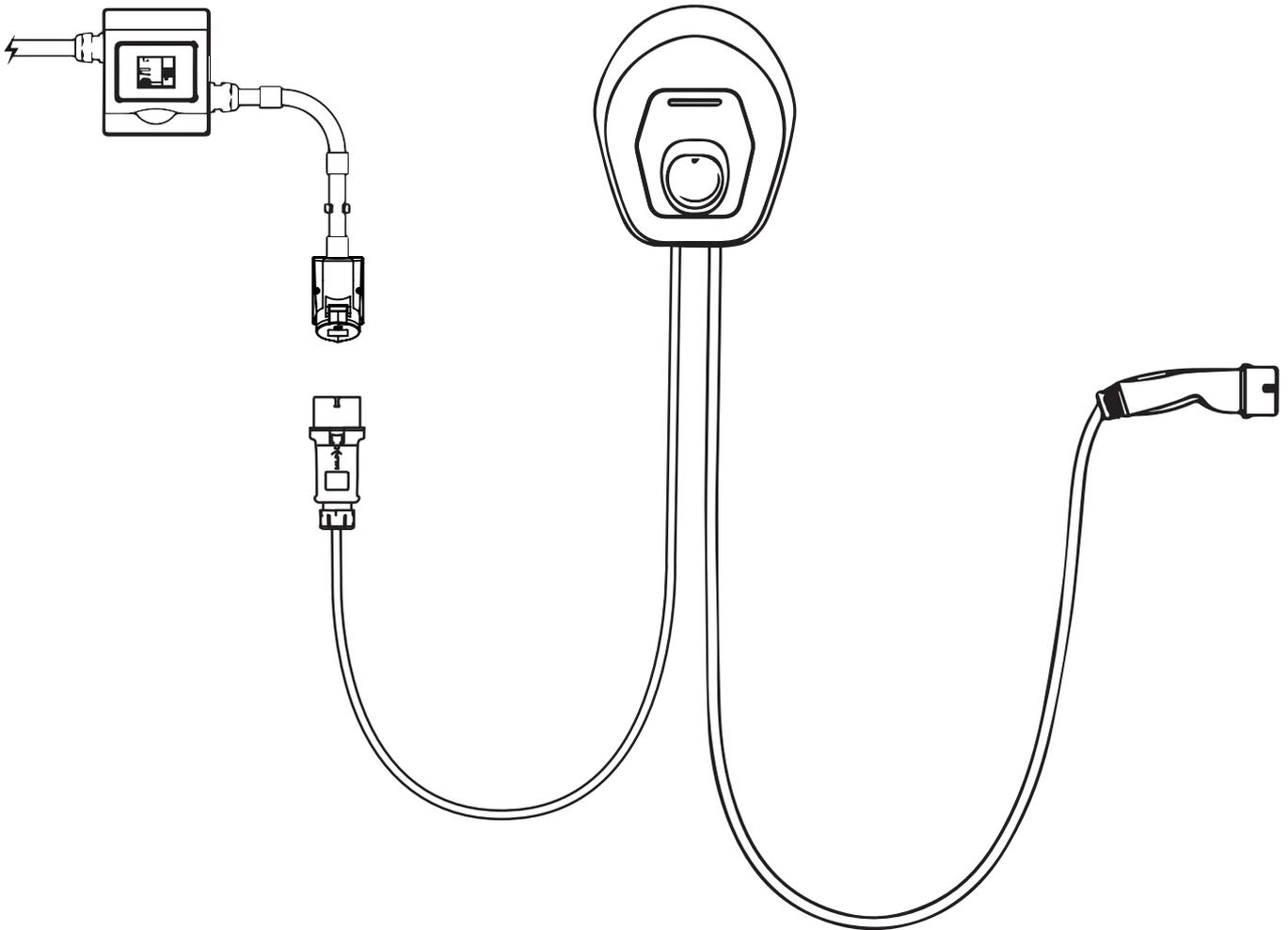




INSTALLER MANUAL MODE 2 POWER UPGRADE

GB



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1. ABOUT THE INSTALLER MANUAL

Thank you for choosing **easyWallbox**. Please spend some minutes to read the documentation to install and use it safely, discovering all its advantages. **easyWallbox** is a revolutionary, easy-to-use charging station for electric vehicles that **can be installed both in Plug&Play mode**, with connection to the power supply by plug and cable, and **Power Upgrade mode**, with permanent connection to the power supply.

The information in this manual is for **easyWallbox** installers and users and **concerns installation in Mode 2 with Power Upgrade**, safe use, and basic maintenance of the device.



This manual is intended only for installation in France with Power Upgrade up to 32 A, for installation in other countries please refer to Installer Manual.



Read the associated documentation carefully to acquire familiarity with the instructions and safety indications before installing the product.



This Installation requires qualified personnel, qualified to design and create a dedicated, state-of-the-art power supply and certify the domestic electrical system in compliance with local regulations and the energy supply contract.



Before starting installation, qualified personnel who will make the installation in Mode 2 with Power Upgrade should check they have access to easyWallbox PowerUp with the credentials enabled for access so that they can set-up the required parameters.

For installation in **Plug&Play**, see the relative documentation in the **User Manual**.

1.1. About installation in Mode 2 with Power Upgrade

Following this procedure, **easyWallbox** can be correctly installed in Mode 2 and be used up to 32 A, (7.4 kW) in compliance with IEC 61851-1:2017.



Installation of the product in Mode 2 with Power Upgrade must be carried out carefully following the instructions in this manual.



We recommend contacting service for any questions or doubts concerning easyWallbox's use, installation and maintenance.

1.2. Assistance

For information on assistance, please refer to chapter 11.

1.3. Symbols used



DANGER

This symbol indicates imminent danger that may cause death or serious injuries.



WARNING

This symbol indicates a dangerous situation that may cause death or serious injuries.



CAUTION

This symbol indicates a dangerous situation that may cause slight injuries.



ATTENTION

This symbol indicates a situation that may cause material damage to **easyWallbox**.



QUALIFIED PERSONNEL

Work that must be carried out by a technician, from this point 'Qualified Personnel', qualified to design, create a state-of-the-art domestic electrical system and certify it in compliance with local regulations and the energy supply contract.

1.4. Warnings



Danger of electric shock and fire

- Before using **easyWallbox**, **read the contents** of this manual carefully to acquire familiarity with the instructions for use and the safety indications.
- **Before starting** installation, be sure that **easyWallbox** is **not connected to any power supply**. Any operation of installation, maintenance and dismantling shall be done only when disconnected from power supply.
- Before connecting to a power supply, make sure that the **electric socket is installed correctly**, with a proper ground connection and in compliance with local and international standards.
- Before installing or using the device, **make sure that no damage has occurred to any component**. Damaged components can lead to electrocution, short circuits, and fire due to overheating. A device with damage or defects must not be used.
- Install **easyWallbox** away from petrol cans or combustible substances in general.
- **Before carrying out any maintenance** operation, ensure that the power supply is off.
- Before installing **easyWallbox** in Power Upgrade mode, make sure that **the power supply you're using is switched off** on your service panel.
- Before putting back or moving **easyWallbox**, ensure that the device is **not attached to the power supply**.
- Use of **easyWallbox** must be **limited to the specific applications** it is intended for.
- Installation, maintenance, or repairs **not made correctly may lead to risks for the user**. Please ensure that **easyWallbox** is only used in the **correct operating conditions**.
- The device must be connected to a **power supply compliant with all technical requirements indicated in this manual**.

- **Children** or other persons not able to evaluate risks related to installation or use of the device might be **seriously injured or risk their own lives**. Such persons must not operate the device and must be supervised when close to it.
- Pets or other **animals must be kept away** from the device and packaging material.
- **Children must not play with the device**, the accessories nor the packaging provided with the product.
- **easyWallbox** does **not contain components that the user can repair or maintain autonomously**.
- **The only part that can be removed** from **easyWallbox** is the **aesthetic cover**, just during the installation and dismantling phases and following the instructions. **easyWallbox** shall not be further opened, unless by qualified personnel while performing installation, dismantling or maintenance.
- The power supply to **easyWallbox** must be installed on a **dedicated thermal-magnetic miniature circuit breaker (MCB) mounted in the service panel to protect the electrical circuit**. When dimensioning the circuit breaker, the increased ambient temperatures in the control cabinet must also be taken into account.
- **easyWallbox** can only be used combined with an energy source.
- **easyWallbox** must be **treated and disposed of in compliance with current legislation**, separately from normal household waste as electric and electronic waste (WEEE).



Always switch off power before any maintenance activity
Before installing easyWallbox, make sure that the power supply used is switched off on the service panel.

2. SAFETY

2.1. Intended purpose of easyWallbox

easyWallbox is only intended for **fixed mounting**. It can be installed and used to charge electric vehicles in areas with restricted access, both indoor and outdoor (e.g. private housing, private parking areas or similar places), in compliance with chapter 4 indications and local regulations.

The device can be used exclusively to charge full-electric or hybrid vehicles compatible with Type 2 connectors, as in IEC 62196-2; it is not compliant with other vehicles or devices.

The standard IEC 61851-1:2017, paragraph 6.2.2 prescribes as nominal current and nominal voltage for Mode 2 respectively 32 A and 250 V in single-phase. Hence **easyWallbox** power can be increased up to 7.4 kW (32 A) in compliance with Mode 2 current and voltage limits, by using an adequate cable and industrial connector suitable for 32 A and compliant with IEC 60309-2.

Some countries apply regulations that require supplementary protection from the risk of electrocution. In any case, the instructions for use in the manual and any additional documentation must be read before using **easyWallbox**.

easyWallbox should be connected to a power supply protected by an RCD and an overcurrent protective device. The RCD should have a rated residual operating current not exceeding 30 mA, be at least type A, and should comply with one of the following standards: IEC 61008-1, IEC 61009-1, IEC 60947-2 and IEC 62423. RCDs should disconnect all live conductors. The overcurrent protective devices should comply with IEC 60947-2, IEC 60947-6-2, IEC 61009-1 or the relevant parts of IEC 60898 series or IEC 60269 series.

In the event of a short circuit, the value of I_2t at the vehicle connector (Case C) of the charging station should not exceed 80 000 A²s. **easyWallbox** can be connected to TT, TN and IT types of earthing systems. For circuits in IT systems that are intended to power electric vehicles, for example through an isolation transformer or a battery system, an insulation control device (IMD) compliant with CEI EN 61557-8 must be provided. In a TN system, a circuit supplying a connecting point should not include a PEN conductor.

All the instructions in this Mode 2 with Power Upgrade Manual are only intended to be **carried out by qualified personnel** with the abilities described in 1.3, from this point 'Installers in Power Upgrade mode'.



Before starting installation, installers in Power Upgrade mode should check they have access to easyWallbox PowerUp with credentials nabled to enter 'Service Mode' so that the required parameters can be set up.

Installation should comply with IEC 60364-7-722 Low-voltage electrical installations, Part 7-722: Requirements for special installations or locations, Supplies for electric vehicles.



The installation should comply with local installation regulations.

easyWallbox is classified for electromagnetic compatibility (EMC) environment type B.

2.2. Use not in accordance with the intended purpose

Use of **easyWallbox** is only safe if it conforms to the intended purpose. Different use and unauthorised modifications to the device are considered as non-compliant and so unacceptable. The user is responsible for the use and is liable for any dangerous situations or situations contrary to the legal provisions applied in their country.



Free2Move eSolutions S.p.A. does not assume any liability for damage caused by non-compliant use or unauthorised modifications to the device.

2.3. Essential safety instructions

easyWallbox was designed, built and checked in compliance with the current safety regulations. Installation of **easyWallbox** in Mode 2 with Power Upgrade can only be made by qualified personnel able to understand and carefully follow these instructions and evaluate and understand all related risks. Free2Move eSolutions S.p.A. does not assume any liability for damage to persons or things that may arise from failure to respect the safety regulations and the instructions in this manual.

2.3.1. Respect for local conditions

The operational safety of **easyWallbox** depends on its correct installation which must respect current legislation.



Incorrect installation may cause danger such as serious injury or death.

2.3.2. Respecting the supervision requirement

Children and people not able to evaluate, even momentarily, the possible risks arising from the incorrect use of **easyWallbox** must be kept away from the device and the charging cable, both when in use and non-operational.

2.3.3. Regulatory status

easyWallbox must be maintained intact. If there is any damage or defects, users run the risk of serious injury caused by electric shocks. Therefore, follow the instructions below:

- avoid knocking the device
- avoid use not in accordance with the intended purpose
- avoid incorrect use of the device
- clearly indicate the malfunction of the device so that other people will not use it
- ask for the prompt intervention of qualified personnel to repair damage or defects.

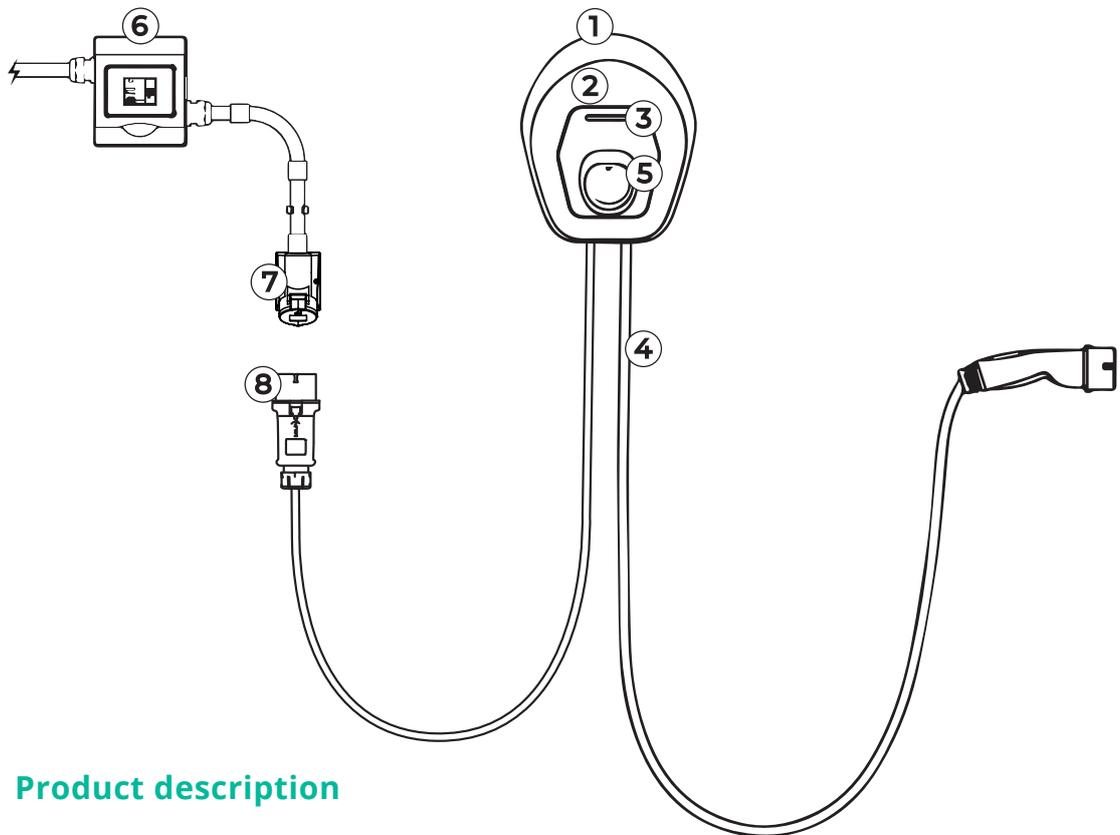


Use of easyWallbox during a strong thunderstorm is not recommended.

3. PRODUCT DESCRIPTION

3.1. General description

The case of **easyWallbox** is in polycarbonate and ensures a high level of stability and lightness. The design of the device is the result of in-depth study intended to provide an ergonomic, lean and intelligent work tool.

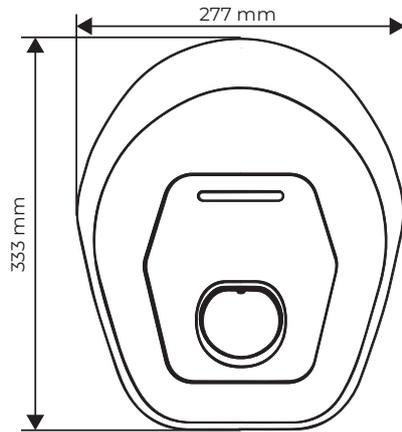


Product description

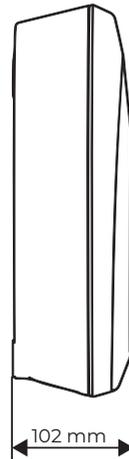
- ① Case
- ② Aesthetic cover
- ③ LED status indicator
- ④ Cable with Type 2 connector
- ⑤ Type 2 connector port
- ⑥ Electrical Installation with protection and cabling (not included)
- ⑦ 32A industrial socket (compliant with IEC 60309-1, IEC 60309-4)
- ⑧ 32A industrial plug (compliant with IEC 60309-1, IEC 60309-4)

6 - 7 - 8 NOT INCLUDED

Size of easyWallbox charging station without connector in place

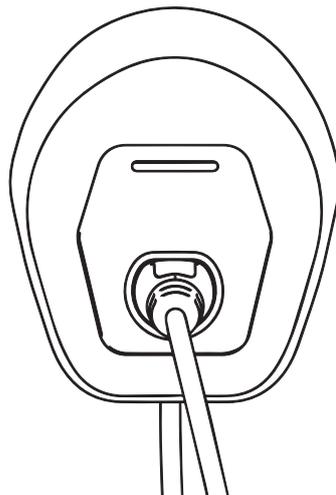


front view

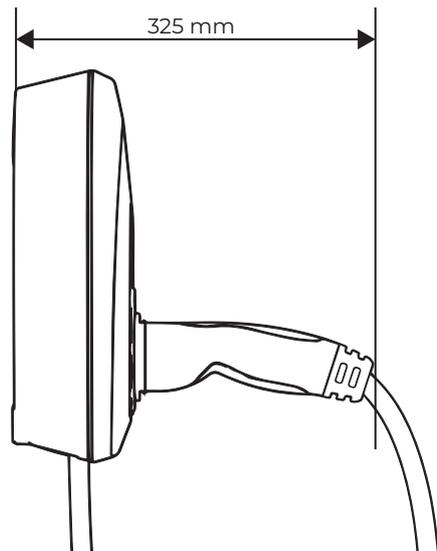


side view

Size of easyWallbox charging station with connector in place

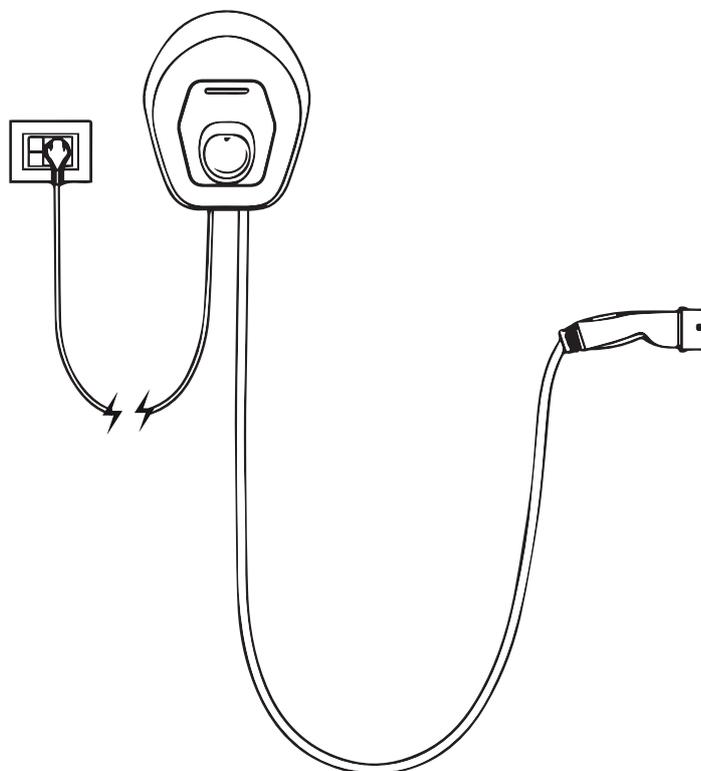


front view



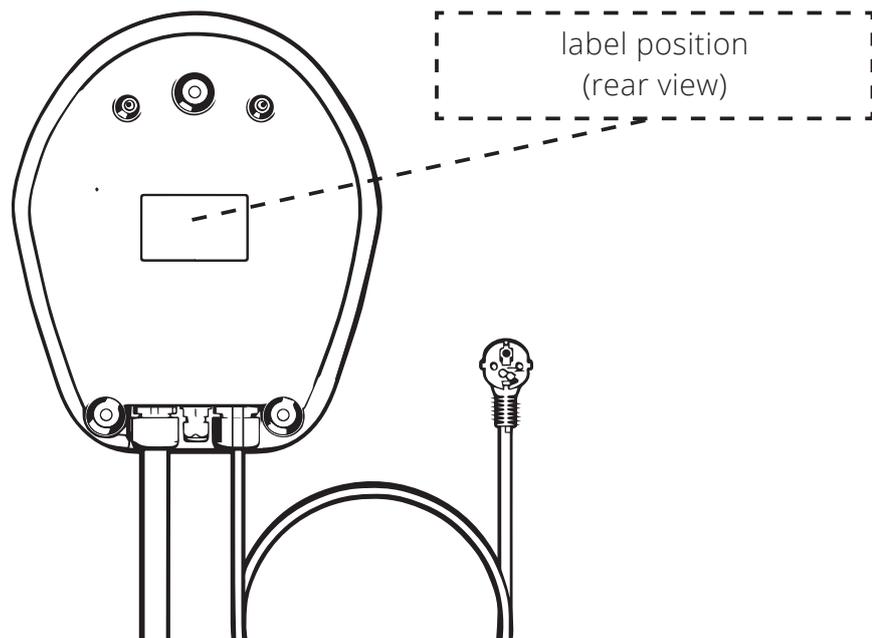
side view

Installation of **easyWallbox** in Plug&Play mode (see User Manual).



3.2. Identification label

The identification label is on the backside of the charging station.
 The information on the label is shown in the Figure below. The data shown may differ from that in the Figure, depending on the version of the product.



3.3. Technical features



Plug&Play

Power Upgrade

Description	Plug&Play	Power Upgrade
Connector Standard (EV side)	IEC 62196-2	
Power supply plug	E/F (G in UK, J in Switzerland)	
EVSE Standard	IEC 61851	
CE Mark	Y	
Warranty	2 years	
Recharging Mode	Mode 2	Mode 2
TÜV Certification	Y	Y

Electrical Specs and connection

Maximum Power [kW]	up to 2.3*	up to 7.4*
Voltage [V / Hz]	230 / 50, single-phase	230 / 50, single-phase
Current [A]	up to 10*	up to 32*
Stand-by consumption [W]	< 2	< 2
Cable with connector Type 2 (EV side)	Y, tethered included	
Cable with connector Type 2 Length [m]	3/5	
Power Supply cable [m]	6	N.A.

* The values may vary in some countries according to local applicable standards

General Specs

Enclosure ratings	IP54, IK08 (IEC 60529)	
Overall body dimensions [mm]	335 x 277 x 95 (w/o Plug) 335 x 277 x 350 (with plug)	
Housing	Polycarbonate	
Weight [kg]	~ 4	
Standard Body colour	Black (RAL 9011) and White (RAL 9010)	
Status indication	Y, led RGB	

Safety and Operation

Temperature range [°C]	-25 / +50 (without direct exposure to sunlight)	
Overheating protection	Y	
Humidity Resistance	Y, full coated	
Class of Protection	I	
Pollution Degree	PD3	
Overvoltage category	OVC III	
Housing fire ratings	UL94 V-0	
Residual current monitoring	Y, 6 mA DC sensitive RCM device included for DC-leakage detection	
Maximum installation height [m]	2000 a.s.l.	

Connectivity & Special Features

Bluetooth	Y	
Smartphone App	Free2Charge, compatible with Android, IOS	
Service App	easyWallbox PowerUp compatible with Android, IOS	
Android version compatibility**	Lollipop (5.0) or higher***	
IOS version compatibility**	12 or higher	
Communication Protocol	Proprietary	
Dynamic Power Management	Y, by installing the included sensor	

** Data refer to the first release of the APP and may vary with future evolution

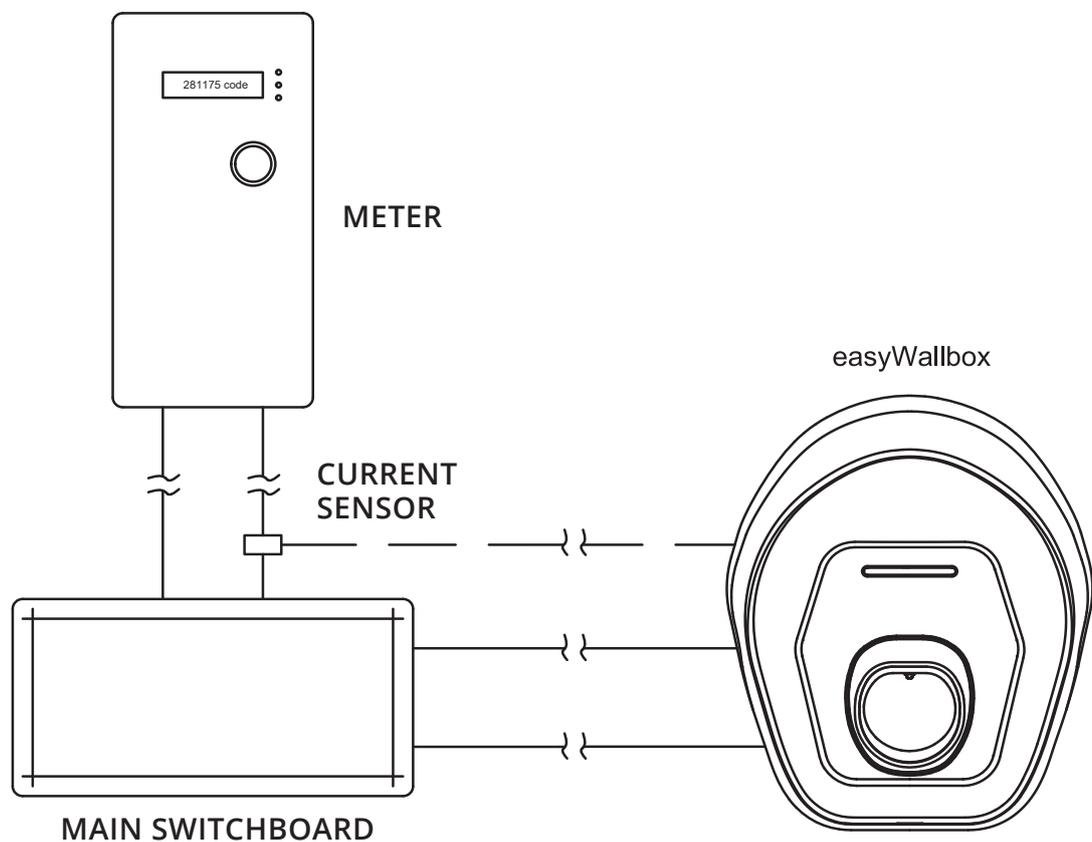
*** Not for Android 6

3.4. Dynamic Power Management

easyWallbox includes Dynamic Power Management (DPM), a smart function that modulates the charging power according to power availability, thus avoiding unpleasant blackouts.

To activate the Dynamic Power Management, please see chapter 4.8 on installation of the sensor.

easyWallbox can work even without Dynamic Power Management; in this case, the installation of a dedicated sensor is not necessary, but avoidance of blackouts is not ensured.



- Connection of the Dynamic Power Management sensor requires installation by a professional.
- We recommend contacting qualified personnel or service for any questions or doubts concerning easyWallbox's use, installation, and maintenance.

3.5. Product versions country by country

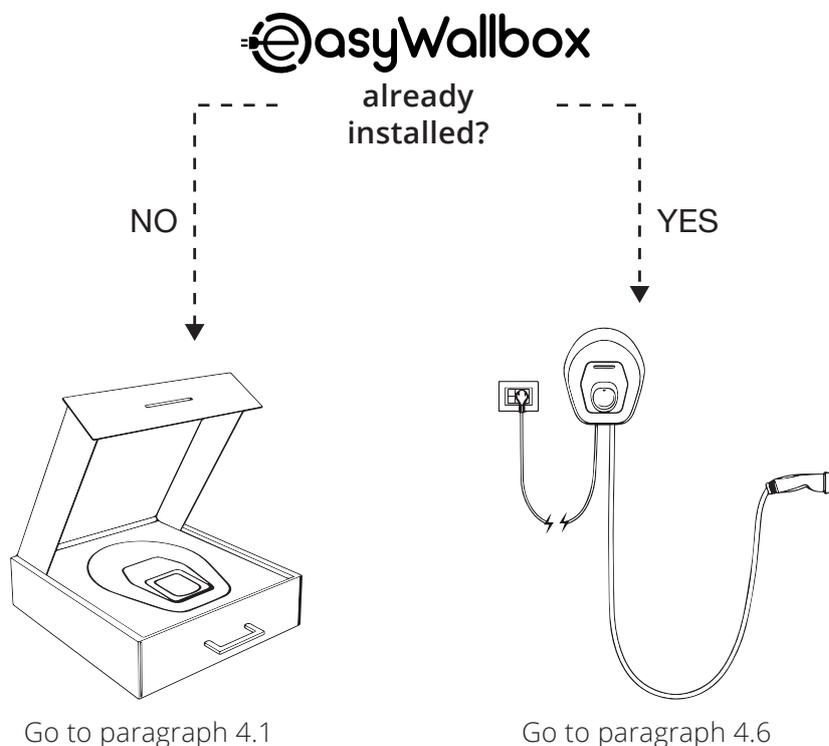
easyWallbox is designed to provide up to 7.4 kW of charging power in Power Upgrade mode. However, **the maximum power depends on different factors**, including local regulations for such a device.

The settings for **easyWallbox** maximum power should only be made by qualified personnel who follow this manual carefully in compliance with local regulations, international standards and any constraints on the existing domestic electrical system.



- **The installer in Power Upgrade mode should follow best practices for electrical installation of appliances with local regulations and international standards.**
- **Free2Move eSolutions S.p.A. does not assume any liability for damage caused by non-compliant use or unauthorised modifications to the device.**

4. INSTALLATION



4.1. Choice of position

easyWallbox is only for fixed wall mounting, and therefore cannot be used in different spaces where its continual movement is required.

Before installing the device, check the feasibility. In detail, the position chosen for the installation of **easyWallbox** must:

- be on a vertical and flat surface, as shown in 4.5; weak surfaces that do not ensure a robust resistance must be avoided
- allow easy connection to the power supply and to the electric vehicle to charge
- not be an obstacle to the movement of the electric vehicles to charge
- not have material or equipment on the whole of the surface required for the installation
- respect local legislation on electrical installations, fire prevention measures and rescue methods in the installation site.

easyWallbox must not be installed in places:

- at risk of explosion (EX environment)
- used for escape routes
- where articles may fall on it (e.g. suspended ladders or car tyres) or where it is prone to be hit and damaged (e.g. close to a door or in vehicle operating spaces)
- where there is a risk of pressurised jets of water (e.g. because of washing systems, power washers or garden hoses).

4.2. Acceptable environmental conditions

In detail, the conditions of the room where **easyWallbox** is sited must be as follows:

- room temperature between -25°C and +50°C
- average temperature over 24 hrs less than 35°C
- maximum altitude above sea level: 2,000 metres
- relative air humidity not higher than 95%.



Damage to easyWallbox caused by unsuitable environmental conditions.

Inappropriate positioning of easyWallbox may cause damage to the device.

Take the following into consideration when choosing the position for the installation of **easyWallbox**:

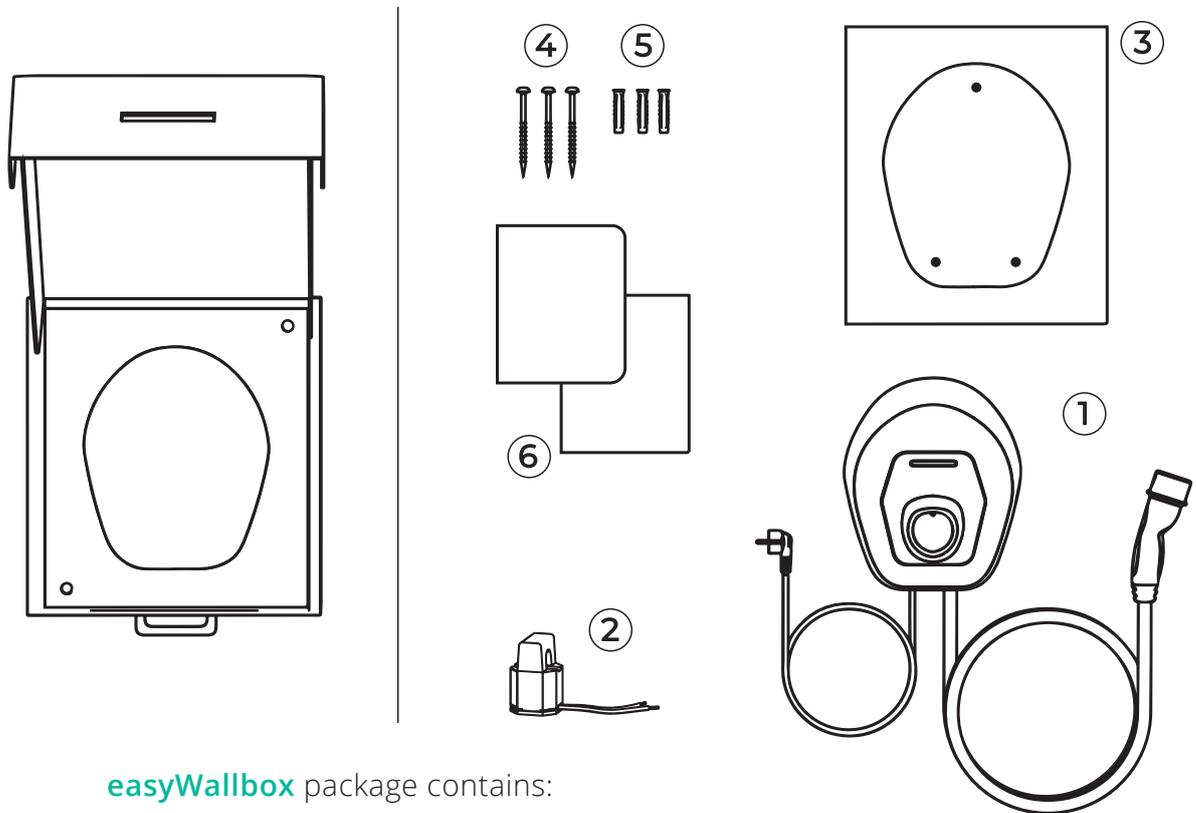
- avoid exposure to direct sunlight, if necessary, by installing a canopy
- avoid direct exposure to the rain so that deterioration due to bad weather does not occur
- ensure sufficient ventilation for the device – do not mount it inside a niche nor a closet
- avoid an accumulation of heat - keep the device away from heat sources
- avoid exposure to water infiltrations
- avoid excessive leaps in temperature.



Danger of fire and explosion

easyWallbox must be installed in areas where there are no incendiary or explosive substances, such as close to petrol stations, because any sparks triggered by its components could cause fires or explosions.

4.3. What's inside

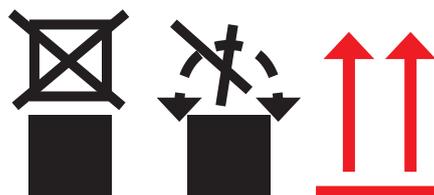


easyWallbox package contains:

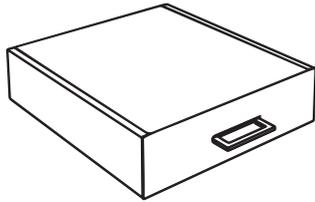
- ① easyWallbox, including cables, power supply plug and charging connector
- ② Current sensor for Dynamic Power Management (DPM)
- ③ Drilling template
- ④ 3 Screws
- ⑤ 3 Fixing Plugs
- ⑥ Product documentation



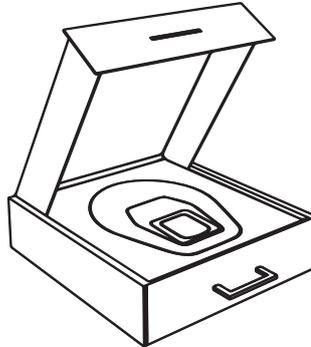
Do not stack loads on the box containing easyWallbox and pay attention to the signs and specific instructions on the package.



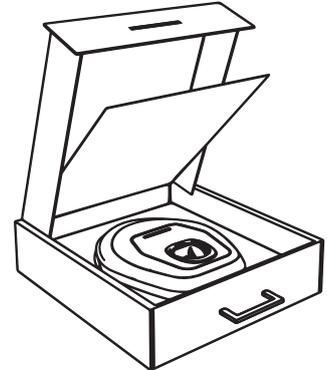
4.4. Opening the package



Closed box containing easyWallbox



Opening the lid of the box containing easyWallbox



Raising the panel in the box with easyWallbox

When the box is opened, check that the various parts of **easyWallbox** do not show signs of physical damage caused by knocks, lacerations or abrasions. If damage is detected installation must be interrupted immediately and the type of damage reported to the seller.

If necessary, contact assistance as explained in 11.

The individual components of the device are protected by PVC packaging and sealed with adhesive tape. When the box is opened, the parts should be cleaned to remove any dust, PVC residues or portions of adhesive tape.

easyWallbox must only be taken from the box when everything has been prepared for the installation and it must be transported manually to the wall chosen for its installation.

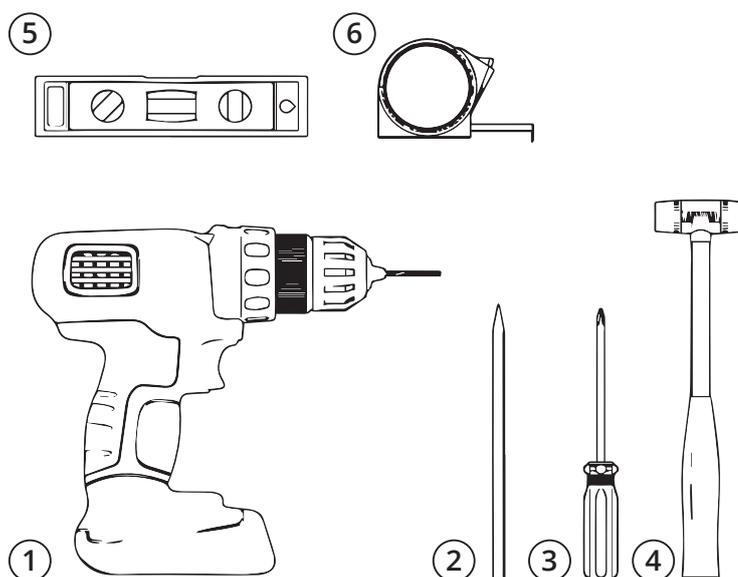


When easyWallbox is moved manually, do not trip on the power supply cable of the vehicle.

4.5. Wall mounting

- ① Drill
- ② Pencil
- ③ Screwdriver
- ④ Hammer
- ⑤ Spirit level
- ⑥ Measure tape

tools not included



Free2Move eSolutions S.p.A. declines any liability for damage to persons or things that may arise from the use of such tools. We recommend contacting qualified personnel or service for any question or doubt concerning easyWallbox installation.

The national and international building regulations and the directives defined by the International Electrotechnical Commission IEC 60364-1 and IEC 60364-5-52 must be respected when fixing **easyWallbox** to the wall. Correct positioning of the charging station is important for its operation.

When the installation wall is chosen for **easyWallbox, take the distances of the connection to the power supply and the connector on the vehicle into consideration as well as the parking and manoeuvring space available.**

If several **easyWallbox**es are installed close together, there must be at least 20 cm between each one.

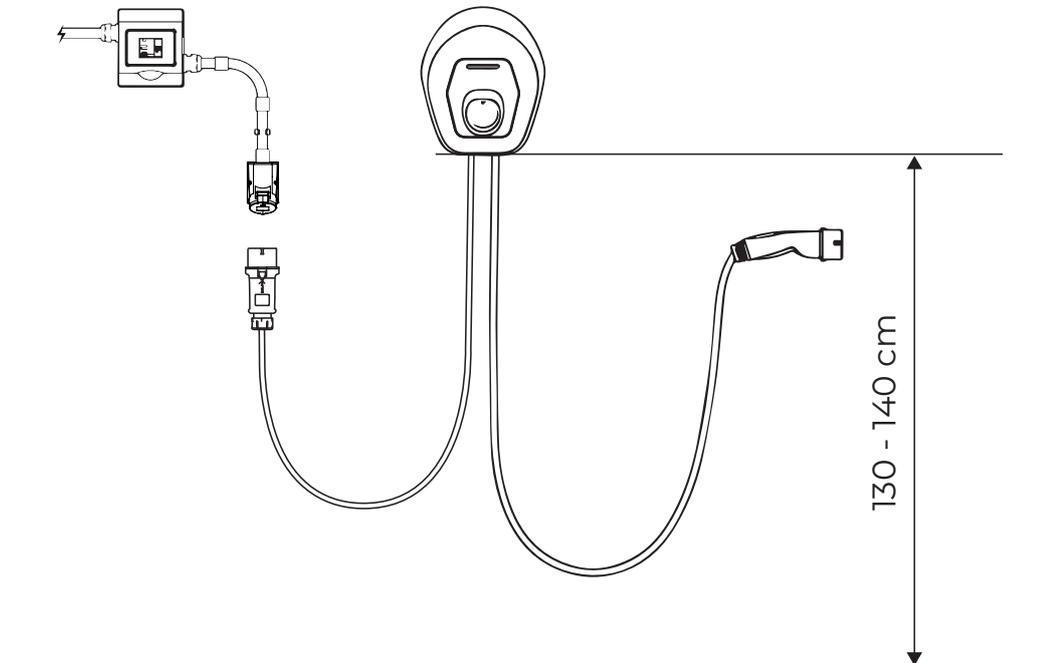
easyWallbox must be installed at a height of 1.30-1.40 m from the floor.



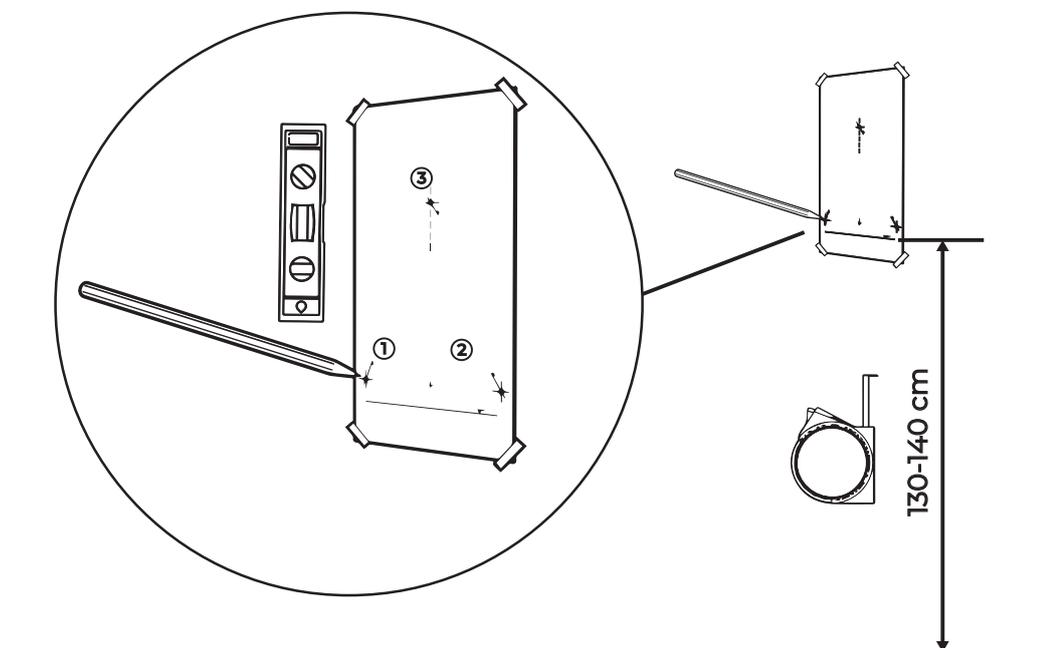
Risk of electric shock.

Before starting installation, be sure that **easyWallbox is not connected to any power supply. Any operation of installation, maintenance and dismantling shall be done only when power supply is switched off on your service panel.**

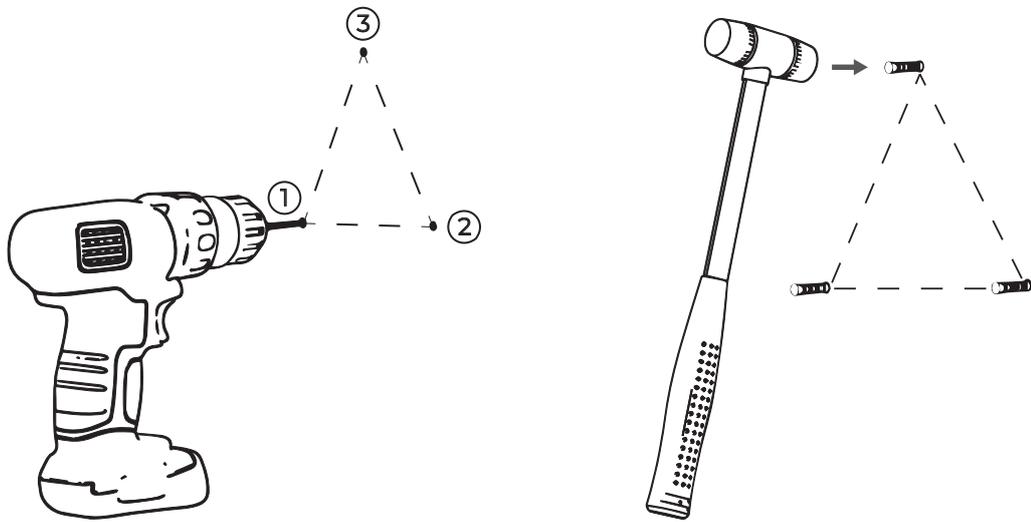
Wall-mounting height for **easyWallbox**.



Follow the steps below.

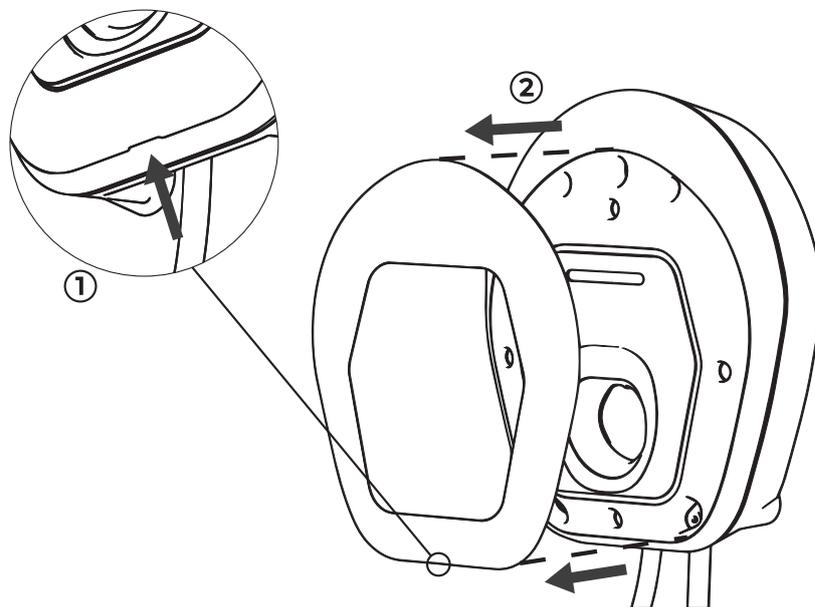


- 1.** Using the drilling template (A3 sheet), mark where to drill on the wall, using a measure tape and a spirit level.

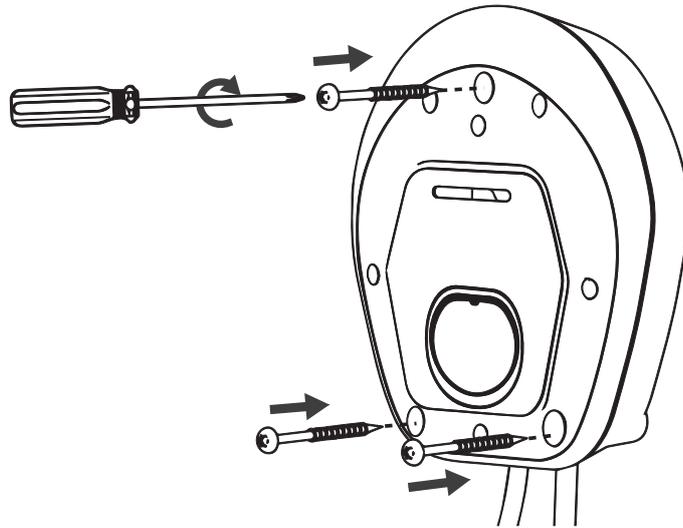


2. Use a drill to make the holes in the wall.

3. Put the fixing plugs into the holes using a hammer.



4. Remove the aesthetic cover of **easyWallbox** set up by mechanical interference in the CASE, using the groove on the bottom.



5. Place **easyWallbox** in correspondence with the holes and fix it to the wall using the screws supplied.

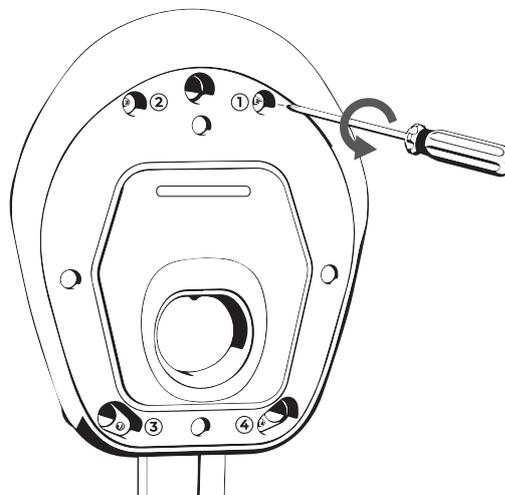
4.6. Power supply cable removal

If **easyWallbox** was already installed in Plug&Play mode, remove the aesthetic cover as indicated in step 4 before proceeding with the next steps.

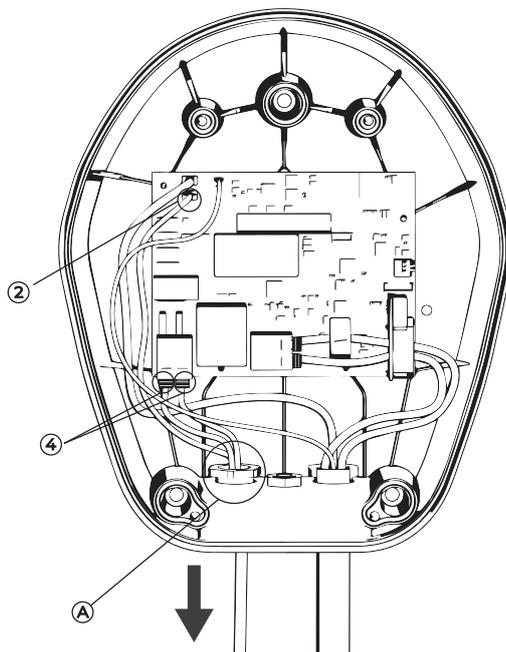


Risk of electric shock.

Before starting installation, be sure that **easyWallbox is not connected to any power supply. Any operation of installation, maintenance and dismantling shall be done only when power supply is switched off on your service panel.**

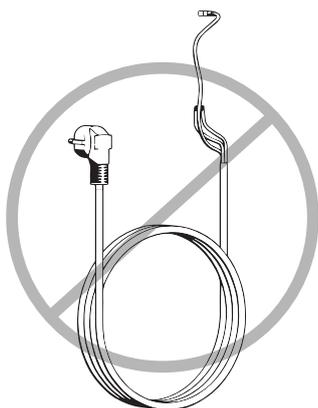


1. Remove the front panel of **easyWallbox**.



2. Remove the power cable

- Disconnect the wires connected to the tool-free J1 'push-lock' terminals (4)
- Disconnect the earthing wire connected to the J3 'Faston' terminal (2)
- Remove the power cable from the cable gland (A).



- ## 3. Store the power cable with the others **easyWallbox** accessories for use again in Plug&Play mode.



The power cable shall be stored where it can cause no danger to anybody (e.g. risk of tripping) and where no damage can occur to it while stored.

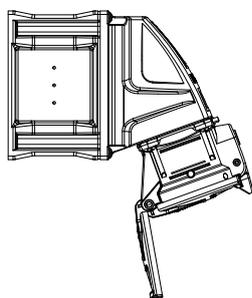
4.7. Socket and plug installation instructions

Once the power supply cable is removed, as explained in chapter 4.6 please act as follow.



The socket and plug should be compliant with French standard UTE C15-722 "Supply of electric vehicle and plug-in hybrid electric road vehicle - Installations électriques à basse tension"

- Socket installation



A 32 A socket (female connector) installed close to **easyWallbox** installation position is required, having the following requirements:

Amperage	32A
Poles	3P (2P + PE)
Nominal Voltage	230 V
Frequency	50 Hz
Reference Standard	IEC 60309-1, IEC 60309-4

Both wall-mounting and switchboard-mounting versions of the socket are acceptable.



Risk of electric shock.

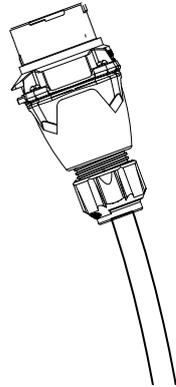
Any operation of installation, maintenance and dismantling shall be done only when power supply is switched off on your service panel.



All safety requirements concerning RCD and MCB installation listed in chapter 2.1 should be followed.

If not present, proceed with the installation of the socket in proximity of easyWallbox. For the installation, please refer to the plug specific instructions. Once installed, please proceed to next instruction.

- Plug installation



Install a 32 A plug (male connector), providing it with adequate cabling, with length and section adequate to connect **easyWallbox** to the installed 32 A Socket.

The 32 A plug shall have the following features:

Amperage	32A
Poles	3P (2P + PE)
Nominal Voltage	230 V
Frequency	50 Hz
Reference Standard	IEC 60309-1, IEC 60309-4



Risk of electric shock.

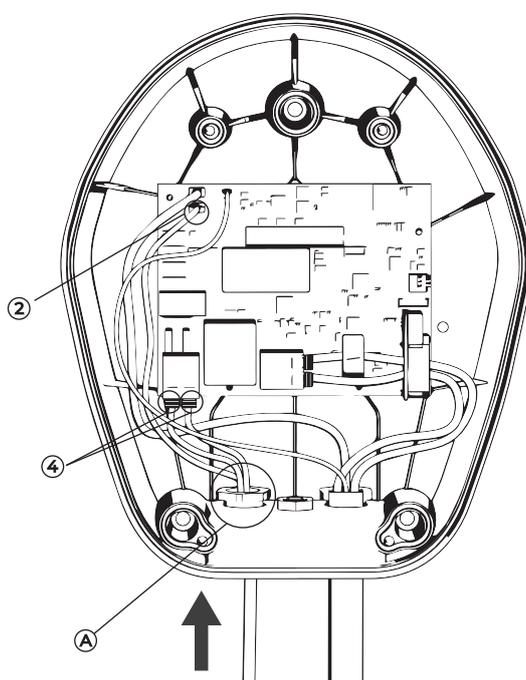
Any operation of installation, maintenance and dismantling shall be done only when power supply is switched off on your service panel.

4.8. Power supply connection



Risk of electric shock.

Before starting installation, be sure that easyWallbox is not connected to any power supply. Any operation of installation, maintenance and dismantling shall be done only when power supply is switched off on your service panel.



- Insert the power supply wires through the cable gland (A)
- Shorten the connection wires to the appropriate length (avoid leaving too much cable margin). The protective conductor PE must be longer than the other conductors.
- Connect the cables to the J1 tool-free 'push-lock' terminals (4). Connect Line (L) and Neutral (N) as indicated on the board.
- We recommend using flexible cables with the following max. section: - 6 mm
- Connect the earthing wire to the J3 'Faston' terminal (2). We recommend using FEMALE 6.3 x 0.8 'Fastons', better if with restraint.



WARNING



Incorrect installation may cause danger such as serious injury or death.

- The power supply to **easyWallbox** must be installed on a **dedicated** thermal-magnetic miniature circuit breaker (MCB) mounted in the service panel to protect the electrical circuit.
- The minimum characteristics of the MCB: voltage 250V, nominal current 32A (in the hypothesis of absorption of the maximum power equal to 7.4kW). If local regulations do not allow maximum power to be absorbed, the installer must evaluate the choice of a circuit-breaker with rated current based on the maximum power allowed in the state of installation, a type C curve for domestic or similar use is suggested as the trip curve.
- When dimensioning the MCB, the higher ambient temperatures in the control cabinet must also be taken into account.
- When dimensioning the MCB, the prospective short-circuit current should be considered. As an indicative value 5kA could be considered but a precise evaluation must be done before installation. The maximum interrupting capacity of the MCB must be greater than the evaluated prospective short-circuit current.
- The MCB must be in line with the section of the wires.
- The installation must incorporate a dedicated and adequate residual current device (RCD/ fault-current circuit breaker). An RCD with at least Type A must be used since **easyWallbox** has an internal DC fault current monitoring of ≥ 6 mA by using an RCM device with a maximum rated primary current of 80A.
- Two 1A and 250V fuses are integrated in the **easyWallbox** on the logic supply channel.
- Be aware that local regulations may be applicable and may vary depending on your region/country of residence. **easyWallbox** must be installed according to the local regulations.



Free2Move eSolutions S.p.A. does not assume any liability for damage caused by non-compliant installation of the device. Installer in Power Upgrade mode is responsible for completing the installation at a state-of-the-art technical level and in compliance with applicable regulation.

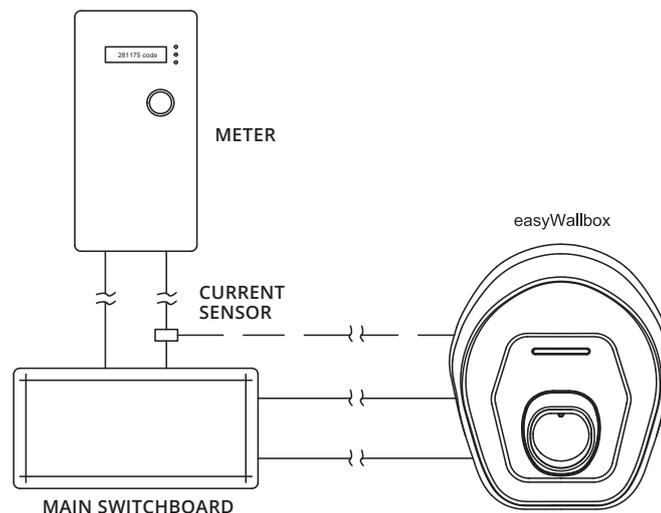
4.9. Installation of the Dynamic Power Management sensor (optional step)

If the Dynamic Power Management is not required, please go to chapter 4.10.



easyWallbox can work even without Dynamic Power Management: in this case the installation of a dedicated sensor is not necessary, but blackouts avoidance is not guaranteed.

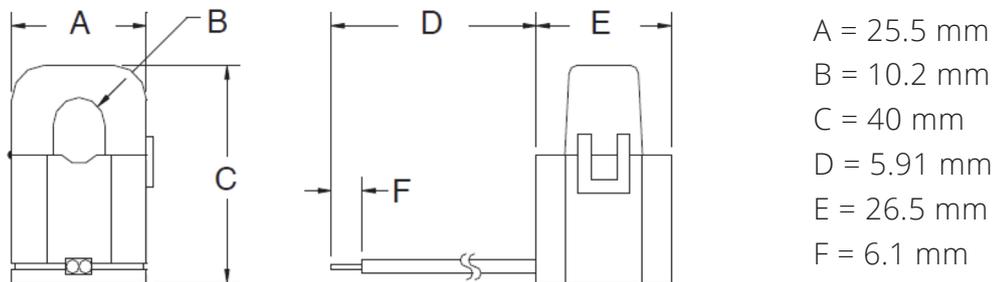
Please read the following instructions carefully before installing the dedicated Dynamic Power Management (DPM) sensor.



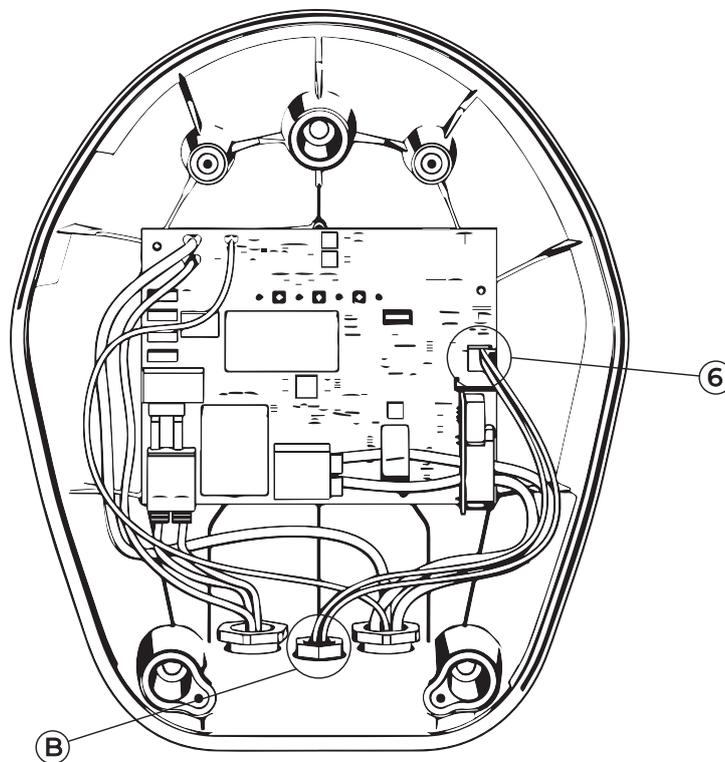
- The connection of the Dynamic Power Management sensor requires an installation by a professional.
- We recommend contacting qualified personnel or service for any question or doubt concerning easyWallbox's use, installation, and maintenance.



Do not try to install the Dynamic Power Management sensor if you are not a professional electrician. You may put yourself and others in great danger and cause serious damage to people, animals and things (e.g. you could cause a fire).



To connect the current sensor:



- a. The current sensors must be attached to a single meter output wire.
- b. The sensor has a hinge and locking snap which allows attachment without interrupting the live wire.
- c. Join the current sensor wires and twisted cable (recommended section 0.5 mm²).
- d. Bring the twisted cable near [easyWallbox](#).
- e. Insert the twisted cable through the cable gland (B).
- f. Connect the twisted cable to the J7 'push-in' spring terminals (6) without tools. There is no particular requirement about cabling position on the terminal.

4.9.1. DPM sensor installation on a single-phase domestic electrical system without power generation system (e.g. photovoltaic system)

In single-phase domestic electrical systems, the suitable point to install DPM current sensor is downstream of energy meter on a single wire of the main line (phase conductor) that passes the total current consumed by all domestic electrical loads including **easyWallbox** itself as shown in Figure 1 and Figure 2. Once DPM sensor installed the DPM limit should be chosen considering the maximum current that can pass through the wire on which the sensor is installed. For example, supposing that the correct position to install the DPM sensor is the main branch on a single output of the energy meter like Figure 1 and Figure 2, the DPM limit should be set equal to the maximum power of the energy meter, which is usually the contractual power.

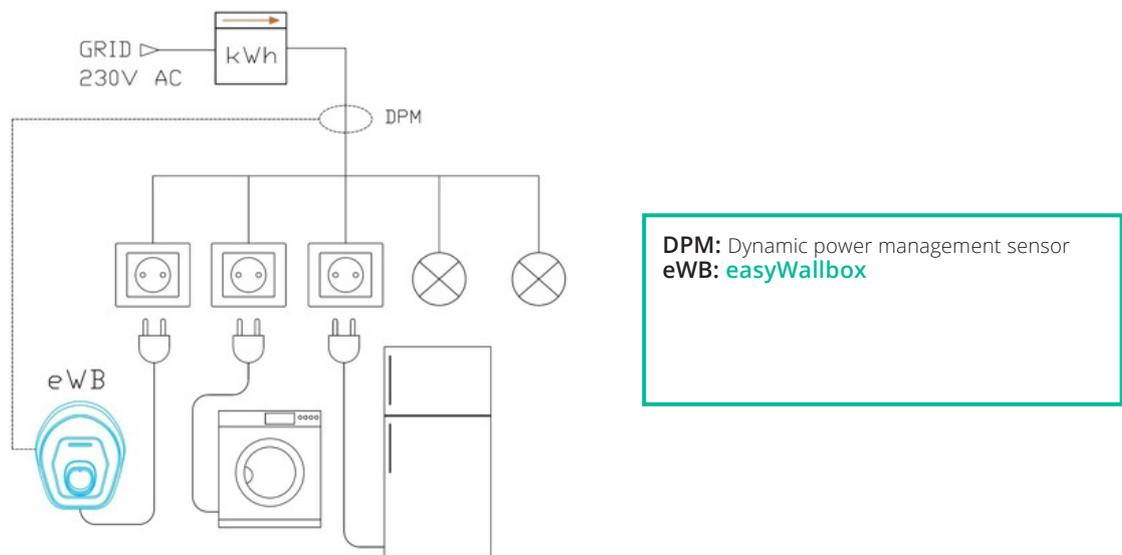


Figure 1. Schematic view of connection of easyWallbox and DPM to a single-phase power supply in Plug & Play Mode

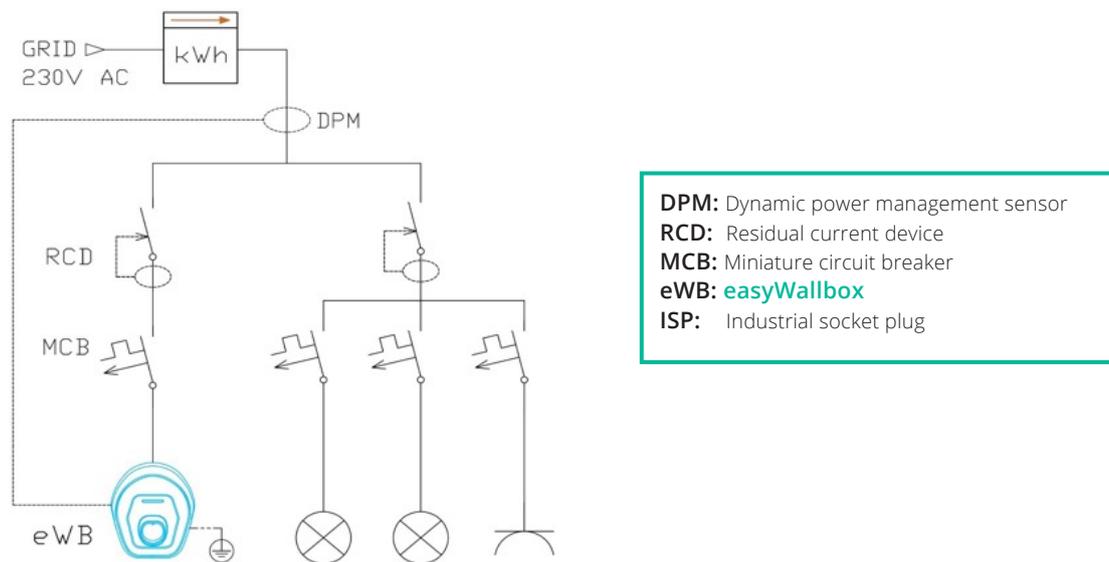


Figure 2. Schematic view of connection of easyWallbox and DPM to a single-phase power supply in Power Upgrade Mode

Figure 1 and Figure 2 have illustrative purpose only and may not represent a real installation of **easyWallbox** in Plug & Play mode and in Power Upgrade mode. Please refer to user and installer manuals and local regulations for more information about installation of **easyWallbox**.

4.9.2. DPM sensor installation on a three-phases domestic electrical system without power generation system (e.g. photovoltaic system)

In case of connection of **easyWallbox** to a three-phase electrical circuit, the DPM sensor should be connected only to the same phase that **easyWallbox** itself is connected. The point to install DPM sensor must only be on one phase conductor downstream the energy meter that passes the total current required by all electrical loads including **easyWallbox** itself connected only to the same phase. To avoid fault occurrence due to incorrect measurement of current by DPM, do not connect DPM sensor to the neutral conductor and other phases. When **easyWallbox** is connected to a three-phase supply network, the maximum current of only one phase (the one that supplies **easyWallbox**) should be considered for DPM limit setting.

In case of connection of **easyWallbox** to a three-phase power supply, phase balancing (balanced connection of single-phase loads by evenly distribution of them on the main line conductor of three phases) might be required depending on local regulations in France.

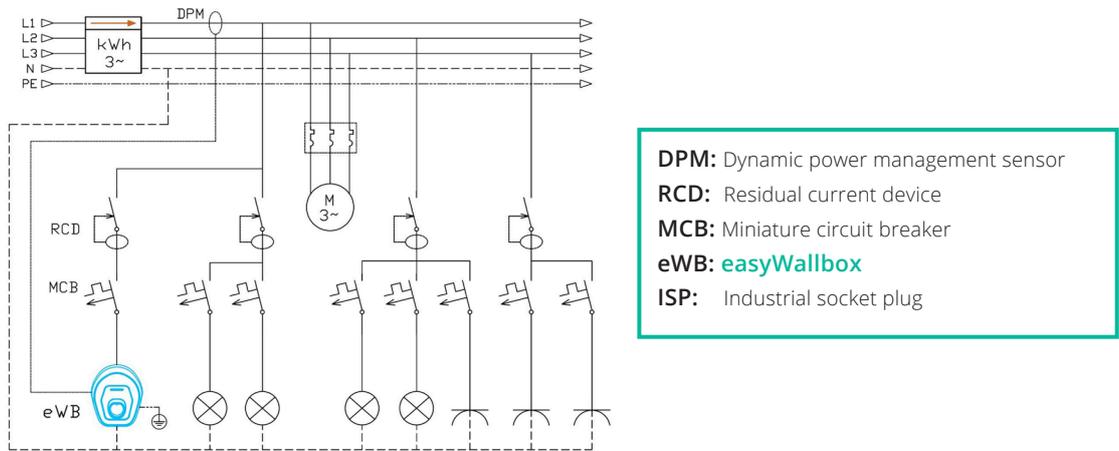


Figure 3. Schematic view of connection of easyWallbox and DPM to a three-phase power supply in Power Upgrade Mode

Figure 3 has illustrative purpose only and may not represent a real installation of [easyWallbox](#) in Power Upgrade mode. Please refer to user and installer manuals and local regulations for other information about [easyWallbox](#) installation.

4.9.3. DPM sensor installation on a single-phase domestic electrical system with power generation systems (e.g photovoltaic system)

The following single line diagram represents connection of **easyWallbox** to a single-phase power supply combined with the output of a PV inverter. In such cases the point to install DPM is not the output of energy meter, but it should be connected to a single wire (phase conductor) that passes only ($I_t \downarrow$) the total current consumed by all electrical loads including the **easyWallbox** itself as illustrated in Figure 4. The energy meter in PV system applications is bidirectional, hence in order to avoid DPM failure, do not connect DPM sensor to the output of bidirectional energy meters. The DPM sensor must not measure the exceeded power by PV that is feeding back into the grid.

When **easyWallbox** is connected to a supply network with PV system the DPM limit should be set considering only the maximum contractual power coming from the grid not the summation of power generated by PV and contractual power. **easyWallbox** does not regulate its power based on the generated power, but it detects only the variation of all electrical loads connected together with **easyWallbox** to the same single phase and so regulate its power depending on the consumption of total loads ($I_t \downarrow$).

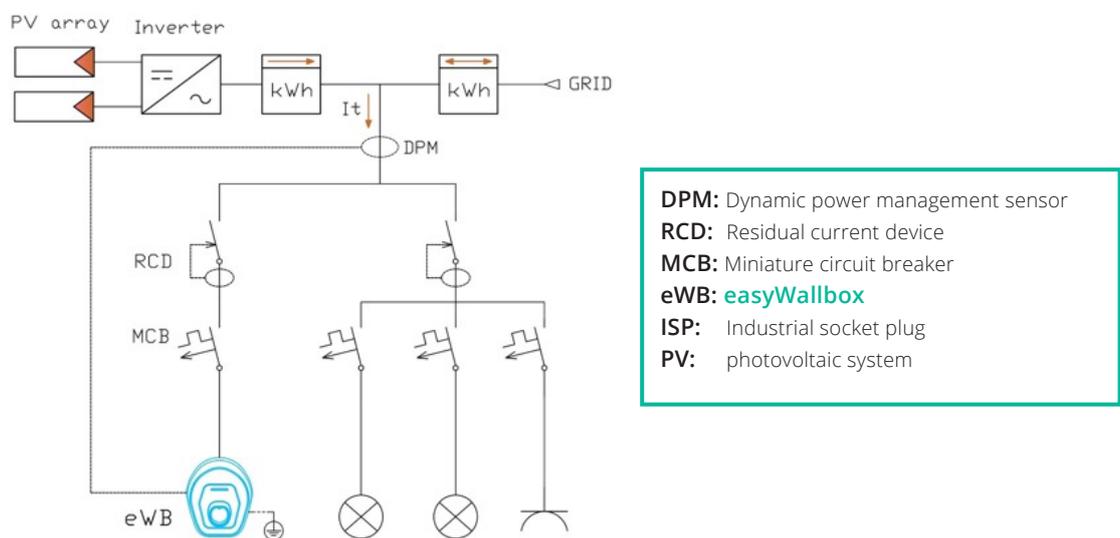


Figure 4. Schematic view of connection of **easyWallbox** and DPM to a power supply with PV system in Power Upgrade Mode

Figure 5 shows a domestic electrical system with PV system which needs some modifications to create the ideal point for DPM sensor installation. The DPM installation point represented in Figure 5 is wrong. In case of modifying the connections of a domestic PV system to make it compatible with operation of **easyWallbox** and its DPM sensor, it is recommended to change it to a model similar Figure 4.

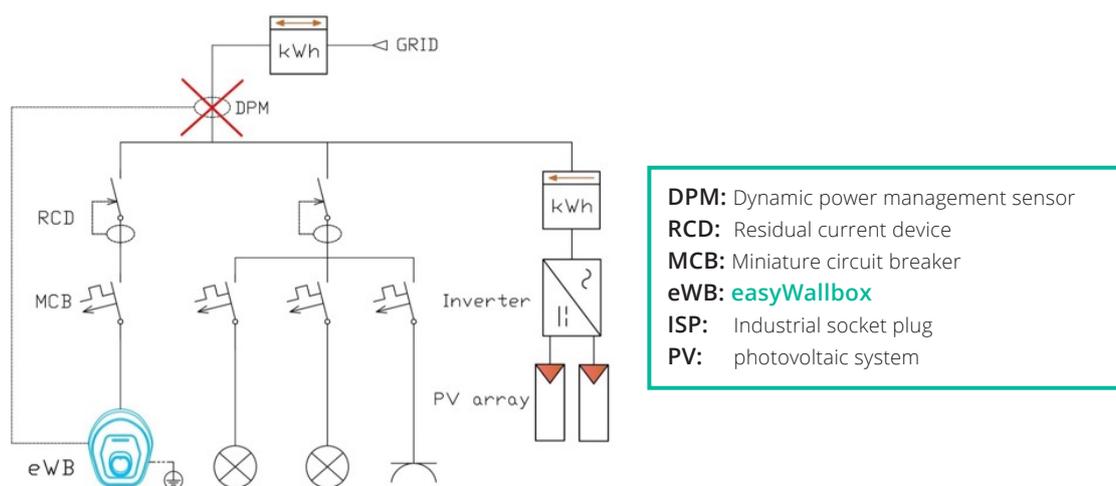


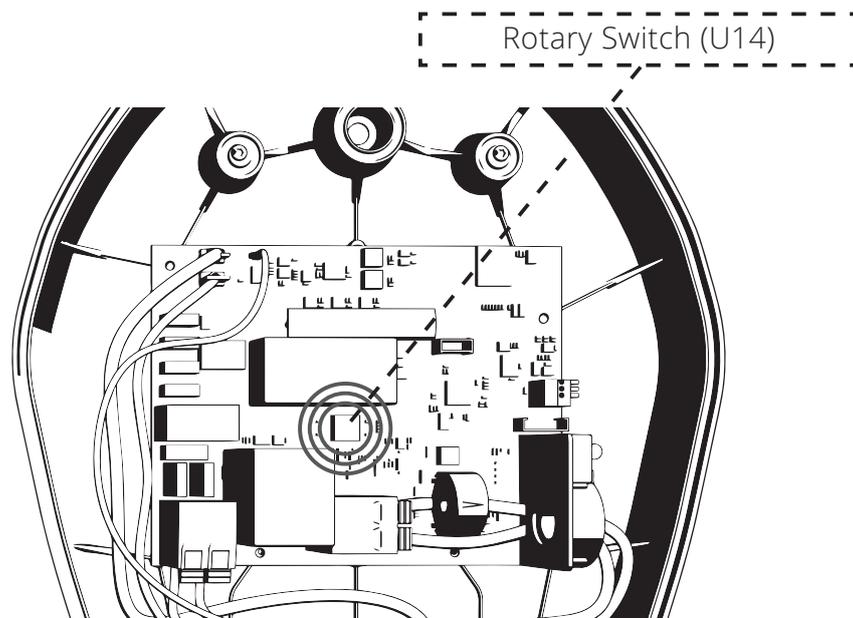
Figure 5. Schematic view of a wrong connection of DPM sensor to a power supply with PV system in Power Upgrade Mode

Figure 4 and Figure 5 have illustrative purpose only and may not represent the real installation of **easyWallbox** in Power Upgrade mode. Please refer to user and installer manuals and local regulations for further information about **easyWallbox** installation.

Similar consideration proposed in this section should be applied properly on a three-phase system with PV system.

4.10. Setting the rotary switch

The installer in Power Upgrade mode should correctly set the Rotary Switch following the instructions:



1. If the DPM sensor is not installed, choose POSITION 1
2. If the parametrization of DPM will be configured via App, choose POSITION 2 and configure it **easyWallbox** PowerUp (chapter 4.12)
3. As an alternative, configure the DPM operation and limits in accordance with the user's energy supply contract, following Table 1, Rotary Switch default DPM

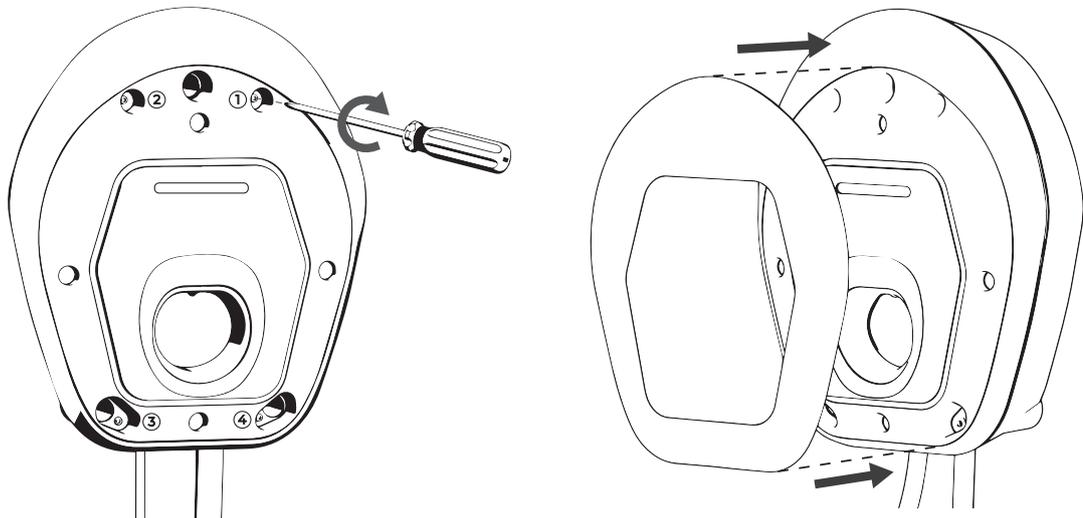
A list of meanings of the Rotary Switch positions follows:

- POSITION 0: Not allowed (reserved)
- POSITION 1: DPM is always turned off
- POSITION 2: DPM can be enabled or disabled via the **easyWallbox** PowerUp (see chapter 4.12) or **Free2Charge** (see chapter 5.2))
- POSITION 3 to POSITION 9: DPM operations depends on the corresponding max power values [kW] set by default.

U14 Position	DPM Current [A]	DPM Power [kW]
3	13	3.0
4	16	3.7
5	20	4.6
6	25	5.8
7	32	7.4
8	43	9.9
9	49	11.3

Table 1 – Rotary Switch default DPM current

4.11. Case reassembly



1. Reassemble the front panel of **easyWallbox**
2. Reposition the aesthetic cover of **easyWallbox**
3. Once **easyWallbox** has been mounted on the wall and connected to the power supply, switch on power supply on your service panel.



- Before connecting to a power supply, make sure that **easyWallbox** is installed correctly, with a proper earth connection and in compliance with local and international standards.
- Free2Move eSolutions S.p.A. does not assume any liability for damage caused by non-compliant installation of the device. Installers in Power Upgrade mode are responsible for completing the installation at a state-of-the-art technical level and in compliance with applicable regulations.

4.12. Configuration via easyWallbox PowerUp (service app)



The final configuration for installation should be done via the purpose-built app, **easyWallbox** PowerUp.

In detail, qualified personnel who install in Power Upgrade mode should authenticate this, thus unlocking access to safety-relevant configuration parameters. The most important for correct operation is the safety limit on current absorption from the supply. Be aware that **easyWallbox** will not charge EVs plugged in Power Upgrade mode unless properly configured in accordance with the following directions via the app.

The maximum charging current in Power Upgrade mode (**'Safety limit'**) must be **the minimum value** between the:

- current allowed by the installed power supply, including wiring sections
- current allowed by local applicable standards.



The installation and parameter set-up should be in accordance with local applicable standards. Please check local updates of standards before setting up parameters.

The following table contains indicative values of maximum currents for each installation country, to be checked however before any installation:

Country	Current limit with Power Upgrade [A]	Country	Current limit with Power Upgrade [A]
1. Germany	20	11. Czech Republic	25
2. France	32	12. Slovakia	20
3. UK	32	13. Hungary	32
4. Belgium	22	14. Denmark	16
5. Luxembourg	32	15. Sweden	32
6. Netherlands	22	16. Italy	26
7. Switzerland	16	17. Spain	32
8. Austria	16	18. Portugal	32
9. Poland	32	19. Norway	32
10. Greece	32		

1. Open **easyWallbox** PowerUp on your smartphone.
2. Accept the safety disclaimer.
3. Scan the authentication QR code available (see chapter 5.2)
4. Enter the 'Safety limit' determined according to the above instructions.
This must comply with local applicable regulations and consistent with the maximum current allowed by the supply wiring.
5. If **easyWallbox** is configured with the rotary switch (U14) in position 2, the app defines whether DPM is enabled:
 - a. If you did not install the sensor in accordance with section 4.9, set 'DPM' to Off.
 - b. If you installed the sensor in accordance with section 4.9, set 'DPM' to On and 'DPM limit' in accordance with the user's energy supply contract.
6. Make sure that the '**User limit**' is set to a value lower than or equal to '**Safety limit**' and compatible with the user's energy supply contract.



If the instructions in this paragraph are not followed, all parameters remain as initially set for Plug&Play mode. This reduces easyWallbox's performance.

5. FIRST START

5.1. Turning on easyWallbox

The device does not have start/stop buttons. Once installed, it is ready to charge when there are the following conditions:

- correct installation, carried out following the instructions in this manual
- regular status of the device



Danger of electric shock when the device is damaged. Use of a damaged device may generate electrical discharges.

If the device is damaged, follow the instructions below precisely to avoid dangerous situations, with the resulting damage to persons or things:

- avoid using the damaged device
- clearly indicate the damaged device so that other people will not use it
- call qualified personnel promptly so that the device can be repaired or, if irreparably damaged, taken out of service

5.2. Configuration through the Free2Charge app (only for users)

Free2Charge is a dedicated smartphone App, available both on Google Play® and App Store®, that can be used to configure, monitor, and set **easyWallbox** via a Bluetooth connection.

Start and stop: Charging processes can be started and stopped, the charging session delayed and access gained to the log of the latest charging sessions through the app.

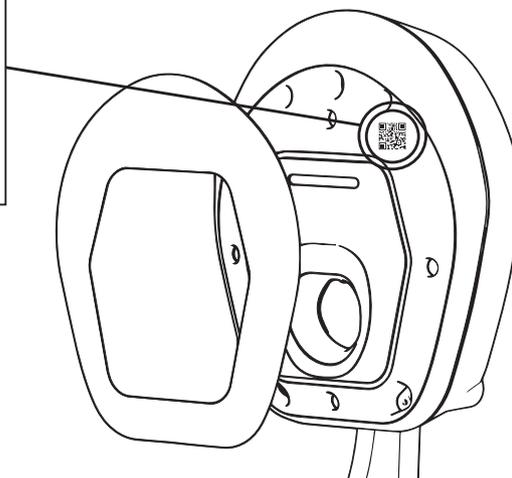


Free2Charge



- If the instructions in paragraph 4.12 are not followed, all parameters remain as initially set for Plug&Play mode. This reduces easyWallbox's performance.
- Simultaneous use of Free2Charge and smart charging function from the vehicle may lead to minor functional issues.

To authenticate the smartphone, frame the QR code as required by the app tutorial. For detailed instructions please refer directly to the app.

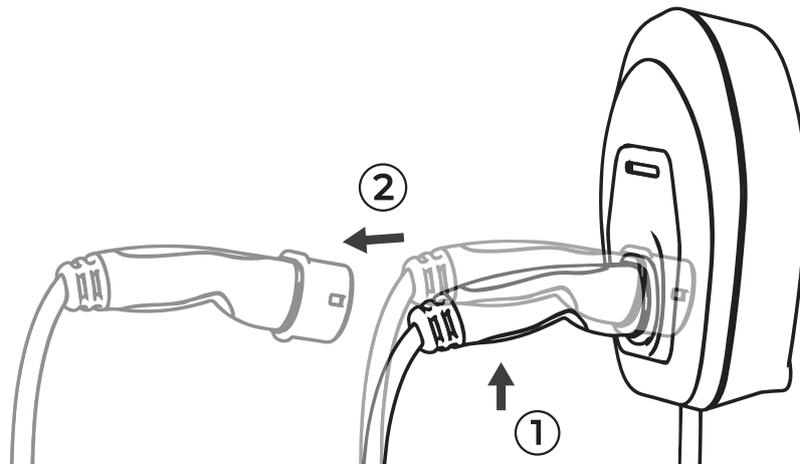


6. CHARGING PROCEDURE

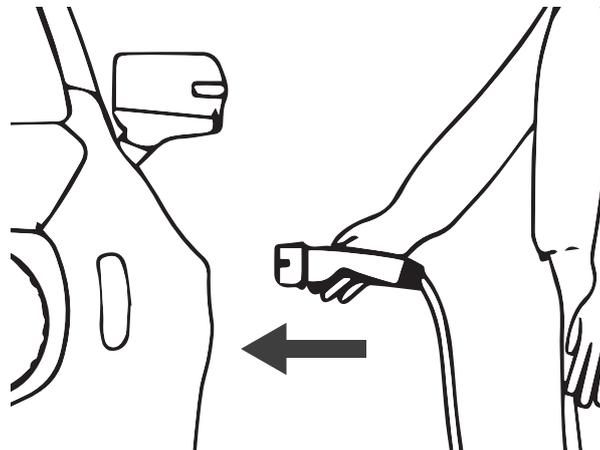
Once installation is completed, recharging an electric vehicle with **easyWallbox** is very easy.

All you have to do is:

1. Ensure that **easyWallbox** is connected to an active power supply
2. Check if the LED status indicator is BLUE.



3. Extract the connector from **easyWallbox**



4. Insert the connector into the electric vehicle



- Vehicle adaptors should not be used to connect a vehicle connector to a vehicle inlet
- Avoid dynamic stress of the cable. Do not pull or twist it.

For information on completion of charging, please continue to 7.

6.1. LED status indicator

There is a strip of LEDs on the front of the charging station which combines visual signals and alarms indicating the status of **easyWallbox**:

- **BLUE STAND-BY status**,
easyWallbox indicates it is ready to start the charging process or charging session is complete.
- **GREEN RECHARGING status**,
easyWallbox is recharging the electrical vehicle.
- **FLASHING RED ALARM status**,
easyWallbox is not charging due to an error.
easyWallbox self-restores from minor errors within a few seconds.
If it remains in ALARM status for a long time, please contact assistance as explained in 11.

7. STOP CHARGING

If the charging process is completed, the LED on the device turns BLUE, and the connector can be removed from the electric vehicle as explained in 7.1. If the charging process is not completed, it must first be stopped.

The interruption can be done in two different ways:

- Directly through electric vehicle dedicated control (see the vehicle instruction manual for more details).
- Using **Free2Charge** app.

Once the process is stopped, refer to the next chapter.



Please note that, once the charging process is stopped, the connector must be extracted from the vehicle before the charging process can be restarted.

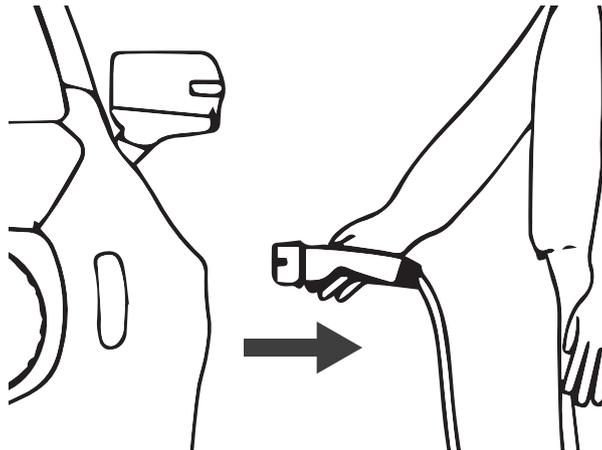


Avoid pulling the cable from the vehicle inlet if the charging process is not completed.

7.1. Charging process completion

To complete the charging process, see the following instructions:

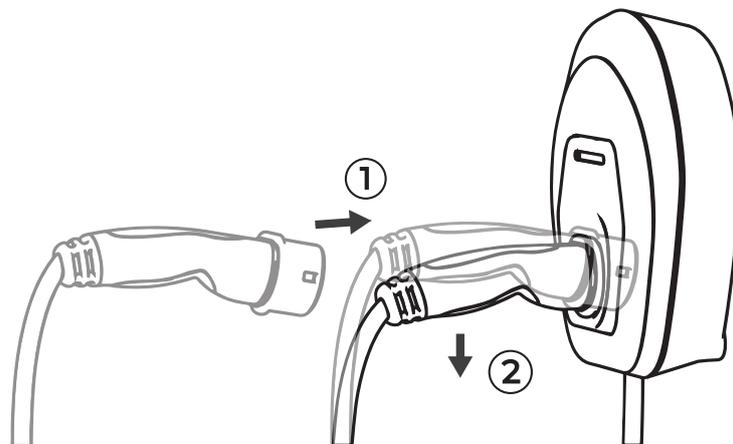
1. Check if the LED on the device is BLUE



2. Extract the connector from the vehicle inlet



Do not extract the connector from the vehicle when the charging process is NOT completed and the LED on the device is GREEN. Pulling the cable could damage it and lead to electrocution and serious injuries.



3. Insert the connector into [easyWallbox](#)

8. MAINTENANCE



Before carrying out any type of maintenance on easyWallbox, wait for it to come to a complete halt and turn it off, disconnecting it from the power supply.

The perfect operation and duration of **easyWallbox** depends on periodic checks and maintenance made on the device.

Here are some examples of damage that **easyWallbox** may suffer:

- damage to the case
- damage to the front panel
- damage to components
- accidental removal of components.



A defective or damaged device must not be used under any circumstances. Any defects must be rectified immediately by qualified personnel.



Danger of electric shock when the device is damaged. Use of a damaged device may generate electrical discharges.

If the device is damaged, follow the instructions below precisely to avoid dangerous situations, with the resulting damage to persons or things:

- avoid using the damaged device
- clearly indicate the damaged device so that other people will not use it
- call qualified personnel promptly so that the device can be repaired or, if irreparably damaged, taken out of service.

8.1. Ordinary maintenance Intervals

easyWallbox does not require specific maintenance. However, it is recommended to:

- always insert the connector into **easyWallbox** when the device is not in operation
- we advise regular cleaning of the plastic case with a damp cloth
- we advise a regular inspection and cleaning of the connector only after removing the power supply
- avoid cleaning with aggressive solvents or abrasive materials
- carry out a visual inspection of the device to note defects at every charging session
- carry out a visual inspection on the recharging cable at every charging session
- carry out a visual inspection on the power supply cable at every charging session and, however, before any connection to the power supply
- If the power supply plug is removed from the socket, please place the cable tidily, if necessary by rolling it around the case of **easyWallbox**. Anyhow, the cable must be placed in a safe manner, where it does not obstruct anyone and cannot be damaged (e.g. pressed by vehicles)
- control of operational readiness.



easyWallbox does not contain components that the user can repair or maintain autonomously.

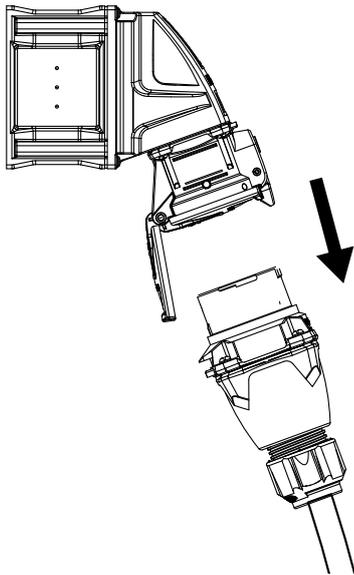


The only part that can be removed from easyWallbox is the aesthetic cover, only during the installation and dismantling phases and following the instructions. easyWallbox should not be opened further unless by qualified personnel while performing installation in Power Upgrade mode, dismantling or maintenance.

9. DISMANTLING AND STORAGE

Once **easyWallbox** has reached the end of its technical and operational life, it must be deactivated or taken out of service.

9.1. Disconnection from the power supply



Remove the industrial connector.



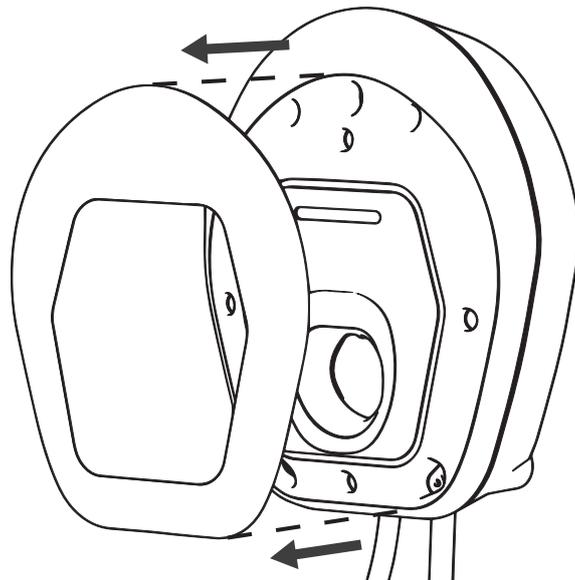
Risk of electric shock.

Before starting dismantling, be sure that the easyWallbox is not connected to any power supply. Any operation of installation, maintenance and dismantling should only be done when the power supply is switched off on your service panel and the industrial connector is removed.

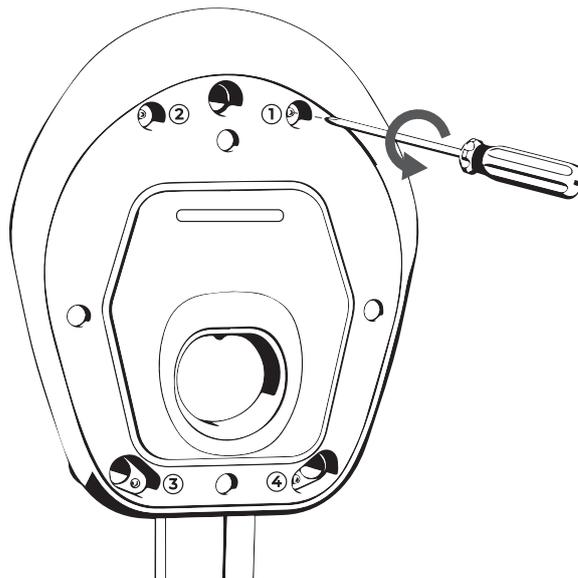
The intervention of qualified personnel is strongly recommended to dismantle easyWallbox.

9.2. Removal of the device from the wall

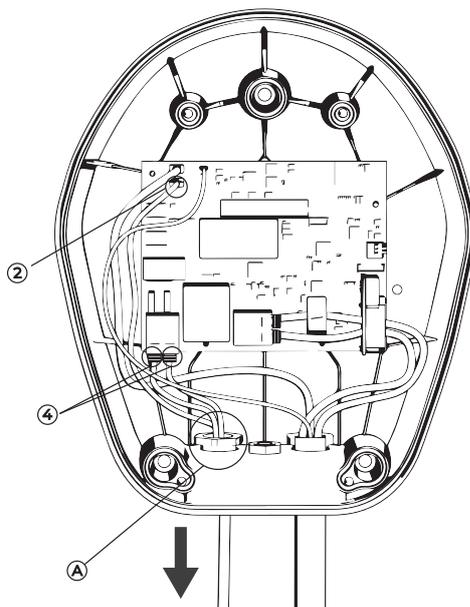
Follow the steps below to remove **easyWallbox** from the wall where it is installed:



1. Remove the aesthetic cover (if you don't need to remove the power supply cable and the current sensor is not installed, proceed to step 4).

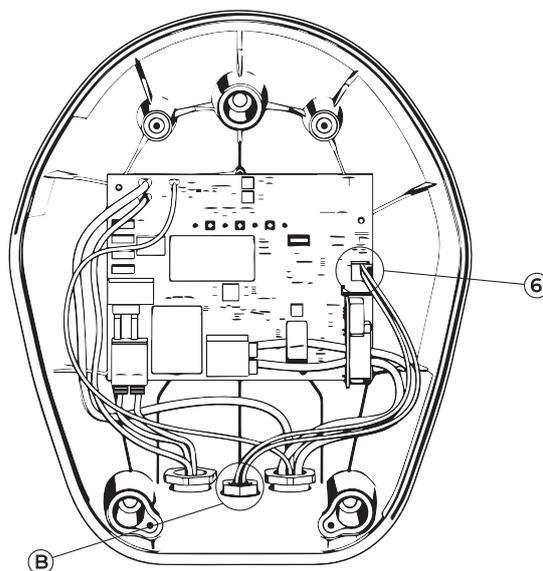


2. Remove the front panel of **easyWallbox**.



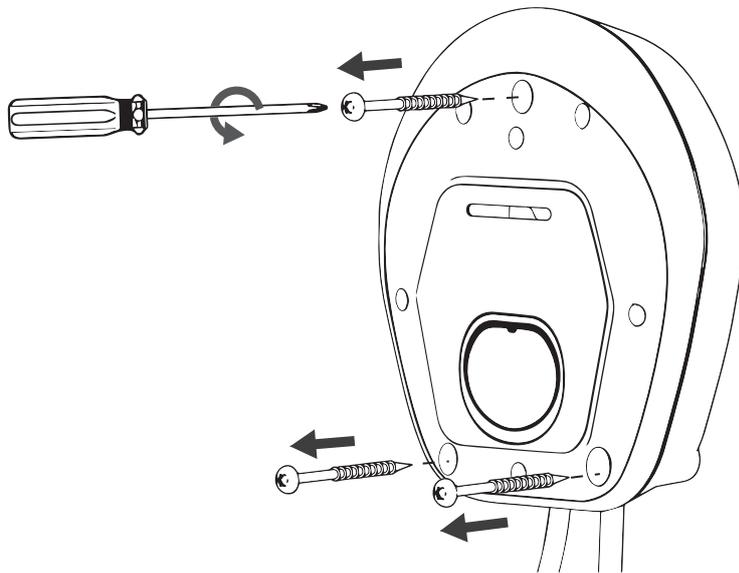
3. Remove the power supply cables (if preferred)

- Disconnect the wires connected to the J1 tool-free 'push-lock' terminals (4).
- Disconnect the earthing wire connected to the J3 'Faston' terminal (2).
- Remove the power cable from the cable gland (A).

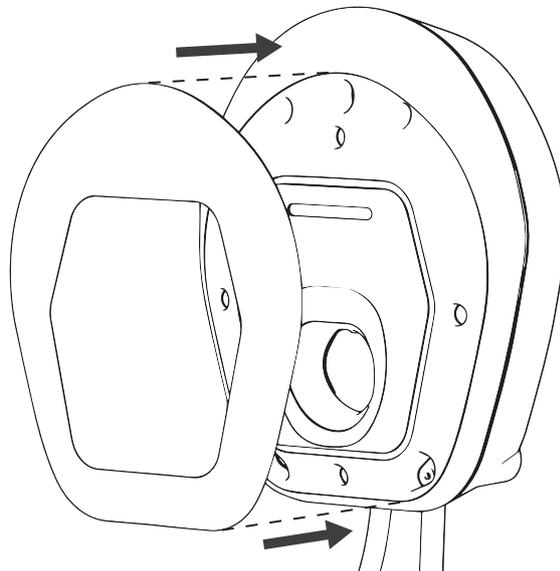


4. Also remove the sensor cable (if it exists)

- Disconnect the twisted cable to the J7 'push-in' spring terminals (6).
- Remove the twisted cable from the cable gland (B).



5. Unscrew the three screws in the wall.



6. Reposition the aesthetic cover on the device.

9.3. Storage

If you want to dismantle **easyWallbox** and keep it for future use, use the following precautions to maintain its operability:

- clean the device well before storing
- put the clean device into the original packaging or suitable clean and dry material
- follow the storage conditions:
 - the temperature of the place where the device is stored must be between -25°C and +40°C
 - the average temperature over 24 hrs must not exceed 35°C
 - the relative air humidity must not exceed 95% and condensation must not form.

10. DISPOSAL



10.1. Disposal of the packaging

Dispose the packaging in an environmentally-friendly manner. The materials used for the packaging of this product can be recycled and must be disposed of in compliance with the legislation in force in the country of use.

10.2. Taking out of service and disposal of easyWallbox

This appliance is labelled in accordance with European Directive 2012/19/EU concerning used electrical and electronic appliances (waste electrical and electronic equipment – WEEE). The guidelines determine the framework for the return and recycling of used appliances as applicable throughout the EU. Further information about current disposal facilities can be obtained from local authorities.



Electric and electronic waste (WEEE) must be treated and disposed of in compliance with current legislation, separately from normal household waste.

11. ASSISTANCE

If you have any questions about the installation of **easyWallbox**, contact the authorised assistance centre. Various assistance centres available to customers can be found on www.esolutionscharging.com / www.easywallbox.eu. Refer to the authorised assistance centre for any questions on the use of **easyWallbox**.

Support will be provided by Free2Move eSolutions S.p.A. through land-line in the **local language**, for the following countries:

Germany	Sweden
UK	Italy
Belgium	Spain
Luxembourg	Portugal
Netherlands	Greece
France	Czech Republic
Switzerland	Slovakia
Austria	Hungary
Poland	Norway (English only)
Denmark	

Land-line: 8:00 a.m. - 8:00 p.m. from Monday to Saturday.

If you contact Free2Move eSolutions S.p.A. assistance, please have the following

information available, as shown in chapter 3.2:

- name of the model;
- serial number.

DISCLAIMER

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