ecotap®
A brand of legrand®

Single Wallcharger Nuvia

Product guide

V.20260925

Table of Contents

Introduction....4
1. Safety instructions and warranty disclaimer....5
1.1 Disclaimer....5
1.2 Explanation of safety icons and instructions....6
2. Product overview....7
2.1 Exterior....7
2.2 Details....8
2.3 Interior....9
2.4 Included with the charger....9
3. Preparation of installation site....10
3.1 Site selection....10
3.2 Equipment....10
3.3 Power connections....10
3.3.1 Star connection....11
3.3.2 Branch sleeve connection....11
3.4 Communication infrastructure....11
3.4.1 GSM connection....12
3.4.2 LAN connection....12
4. Installation....13
4.1 Wall mounting....13
4.2 Ground mounting with stand....15
4.2.1 Stand with foundation....15
4.2.2 Stand without foundation; Baseplate....17
4.3 Electrical installation....19
5. Commissioning....20
5.1 Initial startup....20
5.2 Activating charger....20
5.3 Testing charger....21
6. Configuration....22
7. Charging methods....25
7.1 RFID....25
7.2 Plug & Charge ISO15118*....25
8. Care and maintenance....26
9. Troubleshooting & Support....27

9.1 Requesting support....27
9.2 Charger status and LED indications....27
10. Legal....28
10.1 CE Declaration....28
10.2 WEEE....28
10.3 Warranty....28
10.4 Returns....28
11. Appendix....29
I Technical specifications....29
II Product dimensions....32
III Drilling pattern....33

Introduction

This manual applies to the Ecotap Single Wallcharger Nuvia, produced by Ecotap B.V., Kruisbroeksestraat 23, 5281 RV Boxtel, The Netherlands. The Single Wallcharger Nuvia is intended solely for charging electric vehicles. Use this manual to ensure proper installation and commissioning.

All installation, commissioning, and maintenance work must be carried out by a qualified electrician, who must comply with NEN1010 and NEN3140 or country equivalent.

This document has undergone technical review and is updated regularly. Although Ecotap strives to keep the information accurate and current, the company accepts no liability for any damage or issues arising from the use of this manual.

This product guide is intended for a standard installation. For more information on installations with Plaza-grid, Load balancing and Energy management systems, refer to the relevant guides on ecotap.zendesk.com.

The Ecotap B.V. general terms and conditions apply.

1. Safety instructions and warranty disclaimer

Safety is essential for both Ecotap and our installers. High power flows through our charging products, which can be dangerous if handled incorrectly. Therefore, installation and maintenance must be performed according to the proper safety standards.

1.1 Disclaimer

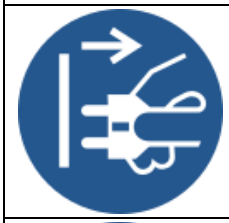
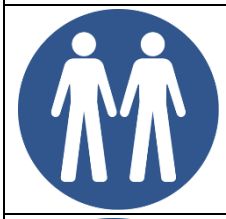
Please read these instructions carefully before installing the charger and keep them ready for future reference.

- Installation and service must be performed by qualified personnel only. (NEN3140)
- Always disconnect the main power supply before installation, maintenance, or repair.
- Ensure the charger is properly grounded according to NEN 1010 and IEC 61851 standards.
- Follow all local and national wiring regulations.
- Perform a last-minute-risk-analysis before working on Ecotap products.
- Do not modify or bypass any features.
- Never touch live parts. Risk of severe injury or death.
- Make sure the power network matches charger specifications.
- Avoid sharp bends or tension on charging cables.
- Do not install or operate in standing water or during heavy rain without proper protection.
- Do not install near flammable materials, explosive gases, or heat sources.
- Do not insert objects into connectors or openings.
- Do not clean with high-pressure water jets.
- Do not operate outside the specified temperature range (-25 °C to +50 °C).
- Do not use if cables or connectors are damaged.
- Do not use extension cords or adapters.

This installation guide is provided for informational purposes only. Ecotap B.V. assumes no liability for any damage, injury, or loss resulting from failure in case of:

- Failure to comply with this manual or operating conditions.
- Improper use or abuse.
- External damage or environmental conditions outside specifications.
- Installation, commissioning, or repair by unqualified persons.
- Unauthorized modifications, customizations, or configuration changes.
- Use of non-approved spare parts or accessories.
- Failures caused by grid issues, connectivity providers, or back-office systems.
- Situations beyond Ecotap’s control (force majeure).
- Damage to the electrical vehicle during charging.

1.2 Explanation of safety icons and instructions

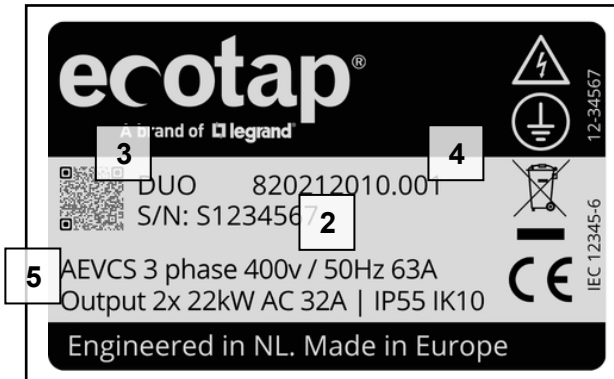
Safety symbols description	
Symbol	Description
	Caution: Dangerous situation that can result in human injury or death.
	Attention: Dangerous situation that can result in material damage.
	Disconnect power and check voltages to make sure the charger is not live.
	Wear insulated gloves.
	More than one person needed.
	Important information.
	Ground
	High voltage

2. Product overview

2.1 Exterior

No.	Part	Function
1	LED indicator	Red, green and blue LED communicate the status.
2	Socket / Charging cable	Outlet for electricity, plug in your charging cable here. / Cable that goes into the EV.
3	Power input	Power input from grid to charger.
4	Antenna	For communication over GSM.
5	Lock	Charger opens here for maintenance. Check maintenance guide for instruction.
6	Identification sticker	Sticker contains serial number and other important information about the product.

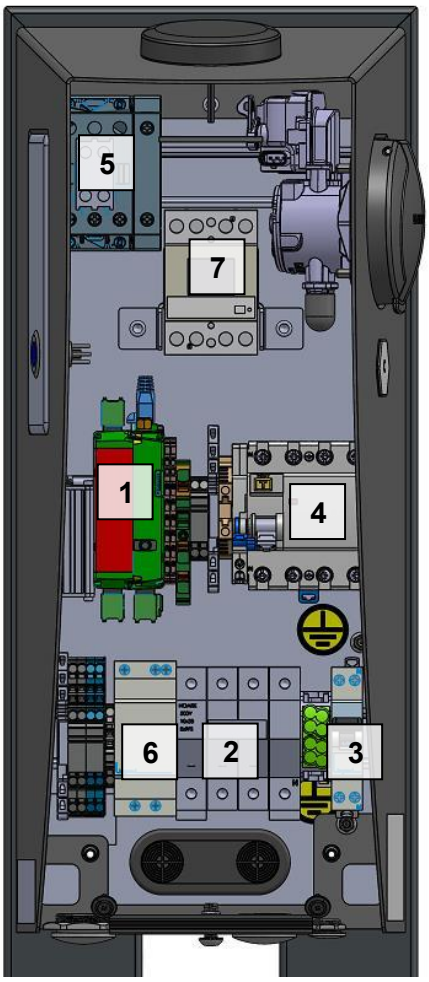
2.2 Details



Identification sticker detail

No.	Part	Function
1	RFID reader	Receives signal from charging tag to start or end session.
2	Serial number	Unique number that indicates that specific charger.
3	Product type	The product name of your Ecotap charger.
4	ArticleNr.	Number that indicates specific type of charger.
5	Charger specifications	States power specifications, charger output, and physical protection values.

2.3 Interior



No.	Part	Function
1	ECC Controller	Computer that manages charger. Has USB-C port to access charger setup dashboard.
2	Main fuse holder	Interrupts the flow of electricity if the current exceeds safe limits.
3	Miniature Circuit breaker	Automatically cuts power during overcurrent or short circuits.
4	Residual current device	Detects leakage current to earth and disconnects power for safety.
5	Contactor	Controls flow of AC power in a circuit
6	Power supply	Supplies the circuit with power.
7	Energy meter	MID certified meters measure the energy throughput

2.4 Included with the charger

- Charger
- Mounting plate
- Mounting brackets
- Hardware
- Plugs

3. Preparation of installation site

3.1 Site selection

Choosing the right location for the charger is essential for safety, performance, and user convenience. In addition to all applicable local regulations, it is crucial to consider the following:

- Make sure the site is easily accessible for vehicles and allows safe manoeuvring.
- Follow local regulations regarding placement on sidewalks, fire exits and escape routes.
- Avoid areas prone to flooding, excessive dust or corrosive environments. Ensure the operating temperature range is according to specification: -25°C to +50°C.
- Maintain sufficient space around the charger for ventilation, maintenance and safe cable handling. We recommend a clear space of 1m around the charger.
- Make sure the placement site is near a power distribution point, minimizing the cable length needed.
- Check your power connection to see if there is a 3-phase connection for the charger.
- We recommend using a foundation for the most durable installation of standing chargers.

3.2 Equipment

Before installing, make sure you have the correct tools for installing the charger. In addition to safety equipment, we recommend having the following equipment on hand:

Location preparation	**Mounting of the charger**	**Installing the charger**
Digger/Shovel	Screwdrivers	Screwdriver
Level	Torx set	multi-meter
Measuring tape	Torque wrench	Cutting pliers
	Drill (wall mounting)	Crimping pliers
		Socket wrench set
		Crimp connector

3.3 Power connections

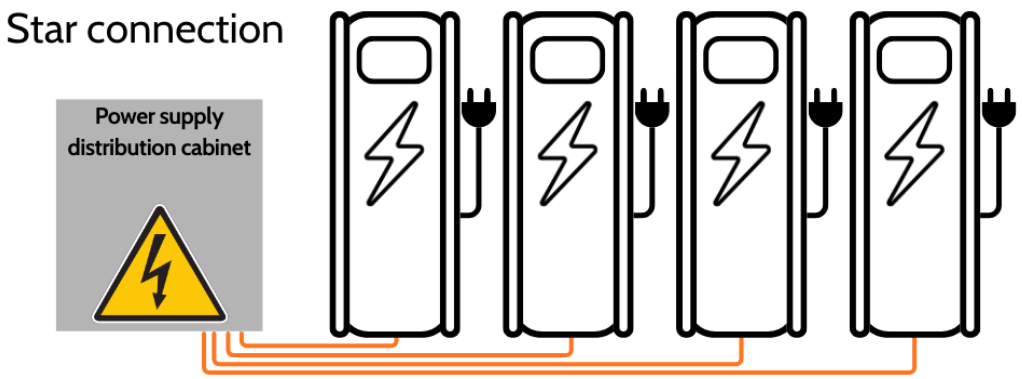
In the product spec sheet, you will find the power input specification for the charger. Please note that different power structures require different specifications. Check your product to make sure the correct power structure is considered. The charger supports a star connection, and branch-sleeve connection. These connection types cannot be combined. Be aware of the limitations of each connection type and consider which is most suitable for your situation.

	Mind the electrical limits of the hardware, and consider critically which installations are technically feasible

3.3.1 Star connection

All devices are connected to a central point (hub or distribution block). Each device has its own dedicated cable running to the central point.

Fuse holder input connection Max.: 16mm²
Diagram:

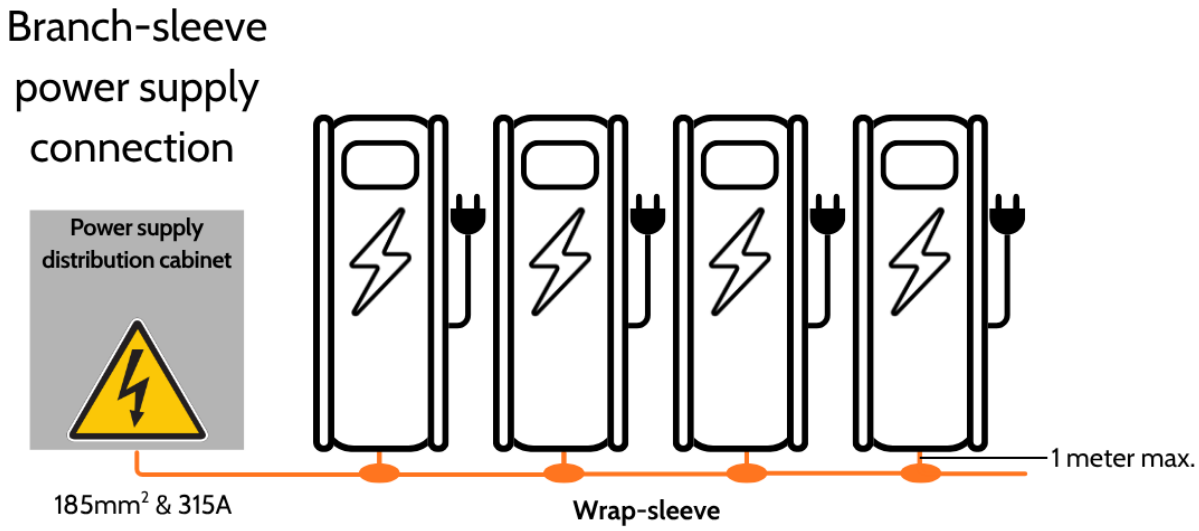


3.3.2 Branch sleeve connection

A main cable runs through, and branch connections are made using sleeves or connectors without cutting the main cable completely.

Fuse holder input connection Max.: 16mm²

Diagram:



3.4 Communication infrastructure

In order to let the charger communicate with a backoffice or service, there is need for a network connection. The charger has two ways of connecting to the network, via GSM or via ethernet. Please

keep in mind what connection is going to be made to ensure you have the right infrastructure in place before you begin installing.

3.4.1 GSM connection

GSM connection is the standard way of connecting to a network. For this connection to be set up, there is need for a SIM card, and there needs to be a stable antenna connection. We recommend a signal strength of at least -60dBm (see I Technical specifications).

To connect over GSM, there is need for a SIM card. Please note that switching SIM card to a different provider means that changes need to be made to the settings of the charger. Please refer to chapter 6. Configuration to learn more.

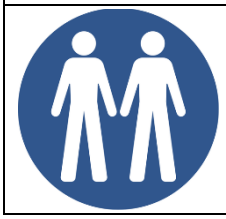
3.4.2 LAN connection

It is possible to connect the charger to a network via an ethernet cable. With this cable, you can provide a wired network connection without the need for a GSM connection and SIM. For a reliable network connection, we recommend using at least CAT5e UTP cables to connect to a network.

The cable length needs to be sufficient for reaching the connection point on the charger controller.

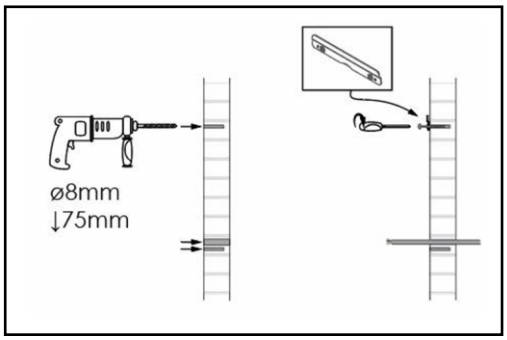
4. Installation

Ecotap chargers have various methods of installation, several products can be installed on the wall or on a stand.

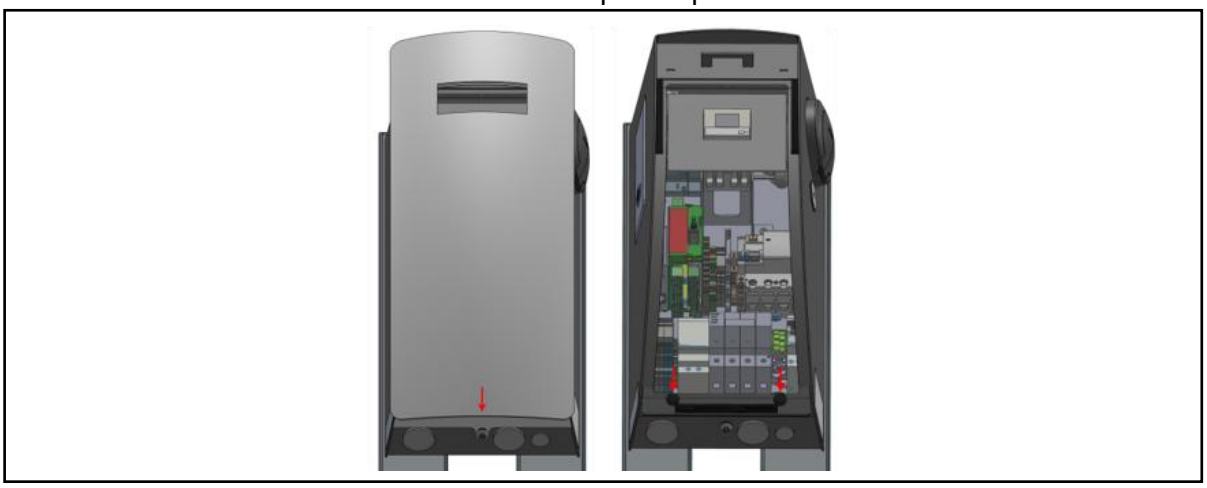
	Always follow the safety precautions and standards outlined in the Safety Instructions of this manual. Failure to do so may result in injury, damage, or improper operation.
	Always handle the charger with care, to prevent damage to the paint, body or components.
	More than one person needed.

4.1 Wall mounting

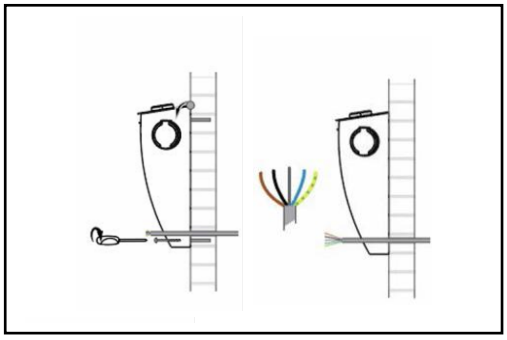
Follow these steps for a safe and durable product installation:



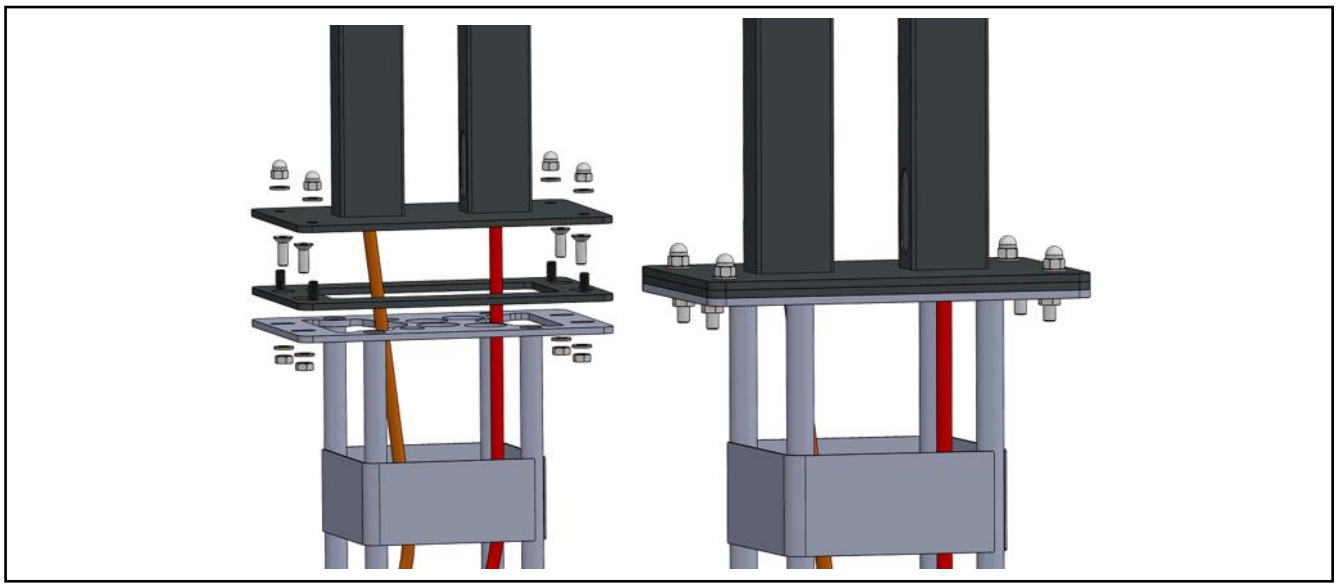
1. Determine the desired height of the charger
    a. Ecotap recommends the height compliant with the EU Accessibility Act to ensure ergonomic access for all. Read more on commission.europa.eu.
2. Open the charger
    a. Remove torx at the bottom of the charger
    b. Remove the shield by tilting and then lifting it up.
    c. Unscrew the screws in the bottom of the transparent plate



3. Drill holes in the wall (ø8mm) corresponding to the drilling pattern (Appendix III Drilling pattern). Make sure the charger is installed level. Mind the length of the screws and use plugs.
   Please note: make sure the wall can hold the charger.
4. Insert the plugs in the wall
5. Install the rails on the wall with two screws in the top two holes. Make sure the hook is point up and the rail is level.



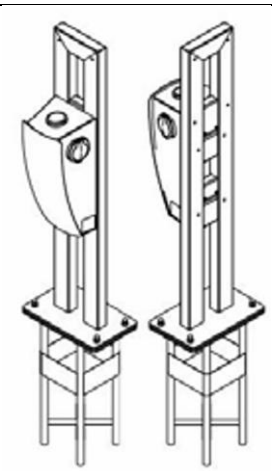
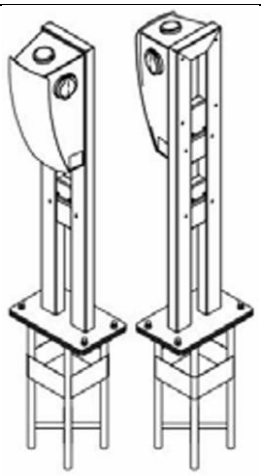
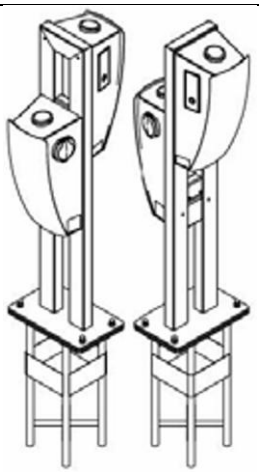
6. Position the charger on the rails and insert the cable through the rear.
7. Hang the charger on the installation rail.
8. Install the bottom 2 screws

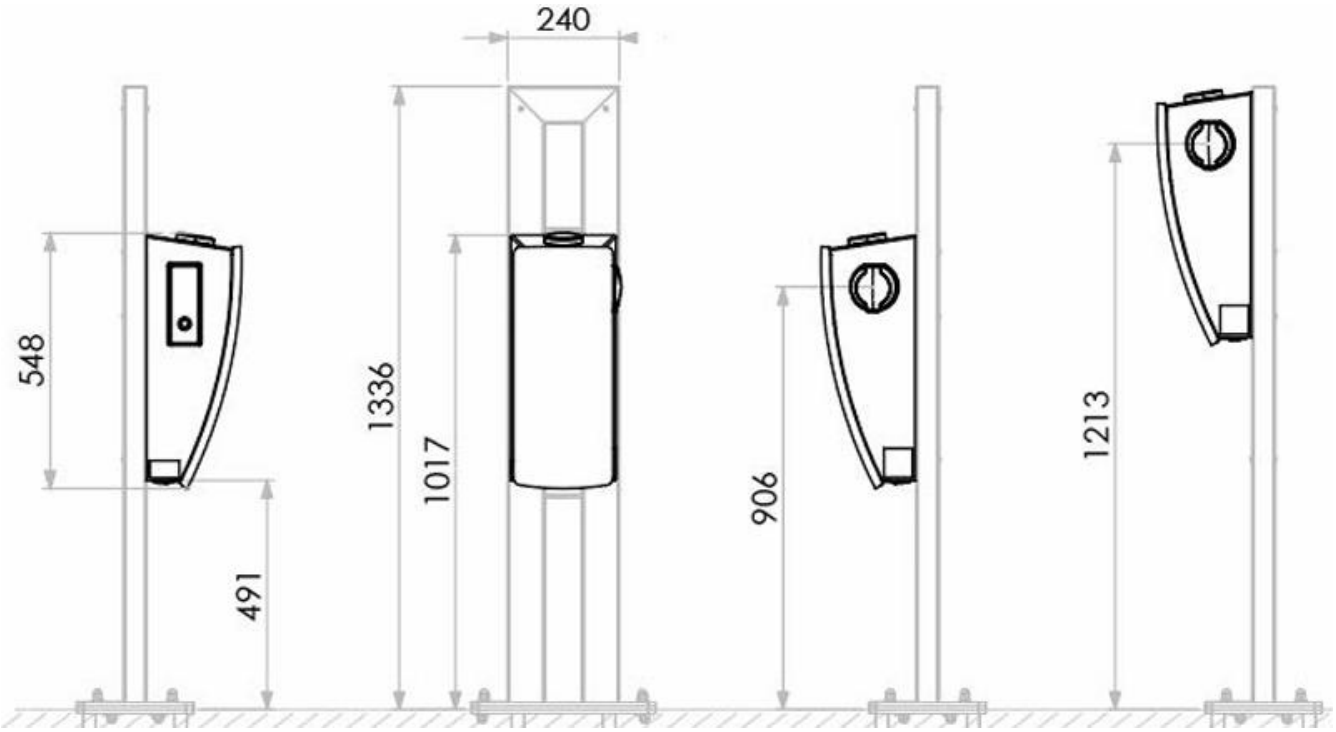


9. Check if the charger is fully stable and level.

4.2 Ground mounting with stand

The Single Wallcharger can be mounted on a versatile stand, with two height options, and one or two chargers per stand. This stand can be placed on a concrete floor, or on a foundation for the most durable installation.

		
Ergonomic	High	Dual



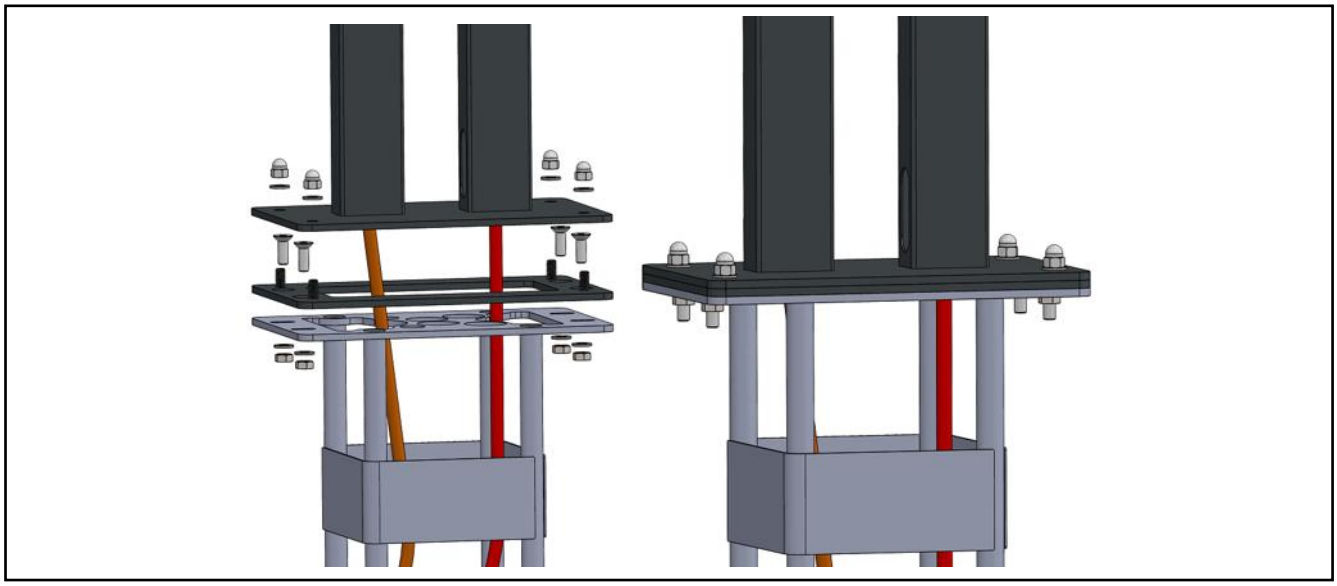
4.2.1 Stand with foundation

Follow these steps for a safe and durable product installation:

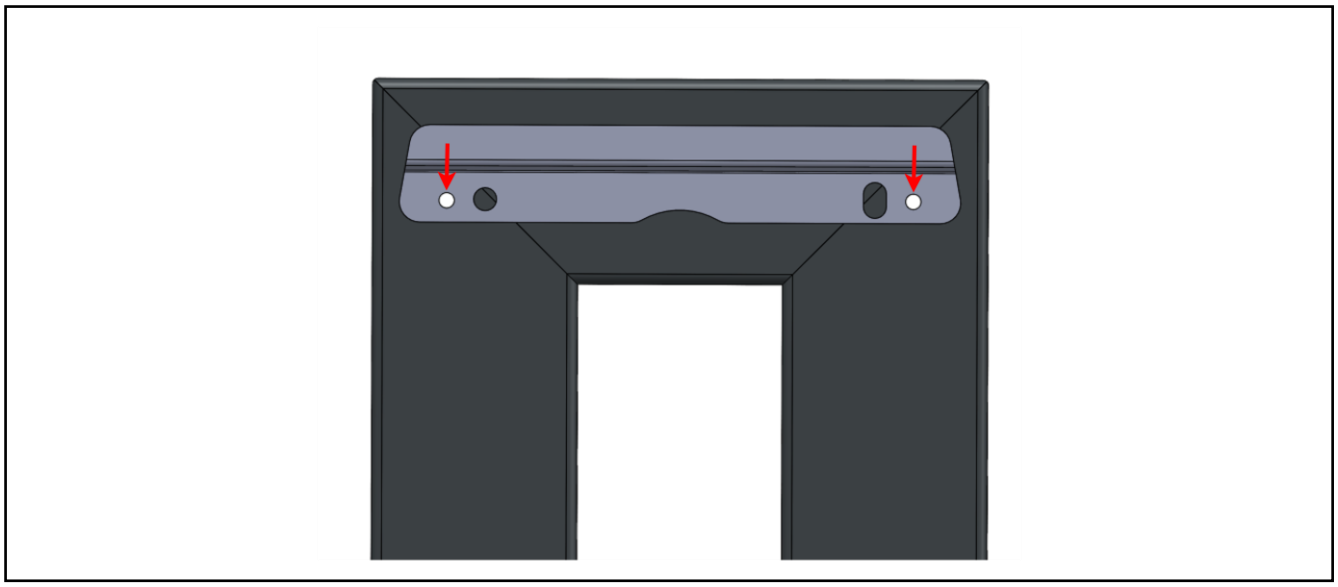
1. Remove surface covering such as tiles
2. Dig a hole of 45m by 30cm and 60cm deep

3. Manoeuvre the cable into position

   a. Make sure the cable could reach the top of the stand to ensure enough cable length for installation.
4. Place the foundation in the correct orientation
5. Make sure the foundation is level
6. Add cement and water, and mix it in the hole
   a. Minimum of 25 kg cement.
7. Fill the remains of the hole with sand/dirt.
8. Attach the stand to the foundation with 4 × M12 bolts.

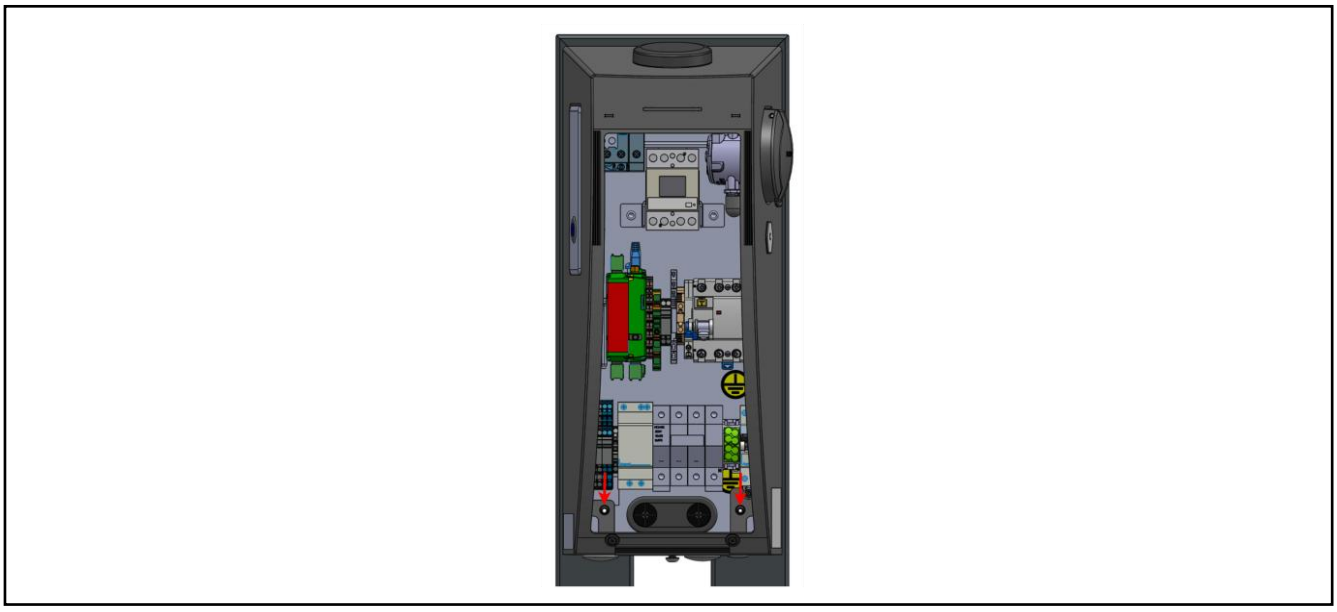


9. Replace the surface covering around the stand
10. Mount the rails on the stand at the desired height.



11. Open the charger
    a. Remove torx at the bottom of the charger
    b. Remove the shield by tilting and then lifting it up.
    c. Unscrew the screws in the bottom of the transparent plate

12. Hang the charger on the rails
13. Screw the charger to the stand with two screws near the bottom of the charger interior.



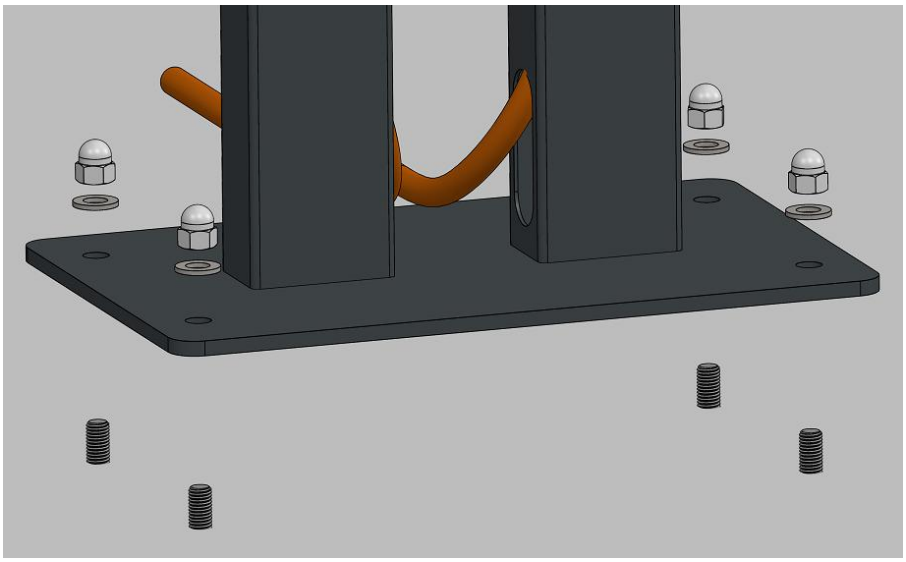
14. Feed the cable through the stand into the charger
15. Fasten the cable gland
16. Check if the charger is fully stable

4.2.2 Stand without foundation; Baseplate

Chargers can be installed on a baseplate instead of with a foundation. This is only possible for concrete surfaces, where the installation does not easily damage or crack the ground surface. Follow these steps for a safe and durable product installation:

1. Drill holes in ground surface corresponding to the baseplate
2. Make sure the stand is level
3. Attach the stand to the ground surface

a. 4 × M12 bolts



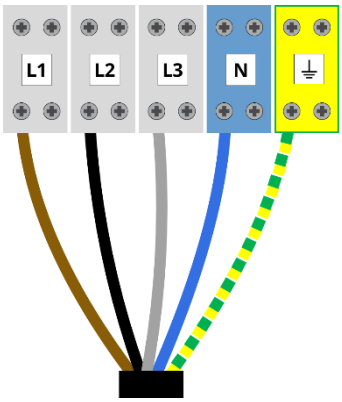
4. Mount the rails on the stand at the desired height.
5. Open the charger
    a. Remove torx at the bottom of the charger
    b. Remove the shield by tilting and then lifting it up.
    c. Unscrew the screws in the bottom of the transparent plate
6. Hang the charger on the rails
7. Screw the charger to the stand with two screws near the bottom of the charger interior.

8. Feed the cable through the stand into the charger
9. Fasten the cable gland
10. Check if the charger is fully stable.

4.3 Electrical installation

	Always follow the safety precautions and standards outlined in the Safety Instructions of this manual and work according to NEN3140. Failure to do so may result in injury, damage, or improper operation.
	Wear insulated gloves when working with electrical wires.

All wiring connections must be made according to NEN1010/EU/35



1. Strip the cables
2. Mount the cable lugs
3. Connect the cables in the correct order:
    a. Ground
    b. Neutral
    c. L1, L2, L3
4. Turn on the charger.
    a. Switch on earth leakage circuit breaker
    b. Test earth leakage circuit breaker
    c. Switch on earth leakage circuit breaker
    d. Switch on Miniature Circuit Breaker

Wait approximately 5 minutes for the green charger LED to turn on. This means the charger is online.

5. Commissioning

5.1 Initial startup

After you power the charger for the first time, it will run through a normal startup sequence.

- The charger begins booting, and the red LED will show that the system is starting.
- The first startup can take longer than usual because the charger is setting up its internet connection.

Once the green LED turns on, the charger has finished its commissioning and is ready for use.

5.2 Activating charger

All chargers that require charging management need to be activated in the backoffice. The activation method depends on the chosen backend/CPO. Chargers can be activated via Ecosphere, LMS Ecotap or a third-party backend.

	Activation can take up to **two working days**. Without activation, an installed charger cannot be tested. Chargers can be activated prior to installation, so they can be tested right after installation.

Have this information ready:

- Ecotap customer number (customer number of charging station owner)
- Controller number (on controller)
- Intended backend/CPO (e.g., LMS Ecotap or a third-party)
- Installation address
- Technical installation details (e.g., grid-plaza, load balancer, etc.)

Charger must be powered on and network ready (LAN/4G).

For the full instruction, go to ecotap.nl/activation, or scan the QR code inside the charger.

5.3 Testing charger

	All chargers must be tested after installation. AC and DC chargers can be tested with an electric vehicle or with testing equipment. Ecotap recommends testing with an electric vehicle.

Testing with an electric vehicle

1. Plug the cable into the vehicle.
2. Start the charging session. (See 7. Charging methods)
3. Let it charge for a minute.
4. End the charging session.

During the testing period, the car should start charging, the charger should indicate that the session is working with a blue LED and/or an indication on the display. When ending the session, the LED should go back to green.

Testing with testing equipment

To test with an EV charger testing device, follow the instructions provided with the testing device.

6. Configuration

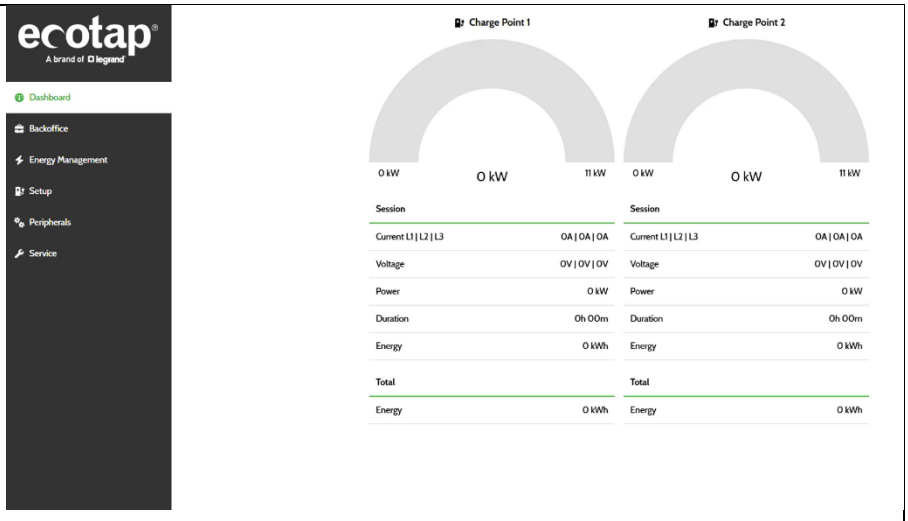
To configure the charger, you possibly need to change a few key settings.

1. Connect the ECC controller to your laptop with a USB-C cable.
2. Open a web browser on the laptop and go to 192.168.120.1
3. Login using credentials.
4. The charger interface can be used to check settings, configure the charger and more.
5. The charger is delivered with standard settings out of the box, be sure to check and adjust if necessary.

	Default credentials: Login: service Password: service1 It is important to remember the login credentials if they have been changed, because there is no password recovery available.

A number of settings must be configured differently when the setup is non-default, such as a setup with a load balancer, an Energy Management System (EMS), or a plaza-grid setup.

Refer to the relevant guides on ecotap.zendesk.com.

Dashboard This tab shows the status of the charger and charging session.	

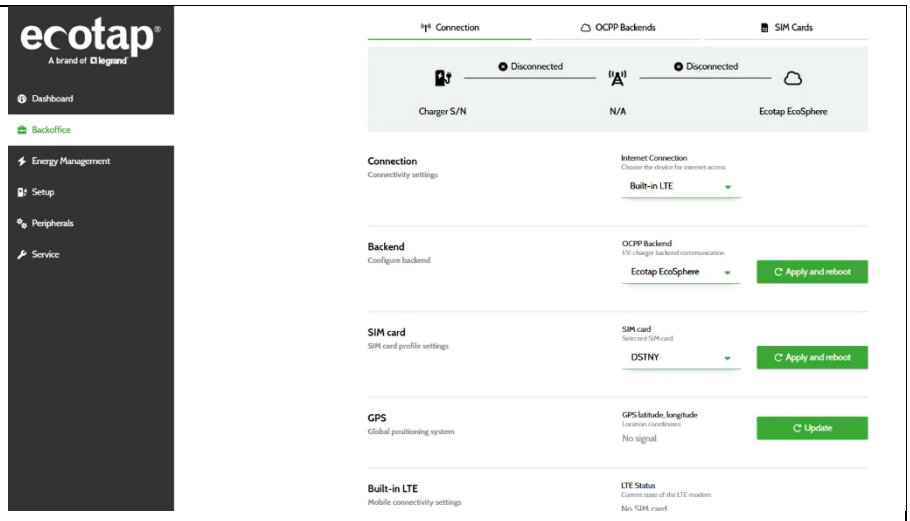
Backoffice

This tab shows all relevant information for the backoffice.

Connection:
Settings for communication method and chosen backend.

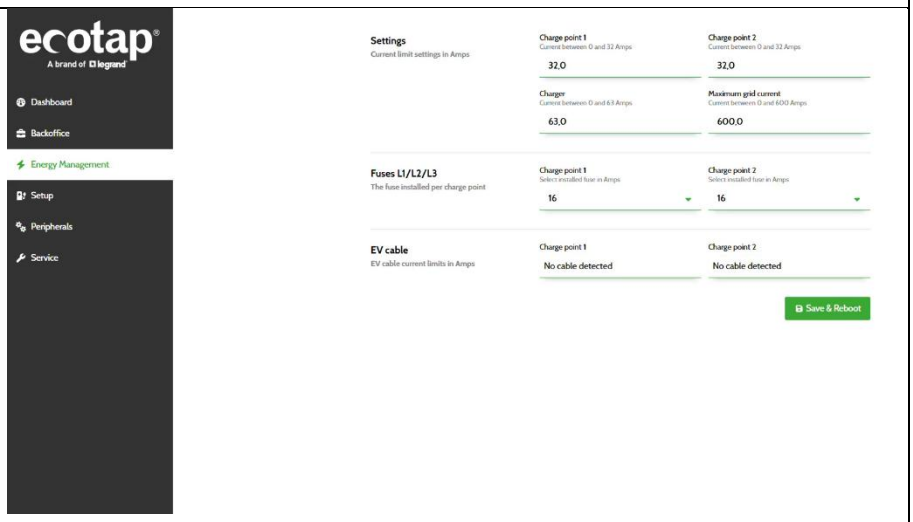
OCPP Backends:
New backend connections can be added here.

SIM Cards:
New APN connections can be added here.



Energy Management

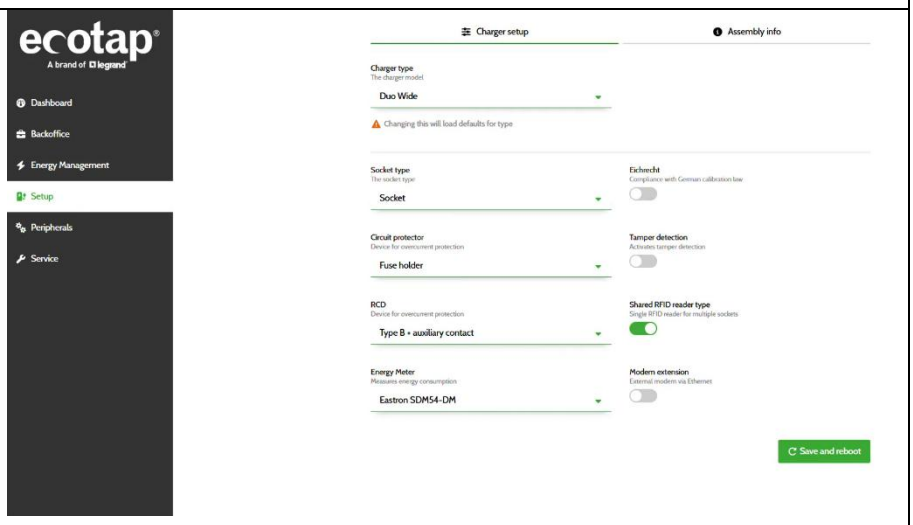
Power related settings can be changed on this tab. This can be done for the charger as a whole or per specific charge point.



Setup

- Charger setup

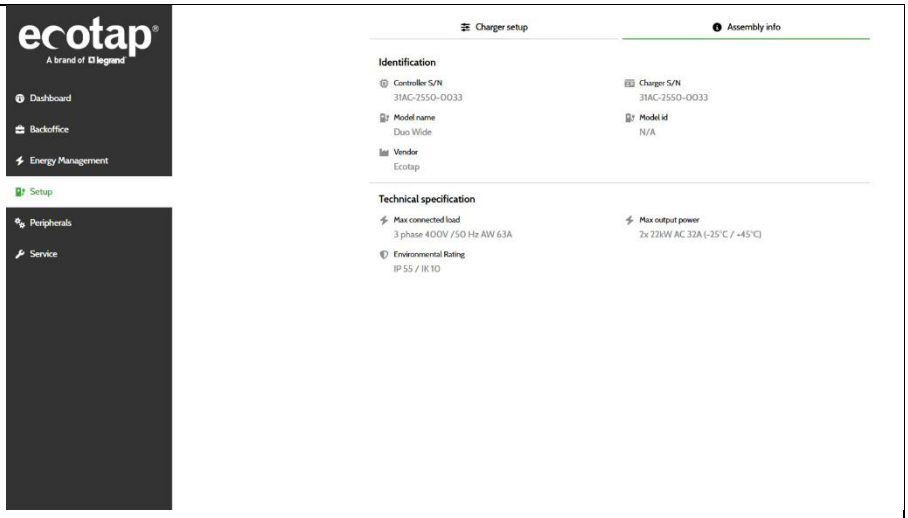
This tab can be used to setup technical specifications; these settings are specific for the components inside the charger.



Setup

- Assembly info

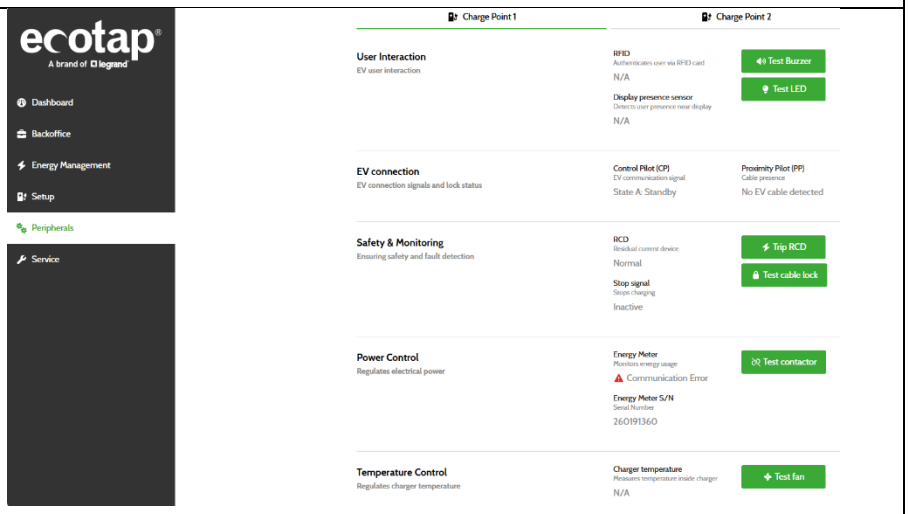
This tab shows the product identification information and several technical specifications.



Peripherals

This tab shows the status of several aspects of the charger.

Communication- and electrical components can be tested per charge point.

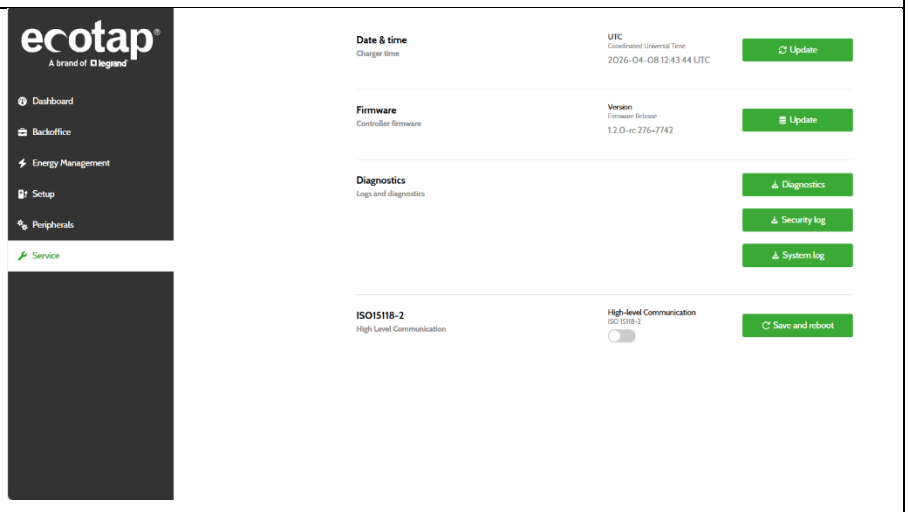


Service

Firmware can be updated on this tab.

Important logs necessary for service can be downloaded here.

The High-Level Communication switch enables ISO 15118-2 communication



Refer to the complete Maintenance interface guide for more information.

7. Charging methods

Depending on the CPO and charger type, there are several ways of starting and ending charging sessions. Single Wallcharger Nuvia supports the following:

- RFID
- ISO15118 Plug&Charge

7.1 RFID

- Every charger includes an RFID reader. Simply use your charging tag to start and stop a charging session quickly and easily.
- Starting a charging session
    - Insert cable to car & charger
    - Scan tag
- Ending a charging session
    - Scan tag
    - Remove cable from car & charger

7.2 Plug & Charge ISO15118*

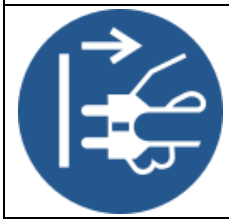
- Your car acts as the identifier. Just plug in, and charging begins automatically, no tag or extra steps needed.
- Starting a charging session
    - Insert cable to car & charger
    - Session starts
- Ending a charging session
    - End session from the vehicle interface
    - Remove cable from car & charger

*High-Level communication must be enabled via Maintenance Interface (6. Configuration). The vehicle must also support the ISO15118 Plug & Charge protocol.

8. Care and maintenance

Regular maintenance keeps your charger safe, reliable, and efficient.

- Extends lifespan by preventing wear and damage.
- Ensures safety by avoiding water ingress and loose connections.
- Maintains performance.

	For detailed steps and safety instructions, always refer to the complete maintenance guide for your charger on ecotap.nl/downloads.
	Disconnect power and check voltages to make sure the charger is not live.

General Maintenance for All Chargers

Perform these checks regularly, according to the maintenance guide:

- Exterior Cleaning: Wipe the outside with water and mild cleaner using a soft cloth. Avoid high-pressure water.
- Interior Cleaning: Remove dust, dirt, and insects inside the charger.
- Check Seals & Rubbers: Inspect sealing rubbers and antenna seals for cracks or gaps.
- Inspect for Water & Corrosion: Look for leaks or rust inside and outside.
- Ground Connection: Ensure earth connections are secure.
- Functional Test: Run a full charging test at least once a year.

9. Troubleshooting & Support

9.1 Requesting support

Support during installation
Ecotap offers support to installers. Support requests can be submitted via: ecotap.zendesk.com.

	If you expect to require assistance during installation, please **request support in advance**. When in doubt, it is advisable to request support beforehand, as Ecotap cannot provide ad-hoc installation assistance. If you do not need support, you are free to cancel.

Support with malfunctioning chargers
If you currently have a charging installation which has an issue, reach out to your CPO if you have one. If the problem is not solved, contact the appropriate service team through ecotap.nl/helpdesk.

Other support requests
Read through the frequently asked questions on ecotap.zendesk.com.

If you cannot find the solution there, contact us through ecotap.nl/helpdesk.

9.2 Charger status and LED indications

	Continuous	Flashing
Green	Ready to use.	Four possible scenarios: 1 EV plugged in, waiting for user action to proceed. 2 Waiting for EV to be plugged in. 3 Analysis under progress after any user action. 4 EV fully charged, waiting for user to end session.
Red	Error without vehicle plugged in.	Three possible scenarios: 1 Error with vehicle plugged in. 2 Authentication failed. 3 Payment failed.
Blue	Charging.	-
Off	No power.	-

10. Legal

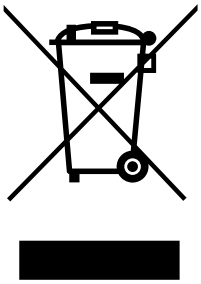
10.1 CE Declaration

Ecotap B.V. hereby declares that the Single Wallcharger Nuvia charging station complies with the essential requirements of the EMC 2014/30/EU, LVD 2014/35/EU, RoHS 2011/65/EU and RED 2014/53/EU directives.

See the full declaration on ecotap.nl.

10.2 WEEE

Ecotap products comply with the requirements of the WEEE Directive (2012/19/EU).



Electrical and electronic equipment contains materials and components that can be harmful to people and the environment if they are not disposed of properly. Products marked with the crossed-out wheeled bin symbol fall under this category. This symbol means the equipment must be collected separately and may not be thrown away with regular household waste.

Please contact your local authority for information on available collection or recycling programs. They can direct you to designated recycling centres or collection points where waste electrical and electronic equipment can be safely disposed of.

10.3 Warranty

Ecotap products are covered by a standard warranty period as specified in the Ecotap General Terms and Conditions, unless stated otherwise. All warranty provisions, limitations, and conditions are governed by the Ecotap General Terms and Conditions, which can be found on ecotap.nl.

10.4 Returns

Product returns are only accepted when approved in advance by Ecotap. Returned items must meet the applicable return conditions as outlined in the Ecotap General Terms and Conditions. All requirements, and limitations for returns are governed by the Ecotap General Terms and Conditions, which can be found on ecotap.nl.

11. Appendix

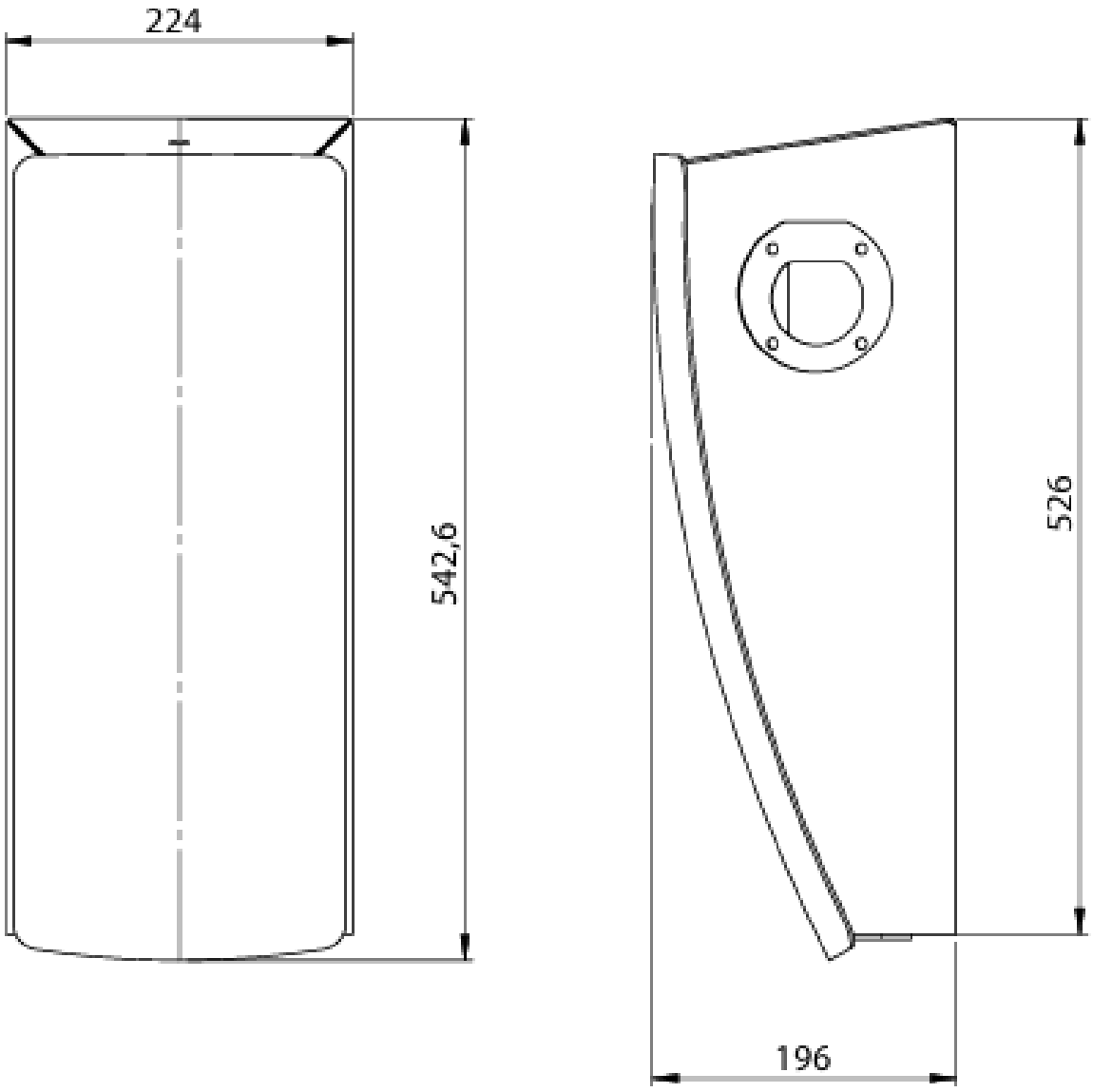
I Technical specifications

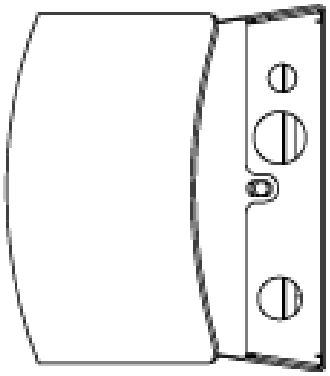
GENERAL CHARACTERISTICS	
Reference number	810112001 / 810122001 / 810122003 / 810122005 / 810122002
Reference number (Eichrecht)	810112003 / 810122004
Dimension H x W x D (mm)	530 x 220 x 200
Casing material	Steel 2,2 mm
Standard colour	Body: Ral 7011 / Cover: Ral 9016
Surface treatment	Anti-corrosion (KTL) and powder coating
Weight (kg)	10 kg excl. cable
Number of charging points	1
Socket	Type 2
Cable	Type 2
ELECTRICAL CHARACTERISTICS	
Power output per socket	0-22 kW
Operating voltage (Ue) / Rates current (In A) for the charger	Single-phase cabling, phase + N 230V~ from 0 to 32A (determined at 20°C) Three-phase cabling, 3 phases + N 400V~ from 16 to 32A (determined at 20°C)
Impulse voltage (Uimp)	4kV
Insulation voltage (Ui)	230V single-phase 500V three-phase
Frequency (fn)	50Hz/60Hz
Rated voltage	1 phase + N: 230V - 3 phases + N: 400V
Voltage tolerance (V) regardless of vehicle requirements	195V - 265V
Integrated protection system per charge point	Fuse type gG 32A + RCD 40A 30mA Type B Fuse type gG 32A + RCD 40A 30mA Type A + 6mA DC Fuse type gG 32A
Conditional short-circuit	100kA IEC/EN 60898-1
Allowable thermal stress in Short Circuit	16 000 A^2s

Connection to the mains	Phase/Neutral, rigid cable, 2.5 to 25 mm², screw terminals H07 V R/U Earth, rigid cable, 2.5 to 25mm², screw terminals H07 V R/U
Type of load	Mode 3 charging terminal equipped with a locking system for Mode 3
Vehicle connection Mode 3 connector socket	Type 2 3P+N (single-phase compatible) with pilots compliant with IEC 62191-1 and IEC 62196-2. Use only a manufacturer-approved plug with silver plated contacts. Use of extension and adapter prohibited.
Vehicle connection Mode 3 attach cable connector	Type 2 3P+N (single-phase compatible) with pilots compliant with IEC 62191-1 and IEC 62196-2. Use of extension and adapter prohibited.
AC meters	MID certified, Class B according to EN 50470-1, -3
Back office protocol	OCPP 1.6J, 2.0.1 and OCPP 2.1-ready
Positioning	GPS
Connectivity Ethernet	RJ45 connector
Connectivity external systems	RS-485, Plaza-grid CAN, OCPP Smart profiles, Modbus TCP-IP
ENVIRONMENT	
Operating temperature	-25°C / +50°C
Storage temperature	-25°C / + 80°C
Relative humidity	0 to 90% without condensation
Protection rating	IP 54 (IEC 60529), IK 10 (EN 62262) Plugged in or not
Noise level	< 40 dBA at 1m
Product	IEC 61851-1, IEC TS 61439-7 (AEVCS)
Installation	Interior or exterior, limited access zone, intended for use by ordinary persons (DBO), assembly in cabinet (wall mounted), Pollution Degree 3, TNS, TT,compatible earthing system. In the event of an IT earthing system, this can be changed locally by adding an isolation transformer.
Electrical safety	Class 1 IEC 61140
COMPLIANCY	
European standards	Low Voltage Directive 2014 / 35EU / EMC Directive: 2014 / 30 / EU

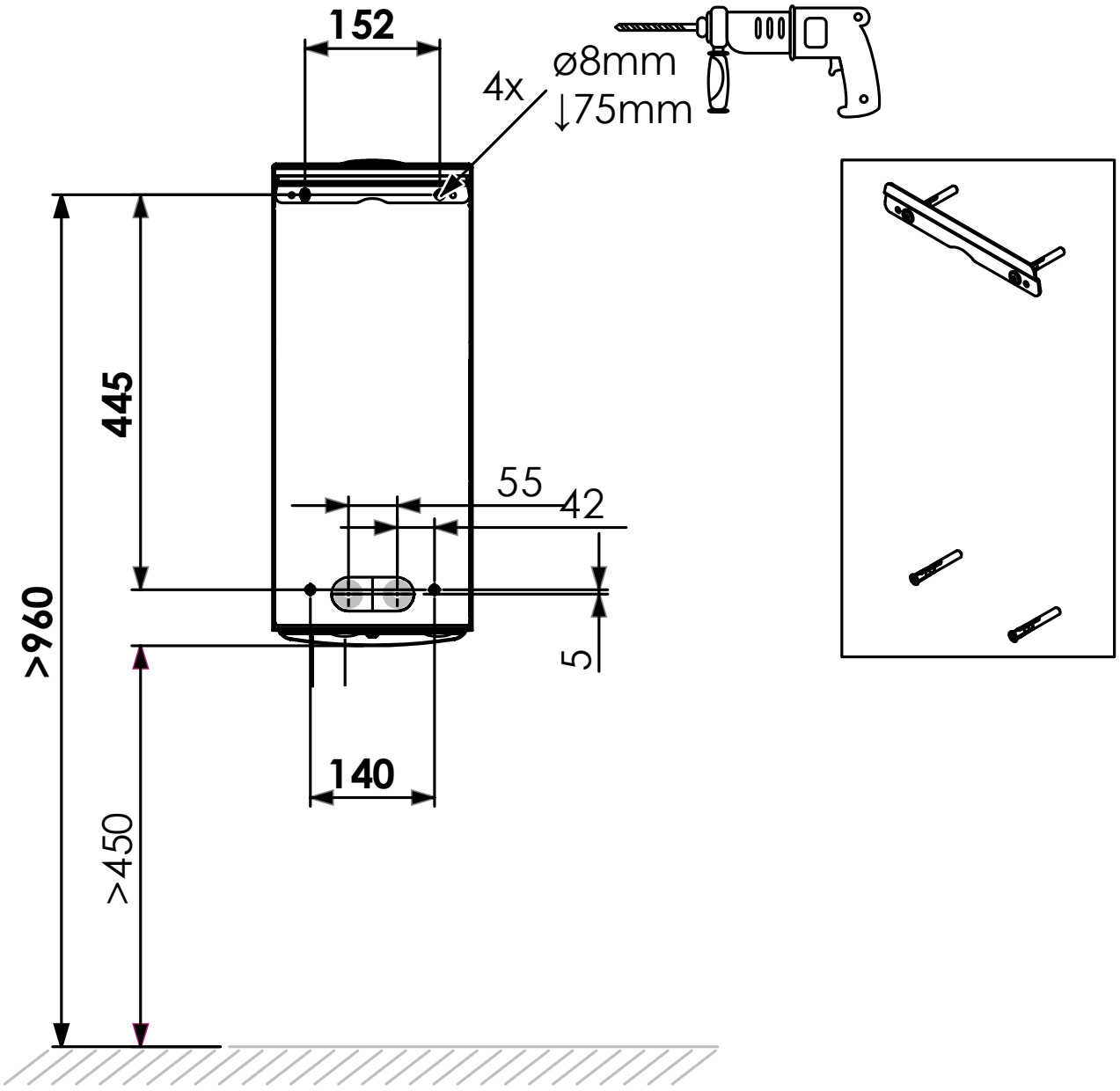
Radio technology type	GSM 2G/3G/4G, GPRS, RFID
Suitable charging cards	Mifare, Ntag and iCODE SLI cards

II Product dimensions





III Drilling pattern



Ecotap B.V.
Kruisbroeksestraat 23
5281 RV Boxtel
+31(0) 411 210 210
info@ecotap.nl