# USER MANUAL, USE AND MAINTENANCE MANUAL

GB

## SAFETY INSTRUCTIONS

**This manual contains important safety instructions that must be followed during installation and maintenance of the equipment.**

Keep this document in a safe place for easy access at all times during installation and maintenance.

**The installer must read this document in its entirety before installing the equipment.**

Operators are required to read this manual and to comply strictly with the instructions it contains. Free2Move eSolutions S.p.A. cannot be held liable for damage caused to persons and/or property, or to the equipment, if the conditions described below have not been complied with. The purpose of this document is to support qualified technicians, who have received appropriate training and/or have demonstrated adequate skills and knowledge in the construction, installation, operation and maintenance of electrical equipment.
The warranty requirements are contained in the Terms and Conditions of Sale section included with the purchase order for this product.
NOTE: Any modification not approved by Free2Move eSolutions S.p.A. will immediately invalidate the product warranty.

## WARRANTY AND DELIVERY CONDITIONS

The warranty conditions are considered valid if the customer complies with the information contained in this manual; any deviation from the warranty conditions with respect to what is described below must be expressly indicated in the purchase order. Free2Move eSolutions S.p.A. declares that the equipment complies with the legal provisions currently in force in the country of installation and has issued the relative declaration of conformity.
Free2Move eSolutions S.p.A. assumes no responsibility for failure to comply with the instructions for proper installation and cannot be held responsible for the systems upstream or downstream of the equipment supplied.
It is absolutely forbidden to modify the equipment.
Any modification, manipulation or alteration of the hardware or software not expressly agreed with Free2Move eSolutions S.p.A. will immediately void the warranty.





Due to the large number of possible combinations of system configurations and installation environments, it is essential to check the following before installing the product: adequate space for housing the equipment, ambient noise produced by the environment and possible flammable conditions. Free2Move eSolutions S.p.A. cannot be held responsible for defects or malfunctions deriving from: improper use of the equipment; deterioration due to transport or particular environmental conditions; incorrect or insufficient maintenance; tampering or unsafe repairs; use or installation by unqualified persons. Free2Move eSolutions S.p.A. is not responsible for any disposal of the equipment, or part thereof, that does not comply with the regulations and laws in force in the country of installation.

## PURPOSE AND STRUCTURE OF THE DOCUMENT

**This user and maintenance manual is a guide to help you to work safely and carry out the necessary operations to keep your equipment in good working order.**

If the equipment is used in a manner not specified in this manual, the protection provided by the equipment may be impaired.
This document was originally written in Italian. Therefore, in case of inconsistencies or doubts, ask Free2Move eSolutions S.p.A. for the original document.

## LIST OF DOCUMENTS IN THE APPENDIX

In addition to this user manual, product documentation can be viewed and downloaded by visiting Free2Move eSolutions S.p.A. website (https://www.e solutions.free2move.com/ low-power-charging-solutions/).
This document only contains the information deemed necessary for the use and routine maintenance of the equipment. Installation requires qualified personnel for the design and creation of a dedicated, state of the art electricity supply system and to certify the system in compliance with local regulations and the energy supply conctract. Installation must be carried out in accordance with the regulations in force in the country of installation and in compliance with all safety regulations for carrying out electrical work. It is forbidden to entrust the installation or maintenance of the product to unqualified persons or those in an altered physical or mental state.
The customer bears civil liability for the qualification and mental or physical state of the personnel who handle the equipment.
Such personnel must always use the personal protective equipment (PPE) required by the laws of the country of destination and by the instructions of their employer.

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# 1. GENERAL INFORMATION

ePublic is the ideal Alternate Current charging solution for electric vehicles for public and semi-public applications: it is available in single-phase configurations up to 7.4 kW or three-phase up to 22 kW and equipped with a Type 2 socket (according to the IEC 62196-2 standard). Other types of connectors are not supported. Characterised by significant robustness and ease of use, this device allows two electric vehicles to be charged simultaneously up to a maximum of 44kW (22kW each) with a Type T2 socket.

**The entire power supply system must be prepared and sized in compliance with the local and international standards in force according to the product configuration and the power rating chosen.**
**This document describes how to install, configure, and maintain the product. A description of the characteristics of the equipment is provided to identify its major components and specify the technical terminology used in this manual.**

**This chapter contains information on models, details on equipment, characteristics and technical data, overall dimensions and identification of the equipment. In some cases (e.g. data sim, etc.), it may be necessary to look up software configuration features separately by consulting additional documentation to this manual, which is intended for specialised technicians trained Free2Move eSolutions S.p.A.**

## 1.1. Field of use

Free2Move eSolutions S.p.A. is not liable for damage of any kind resulting from incorrect or careless operations.





**The equipment may not be used for any purpose other than that its intended use. The equipment must not be used by inexperienced personnel, or even by expert personnel if operations are carried out on the equipment that do not comply with this manual and the accompanying documentation.**

This equipment is a charging station for electric vehicles; the following classification (according to IEC 61851-1) identifies its characteristics:

- Power supply: permanently connected to the AC power supply grid
- Output: alternate current
- Environmental conditions: outdoor use
- A device for free access places
- Fixed installation on the ground
- Protection against electric shock: Class I
- Charging type: Mode 3 according to the IEC 61851-1 standard
- Optional function for ventilation not supported

**In case of installation in TN-type earthing systems, there may be additional specific local regulations regarding system safety and protection against faults that the installer must understand and implement. The device may only be connected to the mains in countries for which it has been certified / approved.**

## 1.2. Support

For any further information or requests for further support, Free2Move eSolutions S.p.A. is available through the dedicated section of the website: www.esolutions.free2move.com/low-power-charging-solutions/ePublic or by writing to: epublic@f2m-esolutions.com .

## 1.3. Technical data

| Model: | ePublic |
|---|---|
| Type of socket | Type |
| Standard | IEC61851-1 |
| Charging mode | Mode 3 |
| Maximum power per socket | 22kW |
| Power system | 3P + N + PE |
| Rated voltage | 400V AC ± 10% |
| Frequency | 50-60Hz |
| Rated current | 64A |
| Rated impulse withstand voltage (Uimp) | ≥4kV |
| Rated conditional short-circuit current of an assembly (Icc) | 10kA |
| Rated Diversity Factor (RDF) | 1 |
| Level of pollution | 2 |
| EMC classification | Class B emissions |
| Protection measures against electrical shocks | Class I |
| Power supply connection | Permanently connected to the electricity grid |
| Type of grounding system | TT or TN (both with PE) |
| Indoor / outdoor installation | Outdoor |
| Fixed or removable installation | Fixed |
| Overvoltage category | III |
| IP protection class | IP 54 |
| IK protection Class | IK10 |
| Casing material | FE360 with cataphoresis, painting and polycarbonate |
| Dimensions | 1405mm x 422mm x 393mm |
| Weight | 48kg |
| Operating temperature | -25....+50°C |
| Storage temperature | -25...+70°C |
| Humidity | 0 ... 95% (without condensation) |
| Altitude | Up to 2000m |
| Product intended for use | Ordinary person |
| Location in area with | Unrestricted access |
| Thermal-magnetic circuit breaker | Included (2 x MCB 4P D40 10kA) |
| Residual-current device | Included (2 x RCD 4P Type A 40A 30mA & RCM 6mA DC) |
| Energy meter | MID certified |
| Contactor | 2xNo/4xNO 40A, AC-1 @40°C |
| OCPP | OCPP 1.6-J |
| Internal Load Manager | Y |
| Connectivity | Modbus TCP / IP |
| G0 3G / 4G | Y |
| RFiD reader | Y |
| Status LED | Y |
| 4.3" TFT monitor | Y |
| Certification | CE |





It is strictly prohibited to:

- Install the equipment in environments subject to particular flammability conditions or in adverse or unacceptable environmental conditions
- Use the equipment with defective or disabled safety devices
- Use the equipment or parts of the equipment by connecting it to other machines or equipment, unless expressly provided for
- Modify operating parameters that are not accessible to the operator and/or parts of the equipment to alter its performance or make changes to its insulation
- Clean the product with corrosive products that could damage parts of the equipment or generate electrostatic charges
- Use or install the equipment or any associated parts thereof without having read and properly understood the contents of the operation and maintenance manual

## 1.4. Symbols and definitions

**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.

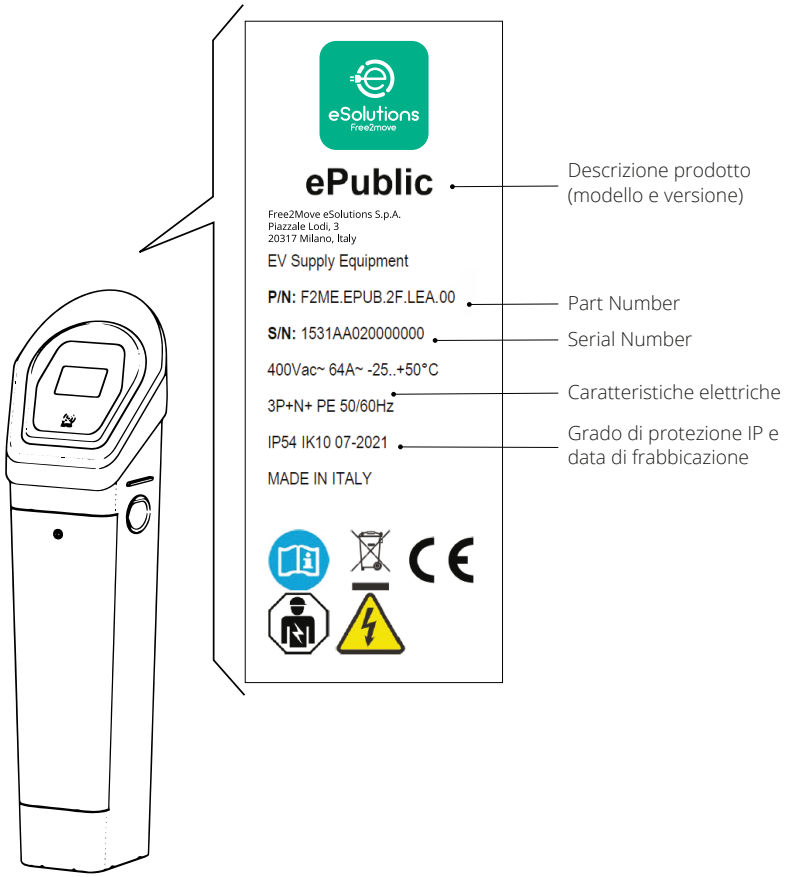
**ATTENTION**

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

**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.

With respect to the symbols on the product's nameplate, the wording not shown above is identified as follows:

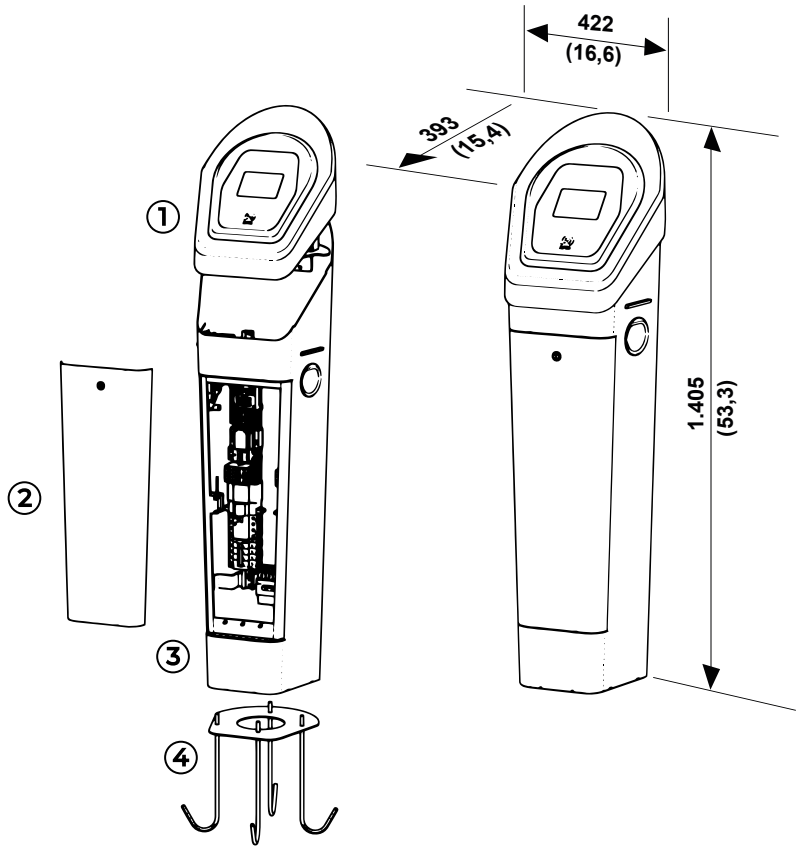







## 1.5. Product dimensions and features

Weight: 48 kg
Dimensions in mm: 1.405 x 422 x 393
Dimensions in inch: 53.3. 16.6 x 11.5.




1. Top cover
2. Front panel
3. Main body
4. Anchor plate

## 2. SAFETY AND EQUIPMENT

### 2.1. Avvertenze di sicurezza

- Please read this document carefully before installing and starting up the product.
- The installation and start-up phases of the device should only be carried out by qualified personnel who are able to identify hazards and act safely.
- Even the maintenance, repair or subsequent repositioning actions must be carried out only by qualified personnel: there are no components that can be repaired by the user or maintained independently.
- Children or persons not deemed capable of assessing the risks involved in the installation must not handle the product.
- Both domestic and non-domestic animals must be kept away from the equipment.
- Failure to observe all or part of the instructions in this document may lead to serious or fatal injury.
- The qualified installer must always ensure that the installation is carried out in accordance with the local regulations in effect at the time of installation.

### 2.2. Proper use

The device requires an earth connection via a dedicated equipotential cable, to be connected to the earth terminal inside the device.

**In any case, it is necessary to verify, prior to installation, that the power supply system is fully compliant with the state of the art and carried out by qualified personnel in accordance with local and international regulations.**

**The device is only safe to use if it is used as intended. Different uses and unauthorised modifications to the appliance or to any of its components are not permissible and are therefore considered to be non-compliant.**

The device is designed to be connected and to communicate information and data via a network interface. It is the sole responsibility of the user to provide and ensure at all times a secure connection between the product and the user's data network or any other network (as the case may be).





The user must establish and maintain all appropriate measures (such as, but not limited to, the installation of firewalls, the application of authentication measures, data encryption, the installation of anti-virus programs, etc.) to protect the product, the network, its system and interface against any type of security breach, unauthorised access, interference, intrusion, loss or theft of data or information.
Free2Move eSolutions S.p.A. and its affiliates shall not be liable for any damage or losses related to any such security breaches, any unauthorized access, interference, intrusion, loss or theft of data or information.
The data, examples and diagrams in this manual are only included to describe the product and should not be regarded as a declaration of guaranteed properties.
All persons responsible for installing the equipment specified in this manual must ensure that each intended installation is suitable and acceptable, including compliance with any applicable safety or other operational requirements.
In particular, any risk in applications where a system failure or product failure would create a risk of damage to property or persons (including but not limited to personal injury or death) shall be the sole responsibility of the person or entity installing the equipment, and those responsible for it are advised to ensure that all measures are taken to eliminate or mitigate such risks.
This document has been carefully checked by Free2Move eSolutions S.p.A., but deviations cannot be completely ruled out. If errors are detected, the reader is kindly asked to notify Free2Move eSolutions S.p.A.
Except for explicit contractual commitments, under no circumstances may Free2Move eSolutions S.p.A.r be held liable for any loss or damage resulting from the use of this manual or from the installation of the equipment.
The product should not be displayed freely on the internet.
In order to ensure maximum security of information and operation, it is necessary for the device to remain protected from any attempt to connect to it from the internet. Therefore, any communication should originate only from the device and not the other way around.
If you require further information, support or wish to make a report regarding cyber security, please write to the e-mail address epublic@f2m-esolutions.com.

### 2.3. Product handling

- When handling, be sure to use a suitable tool that is capable of supporting the weight of the product.
- Transport and store in a dry place away from heat sources (following the technical guidelines) in the original packaging only
- Never grasp the product by the charging cables or connectors.

## 3. INSTALLATION

**WARNING: Failure to observe the instructions given in this manual may cause serious damage to both the product and the installer (in the most serious cases, injuries may be fatal). Please read this manual carefully before installing, starting up and using the product.**
**Free2Move eSolutions S.p.A. recommends using experienced professionals who comply with current regulations in order install the product correctly.**

The following table shows the main local restrictions prescribed in the IEC 61851-1 standard that the installer must consider before selecting and installing the device. However, it remains the responsibility of the installer to verify that these regulations are still in effect and above all to check whether additional local regulations apply and could restrict the use of these devices in the country of choice:

| Country | National restrictions |
|---|---|
| US | Device not suitable for this country |
| CA | Device not suitable for this country |
| JP | Device not suitable for this country |
| DK | It is necessary to disable the reclosing function of the residual current devices (ARD) the disabling of the reclosing function of the residual current devices must be done by qualified personnel of Free2Move eSolutions S.p.A. |
| UK | It is necessary to disable the reclosing function of the residual current devices (ARD) the disabling of the reclosing function of the residual current devices must be done by qualified personnel of Free2Move eSolutions S.p.A. |
| FR | It is necessary to disable the reclosing function of the residual current devices (ARD) the disabling of the reclosing function of the residual current devices must be done by qualified personnel of Free2Move eSolutions S.p.A. |
| CH | It is necessary to disable the reclosing function of the residual current devices (ARD) the disabling of the reclosing function of the residual current devices must be done by qualified personnel of Free2Move eSolutions S.p.A. |





### 3.1. Preparing for Installation

Before proceeding with the installation, make sure that:

- Input power is completely switched off and remains so until installation is complete
- The work area is adequately cordoned off (access by person who are not involved in the work must be prevented)
- Installation should not be carried out with wet hands and no water jet should be directed towards the product
- Installation should not be carried out in rain, fog or high humidity
- The product packaging is completely intact and without any obvious damage (if the product is damaged, contact your seller ask for support on **www.esolutions.free2move.com/ low-power-charging-solutions/ ePublic**) or write to **epublic@f2m-esolutions.com**)
- The product and all components (including cables) are completely intact and without any obvious defects or faults

**To ensure correct operation of the product in line with the local regulations in effect, calculate the distance between the power supply panel and the installation site to determine the voltage drop, cable thickness and existing load, which are useful for identifying the maximum operating current.**

**The entire electrical system to which the product is connected must first be correctly sized by a qualified professional. The device's electrical data, which should be referred to in order to correctly size the power supply system, are displayed on the device's nameplate.**

The installation of the product must comply with all applicable local and international standards in force for the construction and installation of electrical/electronic equipment, including, but not limited to, the IEC 60364-1 and IEC 60364-5-52 standards.
The power supply system must meet the following requirements:

- A TN or TT system, in both cases with a PE cable
- Three-phase power supply: 230/ 400 V AC ± 10% - 50Hz / 60Hz

## 3.2. Tools required

- Cutter
- Slotted screwdriver
- Ratchet wrenches for hex head screws
- Torque wrench
- Marker/pencil
- Drill and 12mm diameter bit suitable for the material of the fixing surface to be drilled
- Hex keys
- Wire stripping pliers

**Free2Move eSolutions S.p.A. accepts no liability for damage to property or persons deriving from the use of these tools.**
**Installation must be performed by qualified personnel and in compliance with the regulations in place for the installation of electrical equipment.**

## 3.3. Package Contents

- N.1 ePublic
- 1 Anchor plate column base with N.4 M12x105 threaded brackets
- 2 Keys for opening the front hatch
- Product documentation





## 3.4. Space and positioning

**Make sure that there are no heat sources, flammable substances or electromagnetic sources in the installation area, either during installation of the product or throughout the product's lifetime.**

**In addition, the installation site must be sufficiently ventilated to ensure proper heat dissipation.**
**For versions of the product with mobile cellular or Wi-Fi connection, ensure that the selected area has cellular reception or Wi-Fi coverage.**

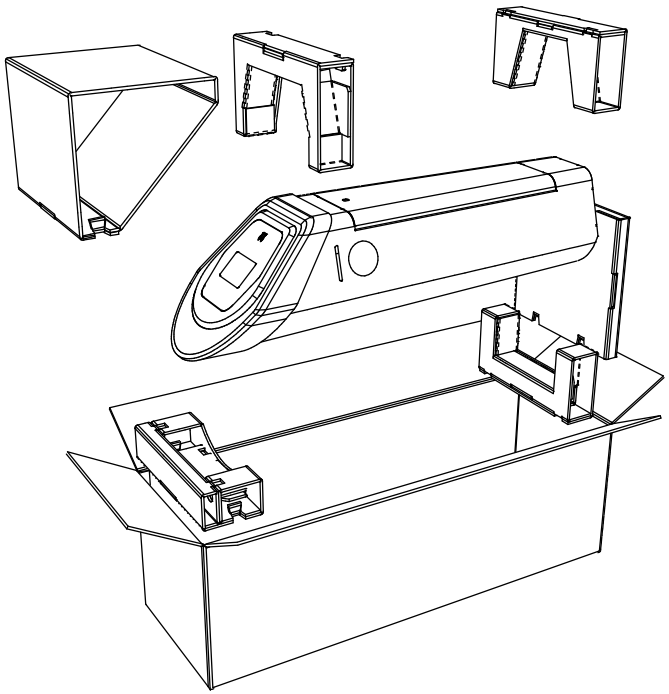
Before installation, ensure that the environmental conditions (such as temperature, altitude and humidity) comply with the product specifications.
To ensure the functionality of the device and to guarantee its proper usage by the user, the space around the device must be clear to allow for air circulation, proper and safe cable manoeuvrability, and to allow charging procedures by the user and both routine and non-routine maintenance operations to be carried out in safe conditions. In addition, the space needed to park the electric vehicle to be charged must be taken into account.
In addition:

- Make sure that the position and method of installation prevent accidental impact from manoeuvring vehicles and, if necessary, install barriers or bollards.
- Design the parking layout in such a way to ensure easy access to the charging cable.
- Provide an environment that is safe and comfortable environment for users and apt to prevent vandalism or theft.
- Install the charging device in a place where it can be clearly seen or monitored;
- Install sufficient lighting around the device.

## 3.5. Unpacking

Before installing the device, it is necessary to check, when unpacking, that the various parts of the device do not display any physical damage due to impacts, tearing or abrasions.
If any damage is detected, the installation procedure must be aborted immediately and technical support must be contacted.
The various components are protected by packaging and adhesive tape: before installation, each component must be cleaned of any traces of dust, packaging or adhesive tape. The images below are for illustrative purposes and may not show all internal components of the product or may contain negligible differences from the actual configuration.

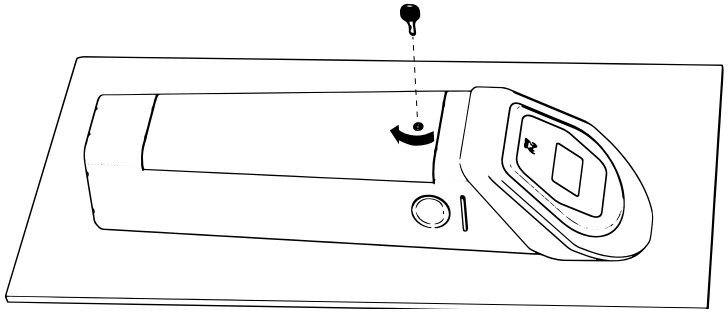
1. **Open the main packaging.**
2. **Using appropriate handling equipment, remove the station from the casing and place it horizontally on the work surface.**



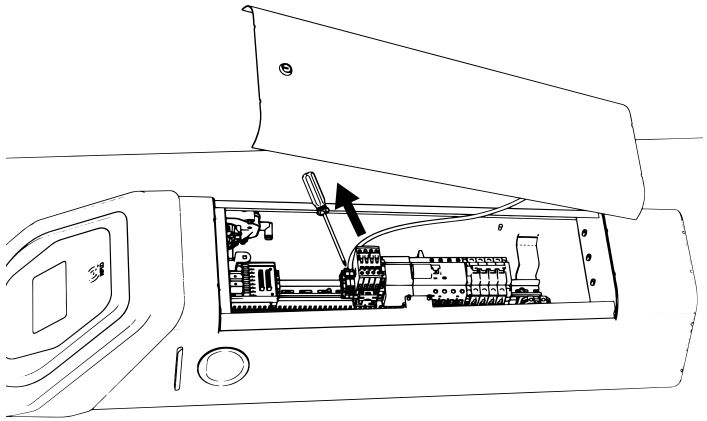




3. **Using the key provided, open the front lock.**

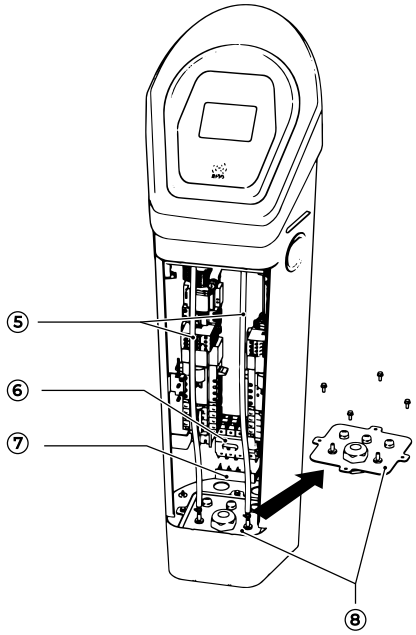


4. **Open the hatch slightly and, using a slotted screwdriver, unhook the earth cable (yellow/green) from the terminal of the device to which it is attached.**
5. **The hatch can be removed completely and the earth cable remains attached to the hatch.**



**WARNING: Stand the device upright, ensuring its stability.**

6. Remove the terminal covers (7) of the main disconnect (6)
7. Using the clamps at the bottom, disconnect the two condensation drainage pipes (5) from the two metal hose connectors located on the bottom plate (8)
8. Remove the plate (8) on which the hose connectors and cable glands are mounted using the 4 screws located on the sides of the plate.



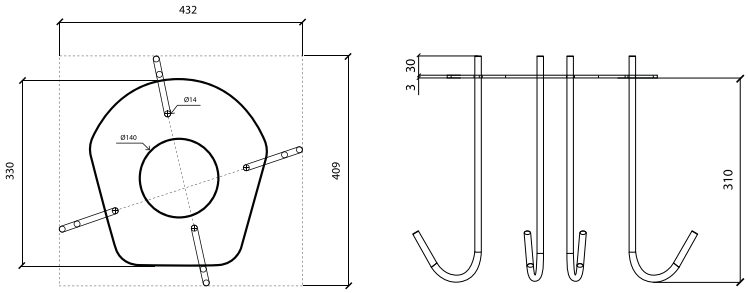

### 3.6. Installation in fresh concrete

To fix the anchor plate (4) to the ground, it is necessary to follow the information previously sent by Free2Move eSolutions S.p.A., taking into account the nature of the ground and the weight of the device. Remember that the anchor plate (4) must protrude exactly by its thickness from the floor surface.

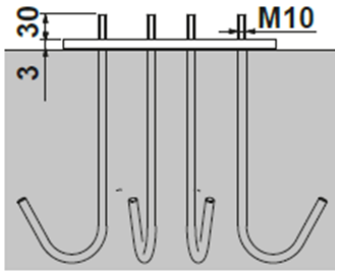




1. Dig and lay a corrugated pipe for the passage of the power cables.
   It is suggested to install a corrugated pipe with a diameter of 63 mm or in any case sufficient for the passage of an electric cable with a diameter of 35 mm, letting it come out of the ground for about 10 cm.
2. Create a concrete base with a minimum size of 460x480 mm and a depth of 400mm around the corrugated pipe in accordance with the following diagrams.




3. Install the plate with brackets inside the concrete base, making sure the anchor plate protrudes exactly its thickness from the floor surface.



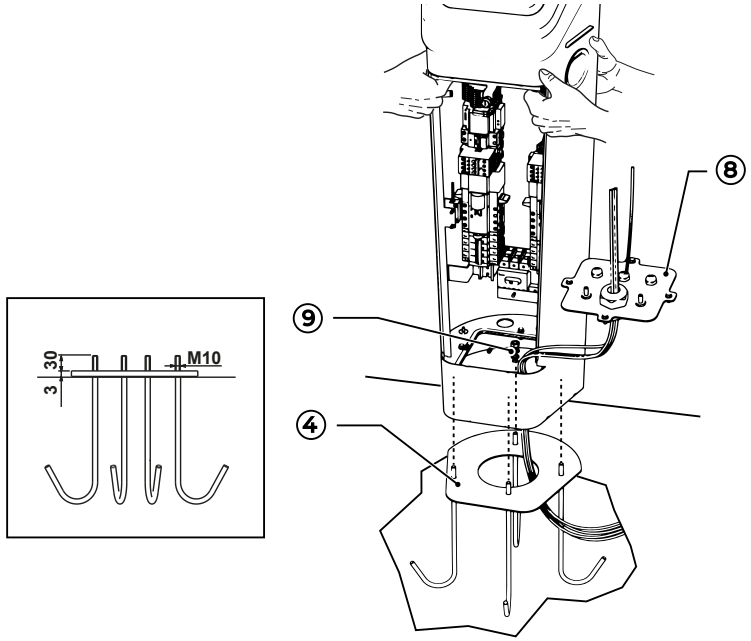

4. Once the concrete has solidified, place the charging station above the installation point previously fixed to the ground and pass the cables through the lower part of the same in correspondence with the hole.
5. Adjust the cable gland to pass the multipolar cable inside it.
   Finally, tighten the cable gland once you have dimensioned the correct length for connecting the power cables.

## 3.7. Positioning on the anchor plate

1. Having previously removed the plate (8), place the device on the anchor plate (4), inserting the 4 tie rods that protrude from the ground, in the corresponding holes in the base plate of the device.

**This operation must be carried out by two installers, using the top of the hatch compartment and the rear as lifting points.**

2. Tighten the base washer, spring washer and nut (9) in sequence on each of the 4 tie rods and tighten the nuts to a torque of 62-79 Nm.
3. When fixing the device to the ground, run the power and communication cables through the device and also through the cable glands of the plate (8).
4. Position the plate (8) in its initial position and secure it with the 4 screws on the sides, then refit the two condensation drainage pipes (5) on the two metal hose connectors on the plate itself.







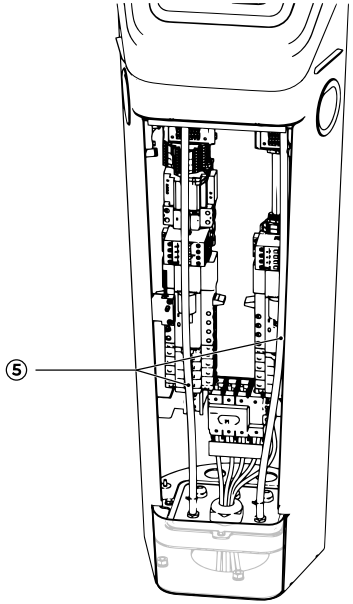

## 3.8. Charging station installation

**During installation, the electrical connection of the power supply must be disabled, and the entire working area must be cordoned off, with only qualified and authorized personnel able to access it.**

**The power supply to the equipment must remain switched off. Failure to comply with these instructions can lead to serious damage to persons and property, including death.**

The images below are for illustrative purposes and may not show all internal components of the product or may contain negligible differences from the actual configuration.

1. Re-attach the two condensation drainage pipes (5) to the metal hose holders using the appropriate clamps.



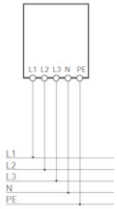
## 3.9. Connection of power and earth cables

**During installation, the electrical connection of the power supply must be disabled, and the entire working area must be cordoned off, with only qualified and authorized personnel able to access it.**

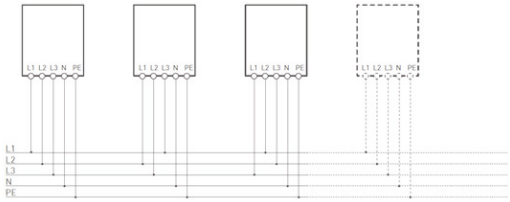
Power to the device must be supplied through properly sized cables capable of withstanding the current flow for which the product was designed.
Make sure that the cables are of suitable size before wiring and that the maximum permissible bending radii are not exceeded. The device's electrical data, which should be referred to in order to correctly size the power supply system, are displayed on the device's nameplate.

**The power supply to the device must remain switched off throughout this step. Failure to comply with these instructions can lead to serious damage to people and property, including death.**

The images below are for illustrative purposes and may not show all the product's internal components.
The following diagram shows how to electrically connect the station:




For multiple installations, it is suggested that the phases be rotated as follows:



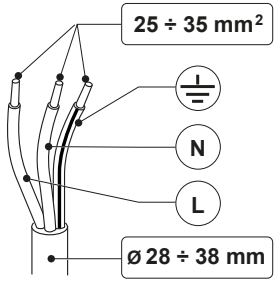





The station already contains differential protection devices (complying with one of the following standards: IEC 61008-1, IEC 61009-1, IEC 60947-2 and IEC 62423) and thermal-magnetic circuit breaker (complying with the following standards IEC 60947-2, IEC 60947-6-2 or IEC 61009-1 or with the relevant parts of IEC 60898 or IEC 60269). Other types of protections (e.g. surge protection) are not included. In particular, the T2 sockets are protected by a four-pole thermal-magnetic switch (curve D, 40 A, 10 kA) and a pure four-pole differential switch (type A, 40 A, 30 mA) with the addition of a 6mA DC device for detecting direct currents.

**The following guidelines provide information on which power supply cables to use and the recommended conductor size:**

- Multi-core cable outer diameter: 28-38 mm
- Recommended conductor size: 25-10 mm²
- Cable stripping length:
  - Main disconnect terminal block (L1-L2-L3-N): 18-21 mm
  - Earth terminal: 17 mm

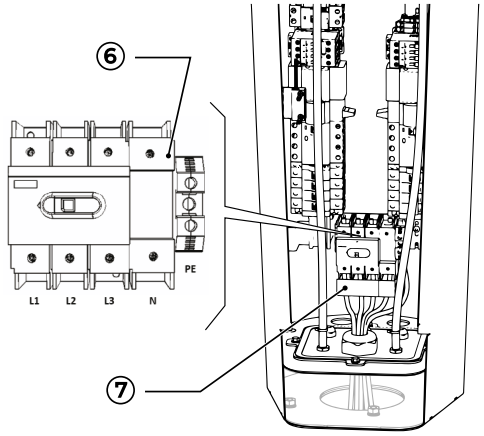



The following table shows the maximum conductor length in relation to chosen cross-section:

| Prodotto | In (A) | Cross section of conductor [mm2] | Maximum length of conductor [m] |
|---|---|---|---|
| ePublic | 64 | 25 | 114 |
| ePublic | 64 | 35 | 158 |

For mode 3 case B, the cables used for charging the vehicle must have a minimum $I^2t$ value of 75 000 $A^2s$.

1. **Pull the multi-core cable leaving some slack inside the column and tighten the cable gland (making sure that the remaining cable glands are also tightened)**
2. **Strip the cables to a length of 18-21mm for the power (and neutral cables, and 17mm for the earth cable.**
   **Connect the earth cable to the respective terminal and tighten to a tor que of 3Nm and then connect the phases and neutral to the main disconnect (6) after removing its terminal covers (7), making sure that the entire ferrule of each cable is fully inserted (the tightening torque for the disconnect terminals is 6Nm.**




3. **Place the disconnect terminal covers (7) over the lower terminals (previously removed).**





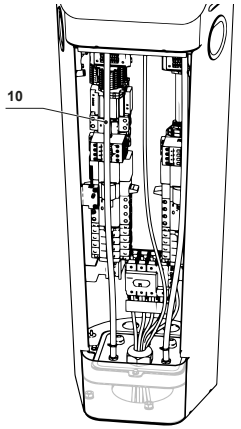
## 3.10. Communication cables connection

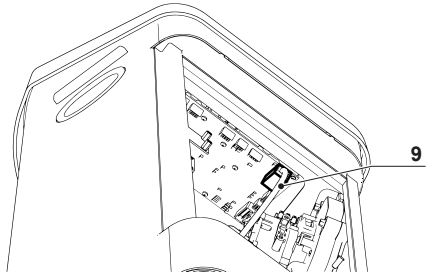
**During installation, the electrical connection of the power supply must be disabled, and the entire working area must be cordoned off, with only qualified and authorized personnel able to access it.**

**The power supply to the appliance must remain switched off throughout this step. Failure to comply with these instructions can lead to serious damage to people and property, including death.**

The images below are for illustrative purposes and may not show all internal components installed in the product.

1. **If an Ethernet cable (10) is required, it must be inserted from the bottom of the station (where the power cables are plugged in) and must pass through one of the dedicated cable glands (smaller than the one intended for the power cables).**
2. **Pull the cable to a length that reaches the top of the station and tighten the cable gland, while still leaving some slack inside the column (purple cable)**



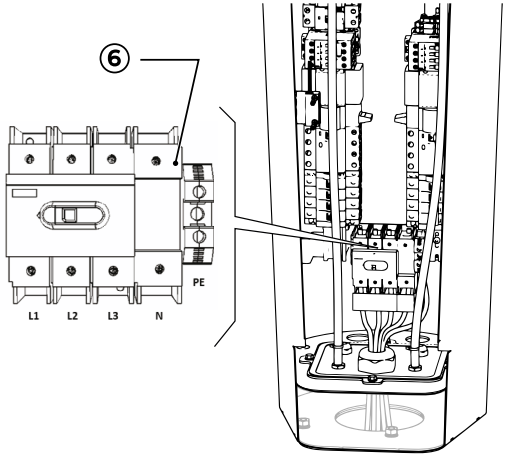

Once you have reached the top of the column, the end of the Ethernet cable (10) must be inserted into the appropriate Ethernet port.

### 3.11. Closing operations and power supply

**During installation, the electrical connection of the power supply must be disabled, and the entire working area must be cordoned off, with only qualified and authorized personnel able to access it.**

**The power supply to the device must remain switched off throughout this stage. Failure to comply with these instructions can lead to serious damage to people and property, including death.**

1. Reset all the switches (differential and thermal-magnetic) inside the station. Also, check that all switch motor controls are enabled.
2. Verify proper connection of the power supply (L1-L2-L3-N-PE), by making sure that the respective phase and neutral positions in the main disconnect (6) are correct as well as verifying that the earthing protection is properly connected to its dedicated terminal.








3. Bring the hatch (2) close to the station so you can re-establish the earth connection between the earth terminal and the station hatch.
4. Reset the main disconnect switch.
5. Close the station hatch by first inserting the lower part of the hatch into the station body and then closing the upper part as well.
6. The last operation is to lock the door using the special key. It is recommended to keep the door leaning against the station casing until the lock has been closed.
7. Once the station is closed, you can power it up by enabling the upstream power system.
8. The LEDs on the head of the station will start flashing different colours following a sequence of internal controls.
9. At the end of the control sequence, which also includes a cycle of closing-opening of the socket covers, the LEDs will turn a steady blue colour.

## 4. FIRST START-UP AND CONFIGURATION

**All customers are required to provide information relating to the desired configuration and the electrical characteristics of the network to which the station will be connected.**

The Manufacturer considers the information provided during the contracting phase to be definitive and, consequently, any configuration changes or any other necessary activity that has not been agreed or defined during the contracting phase will not be included in the warranty. For all these reasons, once the above procedure has been scrupulously completed by qualified technical personnel, the device can be considered ready for first use.





## 5. INSTRUCTIONS FOR USE

The images below are for illustrative purposes and may not show all internal components installed in the product.

### 5.1. Preliminary charging operations

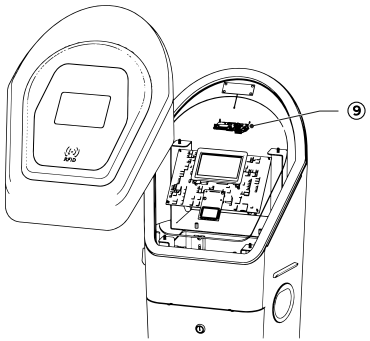
**During the entire charging process, DO NOT remove the charging connector from the electric vehicle. Only remove the charging connector from the vehicle when charging operations have ended or have been interrupted following the appropriate procedure. Removing the charging connector from the vehicle during the charging process can cause serious damage to property or persons.**

Before starting a new charging session:

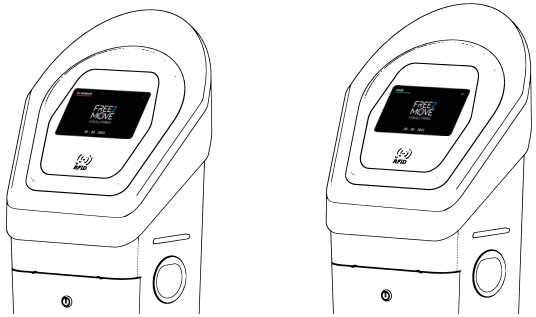
- Ensure that the product and its connectors are perfectly intact, dry and free of any impurities
- Do not insert fingers or objects into the socket
- Make sure that the product is not and has not been exposed to heat sources or explosive or flammable substances
- Ensure that the electric vehicle is compatible with the product's technical characteristics
- Do not use adapters or extensions not specified by Free2Move eSolutions S.p.A. as they may damage the product and create safety hazards for the user.
- Vehicle adapters must not be used to attach a connector to a vehicle socket
- Adapters between vehicle socket and plug should only be used if specifically designated and approved by the vehicle manufacturer or the manufacturer of the electric vehicle's power supply equipment, in accordance with national requirements. Such adapters must, however, comply with the requirements of the IEC 61851-1 standard and other relevant standards governing both the plug and socket of the adapter. The adapters must in any case be marked with specific indications for use permitted by the manufacturer (e.g. IEC 62196). Such adapters must not allow switching between modes of operation.

## 5.2. Charging operations

The product is equipped with a display.
The following indications regarding the graphics available on the displays are for illustrative purposes only and may differ from what is actually available on the stations installed in the field (depending on the firmware version).
Below you will find indications regarding the colours of the LEDs located on the side of the product, near each socket.
The product is equipped with a SIM card for 3G/4G connection. The SIM slot is located on the board(9) highlighted in the following image:



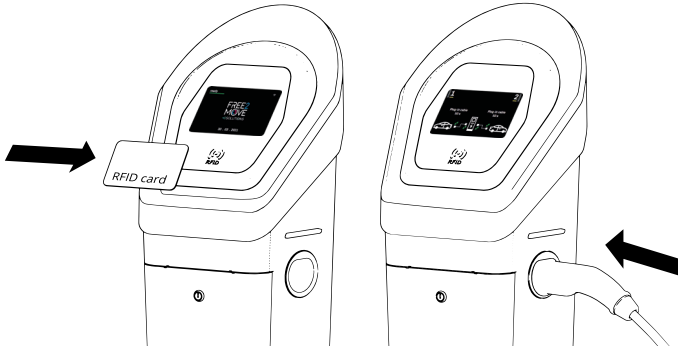

1. **The steady blue LEDs and the logo on the display indicate that the station is ready for charging. At this stage, both sockets are blocked and the charging cable cannot be inserted.**
2. **You can see an antenna symbol on the display that identifies the connection to the mobile phone network. A few minutes after powering up, the station connects to the cellular network (if available) and displays the connection status:**



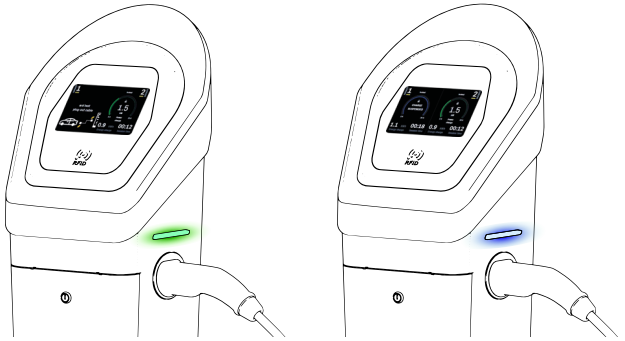




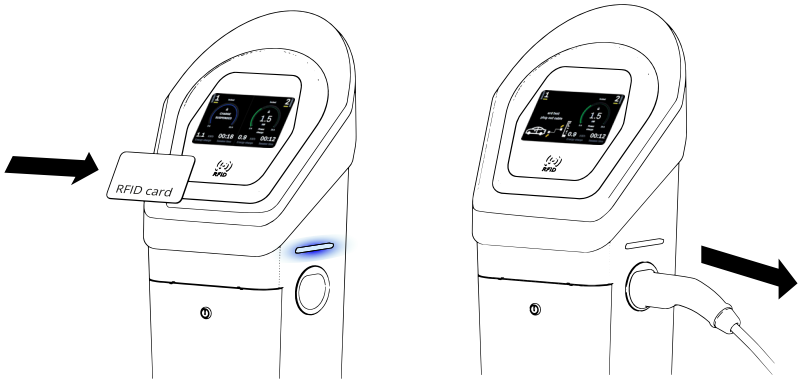
3. **Once the cellular connection is established, the station is ready for use. USER RFiD cards must be configured by Free2Move eSolutions S.p.A. (at the customer's explicit request) or they can be registered via the management portal.**
4. **Pass the USER RFID card over the designated area.**
5. **The station opens the available socket (or both if free). The user must insert the charging cable within 50 seconds, making sure that it fully engages the socket.**




6. **The station locks the socket.**
7. **The charging session begins. The LED corresponding to the socket used turns a steady GREEN colour and the display shows depicts the two sockets, indicating whether both are charging or whether one is still available. The display also provides information on charging time, power and energy.**
8. **When the battery of the electric vehicle is fully charged, the LED will turn a steady BLUE colour.**



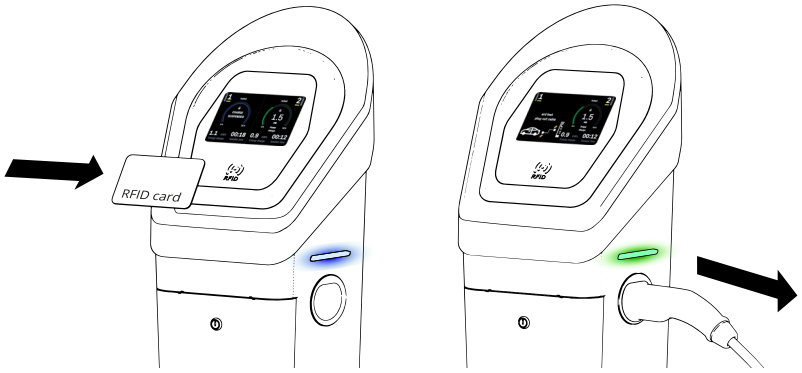
9. **The user is required to pass the USER RFiD card over the designated area in order to unlock the socket in use and close the charging session.**
10. **When the display shows a message indicating that you can remove the cable, remove it.**




11. **The station blocks the used socket again and returns to its initial state, ready for a new charging session.**

If the user wishes to stop the charging session before the battery is fully charged, it is necessary to follow the instructions below:

12. **Swipe the USER RFiD card to close the charging session.**
13. **The LED will take on a steady BLUE colour.**
    **When the display shows a message indicating to remove the cable from the socket being used, remove it.**




14. **The station will block the socket just used again and then return to its initial state, ready for a new charging session.**





The procedure described above can be performed on both available sockets, even in simultaneous use.
If, on the other hand, the charging sessions are managed through a mobile application or dedicated portal, the instructions for use are available in the manual dedicated to the use of the management platform or mobile application, to be requested expressly from the manufacturer or charging service provider.

## 6. TROUBLE SHOOTING

**All versions of the station are equipped with a complete diagnostic and alarm system.**
**The product, in addition to LED signalling, provides more detailed alarm information through the display, including the present error identifier.**

In case of an error, whatever it may be, the charging session is interrupted and the socket involved is immediately unlocked. In this case, it is not necessary to close the charging session through the use of the USER RFiD card.
If the cause of the fault is to be attributed to the electric vehicle, after having disconnected the cable concerned, the station performs several test cycles which, if they confirm the correct functioning of all internal components, restores functionality to the station by reassigning a fixed BLUE colour to the LED relating to the socket involved.
Otherwise, the LED remains RED and charging is no longer available on that socket until the problem is resolved.
For additional details regarding error codes or troubleshooting, please refer to the User Guide available by contacting technical support.

## 7. MAINTENANCE

**Before carrying out any maintenance work, disconnect the device from its power supply and cordon off the working area to avoid serious damage or injury.**

The correct functioning and the life of the product depend on the routine maintenance and control activities, at least every 6 months.
To carry out this maintenance, contact a technician qualified by Free2Move eSolutions S.p.A.. A damaged or defective appliance must not be used in any way, but must immediately be replaced or repaired by qualified personnel in accordance with Free2Move eSolutions S.p.A. instructions.

**If a device is damaged, it is necessary to secure the product and the power supply (if possible, by disconnecting the circuit breaker upstream of the faulty product), immediately affix an appropriate warning prohibiting its use and contact a qualified technician or use one of the service channels indicated in the Assistance section.**

Cleaning the outside of the device is always recommended when necessary, and should be undertaken while avoiding strong jets of air or water as well as the use of soaps or detergents that are too harsh and corrosive for the materials which the product is made of. For cleaning, use a soft damp cloth with a mild detergent and, when finished, wipe off any traces of moisture or liquid with a soft dry cloth.
The owner is responsible for the maintenance and condition of the product.
Maintenance must always take place in accordance with current regulations and while ensuring that people, property and animals are protected during all maintenance operations.
An external inspection and cleaning of the station is recommended at least once a year, for example the integrity of the plastic parts and attachment points should be checked. An internal inspection by an electrician qualified by Free2Move eSolutions S.p.A.is required on an annual basis. The electrician must also verify during these inspections that the product meets all applicable guidelines and standards of the country in which it is installed as long as the product remains in service.





**It is recommended, only by means of a qualified technician in compliance with safety regulations and after disconnecting the station from its power supply, to periodically check the internal status of the station and press the TEST button of the residual current circuit breakers inside the station at least once every 6 months.**

**The product does not include any components that can be repaired or replaced independently by the user.**

## 8. DECOMMISSIONING AND DISPOSAL

The product must be used and subsequently disposed of in accordance with current legislation on the treatment of waste electrical and electronic equipment (WEEE) or any other regulations in force in the country of installation (in accordance with Directive 2012/19/EU).
This product must not be disposed of along with household waste.
The device may contain materials that could be recycled.
Further information on disposal facilities can be obtained from local authorities.

**Before uninstalling and removing the device, it is necessary to disconnect the power supply from the switchboard and ensure that during all stages of decommissioning no one can access the switchboard and inadvertently switch the power supply back on.**

f you want to uninstall and store the device for later use, the following precautions must be observed:

- Disconnect the device from its power supply.
- Clean the appliance and store it in its packaging once it is completely dry.
- Observe the environmental storage conditions given in the technical data.

Sede Legale
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Customer support:
**https://www.esolutions.free2move.com/low-power-charging-solutions/**