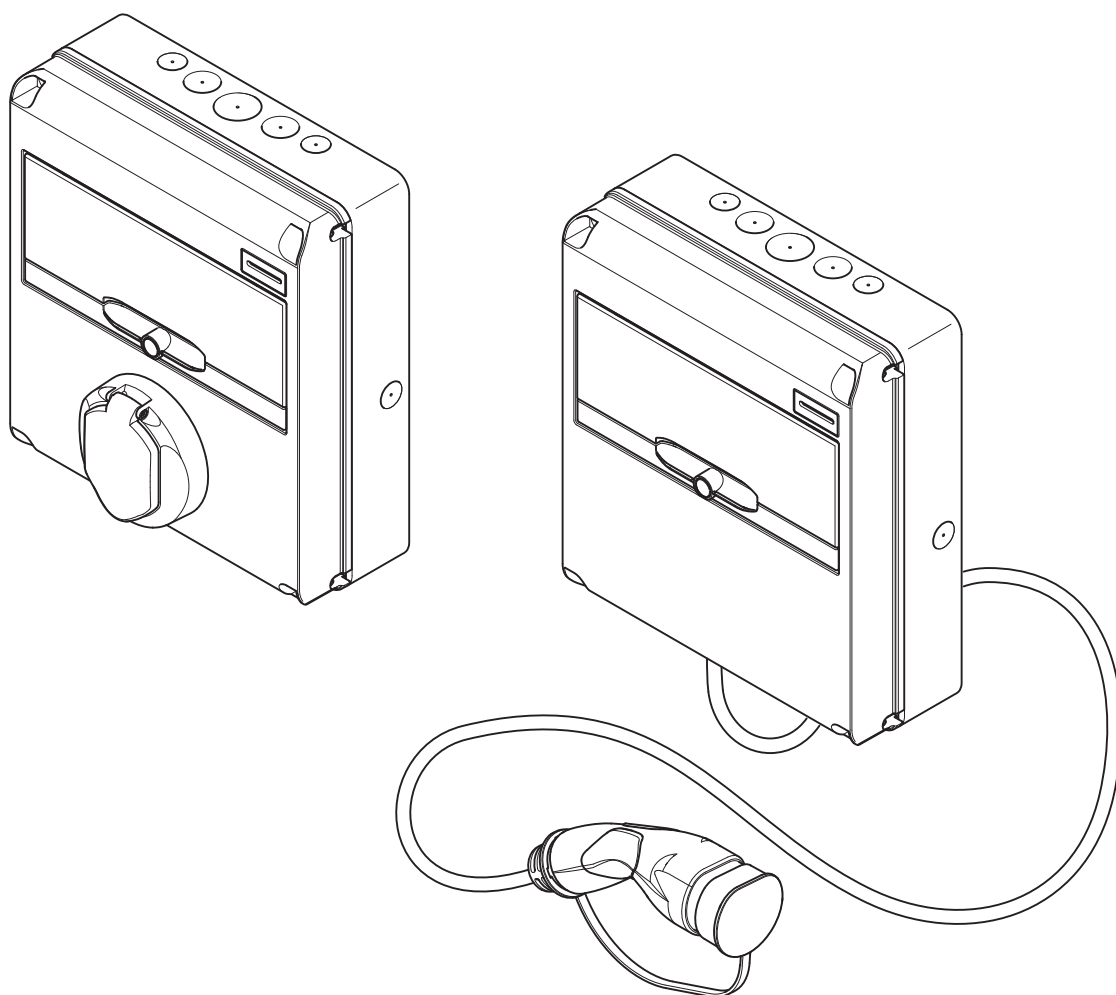


ELECTRICAL VEHICLE CHARGING UNIT JOINON EASY HOME AND PARKING

EN

User and installation manual



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1.

INFORMATION ABOUT THIS MANUAL

This manual describes the electrical vehicle charging station JOINON EASY HOME and PARKING and provides the information necessary for correctly perform the activities related to delivery, installation, start-up, maintenance and operation.

1.1 FIELD OF APPLICATION

This manual applies to the following charging stations:

- **GW68116** – JOINON EASY HOME 4.6kW with cable and mobile socket-outlet T1
- **GW68117** – JOINON EASY HOME 4.6kW with cable and mobile socket-outlet T2
- **GW68118** – JOINON EASY HOME 4.6kW with fixed socket-outlet T2
- **GW68119** – JOINON EASY PARKING 7.4kW with fixed socket-outlet T2 and transponder
- **GW68120** – JOINON EASY PARKING 22kW with fixed socket-outlet T2 and transponder

1.2 MANUAL AUDIENCE

This document is intended for qualified personnel.

When this manual refers to qualified personnel, this means personnel complying with all the standards, directive and laws concerning safety, as applicable to the installation and operation of this device.

It is recommended to have this device installed by a professional installer.

1.2 SYMBOLS

This manual uses various symbols to stress and highlight certain information.

Their general meaning is indicated below.



General caution



Electric risk



Prohibition



General information



Refer to the indicated section

2.

REGULATORY ASPECTS

2.1 FULFILMENT OF REGULATIONS

CE marking

The CE marking is indispensable in order to sell any product in the European Union, without prejudice to the standards or laws of the individual countries. The charging stations have a CE marking as they comply with the following directives:

- *Low Voltage Directive 2014/35/EU.*
- *Electromagnetic Compatibility Directive 2014/30/EU.*

In order to comply with each directive, it is sufficient to fulfil the parts of the relative harmonised standards applicable to this device.

Low Voltage Directive

The charging stations comply with this directive, as they fulfil the applicable parts of the harmonised standard: *EN 61851-1: Electric vehicle conductive charging system Part 1: General provisions.*

Electromagnetic compatibility directive

The charging stations comply with this directive, as they fulfil the applicable parts of the harmonised standards:

- *EN 61000-6-1 Electromagnetic compatibility (EMC).*
Part 6-1: Generic standards - Immunity for residential, commercial and light industry environments.
- *EN 61000-6-3 Electromagnetic compatibility.*
Part 6-3: Generic standards - Emissions for residential, commercial and light industry environments.

Fulfilment with this standard requires compliance with the requirements and procedures of the other standards in the same series.

2.2. EMC REQUIREMENTS

These charging stations are equipped with the filtering elements necessary for the fulfilment of the EMC requirements for domestic applications, in order to avoid radio interference with other devices outside of the system.

2.3. DEGREE OF PROTECTION

These charging stations have an IP54 degree of protection against external agents.

This device is designed for indoor and outdoor use.

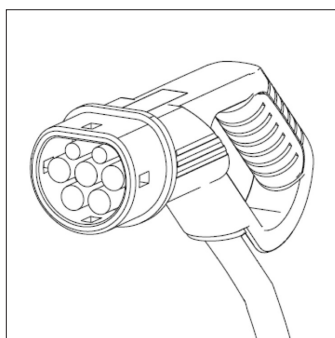
2.4. POLLUTION RATING

The degree of pollution for which these charging stations are prepared is PD3.

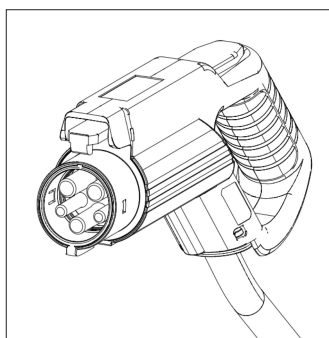
2.5. SOCKET-OUTLETS

The charging stations can be supplied with different connector configurations depending on the customer's requirements.

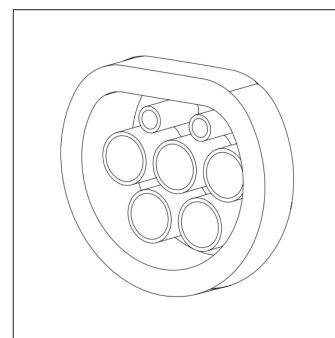
The following connectors are available:



IEC 62196-2 Type 2



IEC 62196-2 Type 1



IEC 62196-2 Type 2

3.

SAFETY

This section describes the safety warnings and the personal protective equipment.

3.1. SAFETY CONDITIONS

General warnings



The operations described in this manual may only be performed by duly qualified personnel. When this manual refers to qualified personnel, this means personnel complying with all the standards, directive and laws concerning safety, as applicable to the installation and operation of this device.



It is mandatory to comply with the applicable safety laws related to electrical work. There is the risk of possible electrical shocks. Compliance with the safety instructions provided in this manual or by the indicated legislation does not imply exemption from compliance with other specific standards relative to installation, location, country or other circumstances that concern the device.



The opening of the casing does not imply the absence of voltage inside. There is the possible risk of electrical shock even after disconnecting all sources of system power. It may only be opened by qualified personnel following the instructions provided in this manual.



It is mandatory to read and understand all parts of this manual before starting to handle, install or use the unit.



It is mandatory to apply the safety regulations based on the individual country of installation.



To check the absence of voltage, use category III-1000 Volt measurement devices.



The manufacturer declines all liability for damage possibly caused by inappropriate use of the charging stations. Any operation carried out on these charging stations that involve a change in the original electrical settings must be previously assessed and authorised by the manufacturer.



The system must be disconnected from the voltage for any operation or intervention.
As the minimum safety measure for this operation, observe the so-called **5 golden rules**:

1. Disconnect.
2. Prevent the reactivation of the power supply.
3. Check that there is no voltage.
4. Earth and short-circuit the system.
5. Protect yourself against energised elements nearby and place safety signals to mark off the work area if necessary.

Before completing these five operations, the concerned part must be considered as energised, and therefore the operation without voltage cannot be authorised.

Potential hazards for people

In order to protect your own safety, observe the following warnings.



HAZARD: crushing and injury of limbs.

Always follow the instructions supplied in the manual for device handling and positioning.
The weight of the device can cause injuries if not handled correctly.

Potential hazards for the device

In order to protect the device, observe the following warnings.



During operation, the device requires an air flow free of impurities.

It is very important to maintain the vertical position and the entrances free from all obstacles to allow the air flow to enter inside the device.



Before activation, and after any duly authorised operation, check that the device is ready to start to operate.
Then, connect it following the instructions in the manual.



Do not touch the boards or the electronic components. The more sensitive components can be damaged or destroyed by static electricity.

Do not disconnect or connect any terminal while the device is operating. Disconnect and check for the absence of voltage before performing any operation.

3.2. PERSONAL PROTECTIVE EQUIPMENT (PPE)

When working on the device, it is recommended to use the necessary safety equipment.

These devices are:

- Safety footwear;
- Helmet;
- Helmet with a face mask;
- Work garments;
- Dielectric gloves

The equipment or devices used for operations with the system energised must have at least III-1000 Volt category isolation. If the regulations in the location of installation require other types of personal protective equipment, the equipment must be integrated in a suitable manner.

4.

DEVICE DELIVERY AND STORAGE

4.1. DELIVERY

Keep the device packaged until installation.

4.2. DEVICE IDENTIFICATION

The serial number of the device identifies it in an unequivocal manner. In any communication with Gewiss, reference must be made to this number.


The device serial number is also indicated on the plate that specifies the device features.

4.3. DAMAGE DURING TRANSPORT

If the device was damaged during transport:

- 1. Do not install it.
 - 2. Immediately notify the fact to your reseller within 5 days of device delivery.
- If it is necessary to return the device to the manufacturer, the original packaging must be used.

4.4. STORAGE

 Failure to observe the instructions provided in this section could cause damage to the device. The manufacturer declines all responsibility for damage deriving from the failure to observe these instructions.

If the device is not installed immediately upon delivery, to avoid its deterioration, proceed as indicated below:

- To correctly conserve the charging station, do not remove the original packaging until the moment it is installed.
- Deterioration of the packaging (cuts, holes, etc.) prevents the correct conservation of the charging station prior to installation. The manufacturer declines all responsibility relative to the consequences caused by packaging deterioration.
- Keep the device clean (remove dust, chips, grease, etc.) and avoid the presence of rodents.
- Protect it against water sprays, welding sparks, etc.
- Cover the device with a protective breathable material to avoid condensation caused by environmental humidity.
- Charging stations kept in a warehouse must not be subjected to climatic conditions other than those indicated below:

Environmental conditions	
Minimum temperature	-20°C
Minimum temperature of the surrounding air	-20°C
Maximum temperature of the surrounding air	70°C
Maximum relative humidity without condensation	95%

- It is very important to protect the system against corrosive chemical products and saline environments.

5.

DEVICE HANDLING

During transport, the device must be protected against mechanical shocks, vibrations, water sprays (rain) and any other product or situation able to damage it or alter its behaviour. Failure to respect these instructions could cause the product warranty to be cancelled without the manufacturer bearing any liability.

5.1. TRANSPORT

Handling the unpackaged device

At least the following provisions must be observed:

1. Follow the fundamental ergonomic recommendations to avoid injuries when lifting weights.
2. Do not release the device until it is perfectly fastened or positioned.
3. Follow the instructions of another person who guides the movements to be made.

5.2. PACKAGING REMOVAL

The correct handling of the charging stations is very important for:

- Not damaging the packaging, which allows it to maintain its optimal conditions, from shipment from the moment it is installed.
- Avoiding striking or dropping the mechanical stations as this could deteriorate the mechanical properties.
- Avoiding, as far as possible, the vibrations that could cause subsequent abnormal operation.

If a fault is discovered, contact Gewiss immediately.

Packaging disposal

The packaging can be sent to an authorised non-hazardous waste agent.

In any case, each part of the packaging must be disposed of as follows:

- Plastic (polystyrene, plastic bags and bubble wrap): relative container.
- Cardboard: relative container.

6.

PREPARATION FOR DEVICE INSTALLATION

To decide the location of the device and prepare for its installation, a series of instructions connected to the properties of the device must be followed.

6.1. ENVIRONMENT

- Position the charging station in a location that can be accessed for installation and maintenance, which permits its use and the reading of the LED indicators.
- Do not position any material sensitive to high temperatures in the immediate vicinity of its air outlet.
- Avoid corrosive environments that could have an influence on the correct operation of the device.
- It is prohibited to leave any object on the device.

6.2. ENVIRONMENTAL CONDITIONS

To select the most suitable location, take the environmental operating conditions of the device into consideration.

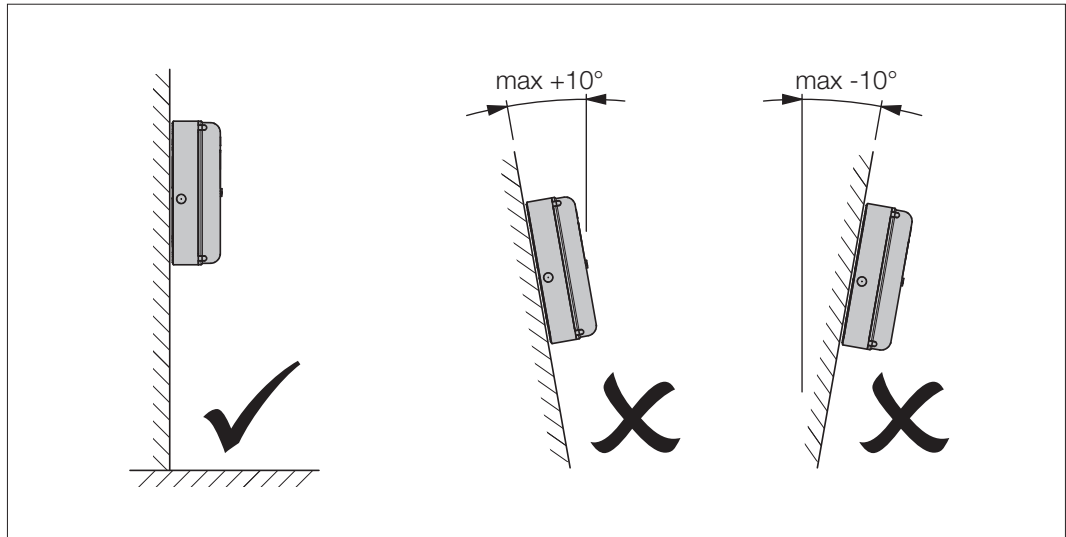
Environmental conditions

Minimum temperature	-20°C
Minimum temperature of the surrounding air	-20°C
Maximum temperature of the surrounding air	70°C
Maximum relative humidity without condensation	95%

Remember that it could occasionally produce a small amount of condensation as a result of temperature changes. Therefore, in addition to the protection it has, the charging stations must be monitored when they are used in areas where it is probable that not all the previously indicated conditions will be satisfied. Never connect the device with the voltage supply when there is condensation.

6.3. SUPPORT AND FASTENING SURFACE

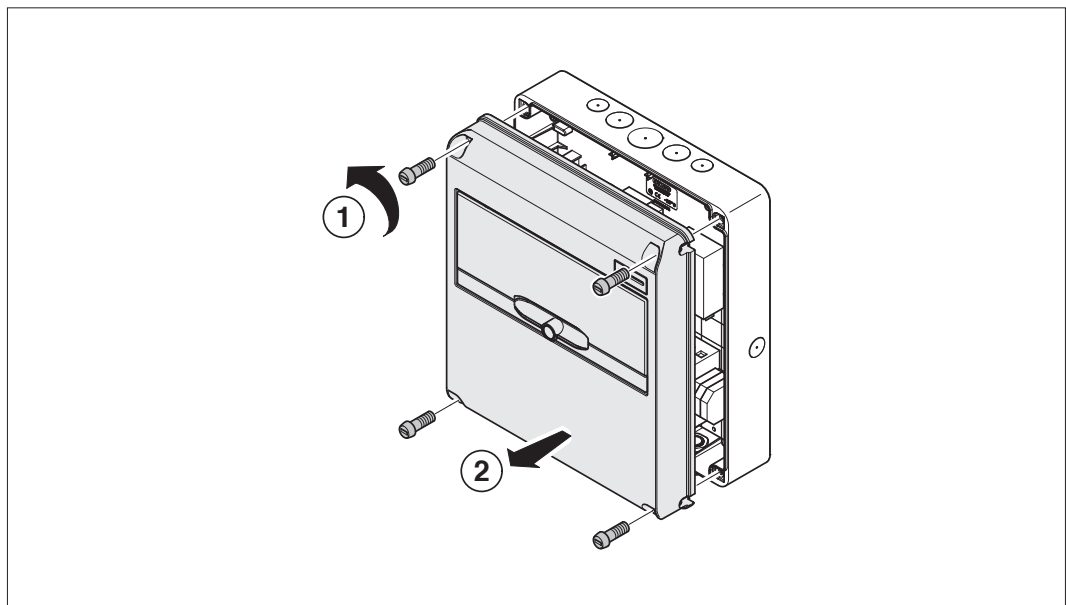
To guarantee the correct dissipation of heat and ensure its tightness, the charging stations must be installed on a wall that is perfectly vertical or that has a maximum inclination of $+80^\circ$ or -80° .



The wall on which the device is installed must be solid. It must be possible to drill the wall and insert wall plugs and anchor bolts that are suitable for supporting the device weight.

6.4. OPENING THE CASING

To open the casing from the main access, proceed as described in the following figures.



Unscrew the 4 plastic screws located in the corners of the product.

7.

DEVICE INSTALLATION AND CONNECTION

Before proceeding with device installation, remove the packaging, paying particular attention to not damage the casing.

Make sure there is no condensation inside the packaging. Otherwise, install the device only when it is completely dry.



All the installation operations must be carried out in compliance with the directive in force.



All operations that involve moving large weights must be done by two people.



Connection must be carried out when the system is de-energised and by qualified personnel.



Scrupulously check that the device is not energised when accessing it inside.



To measure the lack of voltage, use dielectric gloves and safety goggles that are type-approved for electrical risks.

7.1. GENERAL INSTALLATION REQUIREMENTS

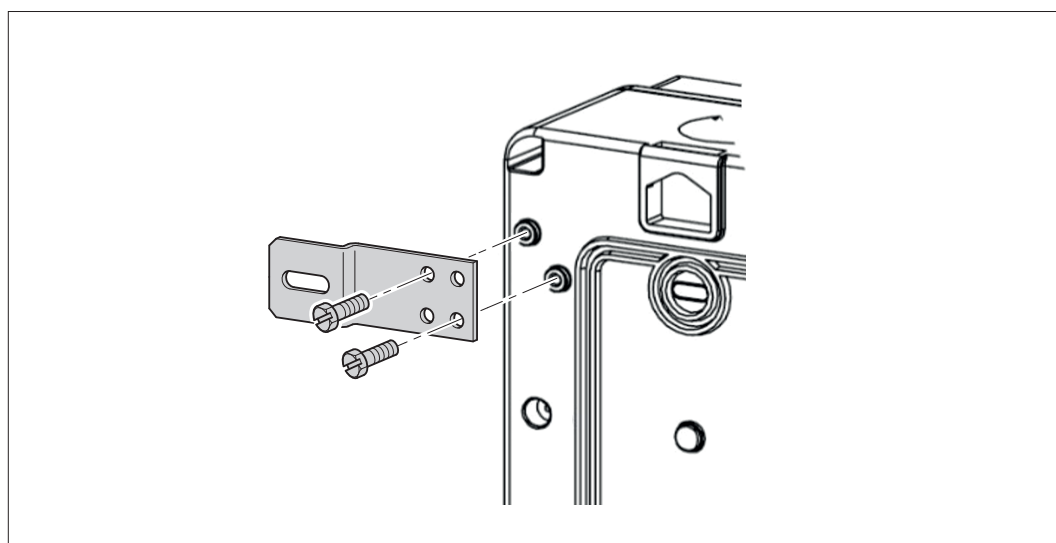
- The device must be installed in a suitable environment that satisfies the information described in chapter “6. Preparation for device installation”. Furthermore, the elements used in the rest of the installation must be compatible with the device and compliant with the applicable law.
- The ventilation and work space must be suitable for the maintenance operations according to the directive in force.
- The external connection devices must be suitable and observe the distance established by the directive in force.
- The section of the connection cables must be suitable for the maximum current intensity.
- Keep external elements away from the air intakes and outlets, as these could prevent correct device ventilation.

7.2. JOINON EASY HOME AND PARKING

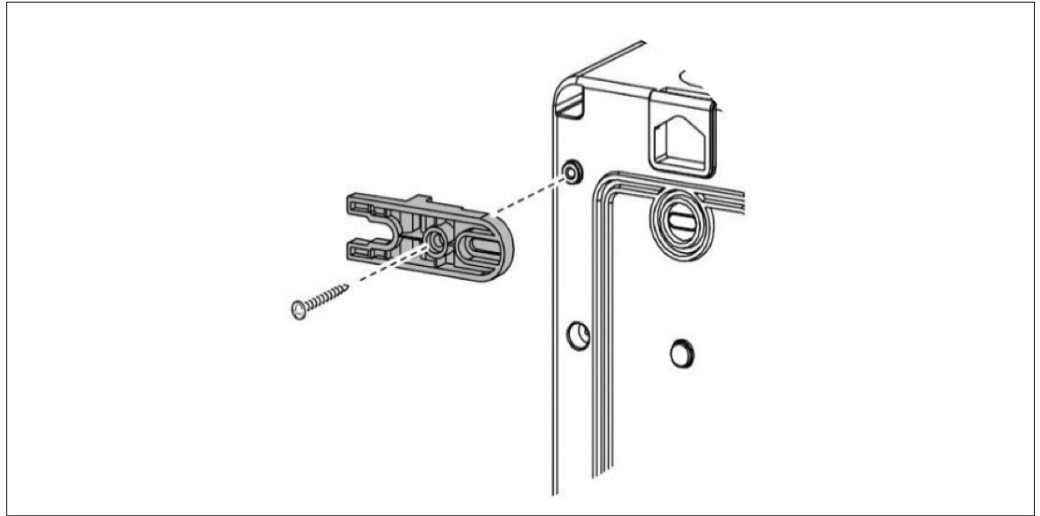
7.2.1. DEVICE INSTALLATION

1. For device assembly, one of the two following solutions can be selected:

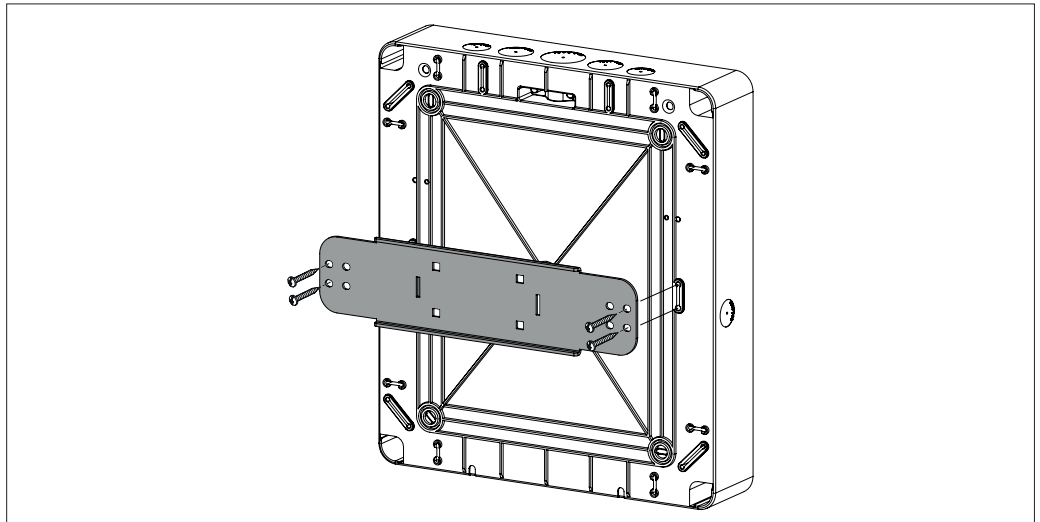
- **Fastening with metal brackets** (provided)



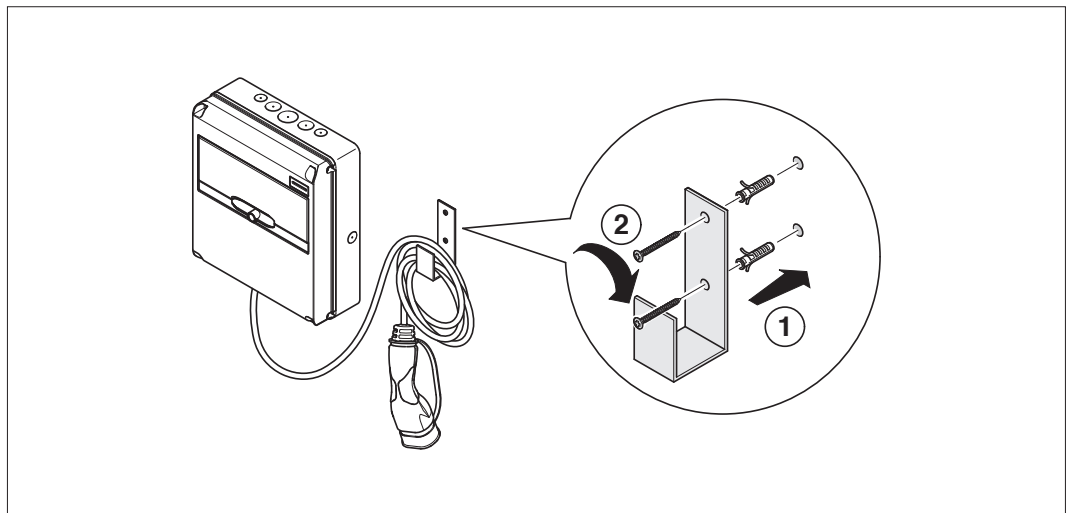
- **Fastening with plastic brackets GW 44 621 (not provided)**



- **Fastening with pole support brackets GW 46 552 (not provided)**



2. After installing the product on the wall, install the support for the hose. It can be installed in the lower part of the device or next to one of the sides.



Installation example.

3. Check that the device is fastened correctly.

7.2.2. CONNECTION OF THE DEVICE POWER SUPPLY

Protection devices

The circuit breaker and residual current protections required by the standard must be installed upstream of the charging station.

These protections are recommended based on the product type.

Type of protection devices			Recommended products
GW 68 116	Miniature circuit breaker	20A C CHARACTERISTIC 2P	GW 94 328
	Residual current circuit breaker	30 mA type A 2P	
GW 68 117	Miniature circuit breaker	20A C CHARACTERISTIC 2P	GW 94 328
	Residual current circuit breaker	30 mA type A 2P	
GW 68 118	Miniature circuit breaker	20A C CHARACTERISTIC 2P	GW 94 328
	Residual current circuit breaker	30 mA type A 2P	
GW 68 119	Miniature circuit breaker	32A C CHARACTERISTIC 2P	GW 94 330
	Residual current circuit breaker	30 mA type A 2P	
GW 68 120	Miniature circuit breaker	32A C CHARACTERISTIC 4P	GW 92 090 + GW 95 721
	Residual current circuit breaker	30 mA type B 4P	

The codes indicated in the table above are just an example. The person who installs the charging station has the responsibility to check the installation conditions and the correct choice of the circuit breaker.

Wiring requirements

The connection must satisfy some requirements:

• JOINON EASY HOME

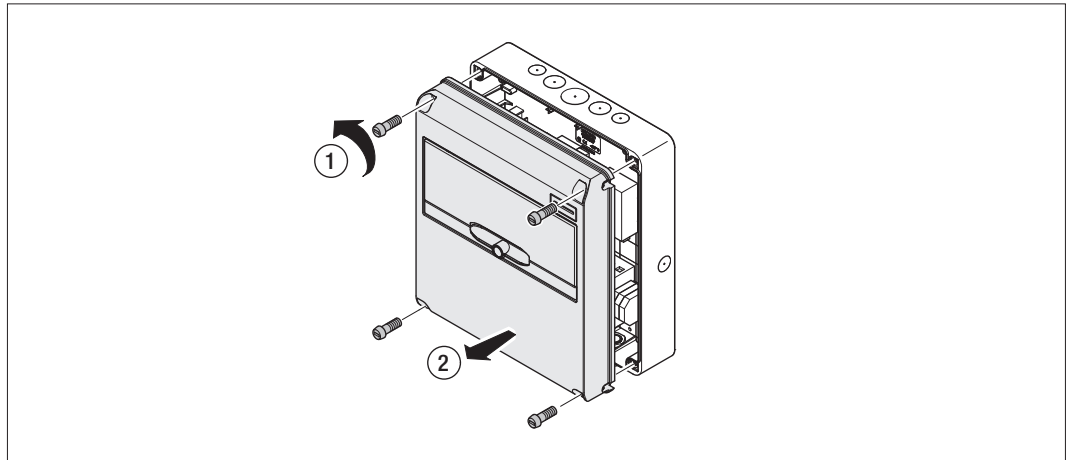
Connection specifications	
Type of connection	Single-phase
Number of wires	2P+E
Nominal current	Up to 20A
Maximum wire diameter	6mm ²

• JOINON EASY PARKING

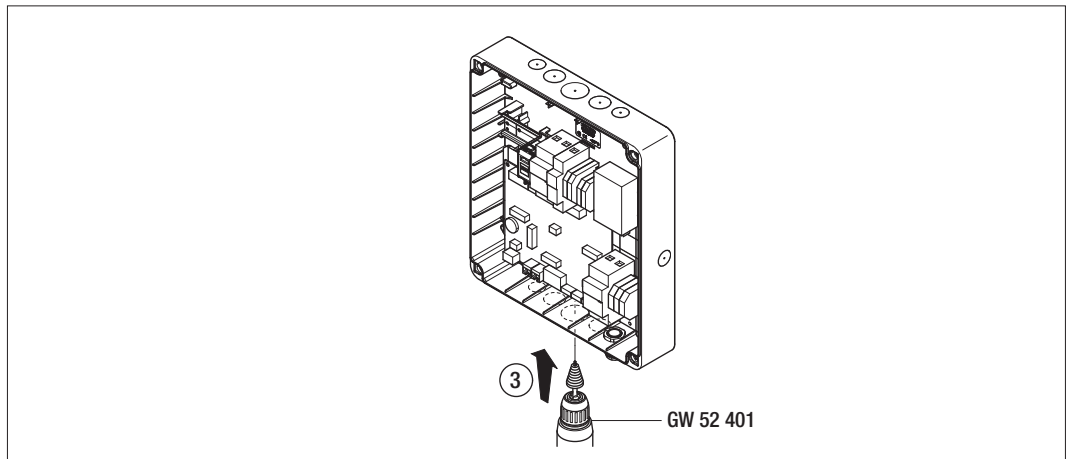
Connection specifications	
Type of connection	Single-phase/ three-phase
Number of wires	2P+E/3P+N+E
Nominal current	Up to 32A
Maximum wire diameter	10mm ²

Connection procedure

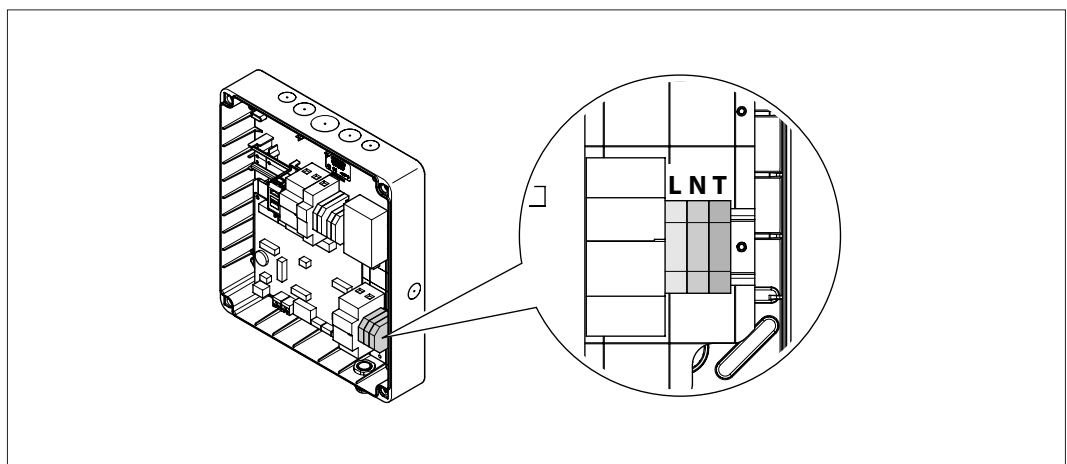
1. Open the casing as shown in the figure.



2. Drill the back-mounting box using a multi-diameter drill (not supplied) at the top or the bottom as required.



3. Connect the power supply cable to the inlet terminal block and tighten the cable using the cable gland.



4. Once the electrical system is complete, the system is ready to be turned on. Make sure that the miniature circuit breaker is set to "1", in this way, when the charging station is powered for two seconds, it lights up red, blue and green. After a brief status check, the light turns green. The station is ready and is in stand-by. If the station identifies a malfunction, the light will turn red.

8.

OPERATION

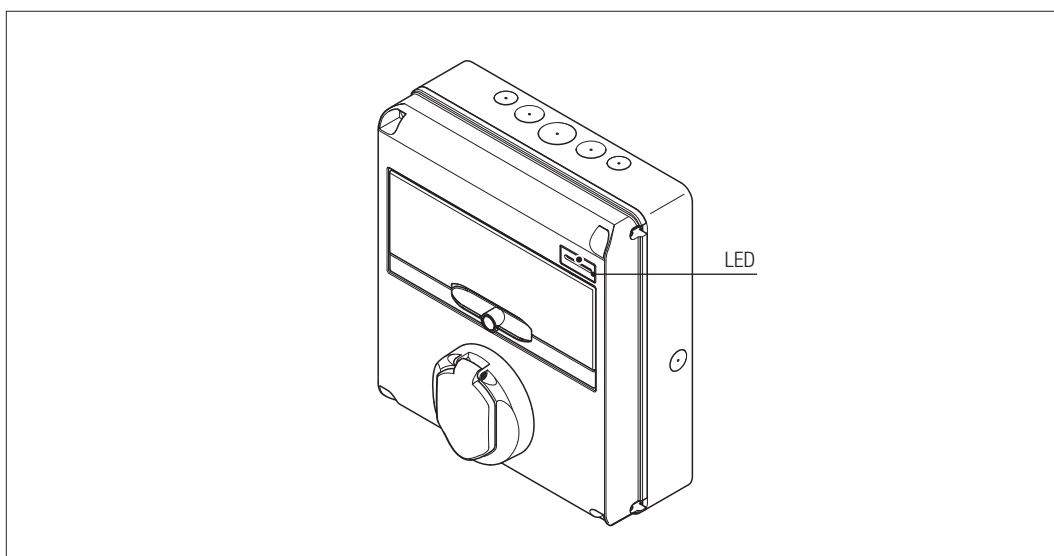
The main function of the charging station is to supply electricity to charge an electric vehicle that is available to everyone or only to specific users.

This section provides a detailed description of the function of the charging station.

 The charging stations JOINON EASY HOME and EASY PARKING can load different configurations via USB.

8.1. STATUS INDICATORS

The charging station indicates its current status by means of a luminous signal with various LEDs.



Status	Lighting	Description
Waiting for vehicle	Continuous green	The charging station is waiting for a vehicle to connect for charging.
Waiting to charge	Flashing yellow	JOINON EASY HOME A user has selected the type of charge (nominal or limited) via the selector and the charging station is waiting for the user to connect the vehicle. JOINON EASY PARKING A user has passed the card on the reader and the charging station is waiting for the user to connect the vehicle.
Charging	Fixed blue	A vehicle was connected to the charging station.
Reduced consumption	Flashing blue	The consumption is reduced.
End of charging	Flashing yellow	JOINON EASY HOME After charging, the user selected the stop position (0) with the selector and the charging station is waiting for the vehicle to be disconnected. JOINON EASY PARKING After charging, the user passed the card and the charging station is waiting for the vehicle to be disconnected.
Event	Fixed red	The charging procedure was not carried out correctly due to a problem.
Stand by	None	The charging station was disconnected remotely.
End of session	Fixed white	The charging session has ended.
Card rejected	Fixed white	Non-existent.
Data loading via USB key	Flashing white	The charging station is downloading or loading the data loaded on the USB key. See paragraph 16 for more details about the possible executable configurations.

8.2. CHARGING PROCESS

8.2.1. JOINON EASY HOME



While charging, it is not possible to remove the plug because it is locked by the charging station. In order to remove the plug, first stop the charging.

Charging types

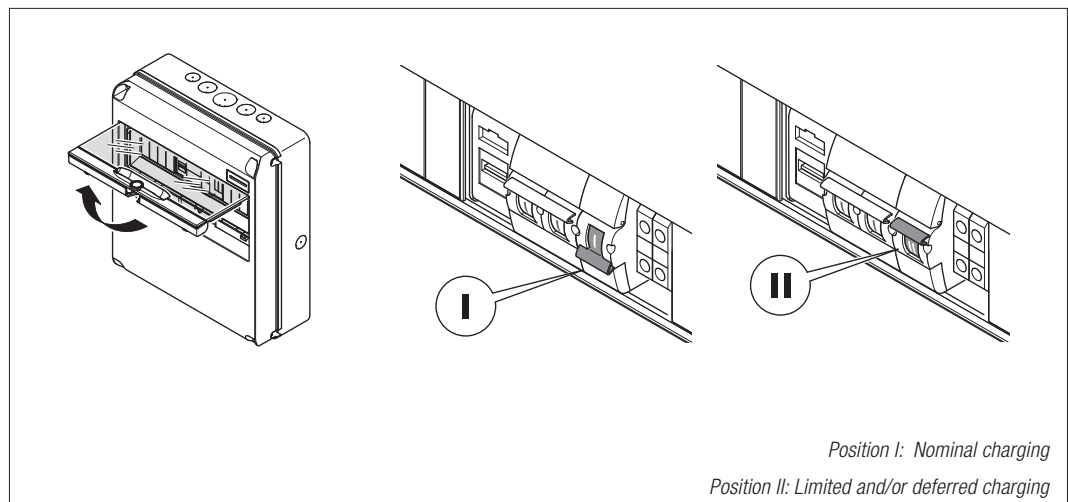
The charging station has two charging modes: **nominal (I)** and **limited (II)**.

If the nominal charging process is selected, the station will charge at the nominal current set at the factory.

The limited charging type performs charging at 10 A. Therefore, the charging process will be longer.

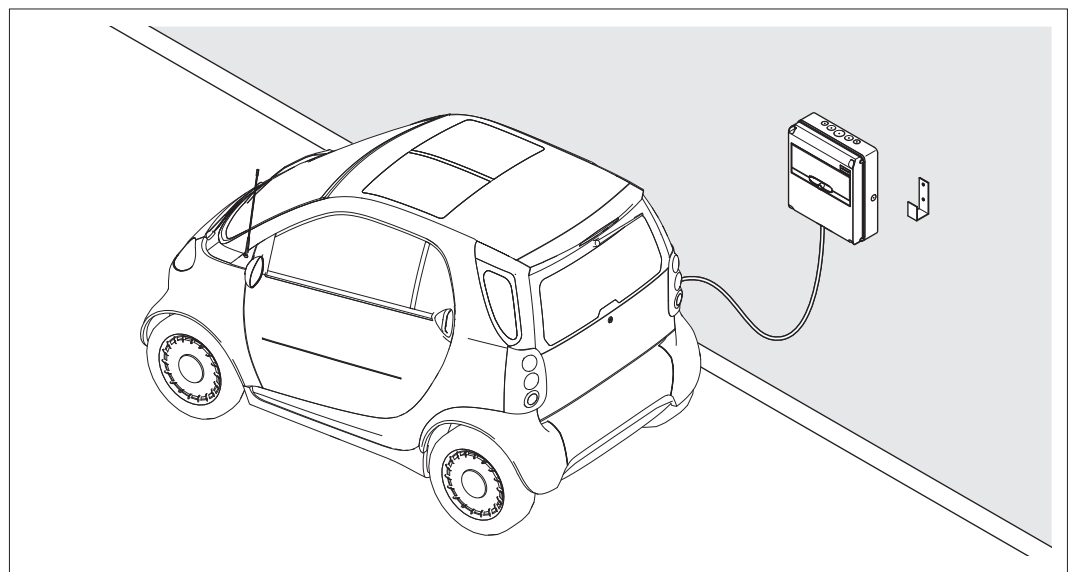
Start of the charging process

1. Open the door on the enclosure and operate the modular selector (I-II) to activate the desired charging mode.
To select nominal charging, move the selector to position I (move the lever down).
If instead you want to perform limited charging, move the selector to position II (move the lever up).
The front LEDs flash yellow while waiting for the vehicle to be connected.
During the charging process, the type of charging can be changed by moving the selector to the desired position.



NOTE: Always close the door on the enclosure while charging the vehicle to prevent jeopardising the product's IP degree if installed outdoors

2. Connect the vehicle to the charging station.



End of the charging process

To end the charging cycle, move the lever of the selector to position 0 (central position). The front LEDs flash yellow while waiting for the user to disconnect the connector from the vehicle.

Loss of supply (immediate charge and deferred charge)

If there is an interruption in the electric power supply, the charging station will remain inactive until the supply is restored. After restoring the power supply, the charging station will return to its status prior to the loss of supply.

8.2.2. JOINON EASY PARKING



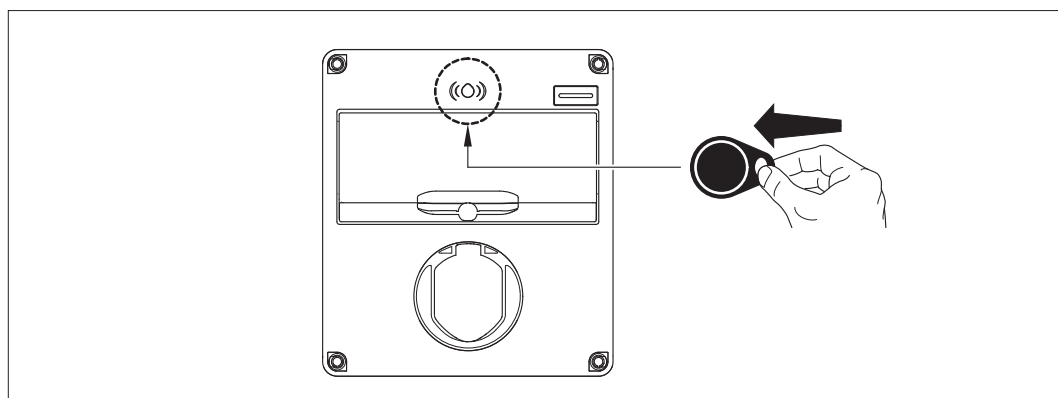
While charging, it is not possible to remove the plug because it is locked by the charging station. In order to remove the plug, first stop the charging.

Charging types

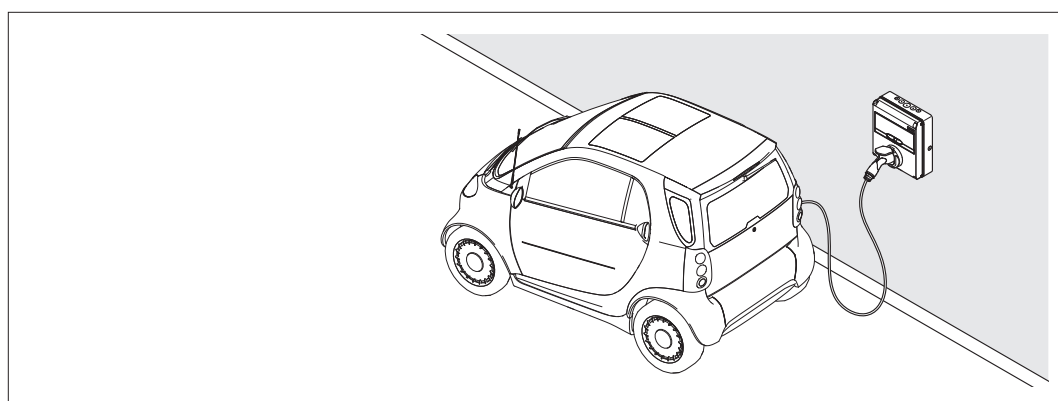
The charging station is calibrated to supply the maximum power available as configured in the factory.

Start of the charging process

1. To start charging, you must be authenticated using transponder keys GW68992. The transponder key must be located near the receiver shown graphically above the enclosure door. If the user is authorised for charging, the front LEDs flash yellow while waiting for the vehicle to be connected.



2. Connect the vehicle to the charging station.



End of the charging process

To end the charging cycle, pass the transponder key again near the receiver. This will also release the plug and it can be removed safely.

Loss of supply (immediate charge and deferred charge)

If there is an interruption in the electric power supply, the charging station will remain inactive until the supply is restored. After restoring the power supply, the charging station will return to its status prior to the loss of supply.

9.

DISCONNECTION OF THE MAINS SUPPLY

This section describes the procedure for disconnecting the mains network from the device. If you want to work inside the device (qualified personnel only), first operate the circuit breaker located in the enclosure that protects the electronic board and then the protection located upstream of the power supply line.

10.

PREVENTIVE MAINTENANCE

10.1. EARTH CONNECTION

It is recommended to check the correct connection to the system earth wire every year.



The operator accessing inside the charging station must have received suitable training from the contractor (charging station operator) and be authorised to perform these operations.

11.

TROUBLESHOOTING

This section offers a guide for resolving problems that can occur during the installation and operation of the charging station.



The problems must be resolved by qualified personnel in compliance with the general safety information provided in this manual.

11.1. ALARMS

In the case of an alarm, the station will switch to the "alarm" status, and illuminate red.

1. SYSTEM FAILURE

Description

The station protections tripped.

Check the state of the circuit breaker protection located inside the product (to protect the electronic board).

Also check the state of the circuit breaker -residual current protection located upstream.

Solution

If the protections can be manually reset, open the door on the enclosure to check their state and reset the circuit breaker.

Perform the same operation for the protections located upstream if necessary.

If the problem continues:

Check that the protections are correctly wired and make sure there are no disconnected or loose cables.

2. POWER SUPPLY INTERRUPTED

Description

This error can depend on:

- Mains supply failure. The station will restart when the supply is restored.
- The station protections tripped.

Solution

If the error continues after restoring the mains supply, make sure the voltage is present in the charging station connection socket-outlet.

If the cause of the alarm was produced by the activation of the protections inside the device, resolve the problem as indicated in the section "*System failure (error code 0001)*".

3. CONNECTOR ENERGISED

Description

The connector is energised when it should not be, and vice versa.

Solution

Use a multimeter to measure the presence of voltage in the connector.

If voltage is present

Check that the meter activation coil is powered at 230 VAC.

- If it is powered, the problem can originate from the control board. Make sure that cables are not disconnected or poorly inserted in the control board.
- If it is not powered, check if cables are disconnected or poorly inserted in the connectors or power relay.

It may be necessary to replace the meter. Contact the telephone support service.

If voltage is not present

The problem may originate from the control board. Make sure that cables are not disconnected or poorly inserted in the control board.

4. CHARGING SEQUENCE ERROR

Description

Abnormal charging sequence or vehicle disconnection while charging.

Solution

If the alarm activates due to the disconnection of the vehicle during the charging session, it will disappear after the session ends.

If the alarm persists even when charging is not in progress, contact the telephone support service.

5. MAXIMUM PERMITTED CHARGING CURRENT

Description

The vehicle did not respect the maximum charging current limit permitted for the maximum specified time.


Solution

The alarm will disappear when the charging session for the electric vehicle that caused the alarm has ended.

12.

WASTE DISPOSAL

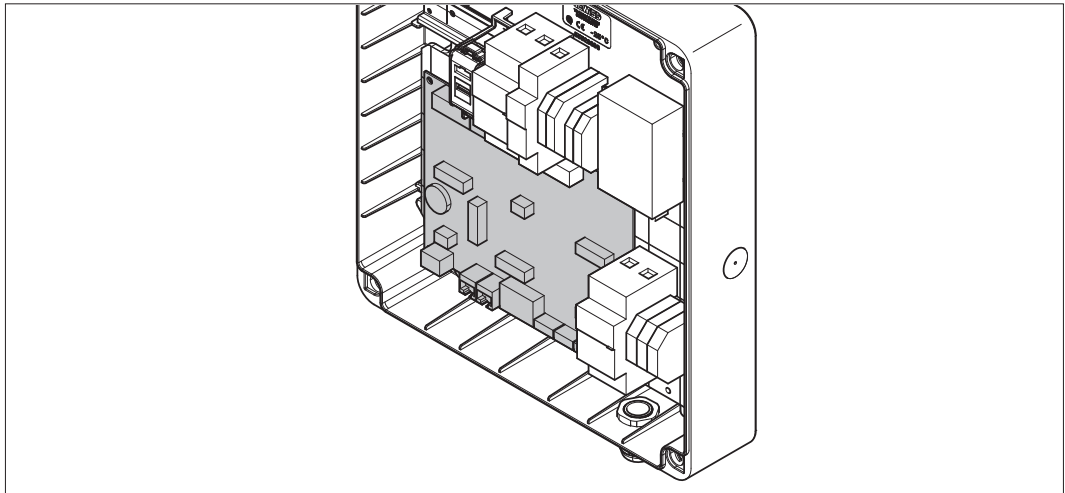
These charging stations use components that are harmful to the environment (electrical boards, batteries, etc.).

 At the end of its useful life, the device must be delivered to an authorised collection centre for the correct disposal of the hazardous waste. Following a policy that respects the environment, this section informs the authorised collection and disposal centre about the location of the components to be decontaminated.

The components inside the device that must be treated in a specific manner are:

1. Printed circuit boards.

The following image shows their location.



Waste treated as traditional waste

Most of this waste is produced by the device packaging, which must be treated and eliminated in a suitable manner.

The packaging can be sent to an authorised non-hazardous waste agent.

In any case, each part of the packaging must be disposed of as follows:

- Plastic (polystyrene, plastic bags and bubble wrap): corresponding container (plastic and packaging).
- Cardboard: Corresponding container (paper and cardboard).

13.

USB CONFIGURATION

The purpose of this chapter is to describe the optional configuration for the charging stations JOINON EASY HOME and PARKING.

Via the USB connection available in the enclosure compartment of the charging station, it is possible to change the configuration of various parameters.

13.1. CONFIGURABLE PARAMETERS

The following parameters can be configured:

- Date and time.
- Language.
- Country.
- Current set point *for nominal, limited and deferred charging*.
- Deferred charge programming.
- Firmware update.

13.2 FILE DOWNLOAD AND STORAGE

To download the necessary files, follow the instructions provided below. If necessary, contact the GEWISS telephone support service.

Creating the USB memory root

In order to configure the charging station and/or download the operating data, it is necessary to create a memory root in the USB memory as indicated in the following image. The USB memory must be formatted in FAT32.



The *readme.txt* documents contain information about each of the folders in which they are contained.

14.

FOLDER SYSTEM

The previous point described the structure of the folders that must have the USB memory to correctly load or download the parameters in the station. **If this structure is not respected, it will not be possible to load or download the parameters.**

The function of each folder is indicated below. It is possible that not all folders are used.

If for example you do not want to change the station firmware, the firmware folder does not have to be included in the USB memory.

This applies to all the folders.

14.1. BOOTLOADER

- The bootloader firmware must be inserted in this folder if it needs to be updated. The name of the bootloader file has the *“.bin”* extension.

14.2. CONFIGURATION

- This folder contains the files needed to configure the charging station. To configure the station, it is necessary to change the *“date.ini”* files (to set the date and time) and *“user.ini”* files (configuration of various parameters). The *“howto_date.ini”* and *“howto_user.ini”* documents contain information about the configuration.

date.ini

To change the date and time of the charging station, it is necessary to change the *date.ini* file, writing a single line that includes the current date and time, using the following format:

mmm dd yyyy hh:mm:ss

- *mmm*: the first three letters of the name of the month in English (jan, feb, mar, apr, may, jun, jul, aug, sep, oct, nov, dec).
- *dd*: day. Always use two numbers (01, 03, 12, 20, etc.).
- *yyyy*: year (2013, 2014, etc.).
- *hh*: hour. Always use two numbers (01, 07, 15, 21, etc.).
- *mm*: minutes. Always use two numbers (03, 09, 17, 36, etc.).
- *ss*: seconds. Always use two numbers (04, 08, 12, 25, etc.).

After changing this parameter with the desired date and time, connect the USB memory in the station at that exact time so the update will be correct.

After updating the date and time in the station, the *“date.ini”* file will be deleted from the USB memory to avoid incorrect updates.

user.ini

The *“user.ini”* file contains the variables that the user can configure. Not all parameters can be configured for all models, but they are included for reasons of compatibility.

If a *“user.ini”* file is present in the */gewiss/config/* folder when the USB is connected to the station, the new configuration will be loaded.

The parameters that can be configured are:

language

Defines the language of the user interface for the devices with a monitor.

Example: language = “it”;

country

Defines the country, reserved for future developments.

Example: country = “it”;

nominal_current

Current setpoint sent to the vehicle when the device is used in *nominal charge* mode.

The default setting is nominal current, which is indicated on the specifications data plate of the charging station. It must be a whole, positive value.

The lower limit is 6 Amperes according to regulations and the upper limit is equal to the current on the specifications data plate.

In the case of the ZE Ready device, the lower limit is 7 Amperes for single-phase versions, and 13 Amperes for three-phase versions.

If these parameters are not satisfied, the variable will maintain the previous value.

Example: nominal_current = 15;

limited_current

The current setpoint sent to the vehicle when the device is operating in *limited charge* mode.

By default, it is 60% of the station's specifications data plate current, 12 Amperes for 20 Ampere units, 20 Amperes for 32 Ampere units.

It must be a whole, positive value. The lower limit is 6 Amperes according to regulations and the upper limit is equal to the *nominal_current*.

In the case of the ZE Ready device, the lower limit is 7 Amperes for single-phase versions, and 13 Amperes for three-phase versions.

If these parameters are not satisfied, the variable will maintain the previous value.

Example: limited_current = 12;

deferred_current

The charging stations can have deferred charging thanks to the USB configuration.

In this line, it is possible to configure the current setpoint sent to the vehicle when the device is operating in deferred charge mode. By default, it is equal to the nominal current.

It must be a whole, positive value. The lower limit is 6 Amperes according to regulations and the upper limit is equal to the current on the specifications data plate.

If these parameters are not satisfied, the variable will maintain the previous value.

Example: deferred_current = 16;

Power reference table according to phases, voltage and intensity

Single-phase	230V 6A	1.38kW
	230V 8A	1.84kW
	230V 10A	2.30kW
	230V 12A	2.76kW
	230V 14A	3.22kW
	230V 16A	3.68kW
	230V 20A	4.60kW

start_deferred_charge

This is used to programme the start of deferred charging. By default, this variable is disabled.

To programme the start of deferred charging, load a *user.ini* file whose variable has a valid programmed time.

The format of the variable is 24 hours, in the format *hh:mm:ss*.

Example: start_deferred_charge = "23:05:00";

To disable the start of deferred charging, load a *user.ini* file that contains the variable, but with it empty.

Example: start_deferred_charge = "";

finish_deferred_charge

This is used to programme the end of deferred charging. By default, this variable is disabled.

To programme the end of deferred charging, load a *user.ini* file whose variable has a valid programmed time.

The format of the variable is 24 hours, in the format *hh:mm:ss*.

Example: `finish_deferred_charge = "09:55:00";`

To disable the end of deferred charging, load a *user.ini* file that contains the variable, but with it empty.

Example: `finish_deferred_charge = "";`

14.3. FIRMWARE

The firmware of the device is inserted in this folder if it needs to be updated.

The name of the firmware file has the *.bin* extension.

14.4. SESSIONS

This folder is used for saving the file that contains all the information relative to the device charging sessions as well as the warnings, alarms or important events that took place.

If the device has an energy meter, the saved information will also include the consumption of each session. Otherwise, the device will only have information regarding the duration of the sessions.

The file format is simple text in csv format so it can be easily imported from applications such as spreadsheets or other data processing systems.

If the file does not exist, a new one will be generated.

If the file exists already, add the new information to it without deleting any existing information.

Keep in mind that when the information passes to the USB device, it is deleted from the device to keep the maximum amount of memory available.

If the information is not periodically removed from the station, when the memory is full the information will be overwritten.

In normal conditions, the memory makes it possible to store at least 3 charging sessions per day for a full year.

14.5. SUPPORT

This folder contains a copy for the user of the current station status configuration files. The copied files are:

- *user.ini*
- *date.ini*

This makes it possible to check the configuration, current date and time of the device as well as to check that the data loaded from the configuration files in */gewiss/config/* were updated correctly.

15.

DEFERRED CHARGING IN JOINON EASY HOME

i Most modern electrical vehicles have the option of programming or deferring the vehicle charge. It is recommended to use this function if it is available.

For vehicles that do not have programmed or deferred charging, it is possible to configure deferred charging in this charging point with the maximum level of versatility and flexibility possible.

However, the manufacturer is not responsible for ensuring that programmed or deferred charging works in all vehicles considering that some models go into sleep mode after a certain period of inactivity and in those cases, they may not react even if the possibility of being charged from the charging point has been enabled.

In this case, contact the manufacturer about the limit at which the vehicle can be kept in sleep mode before activating deferred charging or perform some tests to determine it.

As previously indicated, deferred charging is possible in the stations if they are activated and programmed via USB.

For activation, the *“start_deferred_charge”* line and/or the *“finish_deferred_charge”* line must be configured. These stations make it possible to charge the electrical vehicle in nominal or limited charge mode. Both charging modes can be selected using the modular selector located in the charging station enclosure compartment, where the position *“I”* is for nominal charging and *“II”* is for limited charging.

However, if deferred charging is activated via USB, this will be the operating mode. In this case, limited charging will be deactivated and replaced by deferred charging. For this reason, to select deferred charging in the station, the position *“I”* must be selected using the selector. The position *“II”* remains selectable for *nominal charging*. The deferred charging mode is a generic term, and based on the various configuration options, up to three separate deferred charging modes are available. The modes are as follows:

- Programmed start of charge.
- Programmed interval charge.
- Programmed end of charge.

The following cases are possible:

1. *start_deferred_charge*, disabled (default)
finish_deferred_charge, disabled (default) or selector in position I, nominal charging mode.
 The current setpoint is *nominal_current*.
 Charging will start when the vehicle sends the charging start signal, both for immediate and deferred charging.
 or selector in position II, *limited charging* mode.
 The current setpoint is *limited_current*.
 Charging will start when the vehicle sends the charging start signal, both for immediate and deferred charging.
2. *start_deferred_charge*, enabled
finish_deferred_charge, disabled
 or selector in position I, nominal charging mode.
 The current setpoint is *nominal_current*.
 Charging will start when the vehicle sends the charging start signal, both for immediate and deferred charging.
 or selector in position II, *programmed start of charge* mode.
 The current setpoint is *deferred_current*.
 The station permits recharging when the start time is reached and the session continues for an indefinite period of time until it is finalised.
 If the programmed time is 23:00:00 and the user connects the vehicle at 23:00:01, the vehicle will not start charging until 23:00:00 of the following day.
3. *start_deferred_charge*, enabled
finish_deferred_charge, enabled
 or selector in position I, *nominal charging* mode.
 The current setpoint is *nominal_current*.

Charging will start when the vehicle sends the charging start signal, both for immediate and deferred charging. or selector in position II, *programmed interval charge* mode.

The current setpoint is *deferred_current*.

The station permits charging when the starting time is reached and finishes at the programmed end time. If the start of charge is programmed for 23:00:00 and the end for 09:00:00, if the user connects the vehicle at 23:05:00, as this is during the charging interval, charging will start in any case and finish at the programmed end time.

4. *start_deferred_charge*, disabled
finish_deferred_charge, enabled
or selector in position "I", *nominal charging* mode.

The current setpoint is *nominal_current*.

Charging will start when the vehicle sends the charging start signal, both for immediate and deferred charging. or selector in position "II", *programmed end of charge* mode.

The current setpoint is *deferred_current*.

Charging will start when the vehicle sends the charging start signal, both for immediate and for deferred charging and will finished at the scheduled end time. Charging will not restart until the session is closed and is then reopened.

It is possible to switch from *nominal charging* to *limited charging* or vice versa, at any moment without having to interrupt charging.

In the same manner, it is also possible to switch from nominal charging to deferred charging, or vice versa, at any moment.

When the station is in deferred charging mode in stand-by at the programmed start time, the luminous signal will flash blue.

16.

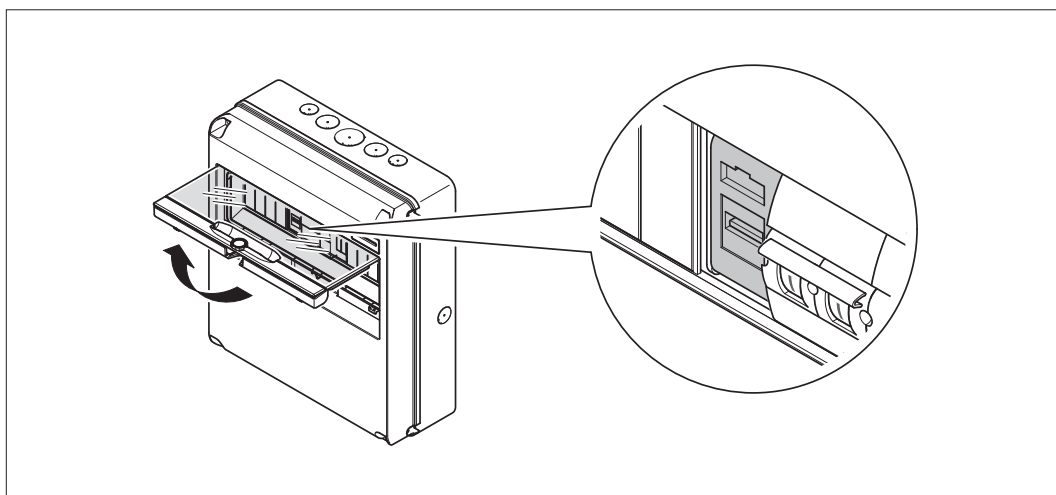
ACCESS AND DATA LOADING

The procedure for accessing the USB connector available in the charging stations is described below.
Open the enclosure door to access the device's USB socket-outlet and insert the USB memory in the relative connector.

The charging station must be powered to load the data.

If the parameters were loaded successfully, the station signal will flash white for a few seconds.

After loading the data, remove the USB memory and close the enclosure door.



GEWISS

Punto di contatto indicato in adempimento ai fini delle Direttive e Regolamenti UE applicabili:

Contact details according to the relevant European Directives and Regulations:

GEWISS Via Volta, 1 IT-24069 CENATE SOTTO - tel. +39 035 946 111 – qualitymarks@gewiss.com



+39 035 946 111

8.30 - 12.30 / 14.00 - 18.00
lunedì ÷ venerdì - monday ÷ friday



+39 035 946 260



sat@gewiss.com
www.gewiss.com