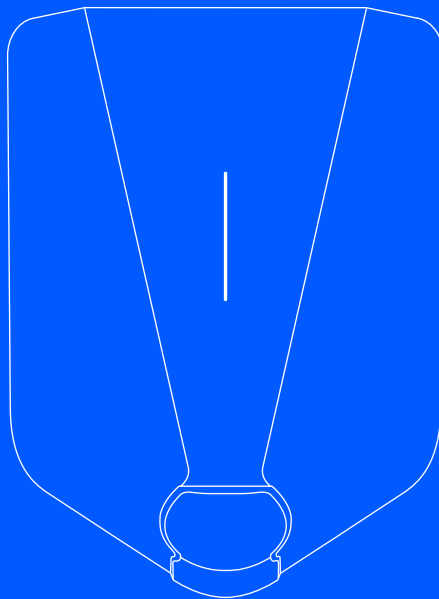


easee



EN Installer guide

# Easee One

# Introduction

Read the Important product information guide in the product packaging or at [easee.com/manuals](https://easee.com/manuals) before installing the product.

Installation and operation of the product require a mobile device with internet connection.

## WARNINGS AND CAUTIONS

A Warning indicates a condition, hazard or unsafe practice that can result in serious personal injury or death.

A Caution indicates a condition, hazard or unsafe practice that can result in minor personal injury or damage to the product.

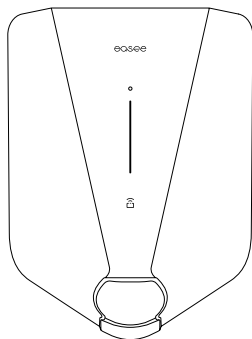
## WARNING

This product shall only be installed, repaired or serviced by an authorised electrician. All applicable local, regional and national regulations for electrical installations must be respected.

## NOTE

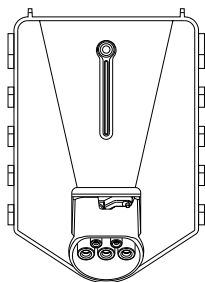
**PIN code:** The PIN code is required for installation and located on the front of the Chargeberry. It is recommended to keep the PIN code for safe keepings, e.g inside the fuse cabinet.

# Product overview



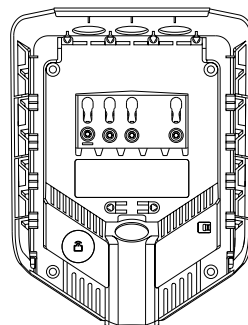
## Front cover

Protects the electronics from external influences.



## Chargeberry

Contains the electronics for charging the vehicle.



## Backplate

For attaching and connecting to the charging infrastructure.

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## Installation kit



Strain relief  
x 2



Blind plug  
x 3



Sealing plug  
x 2



x 5



x 4

## Tool



x 1

# Technical specifications

## General

Dimensions	256 x 193 x 106 mm (H x W x D)
Wall mounting	c/c 160 x 125 mm (H x W)
Operating temperature	-30 °C to +50 °C
Weight	1.5 kg

## Sensors and indicators

Light strip with LEDs showing the status of the charger

Touch button

Temperature sensors in all main contacts

## Charging

Charging power	1.4-7.4 kW 6 A - 32 A 1 phase
Connection point	Type 2 socket (IEC 62196-2)
Number of phases	1
Voltage	230 V AC (±10 %)
Mains frequency	50/60 Hz
Load balancing of up to 3 units per circuit	
Built-in energy meter (±2 %)	

## Connectivity

Built-in eSIM (LTE Cat M1/ 2G /GPRS)

WiFi 2.4 GHz b/g/n connection

Easee Link RF™

Control charging via Easee App

RFID/NFC reader

OCPP 1.6 via our API

### Protection

Integrated protection for open / break fault condition in supply PEN conductor according to BS 7671:2018/A1:2020

Built-in RCD for ground fault protection (30 mA AC/ 6 mA DC) according to EN 61008-1 and IEC 62955

Degree of protection IP54 (the backplate is IP22 without cover)

Impact resistance IK10

Insulation class I

Overtoltage category III

### Installation

Installation network TT, TN-S, TN-C and TN-C-S

Installation circuit breaker Max 40 A overload protection.

Wire cross-section up to 16 mm<sup>2</sup> (single cable)/  
up to 10 mm<sup>2</sup> (parallel connection)

Cable diameter 8-22 mm

Terminal torque 5 Nm

Cable strip length 12 mm

# Planning the installation

Prior to the installation, it is recommended that you consider future charging needs, so that you can easily expand accordingly in the future.

If several Charging Robots are connected to the same circuit, the total current is dynamically distributed between them. The connected Charging Robots communicate wirelessly between each other, ensuring the circuit is not overloaded. The maximum charging current is set during configuration.

## For an optimal result

- We always recommend a 3 phase installation if possible, to make it future-proof.
- If possible, use the largest approved cable cross-section (see [Technical specifications](#)).
- Consider the installation of Easee Ready backplates if the acquisition of further Charging Robots is planned for the future.
- To avoid overloading the building's main fuse, the Easee Equalizer can be used for dynamic load balancing. The maximum current value can also be set as required during configuration.

## Special notes for Easee One

- Easee One is specifically designed to comply with clause 722.411.4.1 of BS 7671:2018 A1 (British Standard). It includes a protection mechanism to completely disconnect the vehicle in case an indication of a broken PEN conductor is detected.
- If the charging infrastructure includes more than one Charging Robot, the Charging Robot that is configured first becomes the master of its circuit.
- If more than 2 units are installed, the master unit should be located in the middle of the installation (if possible) for an optimal Easee Link communication.

## Your house, power grid and EV

The Charging Robot automatically adapts to the power grid, the electric car and the capacity of the electrical installation. In the table you can see what charging effect you can expect from your installation and situation. The table is only meant as a guide.

## CAUTION

The type of installation as well as cable cross-sections must be determined by a qualified electrician in accordance with valid local, regional and national regulations for electrical systems.

Indicative Circuit Fuse Size	Rated setting on Charging Robot <sup>1</sup>	1 phase, 230 V TT / TN-S <sup>2</sup>
Ampere (A)	Ampere (A)	Power (kW)
10	8	1,8
16	13	3
20	16	3,7
25	20	4,6
32	25	5,8
40	32	7,4

<sup>1</sup> Protection limit based on max 80% of the fuse rating can be set in the Installer App.

<sup>2</sup> Example for 230 V TT / TN-S, deviating values for other grid types.

## Padlock

It's possible to lock the electronics with a padlock. This will create an extra layer of security (padlock is not included).

Max total lock height	56 mm
Shackle height (outer dimensions)	19 - 20 mm
Shackle thickness	3.2 - 4 mm

## **Residual Current Device (RCD)**

- A Residual Current Device is integrated in the Charging Robot.
- The RCD will break the current in case a residual current exceeding 6mA DC or 30mA AC is detected.
- Disconnection time is according to EN 61008-1 and IEC 62955.
- The RCD is automatically tested between each charging session or at least every 24h.
- For manual initialization of the RCD-test, please refer to the Installer App.
- The integrated RCD has no influence on the function of external protective devices.
- An external RCD is required when at least one of the below conditions are identified:
  - The installation, including cable, junction boxes etc., includes components with only basic insulation (Class I).
  - Any other electrical equipment apart from Easee One, including lamps and socket outlets, is connected to the circuit.
  - Any other conditions identified by the authorized installer requiring an external RCD.
- The internal RCD is considered to provide the required RCD protection for both AC and DC leakage faults when all the below conditions are fulfilled:
  - The installation, including cable, junction boxes etc, is performed entirely with components providing double or reinforced insulation (Class II).
  - No other electrical equipment apart from Easee One, including lamps and socket outlets, is connected to the circuit.
  - No other conditions identified by the authorized installer requiring an external RCD.

# Installation instructions

## ⚠ WARNING

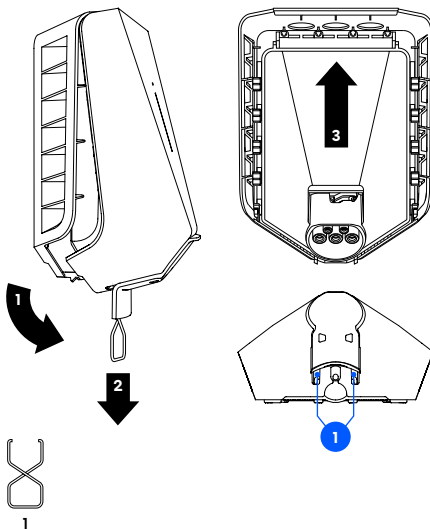
Turn off the power before you begin the installation. Use extreme caution and follow instructions carefully.



We recommend that you watch the installation videos available on our website: [easee.support](https://www.easee.com/support).

## 1 Charging Robot Opening

1. Bend down the lower part of the rubber cover and insert the two ends of the supplied tool into the two openings at the bottom of the front cover.
2. Pull the tool until the front cover comes loose and remove the cover.
3. Grasp the Type 2 socket and push upwards with good force until the Chargeberry disconnects.





## 2 Backplate Mounting

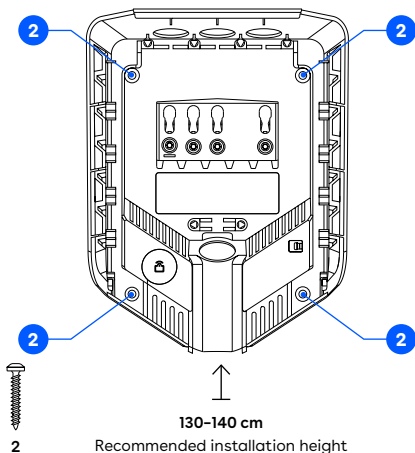
1. Turn off the power before proceeding with the installation.
2. Fix the backplate to a wall or structure with sufficient load-bearing capacity using the 4 screws provided in the mounting kit. Use suitable wall plugs for mounting and observe the recommended installation height.

### ⚠ CAUTION

The installation wall must cover the entire back of the product.

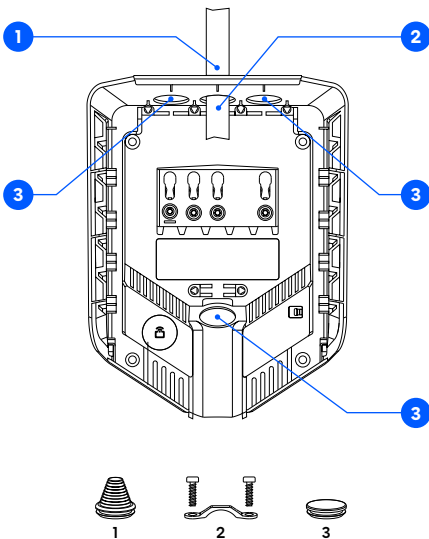
### NOTE

If you are going to install multiple backplates, now would be a good time to mount them as well.



## 3 Backplate Preparing

1. Shorten the sealing plug to fit the cable. The hole should be slightly smaller to ensure a good seal.
2. Insert the cable through one of the 4 cable entries and secure it to the backplate with the strain relief provided.
3. Close all cable entries that are not in use with the blind sealing plugs supplied.



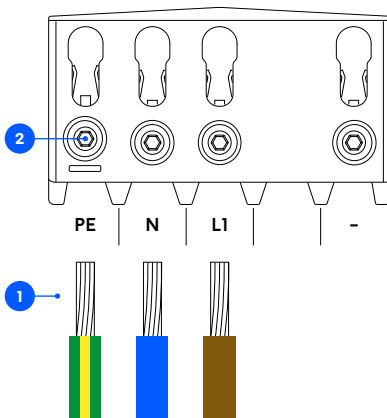
# 4 Backplate Wiring

1. Strip the individual wires by 12 mm. If the cable has flexible conductors, it is recommended to use ferrules on stranded wires. Use correct tools to press them.
2. Tighten the screw terminal with a torque of 5 Nm.

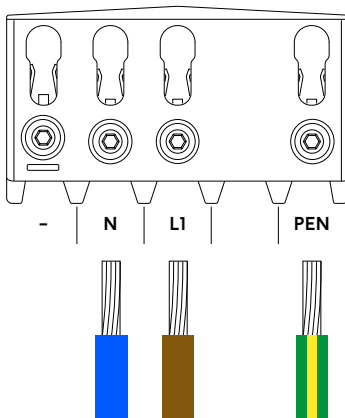
## NOTES

- When connecting multiple backplates in parallel, each screw terminal serves as a coupling point for adjacent backplates. All backplates must be connected with the same phase sequence. External junction boxes or flat cables can be used if it is more convenient.
- It's recommended to follow the existing colour codes used in the installation. Depending on national standards, the colours of the cables can vary from the illustrations. The illustrations in this manual follow the IEC 60446 standard.
- Before turning on the power, make sure the wires are properly connected and tightened. Test this by pulling on each wire.
- Never connect Earth to both the PE and PEN terminal.
- PME systems are common in the UK marketplace. This configuration is unlikely to be found across the EU. Please check with your local network operator if you have any questions.

## TT / TN-S network



## TN-C-S network (PME)



# 5 Backplate Installing

1. Scan the QR code to download the Easee Installer App and create a free account.

## NOTE

Your phone needs to support NFC.

2. Select one of the two site setups in the Installer App:



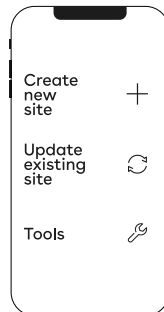
[easee.com/installer-app](https://easee.com/installer-app)

**Create new site:** If this is a completely new charging site, select "Create new site". Enter the installation details, follow the on-screen instructions and return to this guide afterwards.

**Update existing site:** If this site already has one or more Charging Robots installed or if it has been created by an operator (Easee Charge), select "Update existing site" and search for the site address. On "Site overview", select the circuit that you want the backplate to be part of and select "Add another backplate". Follow the on-screen instructions and return to this guide afterwards.

## NOTE

If the charging circuits include more than one Charging Robot, the backplate that is configured first becomes the master unit of the charging infrastructure. To achieve the best communication flow, the centre backplate should be configured first.

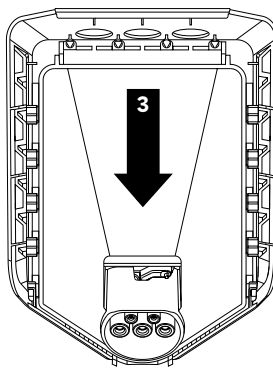
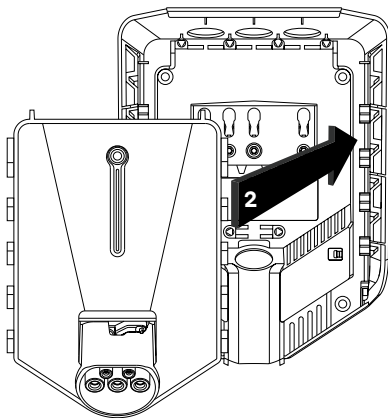


# 6 Chargeberry Attaching

## ⚠ WARNING

Insulation testing should be performed before a Chargeberry is installed in the backplate. Testing the circuit insulation with the Chargeberry installed in the backplate may damage the electronics or impact the reading negatively.

1. Turn on the power. The terminals of the backplates are now electrically live.
2. Position the Chargeberry to fit into the slots on the backplate located in the center of the installation.
3. When the Chargeberry is in the track, press it forcefully down until you hear a click.



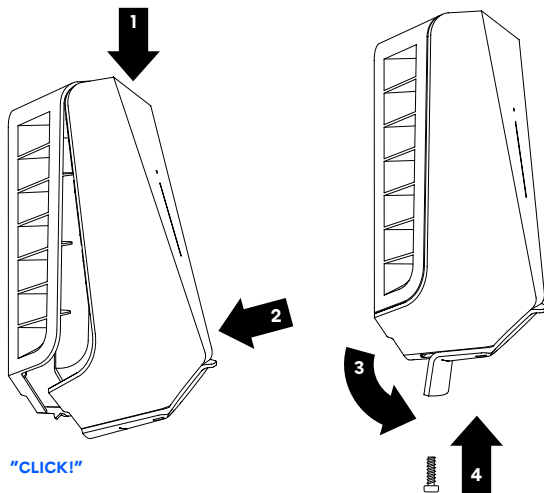
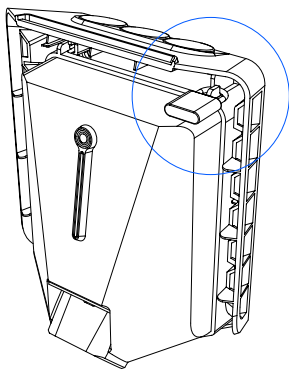
**"CLICK!"**

# 7 Front cover Closing

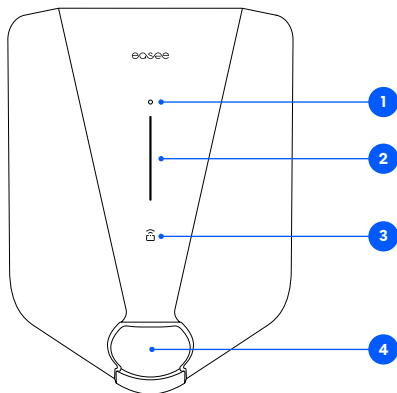
Before closing the front cover, it is possible to lock the Chargeberry with a padlock (see [Planning the installation](#)).

1. Hang the front cover at the top of the backplate and let it fall into place.
2. Press the bottom of the front cover until you hear a click.
3. Bend the lower part of the rubber cover down.
4. Screw in the locking screw at the bottom of the charger to secure the front cover.
5. Close the rubber cover. If the cable is inserted from the bottom, you can cut a corresponding hole in the rubber cover to ensure a neat installation.

Your Charging Robot is now ready for use!





# Features



1. **Touch button:** The touch button is used to activate the local interface. The local interface is intended for local operations of the charger when no internet is available. Read more about the local interface at: [easee.com/support/localinterface](https://easee.com/support/localinterface)
2. **Light strip:** The light strip communicates the status of the Charging Robot at all times. (See [Charging Robot interface](#)).
3. **RFID area:** The integrated RFID reader enables access control of the Charging Robot and identification of different users. You can use it to unlock the charger with an Easee Key. Check our knowledge base at [easee.support](https://easee.support) for more details on how to add and manage your Easee Keys.
4. **Type 2 socket:** The Type 2 socket is completely universal and allows you to charge any type of electric vehicle using the appropriate charging cable. Furthermore, it is possible to permanently lock the charging cable, so you do not have to worry about it being stolen.

# Charging Robot interface

Light description	Status
White - constant light, only at the bottom 2 LEDs - master unit / 1 LED - secondary units	Standby
White - constant light	Car connected
White - pulsating light	Charging in progress
Blue - constant light	Smart charging enabled (car connected)
Blue - pulsating light	Smart charging in progress
At startup, the LEDs turn on one by one. When the charger is updating, one or more LEDs will flash green while this is in progress.	Updating software (updating can take up to 30 minutes) <b>NOTICE!</b> The car must be disconnected before a software update can be completed.
White - flashing light	Waiting for authentication by an RFID tag. Hold the RFID tag against the RFID area of the Charging Robot in order to authenticate and initiate the charging.
White - fast flashing light	RFID-tag received (awaiting key verification)
Red - flashing light, with warning sounds	 <b>WARNING</b> Critical error! Turn off the power and remove the charging cable from the Charging Robot. The power can then be turned back on if necessary. The flashing red light will continue, but the warning sound will stop when the charging cable is disconnected. The charger is blocked from further use, cannot be reset and has to be replaced. Contact customer support.
Red - flashing light	 <b>WARNING</b> Critical error! The charger is blocked from further use, cannot be reset and has to be replaced. Contact customer support.
Red - constant light	General error. Unplug the charging cable and replug it to the Charging Robot. If the red light persists, check the Easee App or our knowledge base <sup>3</sup> for further information.
Red - constant light, with warning sounds	Broken PEN lead detected or wires are connected incorrectly. Consult an authorised electrician.

<sup>3</sup> Easee public knowledge base can be found at [easee.support](https://easee.support).

Light description	Status
Red - pulsating light	The Charging Robot has measured an abnormal temperature and has entered in safe mode. Please go to our knowledge base <sup>3</sup> for further information.
White - flashing light, only at the bottom	The Charging Robot is searching for its master unit. Please check the status of the master unit. For further information, please check our knowledge base <sup>3</sup> .
Yellow - flashing light, only at the bottom	The Charging Robot is waiting to be configured. Consult an authorised electrician.

<sup>3</sup>Easee public knowledge base can be found at [easee.support](https://easee.support).



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