INSTALLATION & OPERATION MANUAL

Watch the installation guide

ROLEC

ZURA

Intelligent EV charging unit

Designed & Manufactured in the UK

Amendments

Amendment Number	Details	Date
Ver 2, Rev 0	Correction of Live/Line terminology.	Jan 2025
Ver 3, Rev 0	Full review and update of content with new App info.	Jun 2025
Ver 3 Rev1	Minor corrections.	Aug 2025

<table>
<tr><td>Product:</td><td colspan="3">Zura Intelligent EV Charging Unit</td></tr>
<tr><td rowspan="4">Applicable Models:</td><td colspan="2">Single Phase</td><td>Three Phase</td></tr>
<tr><td>ROLEC3020B</td><td>ROLEC3150B</td><td>ROLEC3046B</td></tr>
<tr><td>ROLEC3030B</td><td>ROLEC3145B</td><td>ROLEC3156B</td></tr>
<tr><td>ROLEC3140B</td><td>ROLEC3155B</td><td></td></tr>
<tr><td>Document Type:</td><td colspan="3">Installation and Operation Manual</td></tr>
<tr><td>Document Code:</td><td colspan="3">EVZM-01-V03R1</td></tr>
<tr><td>Language:</td><td colspan="3">UK English (Original)</td></tr>
<tr><td>Date Published:</td><td colspan="3">Aug 2025</td></tr>
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Product Support

- Updates to this manual will be made available on the Rolec website at https://www.rolecserv.com/downloads-ev-charging
- Check the document date, and the **V**ersion and **R**evision number shown at the end of the Document Code (V01-R0, V01-R2, V02-R0, etc).
- For installation assistance and advice, contact your preferred electrical installer.

Contents

Safety

This manual is specifically applicable to the Zura Intelligent EV Charging Unit and is provided as a guide to its installation and operation.

IMPORTANT: Installers and End Users must read and understand this manual before installing or using the product.

Installation must be carried out only by qualified and competent professionals in accordance with current regulations applicable to the location of the installation.

- Rolec Services Ltd accepts no responsibility for issues resulting from improper installation.

NOTE: Any damage to the unit, connected systems, or surrounding property due to incorrect installation is the sole responsibility of the installer.

- This manual applies only to the product models listed on **page 1** and It must not be used for any other models or products.
- The content of this manual may be updated by the manufacturer as necessary.
- The equipment must be used only for its intended purpose.
- Do NOT modify or repair the product unless specifically instructed by the manufacturer.
- Ensure all access covers are properly secured using the supplied fasteners. The enclosure seal must be intact to maintain the correct IP rating and electrical safety.
- Fasteners used to mount the product in its working location must be sufficient for the task and the specific mounting point.
- If the product is damaged, it may be unsafe to use. In such cases, it must be electrically isolated immediately and not used until a qualified professional has completed all necessary repairs.

Safety Guidance in This Manual

- **WARNING** – Indicates a potential safety hazard that could result in injury or death. Warnings appear before relevant instructions and must be followed carefully.
- **CAUTION** – Highlights the risk of damage to the equipment or system. Cautions are also provided before the relevant guidance.
- **NOTES** – Offers additional or helpful information or emphasises important points. Notes may appear before or after instructions and may use alternative labels such as IMPORTANT for added emphasis.
- These notices may appear multiple times throughout the manual and are sometimes accompanied by appropriate hazard symbols to draw attention to critical information.

Product Overview

Versatile, sophisticated and packed with the most-wanted smart features, along with never-seen-before customisable aesthetics. ZURA has been designed for both homes and businesses, providing up to 22kW superfast charging.

This OCPP compliant unit offers Plug & go or pay-to-charge solutions via a mobile app or RFID operation through any OCPP back-office management system.

This EV charger supports dynamic load balancing and is equipped with PME fault detection, with no requirement for an earth rod, reducing installation costs.

Available with single or dual outlets, making it ideal for businesses and households with more than one EV, or that are looking to future-proof. Domestic users can also charge using their solar PV or other home renewables for a zero-cost, zero-carbon charge

Model Number	Specification
ROLEC3020B	Zura Intelligent EV Charging Unit - 1 x up to 7.4kW Type 2 Socket - Black
ROLEC3030B	Zura Intelligent EV Charging Unit t - 2 x up to 7.4kW Type 2 Socket - Black
ROLEC3140B	Zura Intelligent EV Charging Unit - 1 x up to 7.4kW Type 2 5m Tethered - Black
ROLEC3150B	Zura Intelligent EV Charging Unit - 2 x up to 7.4kW Type 2 5m Tethered - Black
ROLEC3145B	Zura Intelligent EV Charging Unit - 1 x up to 7.4kW Type 2 10m Tethered - Black
ROLEC3155B	Zura Intelligent EV Charging Unit - 2 x up to 7.4kW Type 2 10m Tethered - Black
ROLEC3046B	Zura Intelligent EV Charging Unit - 1 x up to 22kW 3PH Type 2 Socket - Black
ROLEC3156B	Zura Intelligent EV Charging Unit - 1 x up to 22kW 3PH Type 2 5m Tethered - Black

NOTES:

1. As standard, all Zura chargepoints are supplied as 'all black. Customised fascia's are available.
2. External tethered cable lengths are approximately 4.5m and 9.5m.

Third-Party Services

Depending on the model and required features, this Chargepoint may integrate with various third-party services. Please note that terms, configuration, and support for these services are typically managed by the service providers themselves and are not controlled by Rolec.

Product Features

- Suitable for both domestic and commercial installations
- Plug & go, mobile app or RFID controlled charging
- 1x or 2x universal charging socket(s) or Type 2 tethered lead(s)
- Up to 7.4kW or 22kW charging output(s)
- PME fault detection (no earth rod required)
- Dynamic load balancing (CT clamp & cable included)†
- Solar PV, battery storage or wind turbine integration†
- OCPP 1.6 compliant (Can integrate with any compatible back-office)
- Over-the-air firmware / software updates
- AC 30mA Type A & DC 6mA protection**
- Dual tamper and breach security notifications
- Cable lock security feature (can be permanently locked by owner)
- Integrated RFID reader
- MID-approved energy metering
- 4G / Wi-Fi / Ethernet connectivity
- IK08 impact resistant design
- Independent back plate for easy wall or post mounting
- OZEV grant fundable in the UK.
- Designed & manufactured in the UK

*App dependent features
†Single phase models only. 3-Ph models require optional 3x CT clamp & cable kit (ACSR0325)

NOTES:

- For Chargepoints using mobile communications, a minimum signal strength of 14 CSQ is required at the installation location to ensure reliable operation.
- If using Wi-Fi, the Chargepoint must be within range of a strong and stable wireless signal. In remote areas, users may need to consider installing an external antenna or a Wi-Fi booster to maintain connectivity.
- For commercial installations, Rolec's preferred partner is Monta. However, other supported platforms include Fuuse, Clenergy EV, Virta, and Ampeco.
- For domestic installations, Monta is again the preferred partner, providing free app connectivity and support.

NOTE: This manual assumes the installation of a single Chargepoint when discussing Load Balancing and Load Management. For installations involving multiple Chargepoints, installers should consider using a third-party, OCPP-compliant energy management system for effective connection and monitoring.

If integrating with third-party equipment, it is essential that installers follow the manufacturer's instructions closely to ensure correct installation and compatibility with the charging pedestal.

Dynamic Load Balancing (DLB)

This Chargepoint includes a Dynamic Load Balancing feature designed to prevent overloading the property's electrical supply during vehicle charging. When correctly installed and configured, the system continuously monitors the property's power usage and dynamically adjusts the charging output — increasing or decreasing power to the vehicle based on overall demand.

Rolec Chargepoints are pre-configured with a 13A buffer. This means Load Balancing activates 13 amps below the property's main fuse limit, helping to maintain system stability and prevent nuisance tripping.

NOTES:

1. Load balancing ONLY controls power made available to the VEHICLE. It does not control power to other equipment.
2. If the available power is below 6 Amps, the vehicle may stop charging.
3. Only 1 Chargepoint is to be installed per phase.

Load Management

This Chargepoint supports Load Management, which allows for smarter distribution of power across multiple Chargepoints.

Load Management is typically:

- Controlled via software, either built into the Chargepoint, managed remotely through an online platform, or handled by a third-party system.
- Most commonly used in multi-Chargepoint installations, where it manages how power is distributed—ensuring that available energy is shared efficiently, and that priority can be given to specific Chargepoints when needed.

Demand Side Response (DSR)

This Chargepoint is compatible with Demand Side Response functionality, allowing it to participate in energy grid optimisation.

With DSR enabled, the electricity provider can dynamically adjust the power available to the Chargepoint in response to real-time demand across the local network. This helps support grid stability during peak times and improves overall energy efficiency in the area.

PME (PEN) Protection

This Chargepoint includes an integrated Protective Multiple Earthing (PME) device, eliminating the need for a separate earth rod during installation.

If the supply voltage moves outside the safe operating range—specifically below 207V or above 253V—for a continuous period of 5 seconds, the PME device detects a potential PEN fault within the property and will isolate Line, Neutral, and Earth connections to the vehicle to ensure safety.

- **Undervoltage Protection** – In the event of an undervoltage condition, the PME device will trip to isolate the Chargepoint. If the voltage returns to within the acceptable range and remains stable for 5 continuous seconds, the system will automatically reset, restoring Line, Neutral, and Earth connections and allowing charging to resume.
- **Overvoltage Protection** – In an overvoltage condition, which may pose a risk of damage to the vehicle, the PME device will also trip. However, for safety reasons, automatic recovery is not permitted. Charging will not resume until a manual reset is performed (powering the Chargepoint OFF and then ON again).

Following an overvoltage event, owners or operators should investigate the cause of the condition as thoroughly as possible before resuming use.

Security – Tamper Protection

1. Chargepoints are equipped with a protective boundary to safeguard electrical components and ensure the safety of engineers.
2. In the event of a breach or attempted breach, the Chargepoint will log the incident and trigger an alert.

Product Specification

	Connection Type	Charging Output	Input Supply	Fascia Colour	Product Code
Single Phase Units	1x Type 2 (IEC 62196) charging socket	Up to 7.4kW (32A)	1x 32A Single Phase 230V AC (±10 %) 50/60Hz	Black	ROLEC3020B
	2x Type 2 (IEC 62196) charging sockets	Up to 7.4kW (32A) per socket	1x 63A Single Phase 230V AC (±10 %) 50/60Hz	Black	ROLEC3030B
	1x Type 2 (IEC 62196) 5m tethered lead	Up to 7.4kW (32A)	1x 32A Single Phase 230V AC (±10 %) 50/60Hz	Black	ROLEC3140B
	2x Type 2 (IEC 62196) 5m tethered leads	Up to 7.4kW (32A) per tethered lead	1x 63A Single Phase 230V AC (±10 %) 50/60Hz	Black	ROLEC3150B
	1x Type 2 (IEC 62196) 10m tethered lead	Up to 7.4kW (32A)	1x 32A Single Phase 230V AC (±10 %) 50/60Hzw	Black	ROLEC3145B
	2x Type 2 (IEC 62196) 10m tethered leads	Up to 7.4kW (32A) per tethered lead	1x 63A Single Phase 230V AC (±10 %) 50/60Hz	Black	ROLEC3155B
Three Phase Units	1x Type 2 (IEC 62196) charging socket	Up to 22kW (32A)	1x 32A Three Phase 400V AC (±10 %) 50/60Hz	Black	ROLEC3046B
	1x Type 2 (IEC 62196) 5m tethered lead	Up to 22kW (32A)	1x 32A Three Phase 400V AC (±10 %) 50/60Hz	Black	ROLEC3156B

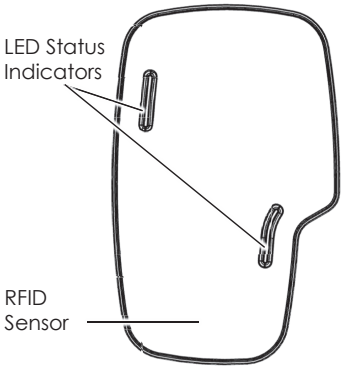


Figure 1 Zura 2 x Socket Chargepoint (Front)

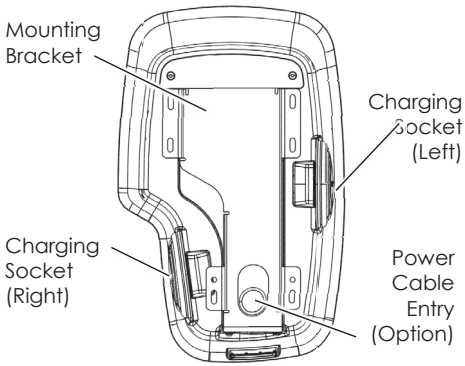


Figure 2 Zura 2 x Socket Chargepoint (Rear)

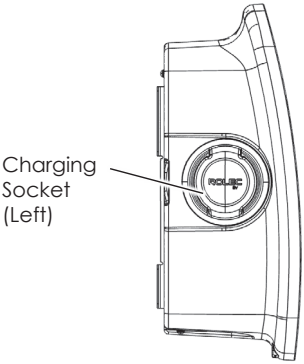


Figure 3 Zura 2 x Socket Chargepoint (Left)

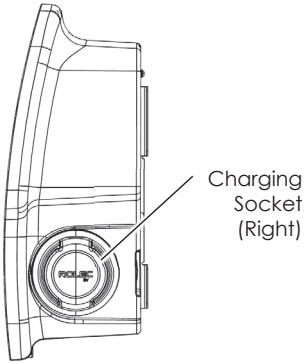


Figure 4 Zura 2 x Socket Chargepoint (Right)

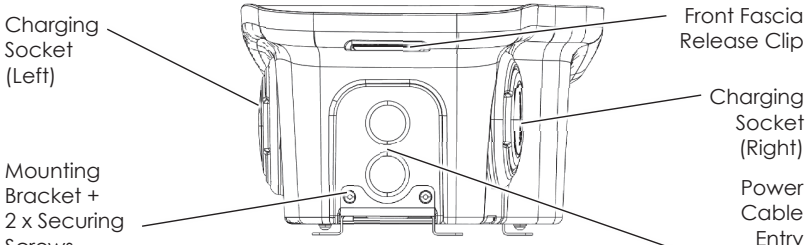


Figure 5 Zura 2 x Socket Chargepoint (Bottom)

NOTE: Where only one socket is installed, the right-hand socket and LED status indicator will be active. The left-hand socket will be blanked off and its LED indicator will not illuminate.

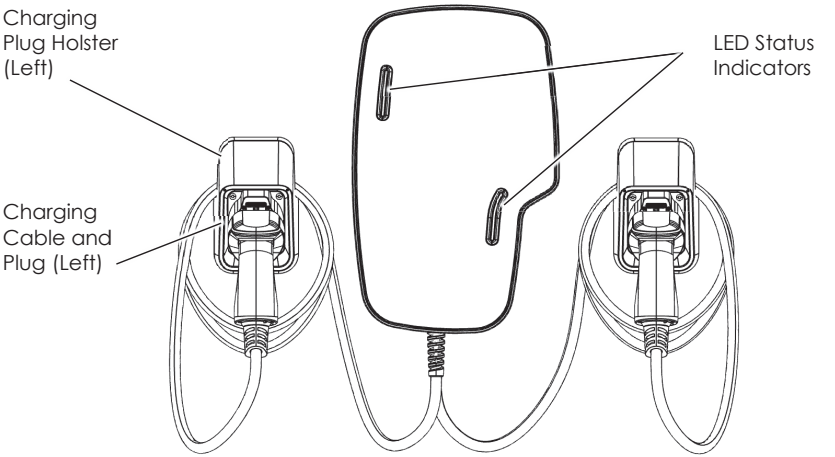


Figure 6 Zura 2 x Tethered Chargepoint (Front)

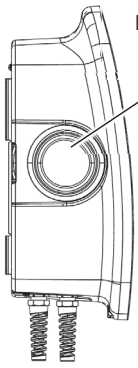


Figure 7 Zura 2 x Tethered Chargepoint (Left)

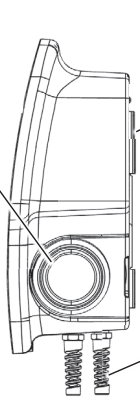


Figure 8 Zura 2 x Tethered Chargepoint (Right)

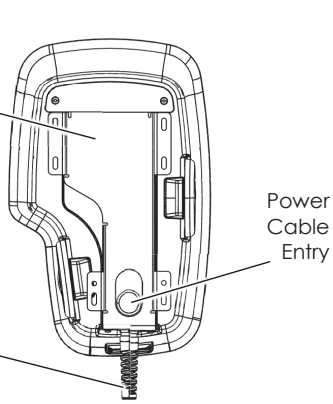


Figure 9 Zura 2 x Tethered Chargepoint (Rear)

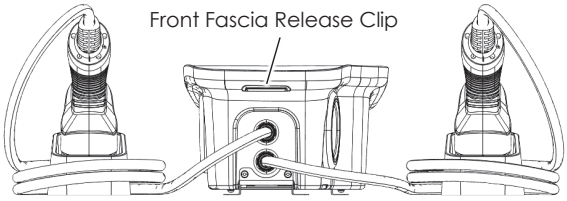


Figure 10 Zura 2 x Tethered Chargepoint (Bottom)

NOTE: Where two tethered cables are installed, incoming cables must enter the enclosure through the rear of the unit. Single tethered cable chargepoints have the option of the rear entry or one bottom entry location.

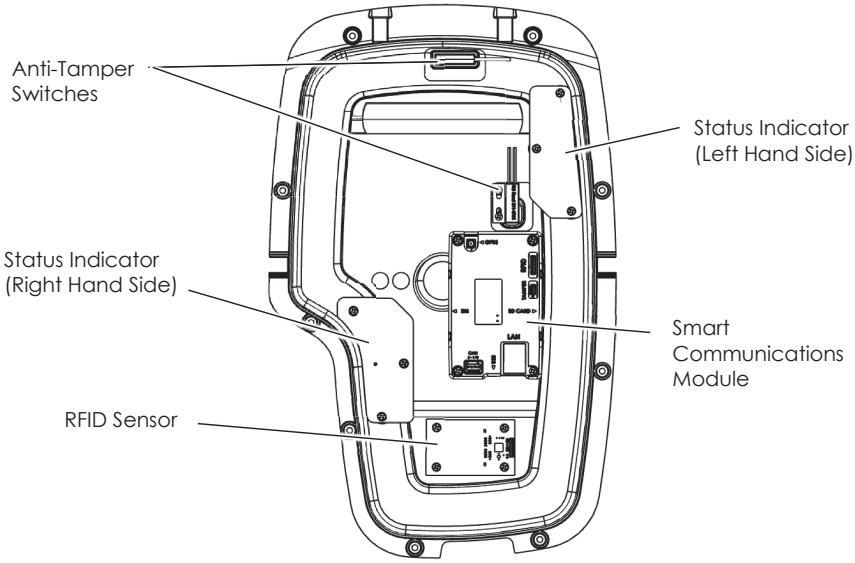


Figure 11 Zura Protective Components

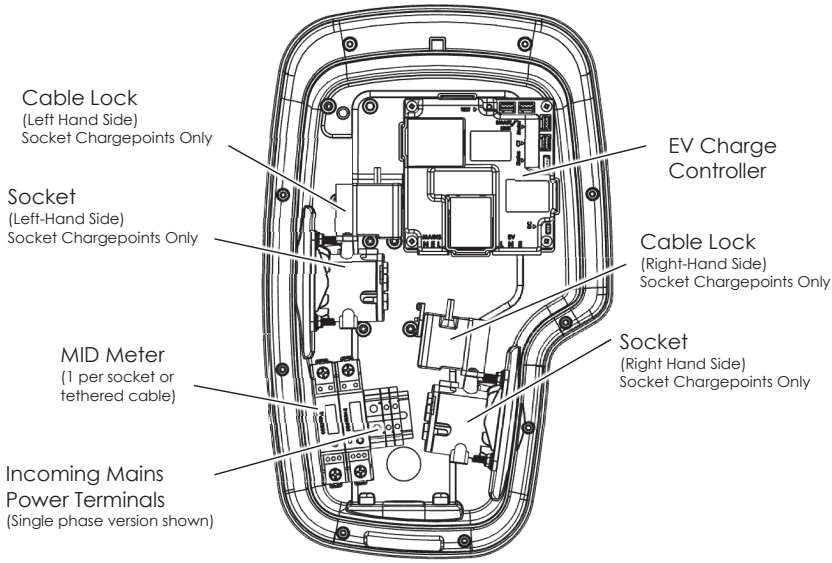


Figure 12 1-Phase Zura Rear Enclosure Components

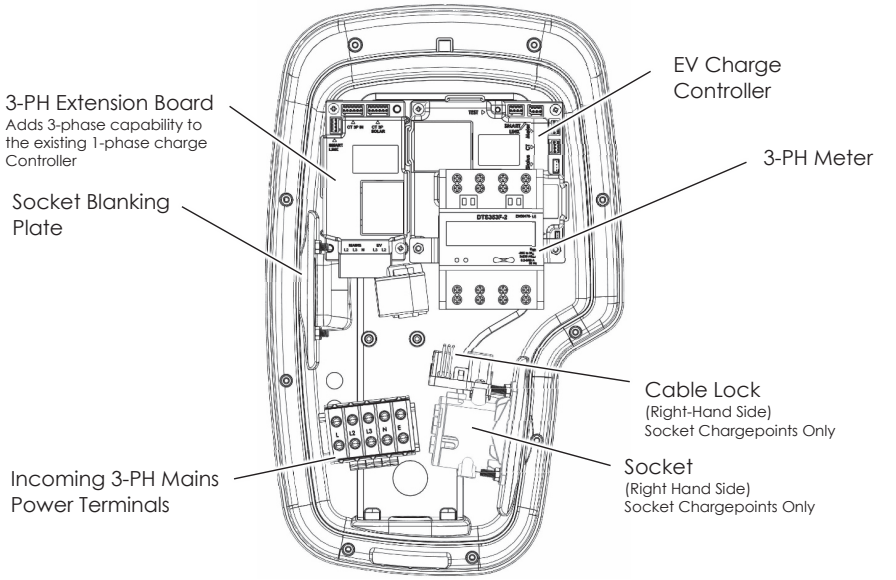


Figure 13 3-Phase Zura Rear Enclosure Components

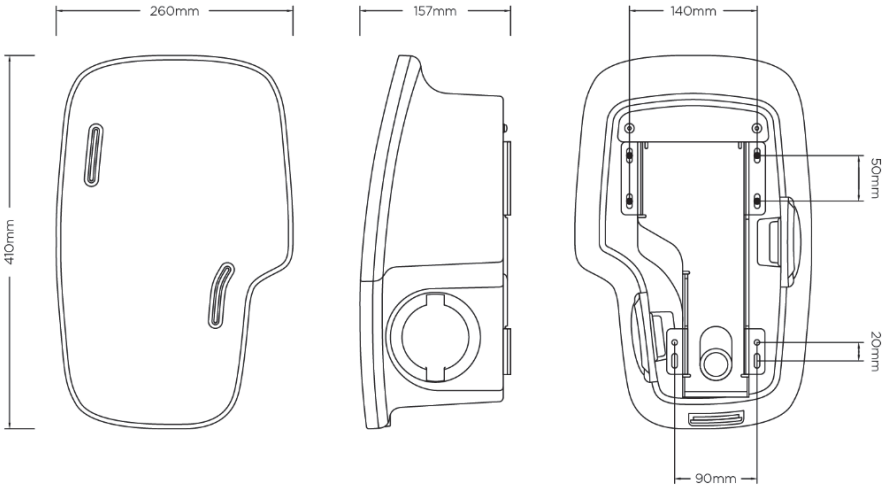


Figure 14 Zura Dimensions

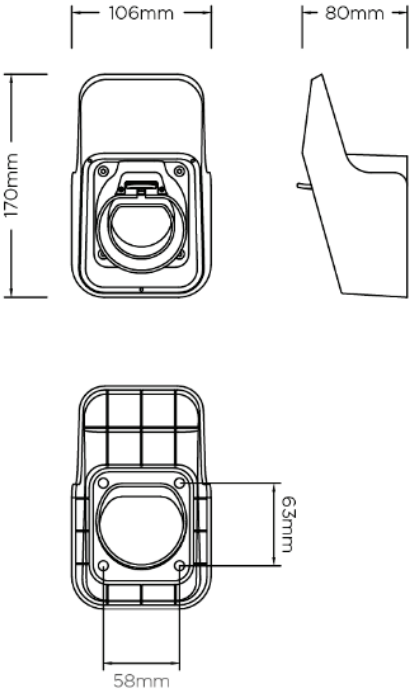


Figure 15 Dummy Socket/Holster Dimensions

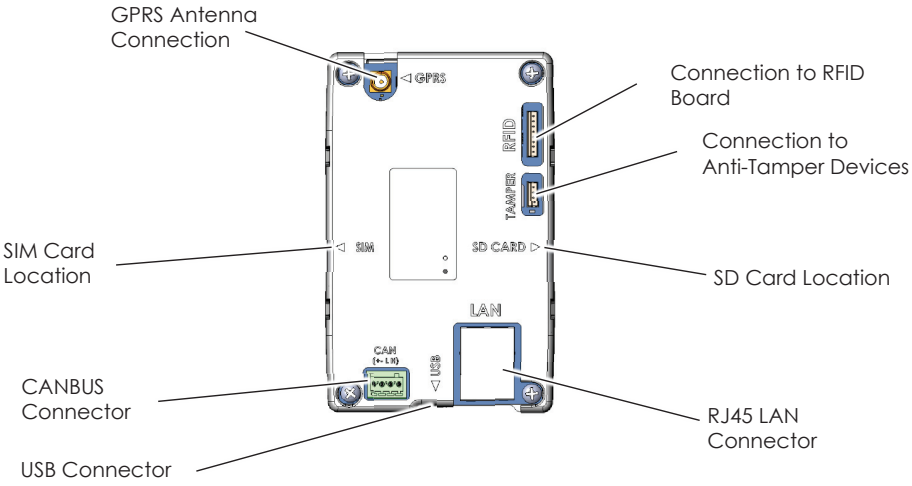


Figure 16 Smart Communications Module

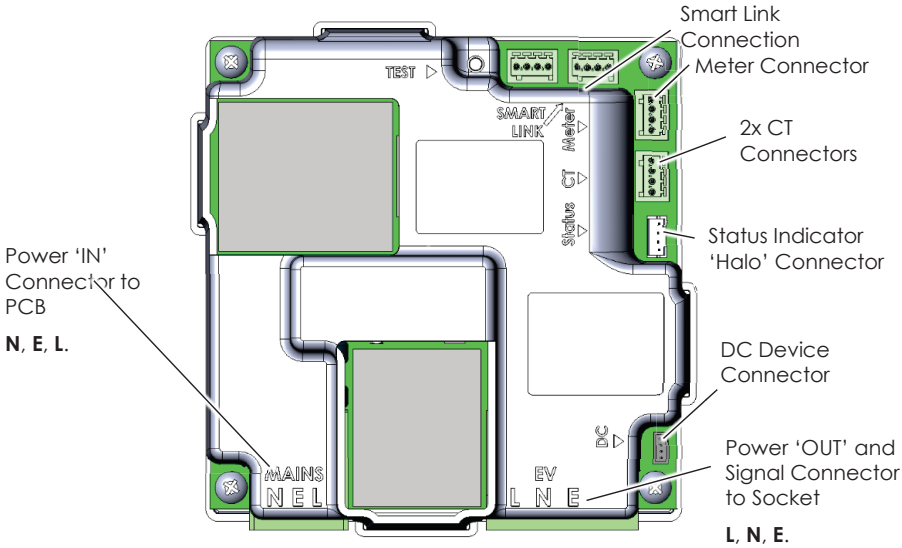


Figure 17 EV Charge Controller for 1-PH and 3-PH Charge Points

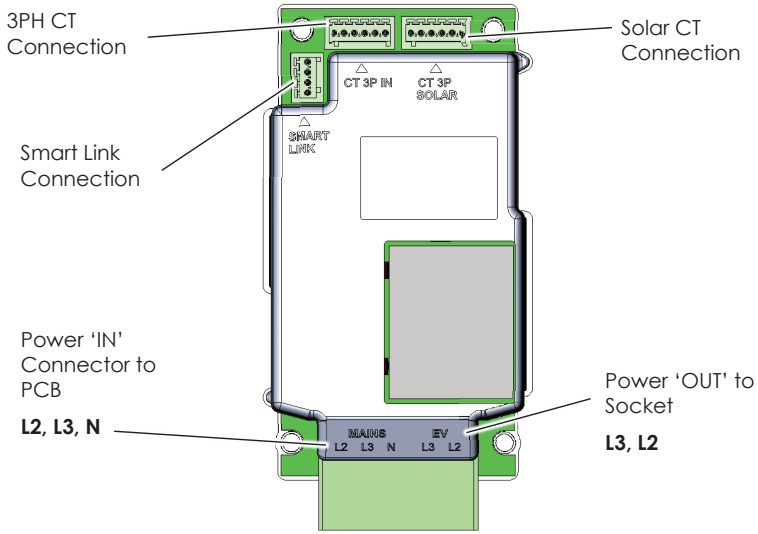


Figure 18 3-PH Extension Board for 3-PH Charge Points Only

The 3-PH Extension Board connects to the Charge Controller to enable 3-phase connectivity and functionality of the charge point.

User Interface	• Mobile app • RFID sensor (Mifare ISO/IEC 14443 A) • Plug & go • RGB LED status indicator halo(s) – configurable
Charge Protocol	Mode 3 (IEC 61851-1)
Built-in Protection	• Models ROLEC3020, ROLEC3140, ROLEC3145 – DC fault protection – 6mA • Models ROLEC3030, ROLEC3046, ROLEC3150, ROLEC3155, ROLEC3156 - Residual current protection - AC 30mA Type-A & DC 6mA • Lightning surge, over temperature protection • PME fault detection – No earth electrode/rod required • Supports automatic dynamic load balancing (may require additional hardware) • Supports static load management (software configurable)
Required External Protection	• Models ROLEC3020, ROLEC3140, ROLEC3145 – AC overload & fault current protection – A suitably rated 30mA Type-A RCBO or equivalent protection is required at source (dependent on cable type and/or route) • Models ROLEC3030, ROLEC3046, ROLEC3150, ROLEC3155, ROLEC3156 – Over current protection — A suitably rated MCB or Type-A 30mA device is to be installed at source (dependent on cable type and/or route) • Surge Protection — May be required depending on the installation
Cable Terminals	• Single Phase – 3x 50mm 1P + N + E • Three Phase – 5x 50mm 3P + N + E

Communications	• 4G LTE Cat-1 (built-in nano SIM, subscription required)
	  • LTE FDD: B1/B3/B5/B7/B8/B20/B28
	  • GSM: B2/B3/B5/B8
	• Wi-Fi 802.11 b/g/n 2.4 GHz (2412-2472 MHz / 2422-2462 MHz)
	• NFC 13.56 MHz
	• RJ45 Ethernet connection
	• Bluetooth Low Energy (BLE 4.1) 2402-2480 MHz (for installer configuration purposes)
	• OCPP 1.6J
	• Cyber security – Data encryption level TLS 1.2

Energy Metering	Integrated Class 1 MID compliant metering
Standby Power Consumption	< 7.5W
Dimensions	260mm x 410mm x 157mm (W x H x D)
Weight	< 5.5kg to <13kg (model dependant)
Environmental	• Ingress protection – Enclosure IP65, Socket IP54 • Impact protection – IK08 • Security – Dual tamper & breach notifications • Operating temperature – -30°C to +50°C • Operating humidity – 5% to 95%
Materials	• Unit & fascia – High impact resistant Polycarbonate • Mounting back plate – 1.5mm Steel with black powder coated finish • Rear bracket plate – 1.5mm 316 Stainless Steel
Unit Colour	Black, (Grey or White, Branded or fully customised fascia's available)
Certifications & Compliances	• EV Charging Compliance – EN 61851-1:2019, EN 61851-22:2002 • Smart Charge Points – (SI 2021/1467) (Pre 2023 units may exclude Schedule 1) • Wiring Regulations – BS 7671:2018+A2:2022 • EMC Compliance – EN 61000-6-3:2007+A1:2011, EN 61000-6-2:2005, 2014/30 /EU, SI 2016/1091 • Safety Compliance (LVD) – EN 62368-1:2014, 2014/35/EU, SI 2016/1101 • Communications / RED – EN 62311:2008, 2014/53/EU, SI 2017/1206, EN 300 330 V2.1.1 (2017-02), EN 301 908-1 V15.1.1 (2021-09), EN 301 908-13 V13.2.1 (2022-02), EN 301 511 V12.5.1 (2017-03), EN 300 328 V2.2.2 (2019-07), EN 300 440 V2.2.1 (2018-07). • Environmental Protection – BS EN 60529:1992+A2:2013 • Impact Rating – BS EN 62262:2002+A1:2021 • Metering – 2014/32/EU, SI 2016/1153 • RoHS – 2011/65/EU, SI 2012/3032 • REACH – 1907/2006, REACH etc. (Amendment) Regulations 2021 • Certification Markings – CE & UKCA
Warranty	3 years

Rolec Services Ltd are a registered manufacturer (**WEE/AG3499TY**) within the WEEE Recycling Scheme, allowing its products at the end of their life, to be processed by an appropriate local service provider.

Unpacking

IMPORTANT: Make sure all packaging is disposed of responsibly and in accordance with the current regulations in your region.

Packaging is 100% recyclable where appropriate facilities exist.

Standard Contents

- EV chargepoint
- Rolec Connect Configuration Tag
- Monta QR Code Socket ID Labels
- Current Transformer (CT) device with cable (1 Ph models only)
- Mounting Bracket
- Fixing Kit (Qty 6, 4mm x 50mm screws and wall plugs)
- Installation and Operation Manual

1. Examine the package and make sure the contents have not been damaged in transit.
2. Make sure the chargepoint model and any accessories match the order.
3. Do NOT dispose of the packaging until the chargepoint has been installed and is working correctly.

NOTE: Report any damage during transit to the courier first, then to the supplier. Provide photographic evidence of the damage, if possible.

NOTE: Do NOT install incorrect or damaged units. Contact your supplier for resolution.

Options and Accessories

Product Code	Item Description
RFID0010	RFID card
RFID0020	RFID fob
EVFP0035	Zura Mounting Post (fits up to 2 chargers)
EVCB0020	Root mount protection barrier – 48mm
EVCB0040	Surface mount protection barrier – 48mm
EVPS0010	EV parking sign – A4 landscape (Other sizes are available)
EVPP0100 EVPP0107 EVPP0105 EVPP0108	5m 32A Type 2 to Type 2 charging cable 10m 32A Type 2 to Type 2 charging cable 5m 32A 3 Phase Type 2 to Type 2 charging cable 10m 32A 3 Phase Type 2 to Type 2 charging cable (Other cables are available, including Type 1 options)
EVIN0010 EVIN0015 EVIN0070 EVIN0075	20A Single Phase EV Consumer Unit with Type A RCBO 40A Single Phase EV Consumer Unit with Type A RCBO 20A Three Phase EV Consumer Unit with Type A RCBO 40A Three Phase EV Consumer Unit with Type A RCBO
EVRS0030	Remote Wall Mount for Type 2 Charge Gun Holster
ACSR0125-F	100A, 35mm² Screened CT Clamp with 10m Cable
ACSR0325	3x 100A up to 35mm² Screened CT Clamps with 10m Cables for 3-Ph Zura

Installation

IMPORTANT: Installers and End Users must read and understand this manual before installing or using the product.

Installation must be carried out only by qualified and competent professionals in accordance with current regulations applicable to the location of the installation.

- Rolec Services Ltd accepts no responsibility for issues resulting from improper installation.

NOTE: Any damage to the unit, connected systems, or surrounding property due to incorrect installation is the sole responsibility of the installer.

BEFORE Installation

Units that use mobile networks to communicate with a cloud-based back office are equipped with a roaming SIM card that connects to the strongest available signal. It is the responsibility of the end user or installer to verify that a suitable mobile network signal is available before installation.

- Units using mobile networks require a signal strength of 14 CSQ or better.
- Units using Wi-Fi require a strong, stable connection.
- Rolec cannot be held responsible if a unit using mobile networks or Wi-Fi is installed in an area with inadequate signal strength

CAUTION: Equipment Damage – Sensitive Equipment

If performing insulation resistance tests on the power supply cables, it is recommended to conduct the test before connecting the power cable to the Chargepoint. High voltages applied during the test may damage sensitive components if tested after the cable is connected.

1. If possible, complete administrative tasks for third-party services before the installation day. Any outstanding tasks may delay the Chargepoint's activation.
2. Choose a suitable, secure, and environmentally safe location for the unit.
    - Ensure the mounting location complies with current legislation (if applicable).
3. Verify that the available electrical power at the site meets the Chargepoint's required power output.
    - The Chargepoint's output power is automatically managed based on the site details entered into the Configuration Application after installation.
    - Maximum outputs per socket:
        - Single-phase units: 230V/50Hz, 7.4kW (32A)
        - Three-phase units: 400V/50Hz, 22kW (32A)
4. Verify that the Chargepoint model is correct and matches your order.
5. Inspect the Chargepoint and any accessories to ensure they have not been damaged during transit.

NOTE: Report any damage during transit to the courier first, then to the supplier. Provide photographic evidence of the damage, if possible.

- - Do NOT install incorrect or damaged units. Contact your supplier for resolution.

6. Familiarise yourself with the location of the incoming power terminals within the Chargepoint.
7. Determine where power and other cables (CT and Ethernet – if required) will enter the chargepoint.
    - Discuss cable routing and cable entry into the enclosure with the end user. Plan the installation accordingly.
    - Cable entry through the sides or top of the chargepoint is NOT recommended.

Chargepoint Type	Cable Entry Options
1 or 2 x Socket	1 x Rear entry, 2 x Bottom entry
1 x Tethered cable	1 x Rear entry, 1 x Bottom entry
2 x Tethered cable	1 x Rear entry only

8. Make sure a remote consumer unit has been installed (or appropriate switchgear is available) in an appropriate location to supply power to the chargepoint. The consumer unit must contain appropriately rated protective devices for the power output that will be configured on the charger.
    - 1-Way units need an appropriately rated Type A, RCBO at source.
    - 2-Way units need an appropriately rated Type A, MCB at source.

If a Mounting Post Will be Used

1. Prepare the ground and place the mounting post in the desired location.
    - Make sure the power supply cable, the ethernet cable (if required), and the Load Balancing CT cable (if required) are fed upward through the middle of the post and exit through one of the apertures. Seal other apertures with the provided blanking panels.
2. Secure the post into place with fixings that are appropriate for the mounting surface.

Install the Chargepoint

IMPORTANT: Installation must be carried out only by qualified and competent professionals in accordance with current regulations applicable to the location of the installation.

CAUTION: Equipment Damage – Sensitive Equipment

If performing insulation resistance tests on the power supply cables, it is recommended to conduct the test before connecting the power cable to the Chargepoint. High voltages applied during the test may damage sensitive components if tested after the cable is connected.

CAUTION: Equipment Damage

Do NOT use power tools to install or remove fixings.

- Power tools may damage the fixings, making them difficult to remove.
- Use hand tools only, and avoid overtightening.

IMPORTANT: Load Balancing

If Load Balancing is required, it must be installed before completing the standard installation.

- Refer to **page 22** for instructions on installing Load Balancing.
- If using a third-party Load Balancing or Load Management system, follow the manufacturer's guidelines.

1. Locate the Front Fascia Clip on the bottom of the chargepoint.

   The outer fascia is held in place by the clip at the bottom edge, locating spigots around the mid position and a hook assembly at the top.

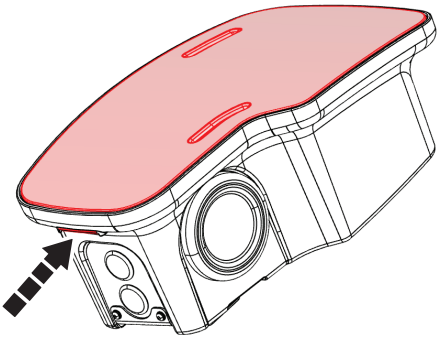


Figure 19 Front Fascia Clip

2. Press the Front Fascia Clip toward the body of the enclosure to release the bottom of the fascia then carefully ease the fascia away from the mid and top positions.
3. Place the Front Fascia **face up** in a safe location to prevent damage to the surface finish.

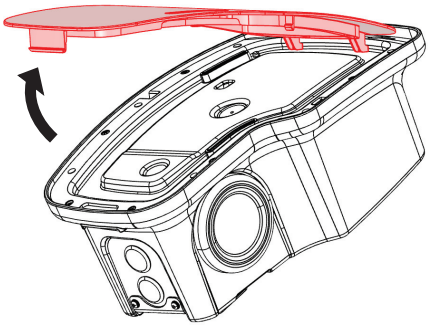


Figure 20 Remove the Front Fascia

4. Turn the chargepoint over and place it on its front face.
    - To prevent damage, place the chargepoint onto a soft surface such as a mat or cardboard packaging.
5. On the bottom of the chargepoint, locate the 2 x fasteners that secure the Mounting Bracket to the chargepoint.
6. Remove and retain the 2 x fasteners.
7. Carefully slide the Mounting Bracket towards the bottom of the chargepoint to release the top of the bracket from the recess on the back of the chargepoint.
8. Remove the Mounting bracket from the chargepoint.

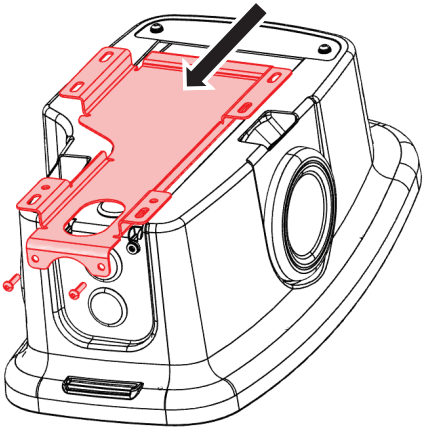


Figure 21 Mounting Bracket Removal

9. Turn the chargepoint over and place it on its rear face.
10. Remove and retain each of the panel fasteners from the (Security Boundary) Front Panel.

CAUTION: Equipment Damage

The LED indicators and RFID components are mounted on the Front Panel.

Cables connected to components on the panel may be disconnected from the panel.

- Make note of which cable connects to which component.
- Take care not to damage components when the panel is removed.

11. Carefully lift the Front Panel away from the enclosure to access the interior of the chargepoint.

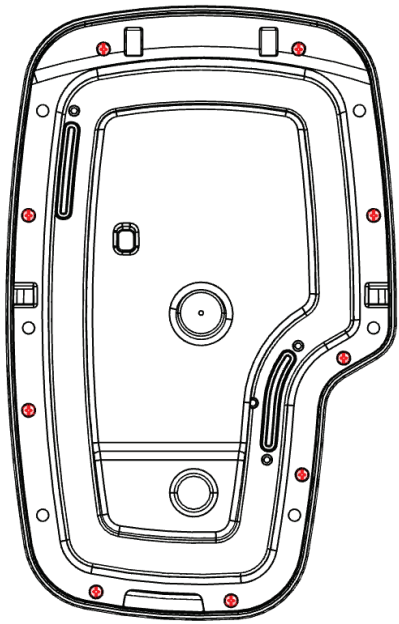


Figure 22 Remove Security Boundary Front Panel

12. Remove the cable entry knockout(s) as required.

NOTE: The image opposite shows a socket chargepoint.

- Chargepoints with tethered cables use one or both bottom cable entry points.
- Cable entry points are 25 mm diameter. Use an appropriate cable gland to prevent the entry of dust and water.

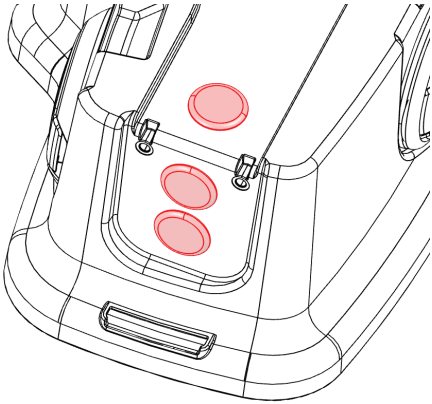


Figure 23 Cable Entry Points

13. Place the Mounting Bracket onto the wall.
14. Make sure the Mounting Bracket is level and vertical.
15. For rear entry cabling, make sure the power cable and any other required cables will pass through the large aperture in the lower area of the bracket when it is secured to the wall.
16. Use the holes of the bracket as guide to mark where the bracket will be secured to the wall.
    - The holes in the bracket provide various fixing positions.
    - Where possible, use the furthest apart positions.

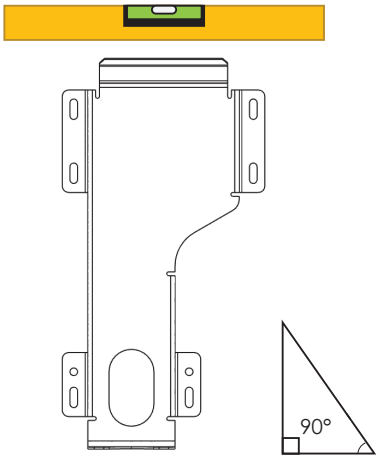


Figure 24 Mounting Bracket Alignment

17. Drill appropriate holes in the wall for the fixings that will be used. If using the supplied fixings, make each hole 55mm deep with an 8mm masonry drill.
18. Secure the bracket to the wall using the fixings provided or using alternatives suitable for the location.
19. Make sure the bracket sits flush to the wall and is level when all fixings are tightened.
20. Test fit the chargepoint onto the Mounting bracket and make sure there are no fitting issues.

NOTE: The installation can continue with the chargepoint mounted on the wall if this is preferred. If the chargepoint remains mounted, secure it to the Mounting Bracket using the fasteners removed at step 6. Alternatively, the chargepoint may be removed from the mounting bracket before continuing.
NOTE: All electrical work must be performed in accordance with the current legislation applicable in the geographical region of the installation.
CAUTION; Equipment Damage – Sensitive Equipment If you will be performing insulation resistance tests on the power supply cables, it is advised to be done BEFORE connecting the cable to the chargepoint. The high voltages applied during the test may damage sensitive components if tested after the cable is connected.

21. If required, install the load balancing system. Refer to **page 22 Install Load Balancing** shown immediately after these 'standard' installation instructions.

    When Load Balancing has been installed, return to this point.

22. Route the incoming cables through the chosen enclosure entry point, ready to connect to the appropriate terminals within the enclosure.

23. Make sure the entry point into the enclosure can be sealed with an appropriate cable gland.
24. Terminate the supply cable in the appropriate manner and connect it to the connection point within the chargepoint.
25. If required, connect the Ethernet cable to the Smart Communications Module.
26. Make sure ALL debris is removed from the enclosure and that no debris is present on any of the components.

NOTE: Debris and similar pollutants can adversely affect the performance and working life expectancy of components and will invalidate the product/component warranty.

IMPORTANT:
It is the responsibility of the installing engineer to satisfy themselves, that all cable terminations throughout this product are secure and tight and have not become loose, strained, or disconnected during transit and/or installation.

27. Reconnect the RFID and the LED Indicator cables from the Rear Enclosure to the Front Panel.
28. Make sure all cable connections are secure and have not become loose or damaged in transit or during installation.
29. Temporarily close the chargepoint enclosure for safety and security. Access to the components will be needed during the configuration process.
30. If required, install the tethered cable plug holster(s) as described on **page 26**.
31. Switch ON the power to the chargepoint and perform electrical tests in accordance with the current legislation applicable in the geographical region of the installation.
32. Make sure you are satisfied that the electrical installation is complete.

Install Load Balancing

NOTE: This manual assumes the installation of a single Chargepoint when discussing Load Balancing and Load Management. For installations involving multiple Chargepoints, installers should consider using a third-party, OCPP-compliant energy management system for effective connection and monitoring.

If integrating with third-party equipment, it is essential that installers follow the manufacturer's instructions closely to ensure correct installation and compatibility with the charging pedestal.

If load balancing is to be enabled on this Chargepoint, it should ideally be installed during the standard installation process. If added at a later date, additional work may be required to allow the CT cable to enter the pedestal enclosure.

Connect a CT to the Property

1. **Identify the correct cable**: Position the CT clamp around the Line Conductor cable located between the electricity meter and the consumer unit.

2. **Ensure correct orientation of the CT clamp**: The arrow on the CT clamp must point in the direction of electrical flow toward the consumer unit.
    - Alternatively, if placing the CT on the neutral/negative cable leaving the consumer unit, the arrow must point away from the consumer unit.
3. **Open the CT clamp**: Release the clip to open the clamp.
4. **Install the CT clamp**: Place the clamp around the identified cable.
    - Ensure the arrow is pointing in the correct direction.

Important: Only one cable should pass through the CT clamp—no additional cables.

5. **Secure the CT clamp**: Close the clamp and fasten it securely with the clip.

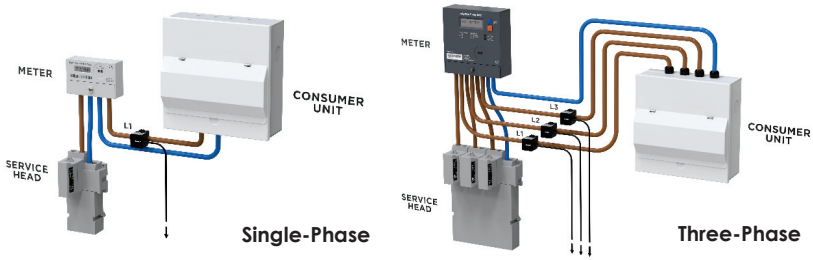


Figure 25 CT Clamp Positioning

Extend the CT Cable

1. Maximum Extension Length: If necessary, the CT cable can be extended up to a maximum of 100 meters.
2. Minimise Signal Loss: To minimise interference and signal degradation, keep extension cables as short as possible.
    - - Extensions of 20 meters or less are recommended for optimal performance.
3. Cable Type Requirements:
    - Extension cables must be a screened 'Twisted Pair'.
    - A CAT6 network cable with a screened twisted pair can be used.

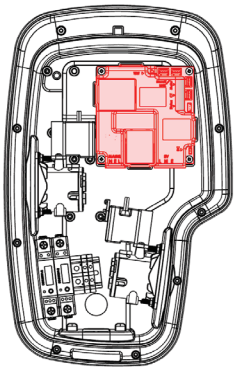
NOTE: Twisted pairs within a CAT6 cable are color-coded.
- Do NOT use conductors with mismatched colours.

Connect the CT Cable to the Chargepoint

Single Phase Models

IMPORTANT: Ensure that a suitable cable gland is installed in the Chargepoint enclosure to properly secure the CT cable and seal the enclosure

1. **Locate the EV Charge Controller Enclosure**: Find the CT connector on the circuit board.
2. **Connect the CT Wires**: Attach one CT clamp wire to the H+ terminal on the circuit board connector.
3. Attach the other CT clamp wire to the H- terminal on the circuit board connector
   - The CT wires do not have a polarity.



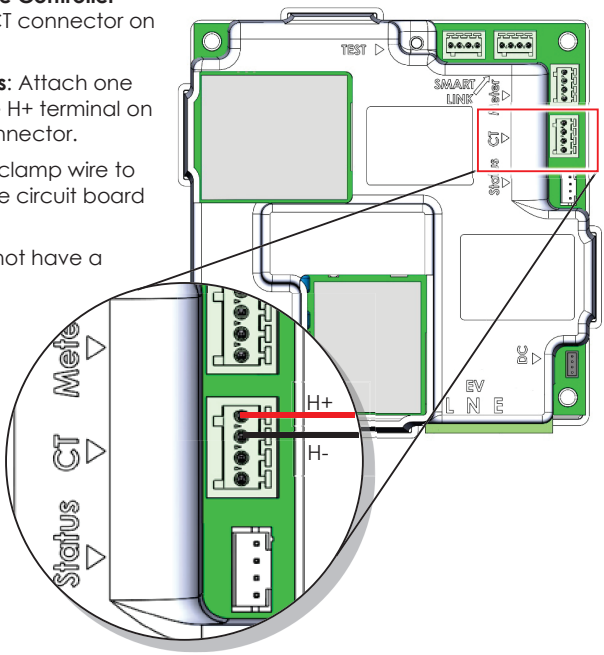


Figure 26 1-PH Load Balancing CT Connection

NOTES:

1. If extending the CT cable or adding a solar monitoring CT, use the cable colours of your choice.
2. The lower two terminals on the CT connector can be used to attach a CT for a solar system.

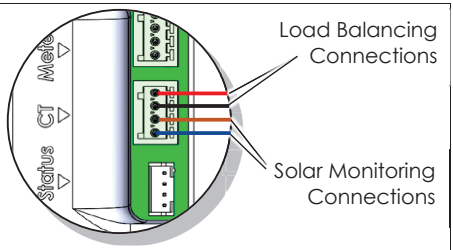


Figure 27 CT Connections for Load Balancing and Solar Monitoring

Three Phase Models

IMPORTANT: A suitable cable gland must be installed to the chargepoint enclosure to accept the CT cable and maintain the IP rating of the enclosure.

1. Locate 3-Phase Extension Board and the connector marked CT 3PH IN.
2. Connect each pair of CT wires to the terminal block as illustrated here.
3. Connect the terminal block to the 3-Phase extension board.

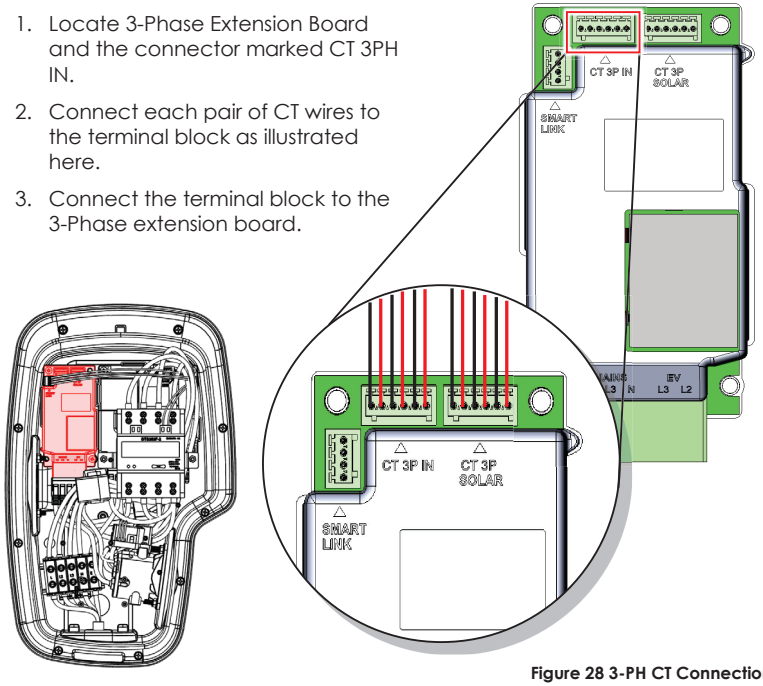


Figure 28 3-PH CT Connection

NOTE: The steps to install a solar CT are simialr as those just described but using the connection point labeled CT 3P Solar.

Configure Load Balancing

Load balancing is configured using the Smart Application during the online configuration process.

1. **Labelling the Main Fuse or Circuit Breaker**:
   - The main fuse or circuit breaker in the property's consumer unit should be labelled with the maximum load.
   - The load balancing system must be set to this same value (or lower).

   IMPORTANT: Do NOT set the load balancing value higher than the maximum rating. If the maximum value is reached, load balancing will not initiate, and power to the property will be lost.

2. **Load Balancing Settings**:
   - For domestic systems, load balancing can be set for properties with 60 Amps to 100 Amps.
   - For commercial systems, load balancing can be set for properties with 60 Amps to 255 Amps.

Install Charge Plug Holsters

Charge Plug Holsters are used with tethered cable charges to help maintain the charging cable and plug in a serviceable condition, free from damage and contamination. Use of the holster also reduces the opportunity for the cable to be a trip hazard.

1. Establish a suitable installation location close to the chargepoint.
   - If possible, choose a location that is sheltered from the worst of the weather as this will help to maintain the working life of the equipment.
2. Position the holster in the desired location.
   - Make sure the holster is level and vertical.
3. Use the holes in the holster as guid to mark where the holster will be secured to the wall.
4. Drill appropriate holes in the wall for the fixings that will be used.
5. Secure the holster to the wall using appropriate fixings for the location.

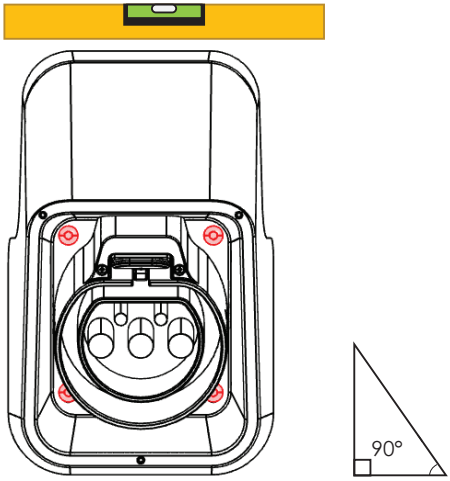


Figure 29 Mount the Plug Holster

NOTE: Mounting point holes are approximately 6 mm diameter.

6. After the socket holster(s) is installed, loosely coil the tethered cable and hang it on the holster. Connect the charging plug to the holster.

Configuration

Overview

Rolec Chargepoints are compatible with charging applications that comply with Open Chargepoint Protocol (OCPP) 1.6J. If you are not using the Monta service, there are several other service providers available within the configuration application. While these providers have been tested and are known to work with the Chargepoint, you may require assistance from the selected provider to establish a working connection to their network.

NOTE: OCPP compliance does not guarantee compatibility 'straight out of the box'. There are many variables within the specification that can affect the features available.

There is the option to use non-listed service providers. Assistance from the provider may be required to complete the configuration, and Rolec cannot guarantee that all features will be available.

IMPORTANT: Chargepoint management and operation applications, such as those provided by Monta or any other service provider, are not part of the Rolec product. Any agreements, contracts, or fees related to these services are between you and your chosen provider.

For additional guidance, an online video configuration guide is available via the QR code provided here.

Chargepoint Onboarding

Onboarding is the process of adding Chargepoints to a network. It must be done for each site and again if new Chargepoints are added later. Onboarding may be done before installation so the system is ready when the Chargepoints are commissioned. To do this, you will need the serial numbers which are on the packaging, product label, socket tag, or in the Statement of Compliance email sent to the purchase order address.

If installing many Chargepoints at once, Rolec may be able to help using serial numbers linked to your order – Contact the onboarding team (using the number shown on page 1). For smaller installs, it is quicker to register them yourself on the online onboarding site.

7. Scan the QR code shown here to access the onboarding site. Alternatively, enter https://onboarding.rolecserv.co.uk/ into a browser.
8. If you are using Monta as your back-office service provider, click the GET STARTED button.
    - If you are not using Monta, select the Alternative back-office option below the button, then enter your contact details and the Chargepoint serial number(s).

Onboarding to Monta

NOTE: The process is slightly different if choosing a commercial installation, but they are both very similar and you will be guided by the screens that are shown.

9. **Choose Installation Type**: Within the onboarding site, select whether the installation will be for a domestic or commercial installation.
10. **Enter Contact Details and Serial Numbers**: Enter your contact details and the serial number of the Chargepoint(s) to be added. If more Chargepoints are required, they can be added after the first one has been entered.
11. **Validate Serial Numbers**: The system will check the serial numbers to ensure they are valid. Any problems will be flagged, and if Chargepoints cannot be added, please contact the Rolec onboarding team.
12. **Complete the Process**: Follow the instructions on the screens to enter the required information and complete the onboarding process. For more information or assistance about Monta or onboarding, contact the onboarding team.

Chargepoint Commissioning

Preparation:

- **OCPP I.6J** is supported for Chargepoint management.
- Additional setup may be needed for **Backoffice** providers.
- Service agreements are between the user and the provider, not Rolec.

Required items:

- **Smartphone** with camera, QR code reader, Bluetooth, and internet access.
- **Rolec Connect App.** Download via the QR Code shown here.
- **Rolec Chargepoint ID label.**

Download on the App Store

GET IT ON Google Play

Configuration

13. **Power on the Chargepoint**
    Make sure the Chargepoint is connected to the power supply and switched on before beginning the configuration process.
14. **Download and Sign in to the App**
    Download the Rolec Connect App from either the Apple App Store or Google Play Store, depending on your device. Sign up by entering your email address and full name (Image 1). You'll receive a magic link to log in and access the app.
15. **Add the Chargepoint**
    From the main menu, tap "**Add**" Chargepoint to begin the setup process. Choose the correct Chargepoint model (Image 2) from the list to ensure you're configuring the right unit.
16. **Scan and Connect to the Chargepoint**
    Scan the QR code label located on the Chargepoint socket or inside the unit (Image 3). Alternatively, you can search for the Chargepoint via Bluetooth. Once detected, connect to the unit and enter the password (Image 4) shown on the QR code label.

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17. **Apply Settings for Your Installation**
    Apply the relevant settings based on the Chargepoint model and your site's electrical setup. Configuration is divided into the following sections:
    - Specification - (Image 5) Set power output, voltage, and current limits.
    - Back Office - (Image 6) Connect to the Chargepoint management platform if required.
    - Network- (Image 7) Configure Wi-Fi, mobile, or Ethernet settings.
    - Controls - (Image 8) Set access permissions and operational controls.

    Ensure each section is accurately configured for your specific installation. Depending on the model and firmware being used configuration options/screens may vary slightly to those shown here.

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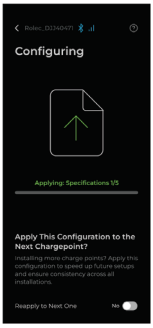
18. **Save and Test the Configuration**
    Once all settings are applied, push the configuration to the Chargepoint (Images 9,10). Then test the connector(s) to confirm the Chargepoint is functioning correctly (Images 11,12).

9



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Chargepoint Installation Completion

1. Make sure:
    - The Chargepoint is securely mounted at the designated location.
    - The Chargepoint enclosure is free of debris.
    - The cables entering the Chargepoint are secure.
2. Verify the electrical installation is complete:
    - Incoming cables are properly connected to the relevant devices within the enclosure.
    - All electrical connection points are secure.
    - All required tests have been performed in accordance with the current legislation applicable in the geographical region of the installation.
    - The Chargepoint has been installed in compliance with the current Electrical Wiring Regulations, including recommended earthing arrangements, applicable in the geographical region of the installation.
3. Fit and secure the front panel/door to the enclosure.
4. If necessary, remove any handling marks from the enclosure using a soft, damp cloth.
5. Ensure this manual is given to the Owner/Host before leaving the site.

Operation

As a "Smart" product, this Chargepoint can be operated and/or monitored by a variety of web-enabled devices. Alternatively, it can be operated manually using an RFID card/fob.

The LED status indicator shows whether the Chargepoint is available for use.

Status Indicator Guide	
 Flashing blue light	Ready for charge – cable not connected to vehicle.
 Flashing green light	Ready for Standard Charging.
 Fixed blue light	Cable plugged in but not charging.
 Fixed green light	Charge in progress.
 Fixed red light	Potential earth leak fault detected by the 6mA DC device.
 Flashing red light	Potential Communications Fault.
 Flashing alternate red and green lights	PEN fault detected by the TruePEN device and charging has been stopped. Indication is cancelled when the TruePEN device is reset, and normal operation is restored.
 Fixed amber/yellow light	Firmware update is in progress. Do not interact with the Chargepoint until the LED returns to Flashing blue.
 Flashing magenta light	Firmware update has failed. Following reset of Chargepoint, flashes for 20 seconds before attempting update again.
 Flashing alternate red and yellow lights	Over temperature fault.
 No light	No power to the unit or the breaker within the unit has tripped and needs to be reset.

Faults are reported using the standard OCPP codes indicated in the status message,

- Under and Over Voltage (PEN),
- Power Meter Failure (not being able to read meter),
- EV Communications Fault

1. Make sure the status indicator shows that the unit is ready to charge.
2. Connect the charging cable to the Chargepoint (socket Chargepoints only).
3. Connect the other end of the cable to the vehicle.
4. Use the mobile application to start the charge session.
5. Alternatively use an RFID card/fob to start the charge session.
    - The Chargepoint will issue a 'beep' sound to indicate the card has been recognised and accepted.
6. If you are present when power for charging is made available, you will see the status indicator change to a fixed green light.

NOTE: Default Hours and Randomised Delay

Following the initiation of the charge session, UK regulations require Chargepoints of this type to apply power for charging during 'default' (off-peak) hours, regardless of when the charge session was initially started.

- When the off-peak period is reached, power for charging will be applied after a randomised delay of up to 10 minutes. This is to protect the power network from spikes in demand that would occur if thousands of Chargepoints are activated at the same time.
- If required, charging status may be checked via the smart application.
- There is the option to override the default setting and charge during the Peak period, but this may result in higher electricity costs or other conditions applied by the electricity provider.
- Public Chargepoints are not subject to delayed start regulations but may still be applied by the app operator.

NOTE: Peak and Off-Peak Charging Hours – As set by the UK Government:

- **Peak Hours**: 8am – 11am and 4pm – 10pm on weekdays.
- **Off-Peak**: All hours outside of the above peak hours.

These settings help reduce the strain on the electricity grid and potentially save on electricity costs during off-peak times.

End a Charging Session

1. A charging session can be ended by any of the following methods:
   - Use the mobile phone application.
   - Place the RFID card/fob (associated with the account) onto the card sensor.
   - Remove the cable from the vehicle.
2. Once the cable has been removed from the vehicle:
   - Remove the cable from the Chargepoint.
   - Make sure the socket flap is closed when not in use.
   - Store the cable safely and in accordance with the manufacturer's instructions.

NOTE: If the Chargepoint has a cable lock facility that permanently secures the plug into the socket, step 2 can be ignored, and the cable can remain connected to the Chargepoint.

- Cables should be loosely coiled and hung on a cable hanger with the plug securely inserted into the holster to prevent water ingress.
- Some makes of cable may not be as robust as others. The term 'permanent' means that the cable does not need to be removed after every charge session. However, cables must be unlocked and removed from the socket on a regular basis to check for contamination of the contacts. Unplugging and reconnecting the plug and socket also helps ensure a good electrical connection and relieves any strain on the components.

About Charging Cables

The points below apply to Rolec cables and will be similar for cables supplied by other manufacturers. Always follow the manufacturer's advice.

1. Charging cables should be fully uncoiled when in use.
2. Charging cables should not be stretched or placed under strain on the Chargepoint or vehicle connections.
3. Charging cables should be routed between the Chargepoint and the vehicle so as to avoid obstruction or creating a trip hazard.
4. Charging cables must NOT be left connected to the Chargepoint when not in use unless permanently locked into the socket.
5. After use, charging cables should be removed from the vehicle first, and then removed from the Chargepoint.

IMPORTANT: Some Chargepoints feature a 'semi-permanent' anti-theft cable locking device allowing the cable to be left connected at the end of a charge session. However, some makes of cable are less robust than others, and to prevent damage and ensure a good connection, the cable must be unplugged on a regular basis, allowing the connectors to be checked for damage or contamination.

CAUTION: Equipment Damage

Socket Chargepoints include a cable locking device (Hatch Lock) to reduce the opportunity of cable theft. The lock is engaged when the charging session is started and disengaged when the session ends. Attempting to remove the cable from the Chargepoint before the session is ended or before disconnecting the cable from the vehicle may cause the lock to become permanently engaged and prevent removal of the cable.

6. Charging cables should be stored in a dry, undercover location where the cable and plug cannot be damaged or contaminated.
    - If the plugs are dry, make sure the rubber caps are fitted to prevent the entry of debris.
    - If the plugs are wet, allow them to dry before fitting the rubber caps.

IMPORTANT: Rubber plug caps will not fully protect against the ingress of water, but may prevent water from escaping, which over time may overcome the IP rating of the plug assembly.

7. Charging socket covers (flaps) should be closed after the plug is removed.
8. Damage to charging sockets should be inspected by an appropriately qualified engineer, and the charging pedestal should be electrically isolated if damage affects safety.

Maintenance

Chargepoint Maintenance

IMPORTANT: National/regional legislation may override any maintenance advice provided below. Always comply with the legislation.
NOTE: In the event of a hardware issue, always contact your installer first. • If the Communication Module or other smart components are damaged, only an approved Rolec installer should carry out the repairs. • Damage caused by misuse, neglect, improper maintenance, or unauthorised modifications is not covered under warranty.
IMPORTANT: It is the operator/owner's responsibility to ensure the Chargepoint remains safe and in usable condition. Failure to do so may invalidate the warranty. Consult a qualified electrical engineer when necessary.

1. Regularly clean the external surfaces of the equipment with a damp cloth.

   Depending on the working environment, external cleaning and inspection may be required more regularly than other maintenance tasks.

CAUTION: Equipment Damage To avoid damage to the surface finish, and/or internal components do NOT use: Abrasive materials, Mineral or petroleum solvents / degreasers, Hose pipes, Jet washers or Steam cleaners.

2. Regularly inspect the exterior of the equipment for visual damage.
   - If damage affects safety, isolate the equipment and prevent its use until appropriate repairs have been completed.
3. If required, remove debris from around the charging socket/plug(s). Do **NOT** push tools into the contacts.
4. Perform a functional test of the switchgear every six months by pressing the test button on the switchgear and making sure that it operates to remove power.
   - If the switchgear fails the test, isolate the equipment and prevent its use until appropriate repairs have been completed.
5. Once a year (as a minimum), the Chargepoint and switchgear should be electrically inspected/tested by an appropriately qualified electrician in accordance with the current legislation for the installation location.
   - If the equipment fails the inspection, isolate the equipment and prevent its use until appropriate repairs/maintenance have been completed.
   - A record of the tests, results and any maintenance must be kept and may be required to support warranty claims.
6. Clean the contacts of the SIM card in the Communications Module if mobile connectivity is poor or intermittent.

7. Do NOT allow charging cables to become contaminated with water (or other substances).
    - Always store cables in accordance with the manufacturer's instructions.

NOTE: Rubber 'dust' caps that may be attached to cables are only suitable for short term protection, or protection whilst stored in an indoor environment.

They are not designed to fully protect against water ingress.

Commercial businesses with EV Chargepoints should have a Site Maintenance Plan that reflects how often and how heavily the equipment is used. This plan should include scheduled maintenance to keep everything in good working order.

EV Chargepoints must be included in the electrical section of the site maintenance plan. All work must be carried out by a qualified engineer and follow local regulations.

A typical inspection and testing schedule (shown on the next page) alternates between short and detailed checks every quarter. However, the exact frequency should be based on the needs of the site, as outlined in the maintenance plan Failure to properly maintain the Chargepoint will invalidate the warranty.

NOTE: Not maintaining the Chargepoint properly will invalidate the warranty.

About Software Updates

If/when software updates for the Chargepoint are released, you will be offered the update via the management application. If you accept the update, the new software will be downloaded in the background and will not normally affect charging activity.

When the software has fully downloaded to the Chargepoint it will be installed to the systems that need it.

1. The LED Status Indicator will illuminate RED to indicate that the Chargepoint cannot be used.
2. The Chargepoint will shut down then restart and the software will begin the update. While the update is in progress the Chargepoint cannot be used.
3. The LED Status Indicator will illuminate AMBER/YELLOW for up to 5 minutes or so, (depending on the size of the update) until the update is complete.
4. If the Chargepoint has more than one charging socket or cable, the last step will be repeated for each of the remaining sockets/cables.
5. When the LED status indicator for all sockets/cables flashes BLUE, the Chargepoint is ready for use again.

NOTE: As with a phone or computer, updates of the Chargepoint software needs a strong stable connection.

Inspection and Testing

A record or inspection, testing and maintenance must be kept and may be required to support warranty claims.

1st and 3rd Quarter

External Visual Inspection:

- Check for physical damage.
- All warning labels present and legible.
- Status Indicators operating and displaying correct status.
- If installed, check the condition of the charging socket, contacts and socket flap.
- If installed, make sure the access/cable lock is operational.

Internal Visual Inspection:

- Check for physical damage.
- Visual inspection for any heat degradation.
- No foreign bodies or other contamination present.

Clean the enclosure.

2nd and 4th Quarter

External Visual Inspection:

- Check for physical damage.
- All warning labels present and legible.
- Status Indicators operating and displaying correct status.
- If installed, check the condition of the charging socket, contacts and socket flap.
- If installed, make sure the access/cable lock is operational.

Internal Visual Inspection:

- Check for physical damage.
- Visual inspection for any heat degradation.
- No foreign bodies or other contamination present.

Electrical:

- Make sure wires/terminals are secure.
- Check Voltage and Polarity.
- Check operation of switchgear.
- Test earth fault loop impedance.
- Test power outlets using a load simulator.
- If Chargepoint illumination is installed, check the illumination and light sensor operate correctly.
- Clean SIM contacts if required.

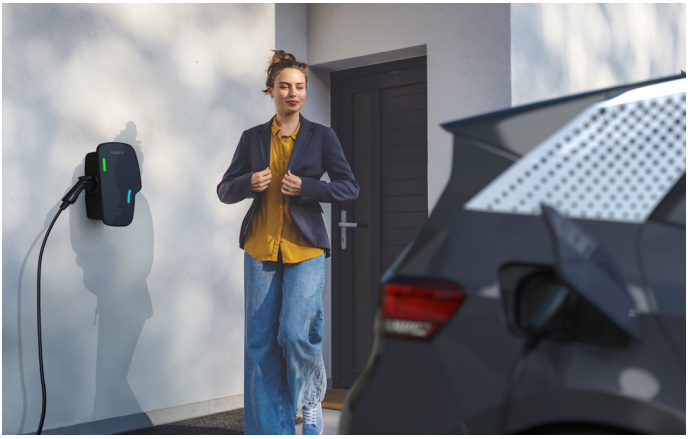
Clean the enclosure.

The advice above does not replace any local or national regulations. Quarterly inspection and testing is recommended for Chargepoints used frequently or heavily. Operators can adjust the maintenance schedule based on usage but must always meet the minimum legal requirements.

Watch the installation guide

INSTALLER
Please attach charge point ID label here

CUSTOMER, please find your charge point ID label here



EVZM-01-V03-R1RolecZuraIntelligentEVChargingUnit-InstallationandOperationManual

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