby Consumption: <2.0W
3 Year manufactures warranty

CHARGING

Number of phases: 1 and 3 phases
Charging Current: 1.4- 7.4 kW (6A to 32A Per Phase)
Connection: Type 2 socket
207-253v ~ 50/60Hz 32A
230v/400v 3N~ 50/60Hz 32A
Dynamic fuse local grid management*
Multi chargepoint load management
Accuracy of built in energy meters (+/- 2%)

PROTECTION SYSTEMS

Built-in RCD for residual current imbalance protection
RCD-30mA Type A
6 mA DC according to IEC 62955
Integrated overload protection according to BS EN IEC 61851-1:2019
Loss of PEN protection according to BS 7671: 2018/A1:2020
Impact resistance: IK08
Fire class: UL94
Insulation class: Class 2
Welded contact detection
Welded contact external shunt protection**
Thermal protection system
Locking type 2 socket
Fail safe wireless load management**

WIRELESS CONNECTIVITY

Bluetooth Low Energy 4.0
Wi-Fi 2.4 GHz b/g/n connection
SP Wireless Connect™ *
Command Centre App
Open API

SECURITY

Wi-Fi: WEP. WPA. WPA2
Connection Security: Secure data encryption
HTTPS with SHA-256 hash algorithm
TISAX compliant
Cloud Computing Compliance Controls C5 compliant
PIN Code Bluetooth connection
PIN code installer setup protection
EU hosted datacentre

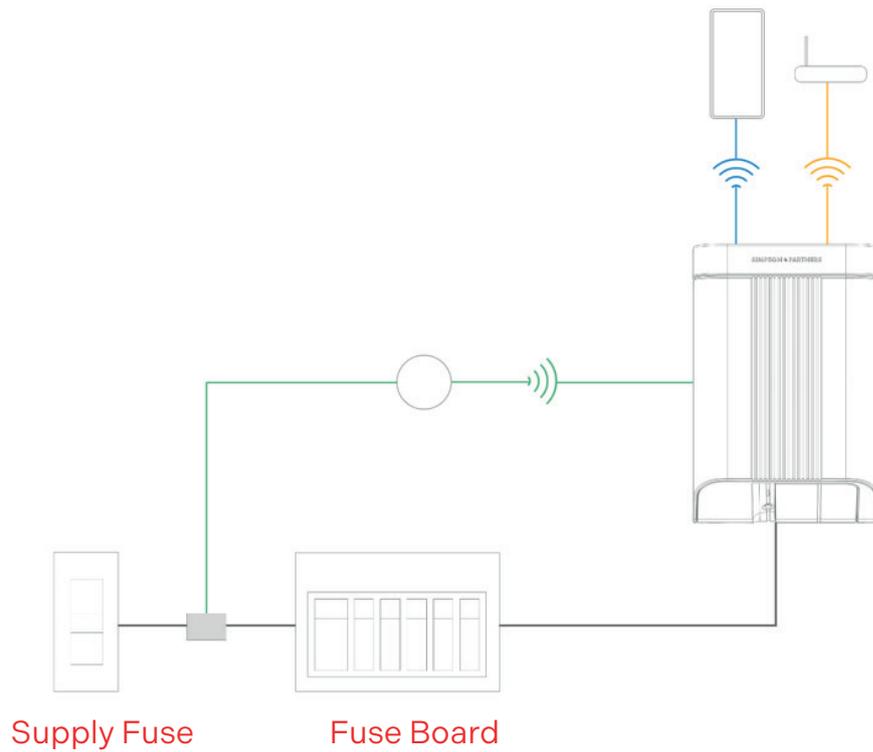
USER FEATURES

Courtesy lights around plug sockets*
Charge override button
Setup button
Status LED
Tethered mode
Chargepoint secure
Feature updates: Via Wi-Fi
Software updates: Via Wi-Fi
Home Energy manager**
Self charging wireless power monitor module

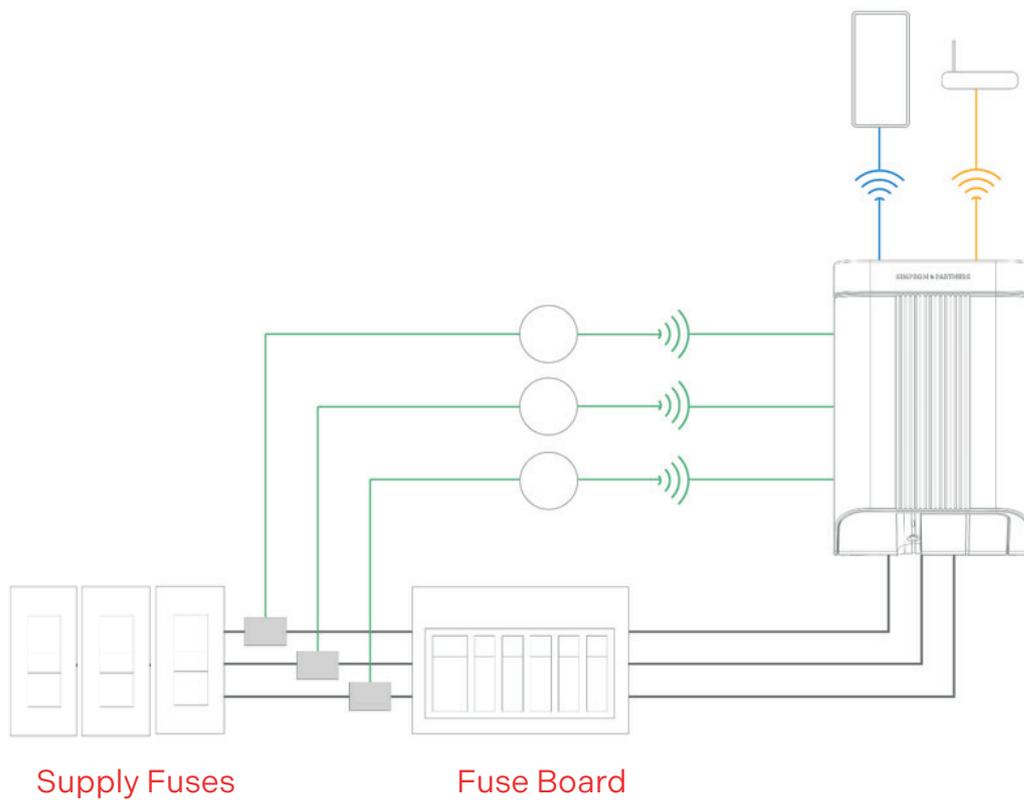
* Not available on Home 7

** Requires optional accessory

Wiring example single phase



Wiring example 3-phase





The location of any EV charger can be quite important, not only to the customer for ease of charging their vehicle but the charger should be installed with BS7671 and building regulations in mind.

The height of the charger is to be considered for accessibility and safety. EV chargers should not be installed below 750mm or above 1200mm as per BS7671, this is to reduce the risk of impact and to make the charger easily accessible for the end user.

When choosing a location, the structure or surface being installed on needs to be suitable. The structure should be suitable for additional equipment in constant use, and a permanent fixture.

You will also need to consider if the charger would restrict access to any areas in constant use, or if when the vehicle is being charged that the charging cable does not cause a trip hazard or obstruction. The installation of any EVSE should not be installed in such a way that the end user will be passing a charging cable across a public area or pathway.

The S&P charger is IP54 allowing for the installation to be both indoors and outdoors, we recommend that our charger be installed away from direct sun in sunny geographical locations and, on contrast, a location which is prone to driven rain.

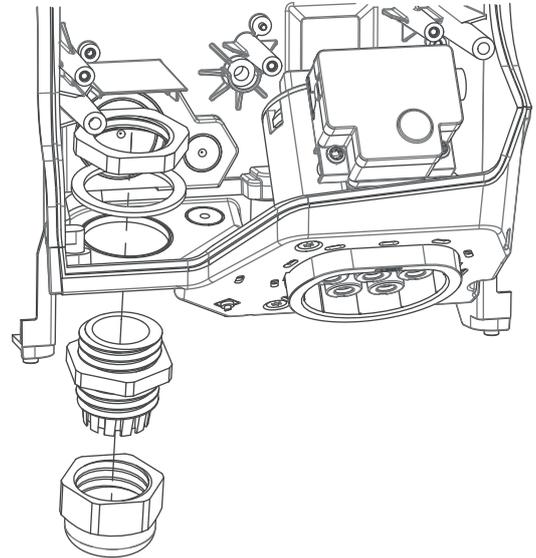
01 Installation location

Each of the models of the S&P charger covered in this guide has the same design for cable entry. You have two entry points, rear entry and bottom entry shown in the diagram right.

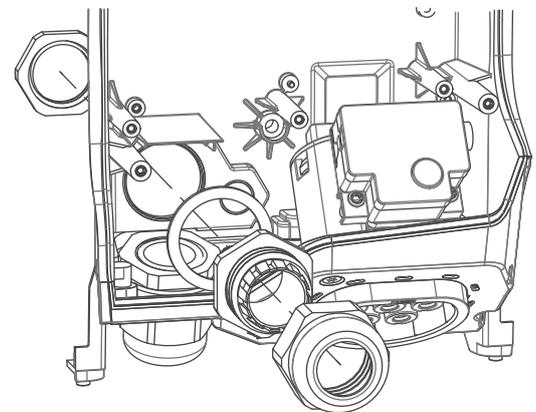
We provide you with a 25mm plastic compression gland in your fitting kit, should you wish to use another type of gland please ensure it is correctly fitted to maintain the IP54 rating of the enclosure.

You are able to terminate cables of a cross sectional area of 2.5mm²-10.0mm², please do not attempt to install larger sizes as this could damage the terminal connections within the charger.

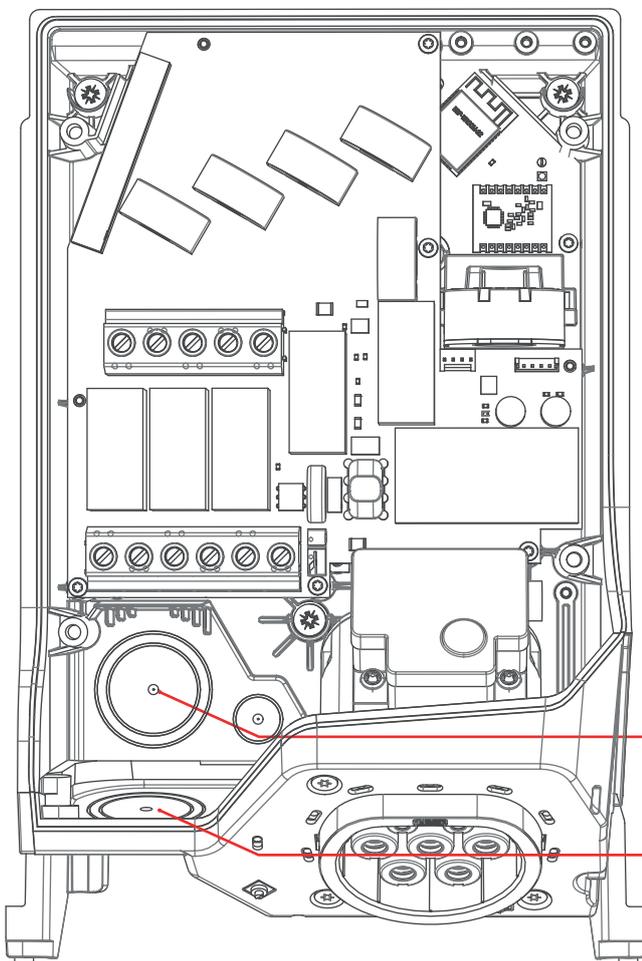
Hole cutting size between 20-25mm, moulded guide provided at both rear and bottom entry.



Bottom gland assembly



Rear gland assembly



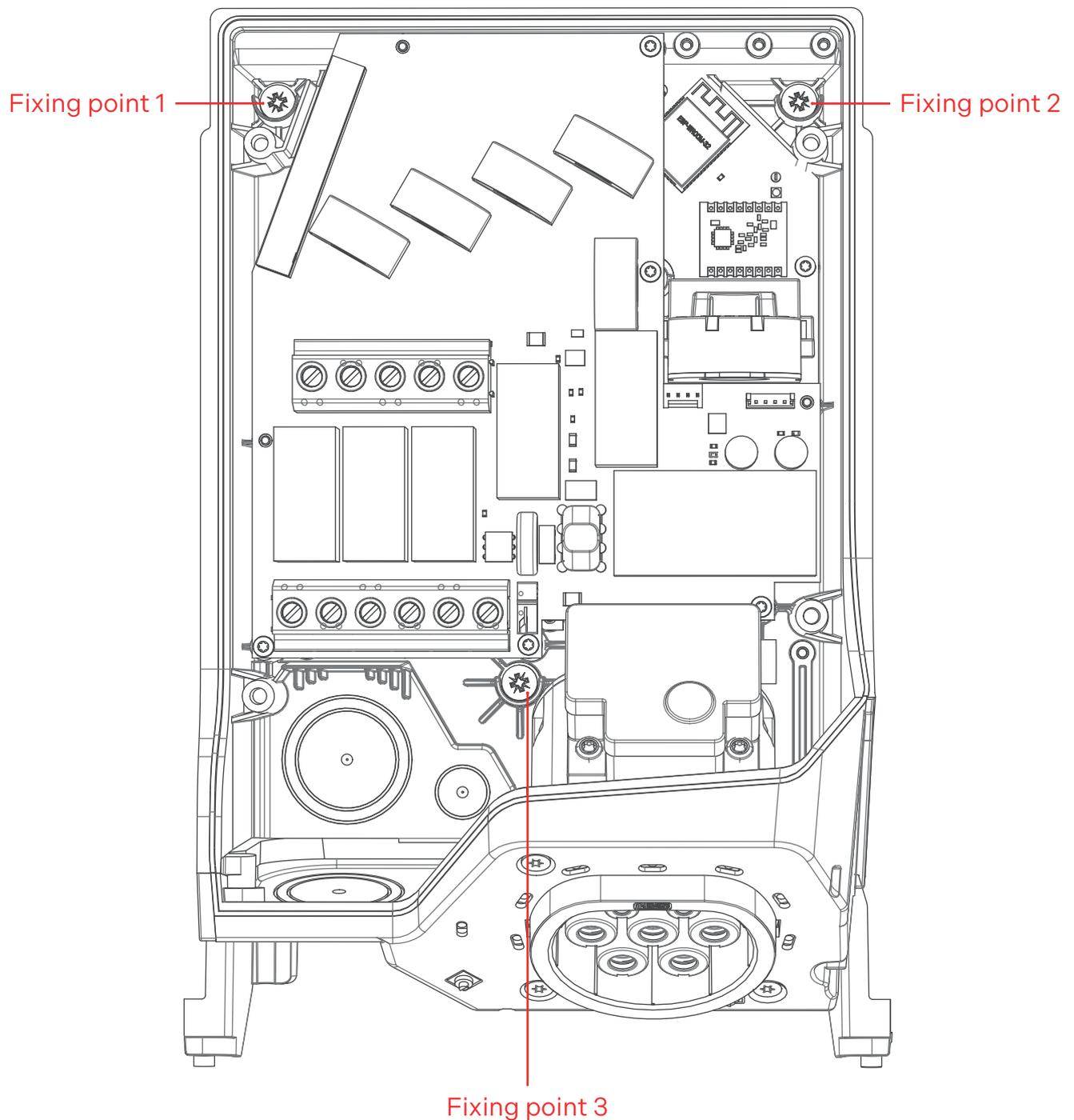
Rear gland entry point

Bottom entry

02 Installation location

The S&P charger should be installed in its final location with suitable fixings (not provided) the charger itself is only 3.3kg but it will be an appliance which is in constant use, so please consider this when choosing fixing equipment.

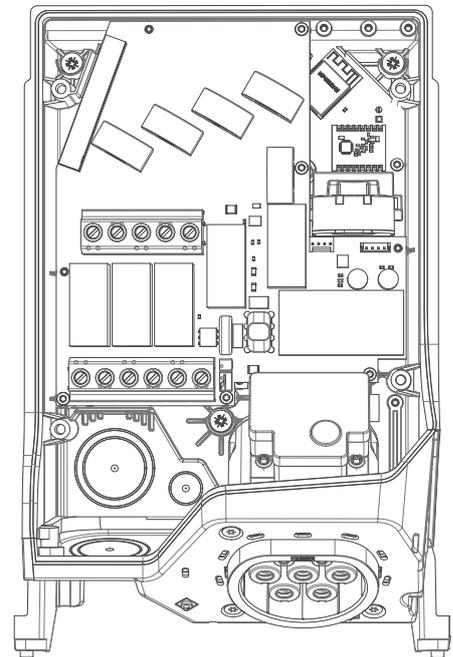
We have provided you with a handy drilling template within the packaging.



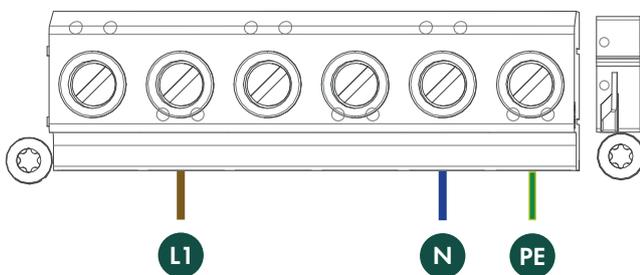
03 Cable terminations

You are able to terminate cables of a cross sectional area of 2.5mm²-10.0mm², please do not attempt to install larger sizes as this could damage the terminal connections within the charger.

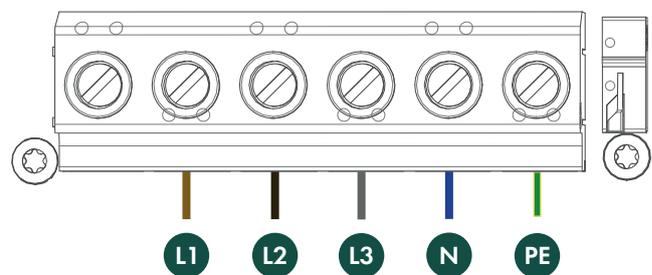
Terminal screw torque max 2.0 Nm



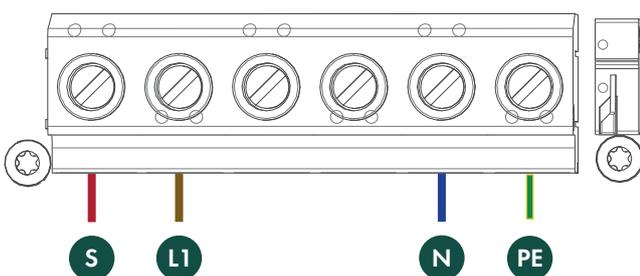
Single phase



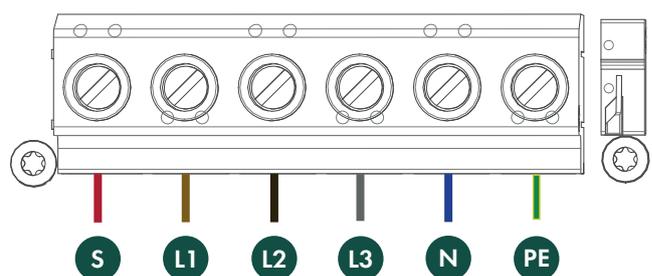
Three phase



Single phase
Optional shunt connection



Three phase
Optional shunt connection



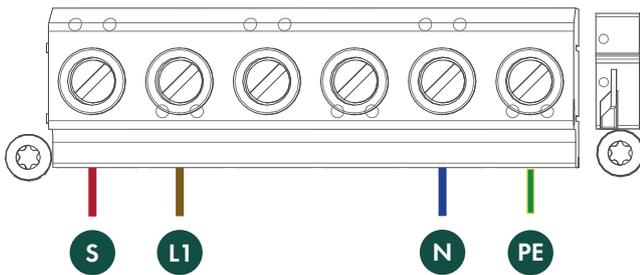
03 Shunt installation (optional)

The S&P charger has the option for “shunt” protection control, this is optional but will provide another layer of protection within the installation which is not normally provided by many other manufacturers.

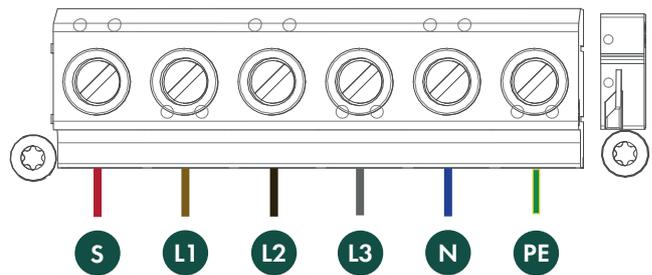
This method of protection is operated and controlled by the charger should a welded contact be detected. Not only will the user receive a notification the charger will operate a device which will disconnect all conductors from the supply.

This method of additional protection will require a dedicated shunt trip connection within the installation design.

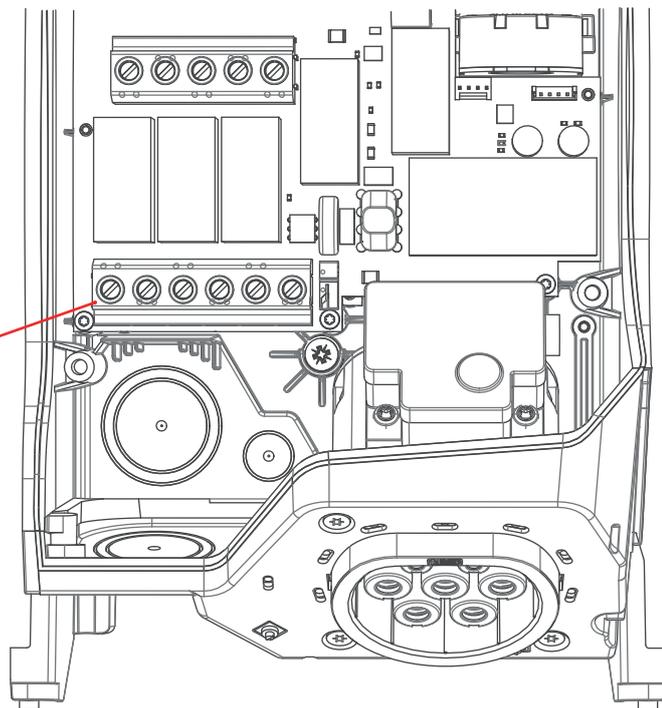
Single phase
Optional shunt connection



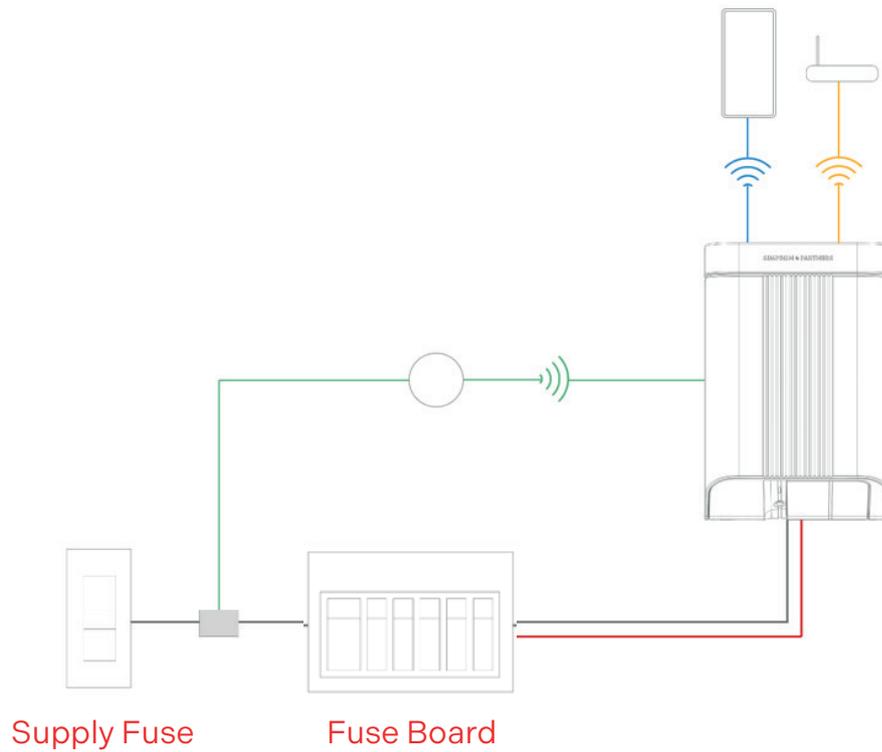
Three phase
Optional shunt connection



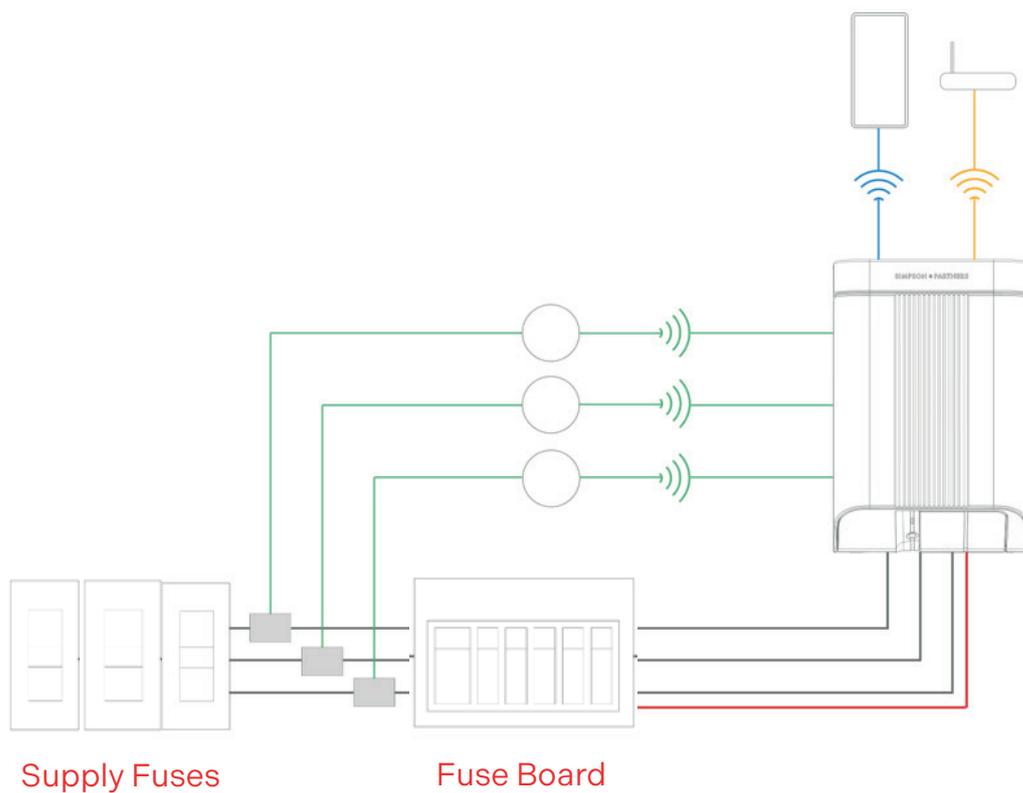
Fuse board



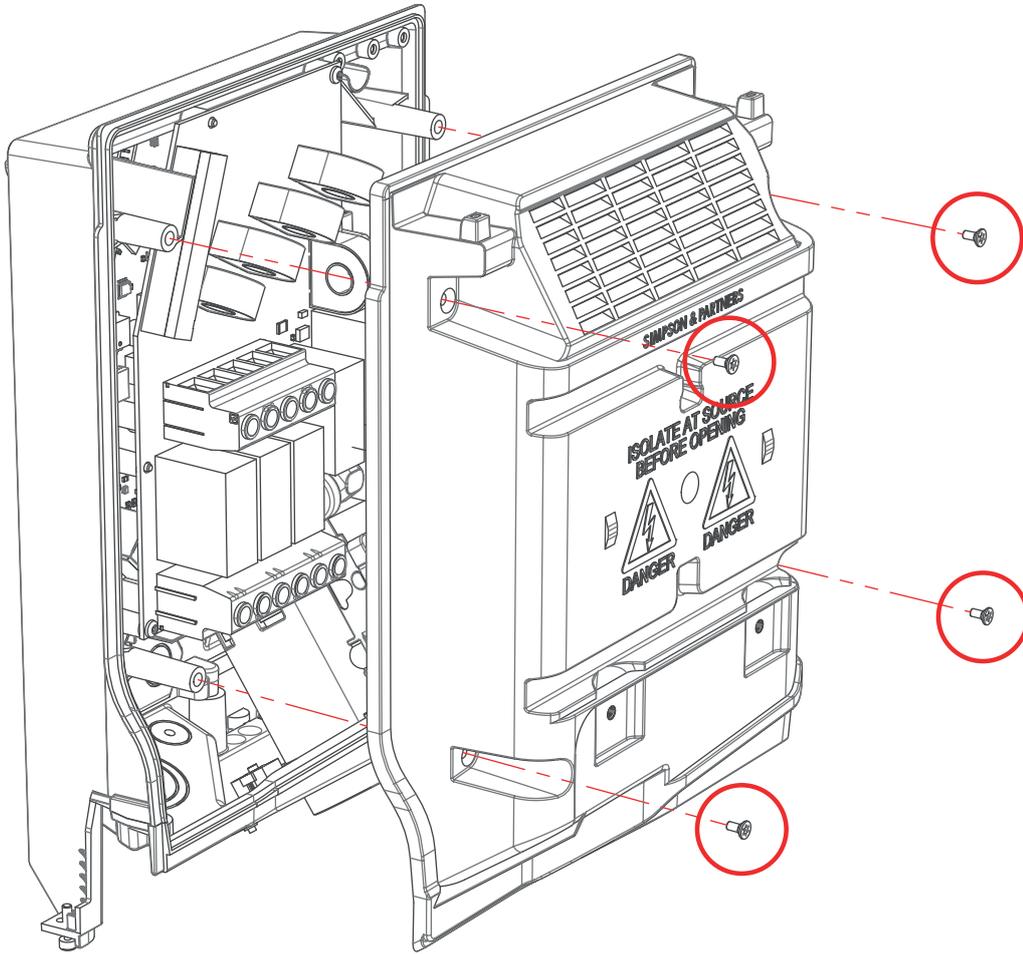
Wiring example single phase with shunt



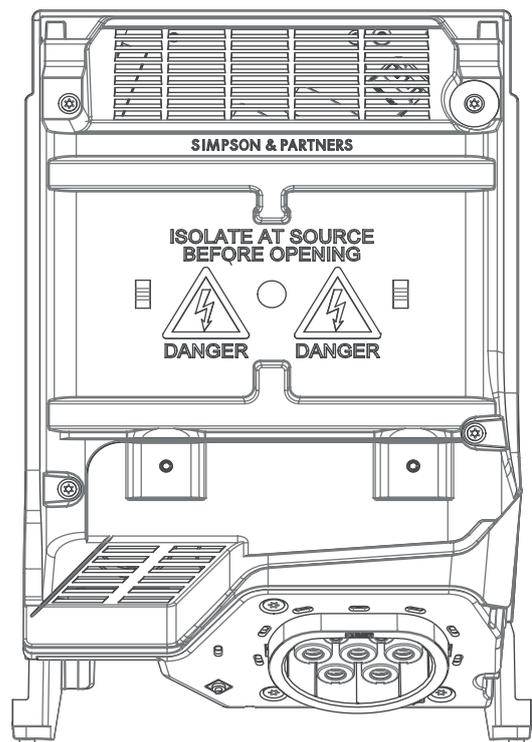
Wiring example 3-phase with shunt



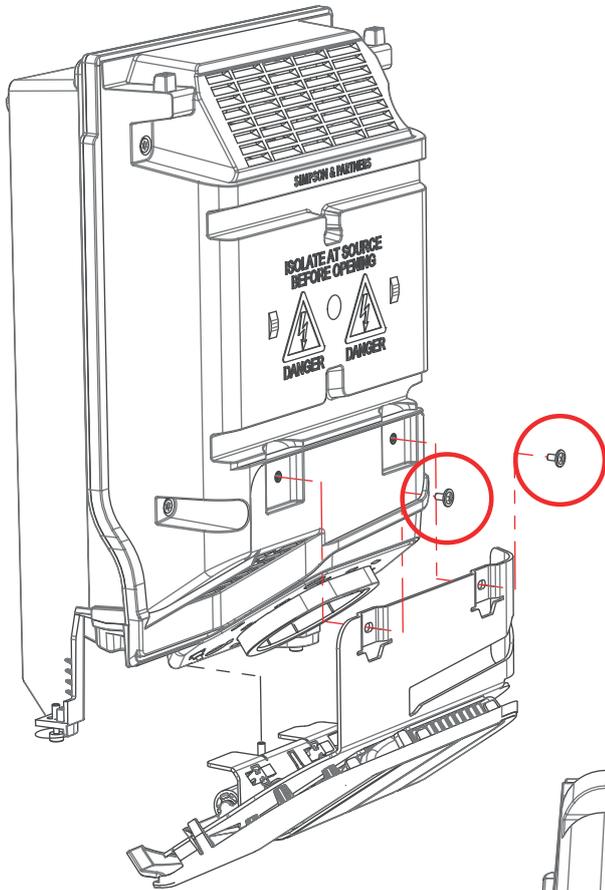
04 Installing enclosure cover



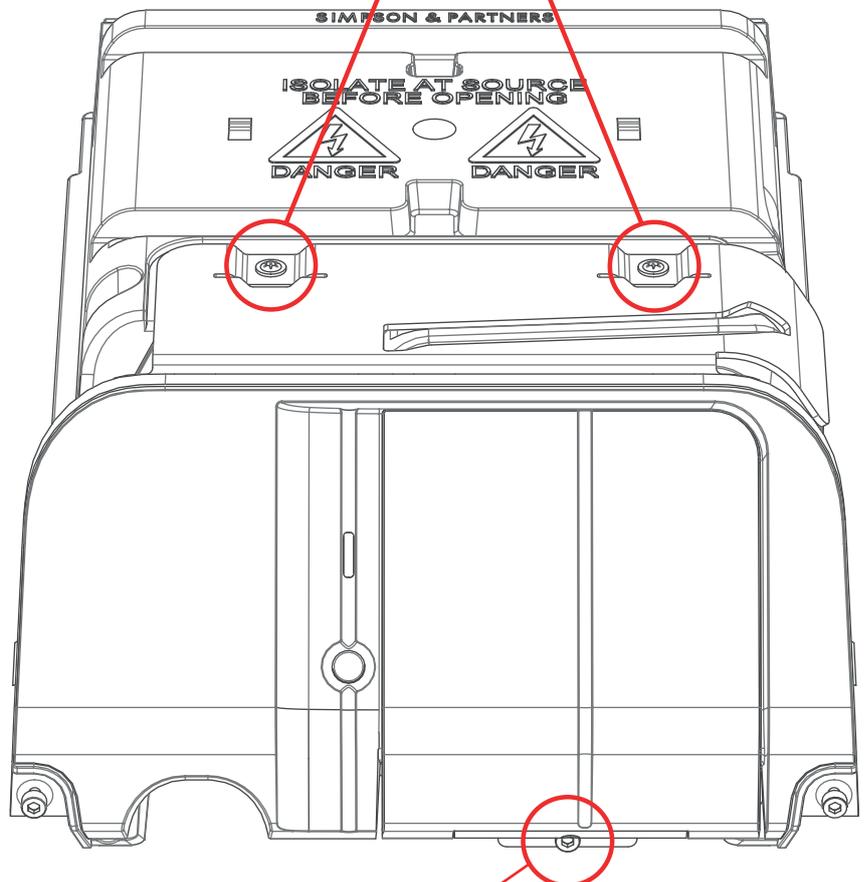
QTY 4
M3 x 6mm Torx
Countersunk Head Screw



05 Installing socket cover and door

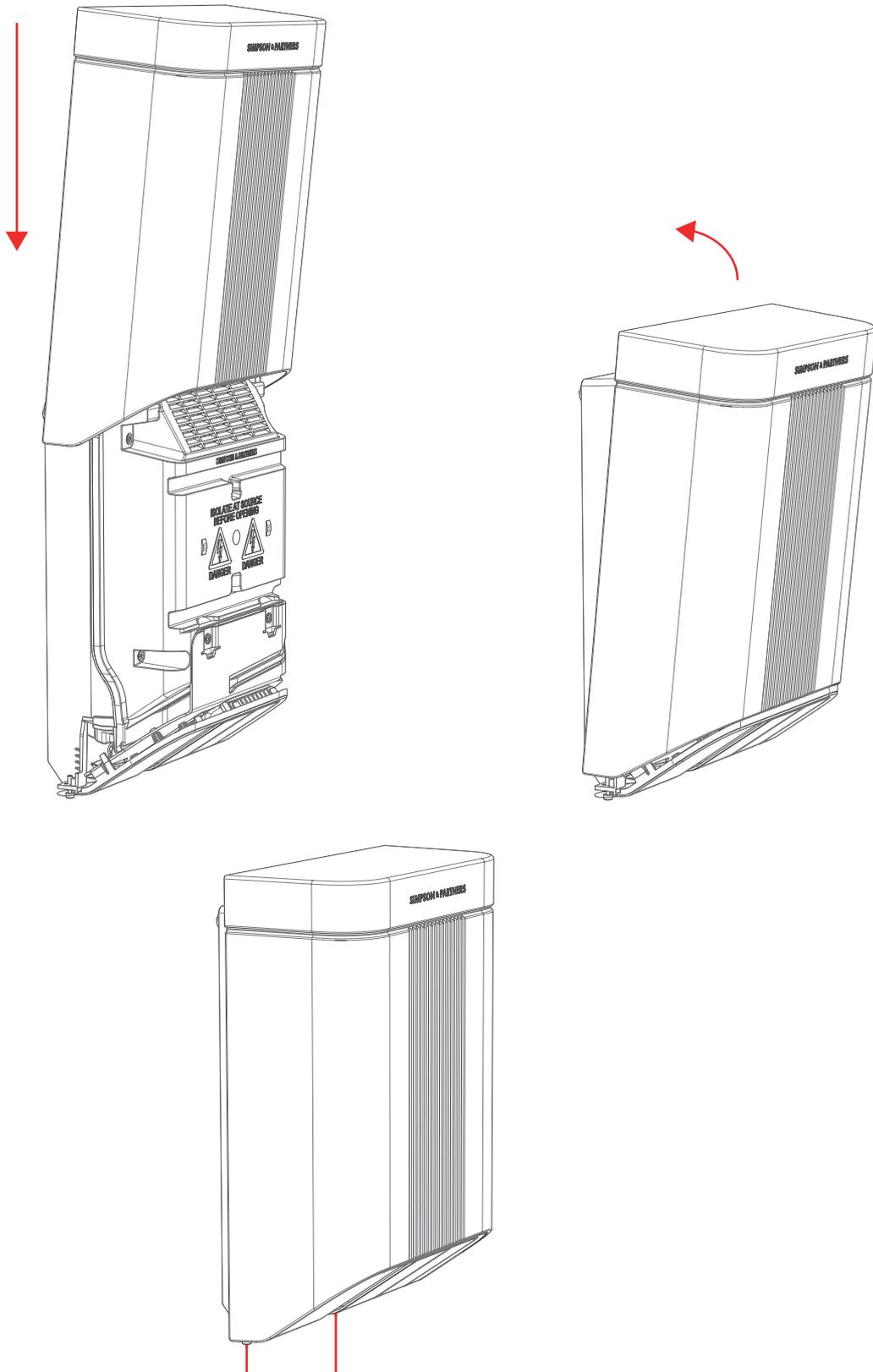


QTY 2
M3 x 5mm Torx Flanged Button Screws



Tighten M3 x 12mm captive screw

06 Installing the fascia and cap



Tighten both M3 x 12mm Captive Screws

01 Status LED

The light communicates the status of the chargepoint. Refer to the LED chart to understand the different light signals.

02 Override Button

The override button can be used to override any smart charge schedules that you have set. You can use it to initiate an immediate vehicle charge or to clear an RCM fault.

03 Charge Socket Door

The spring-loaded charge socket door prevents water and dirt from entering the socket.

04 Courtesy Lights

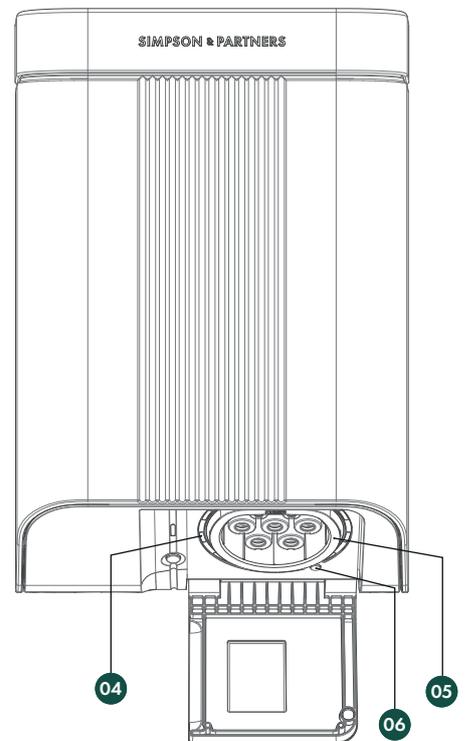
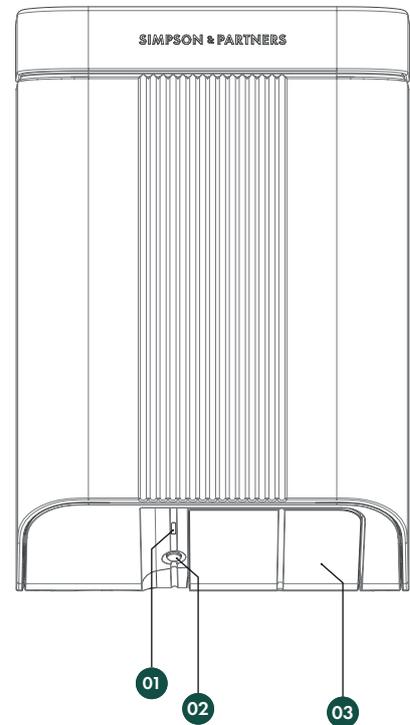
The courtesy lights will turn on automatically when the charge socket door is opened. The lights will turn off after 25 seconds.

05 Charger Socket

The Charger Socket is a universal type 2 socket and can be used with all kinds of electric vehicle. During a charge, the charging cable will lock onto the charger socket. To lock the charging cable permanently into the charger socket, simply open the app and select "tethered mode".

06 Setup Button

The set-up button is used to configure the charger. This must be done by a certified electrician.



Status light key



STATUS LIGHTS



CHARGE UNIT IN STANDBY



CAR CONNECTED



CHARGING IN PROGRESS



SMART SCHEDULE ACTIVE



UNIT LOCKED



FAULT DETECTED (FLASHING)



IDENTIFY CHARGEPOINT (FLASHING)

CLEANING

Your charger will arrive ready to go, so you don't need to clean it before usage. To keep your charger looking brand new, give the unit an occasional clean with a damp cloth and an all-purpose household cleaner. Avoid using strong chemicals containing oil or alcohol as these could discolour paint and wood. Never use a high-pressure water jet to clean your charger.

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