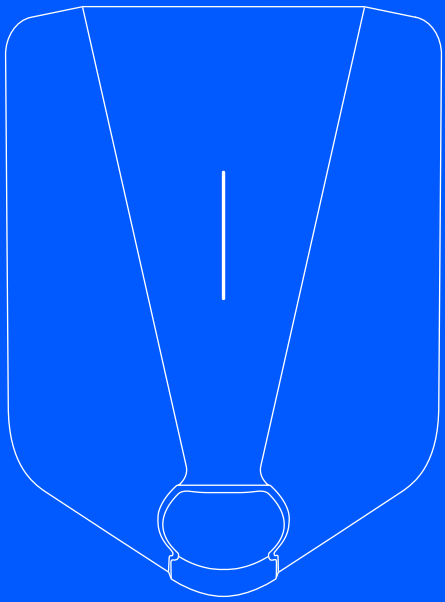


EN Installer guide

Easee One

Introduction

Read the Important product information guide in the product packaging or at support.easee.com before installing the product.

Installation of this product requires a mobile device with NFC or Bluetooth support.

⚠ **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.

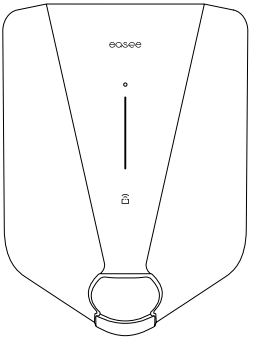
PIN code

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.

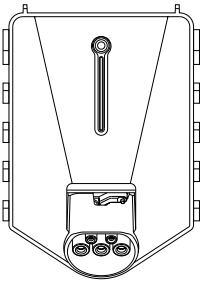
Data protection

Upon Installation and connection to the internet, as an IoT device Easee Charging Robots automatically share data with the Easee cloud (owned by Easee ASA). This makes sure that Easee monitors the charger safety, security, and stability during its lifetime. As a result, some personal data, such as usage patterns, site configurations, and device identifiers, will be processed to provide the smart functionalities of the charger. By using our Chargers, you agree to the collection and processing of some personal data in line with our privacy policy and any applicable data protection laws. If data transfer to the Easee cloud is not desired, we advise users to stop using Easee chargers immediately. For more information, please see Easee Privacy Policy (https://easee.com/en/privacy/), available in our website.

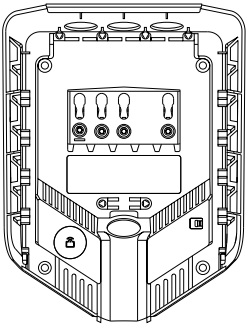
Product overview



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.

Installation kit

Strain relief
x 2

Blind plug
x 3

Sealing plug
x 2

Strain relief and front cover screws (T25)
x 5

Wall screws (T25)
x 4

Front cover tool
x 1

Technical specifications

General	
Dimensions	256 x 193 x 106 mm (H x W x D)
Drilling hole distance	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	
Max charging power capacity	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 %)
Main frequency	50 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 1.6J via our API	
Bluetooth BLE 4.2	

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)	
Degree of protection	IP54 (the backplate is IP22 without cover)
Impact resistance	IK10
Insulation class	I
Overvoltage 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	Copper wire, between 2.5 and 16 mm^2. Use the largest possible wire cross-section to make the site future-proof.
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[1]	1 phase, 230 V TT / TN-S[2]
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

[1] Protection limit based on max 80% of the fuse rating can be set in the Installer App.
[2] 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.

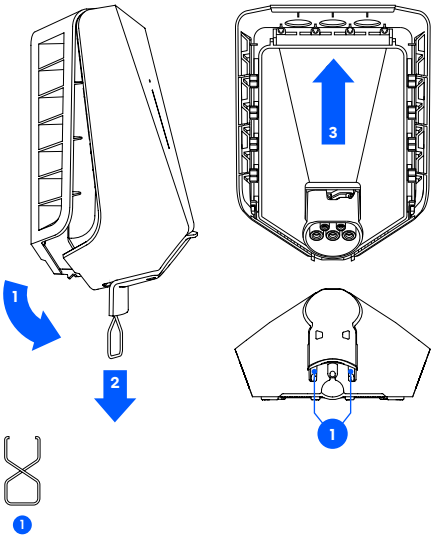
Installation instructions

WARNING

Always work with the power off and in accordance with local regulations. Use extreme caution and follow instructions carefully.

1 Charging Robot
Opening

1. Bend down the lower part of the rubber cover and insert the two ends of the front cover 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.



Backplate

2 Mounting

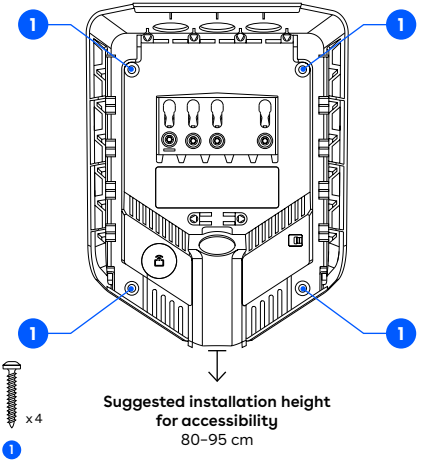
1. Fix the backplate to a wall or structure with sufficient load-bearing capacity using the 4 wall screws provided in the mounting kit. Use suitable wall plugs for mounting and observe the local regulations for recommended installation height.

⚠ **CAUTION**

The installation wall must cover the entire back of the product. If this is not possible to achieve, it is possible to use the Easee Mount.

NOTE

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

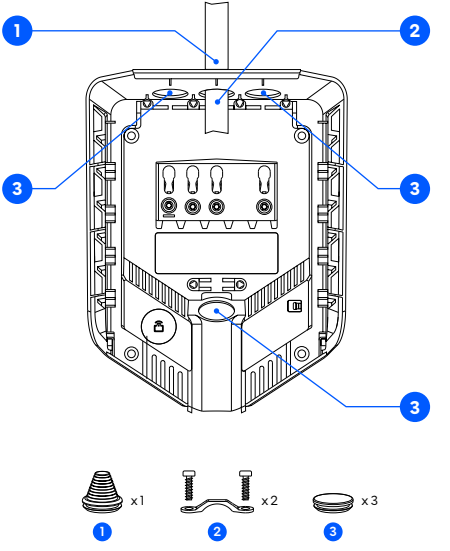


Suggested installation height for accessibility
80–95 cm

Backplate

3 Preparing

1. Shorten the sealing plug to fit the cable. The hole should be slightly smaller than the cable 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 supplied blind plugs.



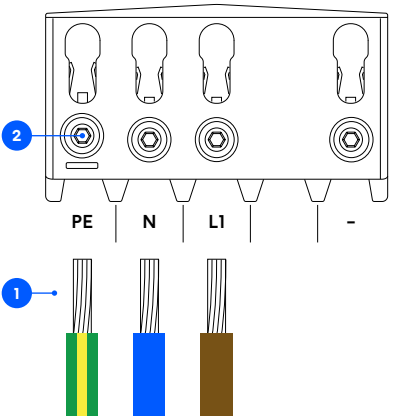
4 Backplate Wiring

1. Strip each wire, exposing 12 mm of copper on each. If the cable has flexible conductors, then you must use ferrules on stranded wires to make the connection. Use the correct tools to press them.
2. Tighten the screw terminals with a torque of 5 Nm.

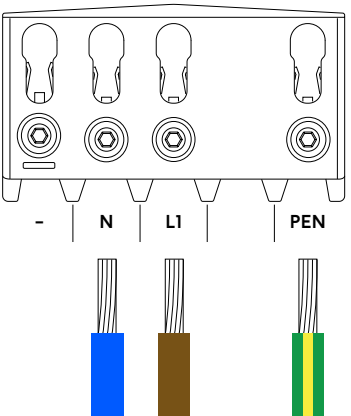
NOTES

- 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 is 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 the power on, make sure the wires are properly connected and tightened.
- 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
Configuring

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

NOTE
Your phone needs to support either NFC or Bluetooth.

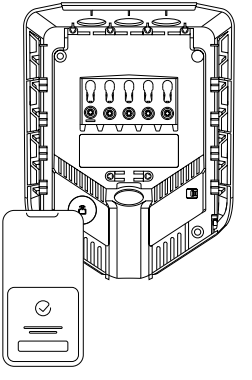
2. Select one of the two site setups in the Installer App:

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.

easee.com/installer-app

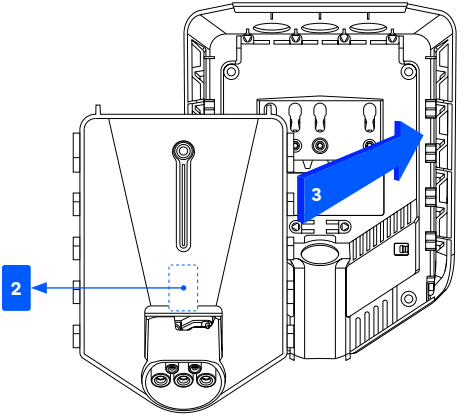


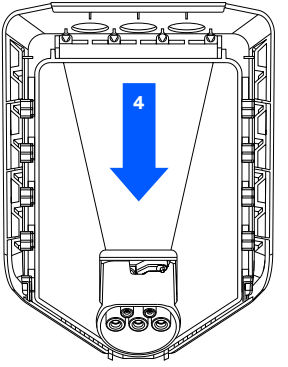
6 Chargeberry Attaching

⚠ **WARNING**

Insulation testing must 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. Remove the PIN code sticker and attach it to the inside of the fuse cabinet, or another safe location for storage.
3. Position the Chargeberry to fit into the slots on the backplate located in the center of the installation.
4. When the Chargeberry is in the track, press it forcefully down until you hear a **"CLICK"**.





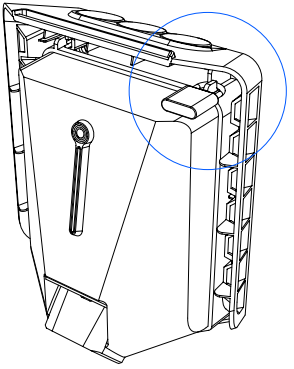
"CLICK!"

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 front cover screw at the bottom of the charger to secure the front cover.
   NOTE! The locking screw is necessary to secure the cover and protect the charger from exposure.
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.

The charger is now ready for testing according to local regulations. Once complete, transfer ownership to the owner via the Installer App.



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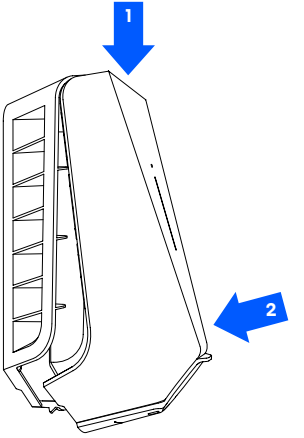
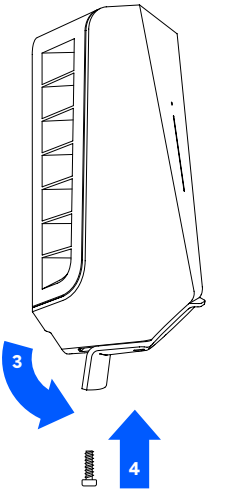
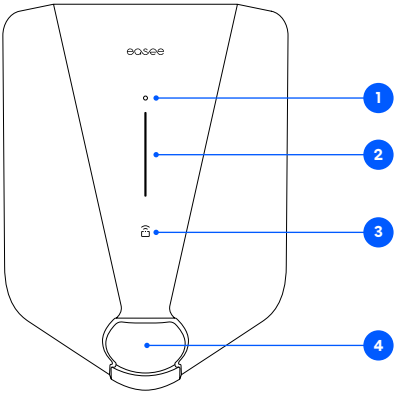


"CLICK!"



Features



1. **Touch button:** The touch button is used to activate Bluetooth. Bluetooth connection in the app allows for local operation of the charger when no internet is available. Read more about the local interface at: easee.com/support/bt
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 support.easee.com 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.

   NOTE: Adaptors should not be used on the charger or the charging cable. The charging cable must have appropriate sockets on each end.

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) **NOTE!** 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	⚠ **WARNING** 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	⚠ **WARNING** 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[3] for further information.
Red – constant light, with warning sounds	Broken PEN lead detected or wires are connected incorrectly.

[3] Easee public knowledge base can be found at support.easee.com.

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[3] 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[3].
Yellow – flashing light, only at the bottom	The Charging Robot is waiting to be configured.

[3] Easee public knowledge base can be found at **support.easee.com**.

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