SERIES BE-W[2.0]

Use and installation manual

CE



READ CAREFULLY BEFORE USING THE DEVICE

KEEP FOR FUTURE REFERENCE

SCAME

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1. INTRODUCTION

1.1 PURPOSE OF THE MANUAL

The subject of this use and installation manual is the electric vehicle charging station (hereinafter referred to as 'device') of the **BE-W [2.0]**series in all its versions (see par.. 3.5).

The purpose of this manual is to provide:

- The **user** with all information necessary for the safe use of the device and its maintenance in optimal operating conditions.
- The **installer** with all information necessary to operate the device safely during installation and commissioning.

1.2 MANUFACTURER'S IDENTIFICATION

The manufacturer of the device covered by this manual is:

SCAME PARRE SPA
Via Costa Erta 15
24020 Parre BG - Italy
www.emobility-scame.com

1.3 STRUCTURE OF THE MANUAL

This manual is divided into chapters referring to different topics concerning the various stages of the device life cycle that are of interest to the end user. Each chapter is subdivided into paragraphs, each of which deals with specific points of the overall topic to which the chapter refers.

References to titles or paragraphs are indicated by the abbreviation chap. or par. followed by the relevant number. Example: “chap. 2” or “par. 2.1”.

1.4 RESPONSIBILITY AND WARRANTY

- The device is covered by the manufacturer's warranty provided for in the Consumer Code (Articles 128 et seq.), which covers the reimbursement, repair or replacement necessary to remedy any manufacturing defects which may occur during normal use for a period of 24 months from the date of delivery of the device.
- Any modification of the device or installation and commissioning not in accordance with the instructions in this manual will invalidate the warranty and product certifications.
- Reproduction of this manual in whole or in part without the manufacturer's permission is strictly prohibited.
- The Manufacturer reserves the right to make changes or improvements to the device and documentation without prior notice.

1.5 ASSISTANCE

For further information on the device and its applications, please consult the documentation made available in the Manufacturer's web area by scanning the QR code or visiting the website: e-mobility.scame.com/download.

To receive assistance from the Manufacturer, please use the contact details below:

InfoTECH

ITALY	WORLDWIDE
Numero Verde 800-018009	ScameOnLine www.scame.com www.emobility-scame.com

N.B.

The end user is informed that the diagnostic and maintenance operations will be carried out by a technician authorised by SCAME who will connect to the devices with credentials provided by SCAME

2. SAFETY

WARNING



The Manufacturer cannot be held liable for any damage to persons or property if the conditions described in this manual are not complied with.

N.B.

in the event of fire, comply with the regulations in force in the country where the station is installed

2.1 GENERAL INFORMATION

This manual contains instructions which are of paramount importance as they relate to the safety of the user and the device. These instructions must be strictly observed so as to ensure the safety of persons and property in dangerous situations which could occur during the operations described.

To ensure that these instructions can be identified easily in the manual, they have been included within text boxes accompanied by the pictogram indicating the general danger, following the definitions below:

DANGER



Instruction referring to an imminently hazardous situation which, if not avoided, will result in instant death or serious or permanent harm to health.

WARNING



Instruction referring to a potentially hazardous situation which, if not avoided, may result in death or serious harm to health.

ATTENTION



Instruction referring to a potential hazardous situation which, if not avoided, could result in damage relating to the safety of the device.

N.B.

Additional information not related to risk situations that could lead to personal injury or damage to property.

N.B.

As of January 1, 2027, public charging points installed or refurbished in the European Union must comply with the EN ISO 15118-20 standard. The EN ISO 15118-20 standard defines the requirements for communication between the electric vehicle (EV) and the charging infrastructure (EVSE). To verify the charging station's compliance, it is recommended to consult the technical data sheet and check for conformity with the EN ISO 15118-20 standard.

2.2 GENERAL SAFETY INSTRUCTIONS

Non-compliance with these safety instructions may result in serious injury with even fatal consequences (risk of electrocution, explosion or electric arc) or damage to device.

USING THE DEVICE

- Before using the device, read all instructions carefully.
- The device is intended for charge mode 3 (according to IEC/EN 61851-1), which consists of connecting the electric or hybrid vehicle to the AC mains power supply using specific connectors (according to IEC/EN 62196-1 and 2).
- The device is intended for use in environments such as: car parks; private parking spaces; communal parking spaces; charging stations or dedicated charging points in commercial facilities (e.g. hotels, restaurants, service areas, shopping centres, shops, etc.).
- Do not use the device for purposes other than those for which it is intended.
- The device is not intended for use by persons (including children) with reduced physical, mental or sensory capabilities or insufficient experience and/or skills, unless they are under the supervision of a person responsible for their safety or are instructed by that person in the use of the device.
- Children must not play with the device or its packaging.
- Before connecting the vehicle to the device, make sure that the vehicle is properly braked and.
- Cables, sockets and plugs used to connect the vehicle must comply with the safety requirements of the legislation in force in the country where the device is installed.
- The use of extension cables to connect the vehicle is considered by the manufacturer to be improper use of the device and is therefore prohibited.
- When charging is complete, disconnect the charging cable from the device and the vehicle and store it in a suitable place for future use.

DEVICE INSTALLATION

- Before installation or carrying out any kind of operation on the device, read all instructions carefully.
- Installation and commissioning of the device must only be carried out by qualified and authorised personnel and in compliance with the safety regulations, rules and legislation in force in the country where the device is installed.
- After removing the packaging, check that the device is intact and has not been damaged in any way.
- If the device is damaged, it must not be installed or used. Contact the Manufacturer to agree on the appropriate procedures to be implemented.
- Packaging components must be delivered to the appropriate disposal centres and under no circumstances left unattended or within the reach of children, animals or unauthorised persons.
- Do not install the device in a potentially explosive environment or where flammable substances are present.
- Install the device in areas not directly exposed to the sun.
- Before proceeding with installation, check that the mains voltage corresponds to the characteristics indicated on the identification label on the base of the device.

- Before making the electrical connection, check that no voltage is present in the system.
- Before putting the device into operation, check that the metal structure is earthed via the yellow-green conductor and ensure the presence of an automatic and differential power line protection coordinated with the earthing system.
- Once the device has been connected to the electrical system and before carrying out any work on the device, switch off the power and use a suitable tool to ensure that there is no voltage on any part.

DEVICE CLEANING AND MAINTENANCE

- For cleaning, use a damp cloth or neutral detergent compatible with plastic materials.
- Maintenance work on the device must only be carried out by qualified and authorised personnel.
- Before carrying out any work on the device, switch off the power supply and use a suitable instrument to check that there is no voltage on any part.
- Carry out checks and inspections on the device in the manner and at the intervals specified in the use and installation manual.
- Do not touch printed circuit boards and use suitable tools to access electro-statically sensitive components/ parts.

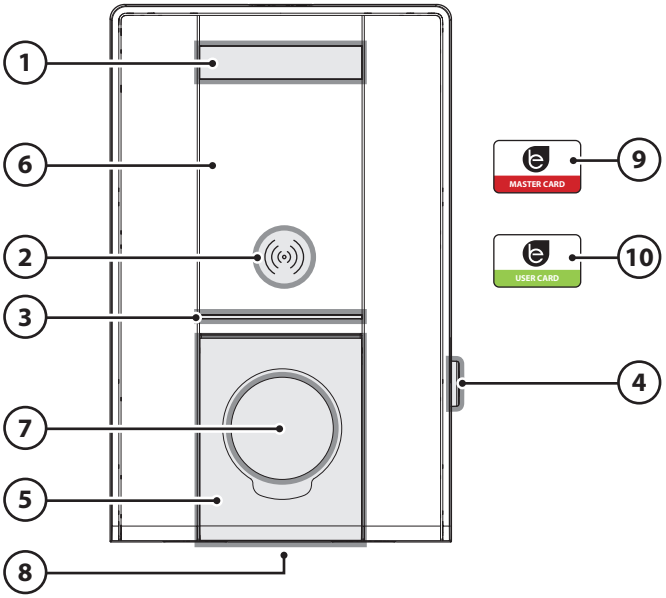
IN CASE OF FAILURE OR MALFUNCTION

In the event of a fault or malfunction, contact the installer. For further support, please contact the Manufacturer directly.

In the event of a fire, extinguish it as you would with any other electrical equipment according to the regulations in force in the country where the station is installed.

3. DESCRIPTION OF THE DEVICE

3.1 DEVICE COMPONENTS



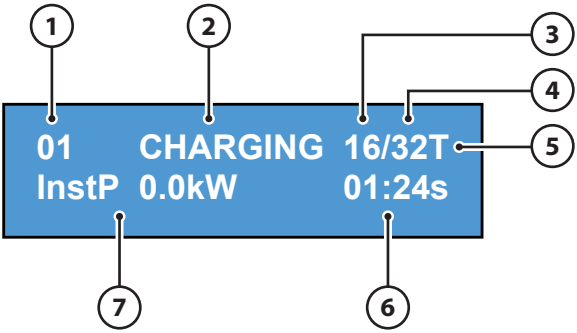
Depending on the version, the device may be equipped with:

1. Multilingual display (only versions without APP)
2. RFID reader (Mifare Classic or Mifare Plus, only versions without APP)
3. LED - RGB strip
4. Button (only versions without APP):
   - Change language
   - Consumption display
   - Charging interrupted
5. Charging flap (not present in tethered versions)
6. Protections
7. Charging sockets:
   - Picoblade connector with cable (type 2)
   - With plug block (eg. type 2, type 3A)
8. Identification label
9. Master Card (only for BUSINESS stations)
10. User Card

3.2 DISPLAY

N.B.

- **To set the display language, see par. 6.1.**
- **For a detailed description of the device status shown on the display, see par. 5.1.1 and 5.2.1.**

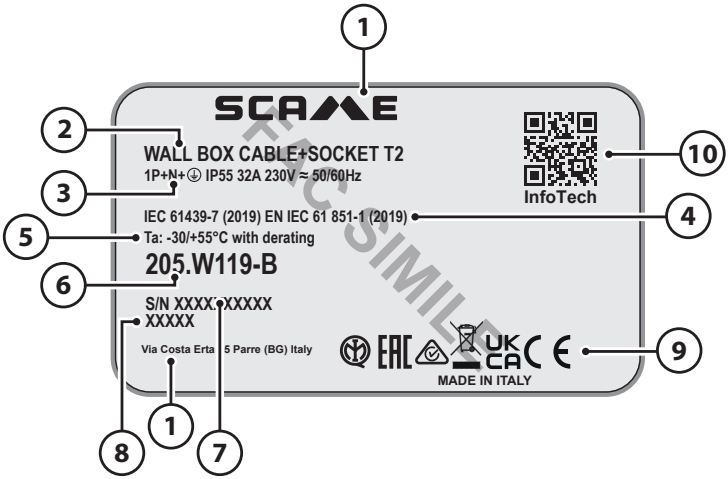


1. NET mode: Address
   PERSONAL mode: PM
2. Device status
3. Set current value
4. Full scale value
5. Charging mode:
   - T: Typical
   - S: Simplified
6. Charge duration
7. Cyclic display:
   - Pist: Instantaneous power
   - Pest: External power
   - Etot: Power output
   - L1: Absorbed current
   - L2:
   - ...

3.3 IDENTIFICATION LABEL

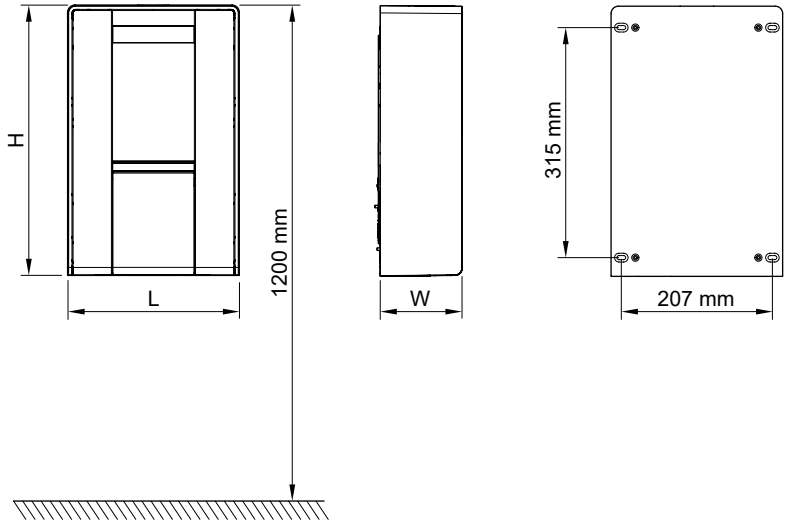
ATTENTION

Do not remove the identification label. If the label is deteriorated and/or no longer legible, contact the Manufacturer to request a new one and proceed with replacement.



1. Manufacturer Data
2. Station description
3. Technical data
4. Regulatory reference
5. Ambient temperature
6. Station code
7. Serial number
8. Production date
9. Markings
10. QR Code for documentation request

3.4 TECHNICAL SPECIFICATIONS



Dimensions (HxLxW)	370x235x112mm
Rated current	16-32A
Rated voltage	230Vac-400Vac
Nominal frequency	50-60Hz
Insulation voltage	250V-500V
IP Degree of Protection	IP54 - IP55
Ambient temperature	Operating temperature from -30°C +55°C with derating
Material	Engineering plastics
Self-extinguishing temperature (GWT)	650°C
Impact resistance (IK grade)	IK08 - IK10
Installation	Wall-mounted
Saline solution	Resistant
UV rays	Resistant

CLASSIFICATIONS IEC/EN 61851-1

The device meets the following standard classifications IEC/EN 61851-1:

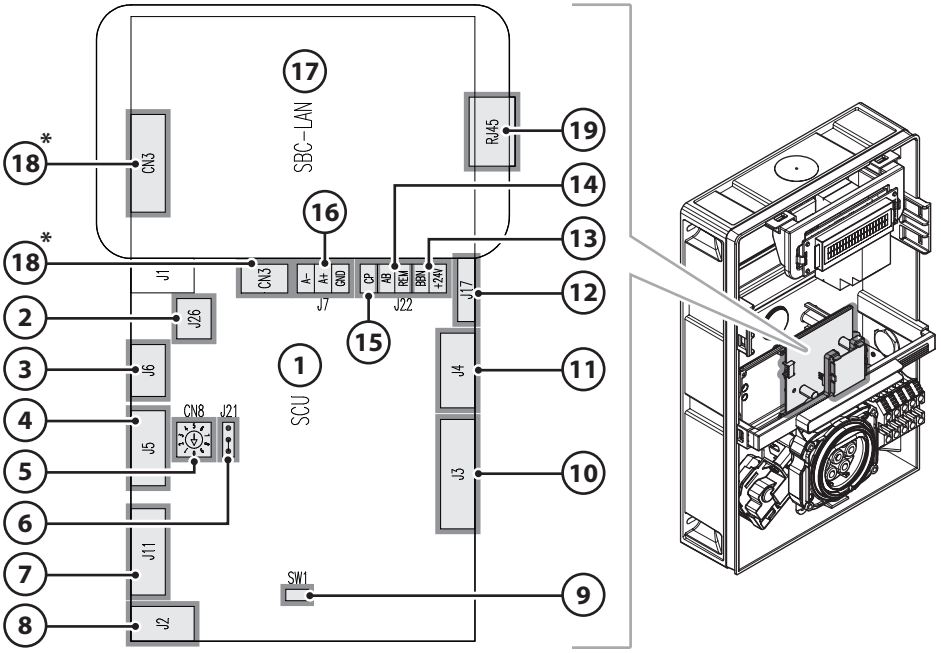
Power input characteristics	Electric Vehicle power supply device connected to the AC mains power supply
Electrical connection method	Permanently connected
Power output characteristics	Electric Vehicle AC power supply device
Normal environmental conditions	Outdoor and indoor use
Special environmental conditions	Operating temperature from -30°C +55°C with derating
Access condition	Device for places with unrestricted access
Assembly procedure	Fixed device Wall-mounting assembly Surface mounting
Protection against electric shock	Class I device
Charging modes	Modeà 3

3.5 DEVICE VERSIONS

LITE	Device that operates independently and cannot be incorporated into a management network. **Operating mode**: FREE and PERSONAL.
BUSINESS	Device that can be incorporated into a management network as a *satellite*. **Operating mode**: FREE, PERSONAL and NET.
PRO	Device that can be incorporated into a management network as a *master*. **Operating mode**: FREE, PERSONAL and NET.

3.6 INTERNAL COMPONENTS

To access the internal components, follow the instructions in par. 4.1.2. If necessary, remove the LED bar from the base.



1. **SCU**: Controller board
2. **J26**:
   - Internal power meter
   - Current transformer
3. **J6**: Socket block
4. **J5**:
   - Pilot circuit
   - Stop button
   - RGB LED strip
5. **CN8**: Current selector
6. **J21**: Ventilation present
7. **J11**: LCD Display
8. **J2**: Other SCU
9. **SW1**: Reboot button
10. **J3**:
    - Power pack
    - DC leakage detector
    - Meter
    - Switch
    - Battery
11. **J4**:
    - Mirror contact
    - Shunt release coil
    - Temperature probe
12. **J17**: RFID reader
13. **BBN/+24V**: Shunt release coil
14. **AB/REM**: Remote enabling
15. **CP**: CP tethered version
16. **A-/A+/GND**: NET (RS485)
17. **SBC-LAN**: local server with OCPP protocol (optional)

18*. **CN3**: External power meter
On stations compliant with the ISO 15118-20 standard, terminal CN3 might be located next to terminal J7 (ref. 16).

19. **RJ45**: Router

3.6.1 SW1: REBOOT BUTTON

The reboot button allows the following:

- To restart the device with a short press.
- A long press, longer than 20 s, causes the board to reset to the default configuration.

ATTENTION



The default configuration is only to be used in an emergency and may still not work properly on some versions. The original configuration must be restored as soon as possible. To do so, it will be necessary to contact support.

3.6.2 CN8: CURRENT SELECTOR

For further information, see par. 4.1.3 for the potentiometer setting.

3.6.3 AB-REM: REMOTE ENABLE CONTACT

The remote enable contact (open by default) allows the following:

- If closed, to suspend the current charge or inhibit a new charge. (Vehicle charging begins, but is suspended after a few seconds).
- If open, to resume the current charge or allow a new charge.

3.6.4 SBC-LAN: LOCAL SERVER WITH OCPP PROTOCOL

The local server with OCPP protocol is a device which serves to manage the device remotely.

3.6.5 J21: VENTILATION PRESENCE

The connector inhibits the charging of vehicles that require ventilation:

- If the environment is equipped with ventilation, the jumper can be moved to the free pin.

3.6.6 J22 BBN / +24V RELEASE COIL

To ensure a high level of electrical safety for the system, the station is equipped with a control system that verifies the effective disconnection of the output power to the connector. In the event of a malfunction of the internal switching device, the system detects the anomaly and promptly activates a contactor connected to the terminal.

The station can be connected to a release coil (if not already provided), which, integrated with the system protections (if not already provided), allows the power supply upstream of the station to be interrupted.

4. DEVICE INSTALLATION

WARNING

Installation of the device must only be carried out by qualified and authorised personnel.

4.1 PRELIMINARY OPERATIONS

4.1.1 PACKAGING

ATTENTION

Pay careful attention when transporting and handling the device in its packaging: avoid any form of collision.

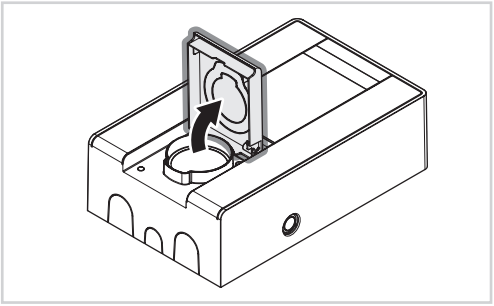
1. Remove the device from its packaging and place it on a horizontal surface of adequate size and characteristics to support its weight (e.g. a sturdy table).
2. After unpacking, check the integrity of the device and its components.

WARNING

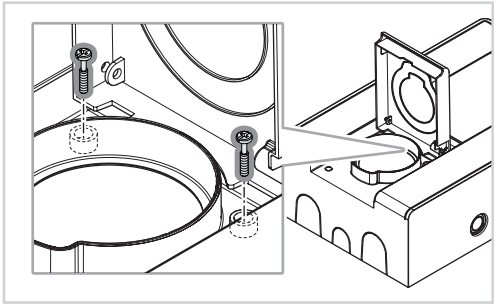
Packaging components must be delivered to the appropriate disposal centres and under no circumstances left unattended or within the reach of children, animals or unauthorised persons.

4.1.2 OPENING THE COVER

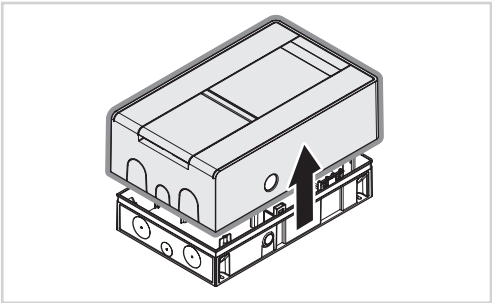
1. Open the charging flap.



2. Remove the cover fixing screws.

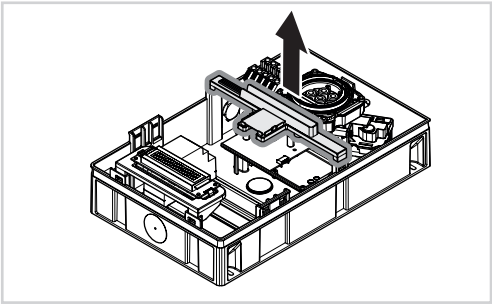


3. Lift and remove the cover from the base.

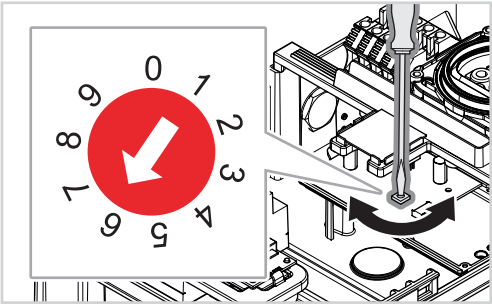


4.1.3 POTENTIOMETER SETTING

1. Remove the LED bar from the base.

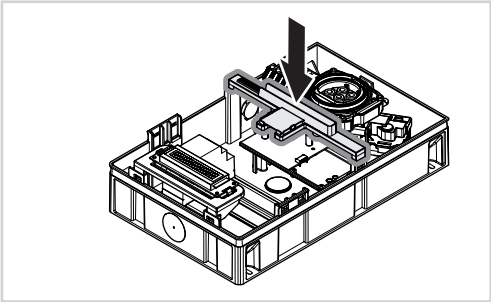


2. Set the potentiometer using a flat-blade screwdriver. The setting values are shown in the table below.



POSITION	CURRENT (A)	
	3.7 kW / 11 kW	7.4 kW / 22 kW
0	6	6
1	10	10
2	13	13
3	16	16
4	16	20
5	16	25
6	16	32
7	16	32
8	16	32
9	16	32

3. Reposition the LED bar on the base.

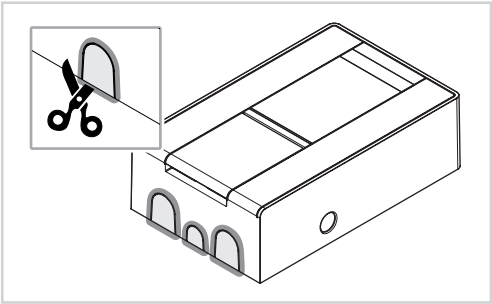


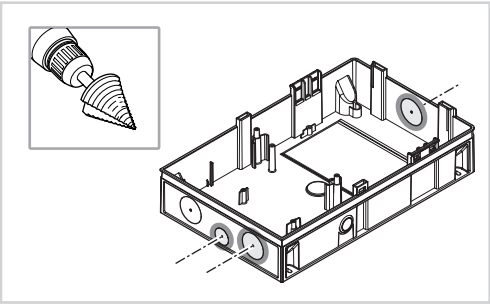
4.1.4 PERFORATING FOR CABLE ENTRY

ATTENTION

Drilling for the cable entry must serve to allow the power cable to pass through correctly.

1. Remove one of the pre-cut elements from the cover at the feed-through point of the power cable.
2. Make the hole for the power cable at one of the points indicated on the base.



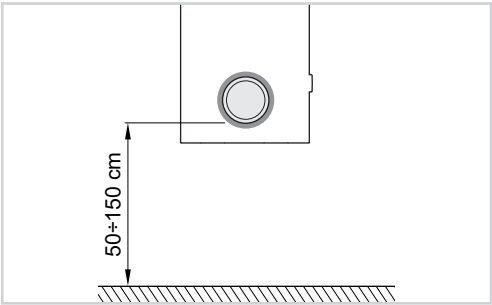


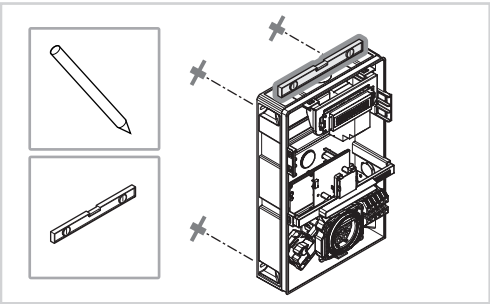
4.2 WALL-MOUNTING

ATTENTION

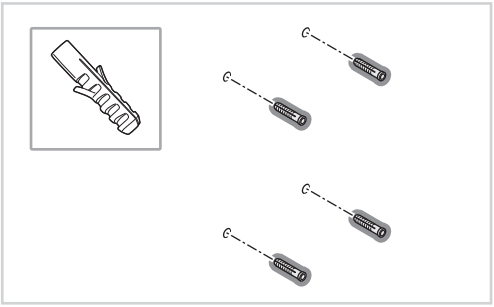
Before assembly on the wall, check that the fixing surface is suitable for the device's characteristics.

1. Position the base on the wall, leaving 50 to 150 cm from the floor to the bottom edge of the socket.
2. Check the position of the unit using a spirit level and mark the fixing points on the wall.

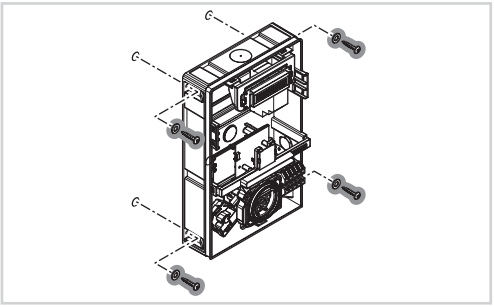




3. Drill holes in the wall at the previously marked points.
4. Insert wall plugs into the holes.



5. Mount the device base to the wall using the appropriate fasteners.



4.3 ELECTRICAL CONNECTION

WARNING

Before making the electrical connection to the device, check that no voltage is present in the system.

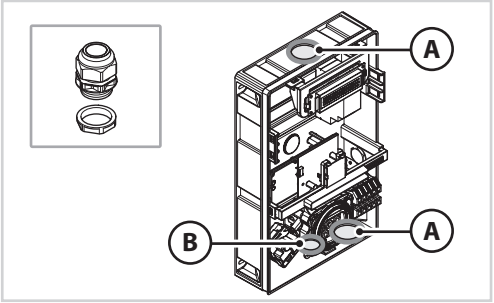
1. Cut the power supply to the electrical system.
2. Fit an appropriately sized cable gland in the hole for the power cable to pass through.

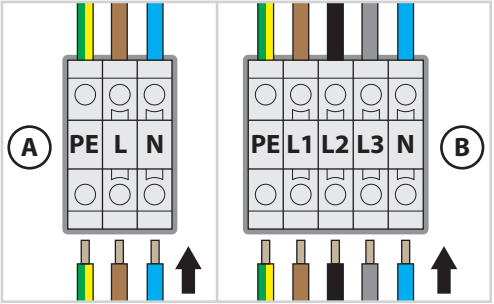
REFERENCE	CABLE GLAND DIMENSION
A	MAX PG 21
B	MAX PG 11

3. Insert the power cable into the cable gland and make the electrical connection to the system using the terminal block provided on the base:
   - (**A**) single-phase connection
   - (**B**) three-phase connection

N.B.

For power cable specifications, see par. 4.3.2. For further information, please refer to the wiring diagram .





4. Power the device by energizing the system.
5. Check electrical values using suitable instruments (e.g. multimeter).

N.B.

To verify the electrical values, please refer to the system requirements (par. 4.3.1).

N.B.

In the case of tethered stations without RCBOs installed in IT/NL, it is recommended that the installer connect the current-triggered release coupled to the external protections of the micro-controller as shown on the circuit diagram provided in the product.

ATTENTION



Values other than those indicated in the system requirements (par. 4.3.1) could compromise the charge.

4.3.1 ELECTRICAL SYSTEM REQUIREMENTS

Earthing system	TT, TN(S), TN(C)
Voltage between phases (L-L)	380 - 400Vac
Voltage between phase and neutral (L-N)	220 - 230Vac
Voltage between neutral and ground (N-PE)	< 5Vac
Frequency (f)	50-60Hz
Earthing resistance (Rt)	< 50Ω
Total harmonic distortion (THD)	< 8%

4.3.2 POWER LINE SPECIFICATIONS

ATTENTION



The power line must be constructed with cables of a cross section suitable for the charge. The electrical system designer is solely responsible for the dimensioning of the power line.

POWER CABLE SPECIFICATIONS				
Power (kW)	**Voltage (V)**	**Current (A)**	**Wire gauge (mm²)**	**Max. length (m)**
3,7	230	16	3G4	50
7,4	230	32	3G6	40
11	400	16	5G4	100
22	400	32	5G6	80

* Values determined considering FG16OR16 0.6/1kV cables and voltage drop <4%.
According to the table above, we recommend installing a (minimum) protection upstream with the following characteristics: 3.7kW = 1P+N C16 / 7.4 kW = 1P+N C32 / 11 = kW 3P+N C16 / 22 kW = 3P+N C32

4.4 CONNECTION TO THE MANAGEMENT NETWORK

WARNING



Before carrying out any work on the device, switch off the power supply and use a suitable instrument to check that there is no voltage on any part.

Depending on the version and the type of application required, the device can be included in a management network as *master* or satellite device. To connect the device to the network, proceed as follows:

1. Connect the *master* device to the computer or to a local network via the Ethernet port or WiFi (if present).

N.B.

For Ethernet connection specifications, see par. 4.4.1.

2. Connect the RS485 serial line from the satellite devices to the *master* device (up to 16 devices can be connected), see par. 4.4.2.

4.4.1 ETHERNET CONNECTION REQUIREMENTS

The following instructions must be observed when connecting the Ethernet cable to the device:

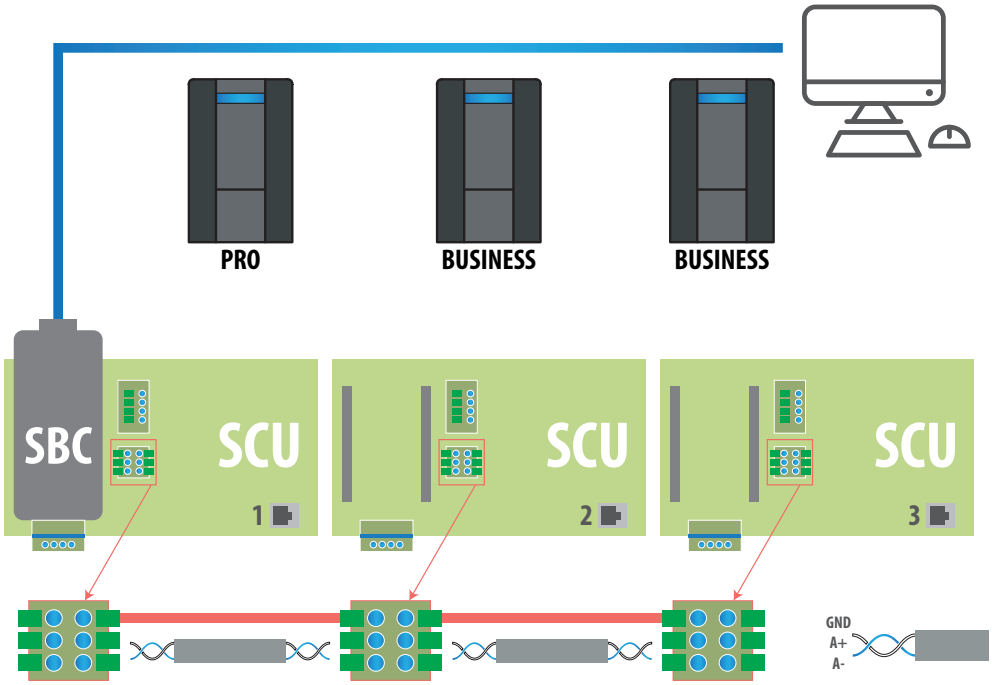
1. Insert a non-crimped end of the Ethernet cable (Cat 6 S/FTP) through the cable gland on the device.
2. Using a suitable crimping tool, crimp the end of the cable inserted inside the device.
3. Connect the cable to the Ethernet LAN port of the router on the device.
4. Cut to the correct length and crimp the cable end on the outside of the device.
5. Connect the cable to the local network infrastructure.

The connection must meet the following requirements:

Ethernet	RJ45
Cable type	8P+PE, shielded
Shielding	• For a cable length of 30 metres or less, the integrated PE connection is sufficient. • For cable lengths of more than 30 metres, the PE shielding must also be connected to the other end of the cable.

4.4.2 CONNECTION DIAGRAM

CONNECTION WITH SCU ELECTRONICS ONLY

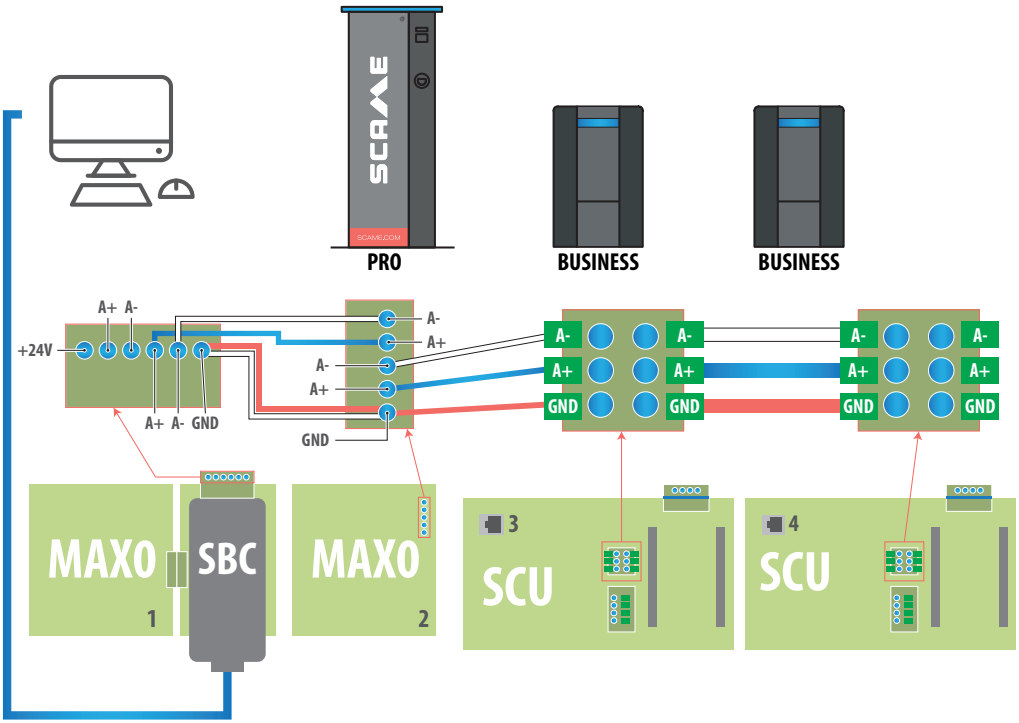


RS485 CONNECTION CHARACTERISTICS	
Network cable	F/UTP CAT6 in separate pipe
Mutual capacitance	< 10pF/m
Difference of capacitance	< 60pF/m
Blue/white pair:	**Blue**: A- **White**: A+
Brown/white pair:	**Brown**: GND **White**: GND
Max. length	400 m between the first and last device

N.B.

If the external Management System AC 208.AP59 kit is used in the "PRO" configuration, strictly follow the wiring instructions provided in the relevant dedicated technical documentation.

MAX0/SCU ELECTRONIC MIXED CONNECTION



RS485 CONNECTION CHARACTERISTICS	
Network cable	F/UTP CAT6 in separate pipe
Mutual capacitance	< 10pF/m
Difference of capacitance	< 60pF/m
Blue/white pair:	**Blue**: A+ **White**: A-
Brown/white pair:	**Brown**: GND **White**: GND
Max. length	400 m between the first and last device

NOTE

BUSINESS stations with MAX0 electronics are only compatible with PRO stations produced before 2025.

NOTE

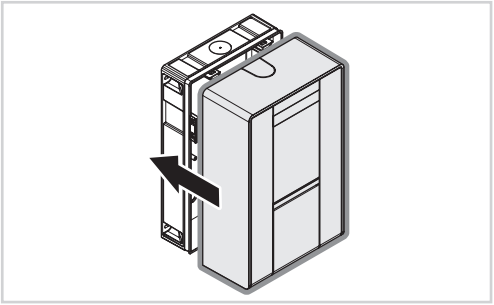
The external Management System 208.AP59 kit is not compatible with this connection system.

4.5 COMMISSIONING

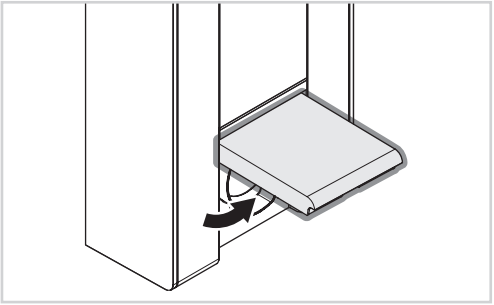
WARNING

Before carrying out any work on the device, switch off the power supply and use a suitable instrument to check that there is no voltage on any part.

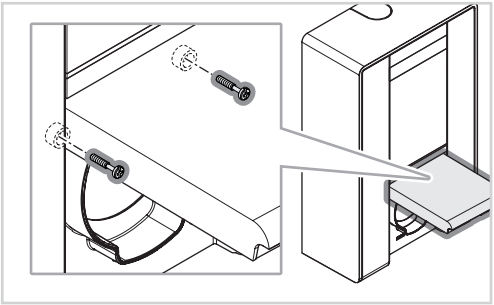
1. Place the cover on the base of the device.



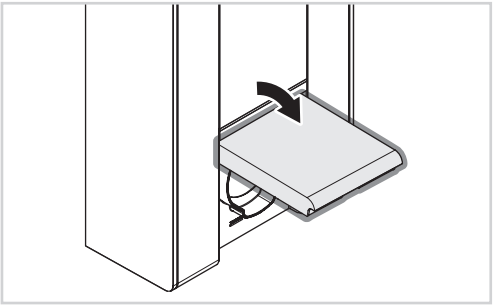
2. Open the charging flap.



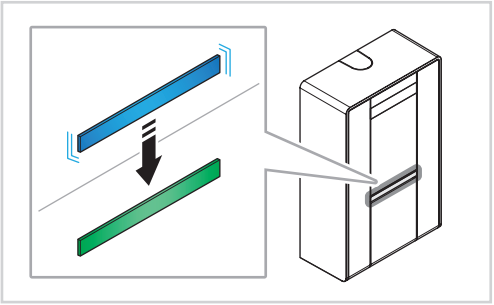
3. Insert the cover fixing screws.



4. Close the charging flap.



5. Power the device on by energizing the electrical system.
6. Wait for the flashing blue LED to turn green.
7. The device is ready to be used.



5. OPERATING MODES

Depending on the version of the charging station (Lite/Business/Pro), the following operating modes can be configured:

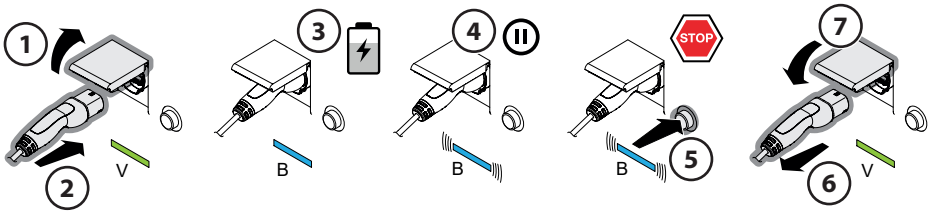
- **FREE (par. 5.1)**: access to charging takes place freely, i.e. without the need for identification
- **PERSONAL (par. 5.2)**: access to charging by means of identification via App or RFID card
- **NET (par. 5.3)**: access to charging takes place with or without identification according to the rules defined on the Scame Management System

5.1 FREE OPERATING MODE

NOTE

Charging stations in FREE mode can be used freely without the need for identification

The start of a charging session in FREE mode takes place by simply connecting the charging cable to the vehicle.



V: Green **B**: Blue

VEHICLE CHARGING PROCEDURE

1. Connect the charging cable to the vehicle
2. In the case of a charging station with a socket, connect the other end of the charging cable to the station.
3. Wait for the green LED to turn blue. The blue LED indicates that charging has started
4. Wait for the blue LED to start flashing. The flashing blue LED indicates that charging is complete
5. Press the button to stop charging. The LED will remain flashing blue
6. In the case of a charging station with a socket, disconnect the charging cable from the station
7. Close the charging station door and disconnect the charging cable from the vehicle

NOTE

In the case of a station with the Scame E-mobility APP, the interruption of charging is managed via APP.

ATTENTION



After charging, it is mandatory to disconnect the charging cable.

5.1.1 CHANGING THE MODE FROM FREE TO PERSONAL

1. Finish charging.
2. Press and hold the button and, at the same time, show the Master Card on the RFID reader to change mode
3. Repeat the operation to go back to the previous mode

NOTE

In the case of a station with the Scame E-mobility APP, the operating mode change is managed via APP. Not applicable for PRO stations.

5.1.2 STATUS MESSAGES IN FREE OPERATING MODE

STATUS	RGB LED	ON-SCREEN DISPLAY
Device not powered on	×	×
Power on the device	(((●)))	SCAME PARRE (firmware release)
Device powered on	●	SOCKET AVAILABLE
Insert plug into the socket	(((●)))	PLUG IN
Connect the vehicle	(((●)))	EV WAITING
If the vehicle needs charging	●	CHARGING (calibration) (current)(energy)(time)
If the vehicle does not need charging	(((●)))	SUSPENDING (current)(energy)(time)
If the station suspends the charging operation	(((●)))	RM STANDBY MODE (time)
Press button	(((●)))	PLUG OUT
Remove plug	●	SOCKET AVAILABLE

STATUS	RGB LED	ON-SCREEN DISPLAY
Socket not available	●	SOCKET NOT AVAILABLE

× off

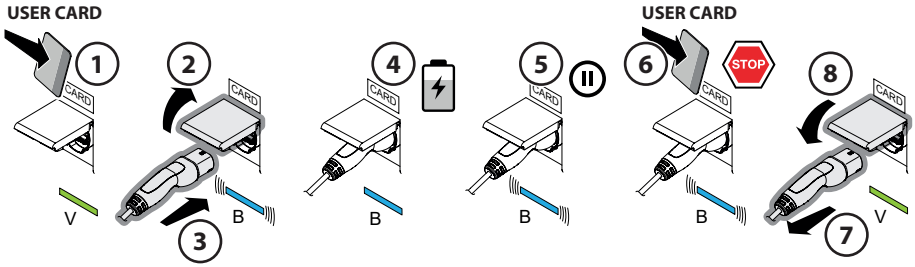
● - ● - ● steady light

(((●))) flashing light

5.2 PERSONAL OPERATING MODE

Charging stations in PERSONAL mode can only be used after identification.

The start of a charging session in PERSONAL operating mode takes place via the identification method of the charging station, which varies according to the version (APP or RFID card).



V: Greem **B**: Blue

VEHICLE CHARGING PROCEDURE

1. Show the User Card on the RFID reader to identify yourself
2. Connect the charging cable to the vehicle
3. In the case of a charging station with a socket, connect the other end of the charging cable to the station
4. Wait for the green LED to turn blue. The blue LED indicates that charging has started
5. Attendere che il LED blu diventi intermittente. The blue LED indicates that charging has ended
6. Show the User Card on the RFID reader to stop charging. The LED will remain flashing blue
7. In the case of a charging station with a socket, disconnect the charging cable from the station
8. Close the charging station door and disconnect the charging cable from the vehicle

NOTE

In the case of a station with the Scame E-mobility APP, the identification, start and stop of charging are managed via APP.

ATTENTION



After charging, it is mandatory to disconnect the charging cable.

5.2.1 CHANGING THE MODE FROM PERSONAL TO FREE

1. Terminate any charge in progress
2. Press and hold the button and, at the same time, show the Master Card on the RFID reader to change mode
3. Repeat the operation to go back to the previous mode.

NOTE

In the case of a station with the Scame E-mobility APP, the operating mode change is managed via APP. Not applicable for PRO stations.

5.2.2 STATUS MESSAGES IN PERSONAL OPERATING MODE

STATUS	RGB LED	ON-SCREEN DISPLAY
Device not powered on	×	×
Power on the device	(((●)))	SCAME PARRE (firmware release)
Device powered on	●	SHOW CARD
Present card	(((●)))	PLUG IN
Insert plug into the socket	(((●)))	CONNECTOR INSERTED
Connect the vehicle	(((●)))	EV WAITING
If the vehicle needs charging	●	CHARGING (calibration) (current)(energy)(time)
If the vehicle does not need charging	(((●)))	SUSPENDING (current)(energy)(time)
If the station suspends the charging operation	(((●)))	RM WAITING (time)
Present card	(((●)))	PLUG OUT

STATUS	RGB LED	ON-SCREEN DISPLAY
Remove plug	●	SHOW CARD

× off

● - ● steady light

(((●))) flashing light

5.3 WEB/NET OPERATING MODE

The WEB/NET operating mode distinguishes between Master stations and Satellite stations.

Master stations are equipped with the Scame Management System.

Satellite stations are controlled by the Master.

The stations, whether Master or Satellite, can be accessed with or without identification according to the rules defined in the Scame Management System.

The Scame Management System allows for the WEB/NET operating mode to be configured in:

- **LOCAL**: the entire management of the Master/Satellite system is entrusted to the Management System Scame
- **OCPP**: the management of the Master/Satellite system is entrusted to an external provider

By default, the Master station is configured in the LOCAL operating mode and its charging points can be identified on the display and in the Scame Management System by means of the connector identifiers "01", "02", "03", "04" (depending on the number of charging points of the Master station).

These numeric values of the connector identifiers are pre-assigned by default at the factory.

To change the operating mode from Local to Ocpp, see the SETTINGS section in the Scame Management System paragraph 5.3.2.

NOTE

SCAME offers the external Management System 208.AP59 kit in its catalogue. This accessory, comparable to a Master device in a Master/Satellite configuration, allows the management of a group of Business stations up to a maximum of 16 charging points. The kit is not compatible with the PRO version stations.

5.3.1 MASTER/SATELLITE SYSTEM CONFIGURATION

A Master/Satellite system can manage up to a maximum of 16 charging points.

ADDING SATELLITE STATIONS TO THE MASTER

After installing the Master station, it is possible to add satellite stations to the system.

To add Satellite stations, it is necessary to connect them in cascade to the Master via Modbus RS485 communication protocol (for further details, see paragraph 4.4.2).

These connections must be made in the absence of power (system switched off).

When re-powering the system, the Master station must be switched on first and then the Satellite stations must be powered one at a time. Wait 30 seconds between switching on one satellite and the next.

The Scame Management System will automatically detect the Satellite station within 30 seconds of it being switched on and it will automatically set its operating mode to WEB/NET (Satellite).

By default, the connector identifiers of the Satellite stations are configured at the factory with the numeric values "11", "12", "13", "14" (depending on the number of charging points of the Satellite station) and are shown on the station display.

Satellite stations that have a single charging point are configured at the factory with the numeric value "16".

Depending on the power-up sequence of the Satellite stations, these values will be automatically changed in ascending and contiguous order with respect to the numeric identifiers of the Master.

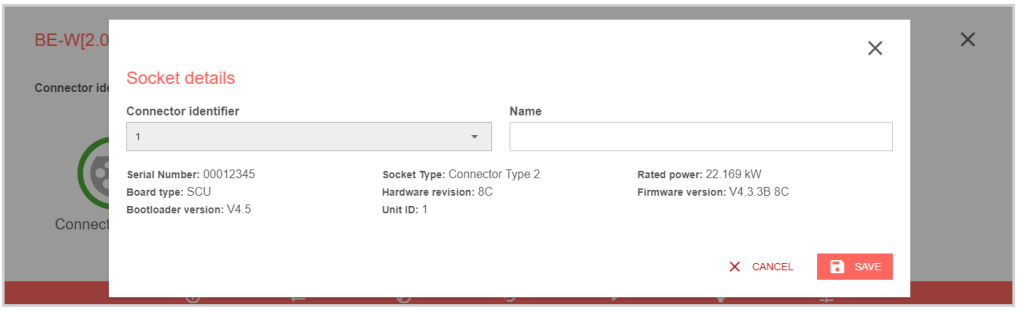
ATTENTION

It is possible to power up all Satellite stations at the same time, but in this way the value of the connector identifier will be random.

To change the sequence of connector identifier values, it will be necessary to switch off the Master station, reset all satellite stations to the factory settings (see paragraph 3.6.1) and then disconnect the power supply to the entire system. Restart according to the procedure described above.

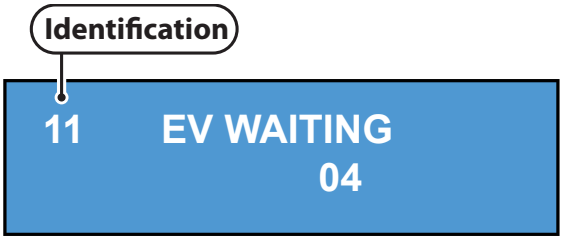
CHANGING THE CONNECTOR IDENTIFIERS IN THE LOCAL AND OCPP OPERATING MODES

In the "connector details" screen in the Scame Management System, it is possible to change the values of the connector identifiers (see section 5.3.2.1).



The connector identifier is automatically assigned when the Master/Satellite system is configured.

Via the Scame Management System, it is possible to change the numeric values of the connector identifiers to make them appear on the display in the desired sequence.



ATTENTION

The connector identifier, which is the value visible on the station display, can currently be changed when the Master/Satellite system is in LOCAL operating mode.

5.3.2 MANAGEMENT SYSTEM SCAME

To access the Scame Management System built into the Master stations, connect via LAN to the station's IP address from your web browser and enter your credentials; it is not necessary to install any software.

Adress IP (default)	192.168.30.126
Username	administrator
Password	Admin123-

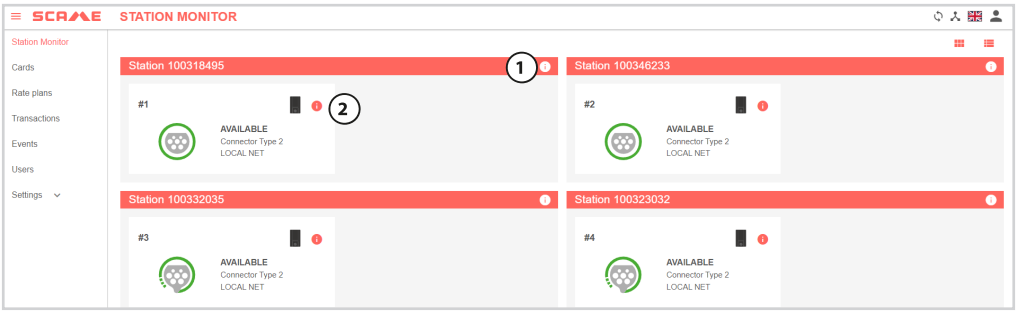
NOTE

The initial password will be retained until the first login, after which the user will be prompted to enter a new password.

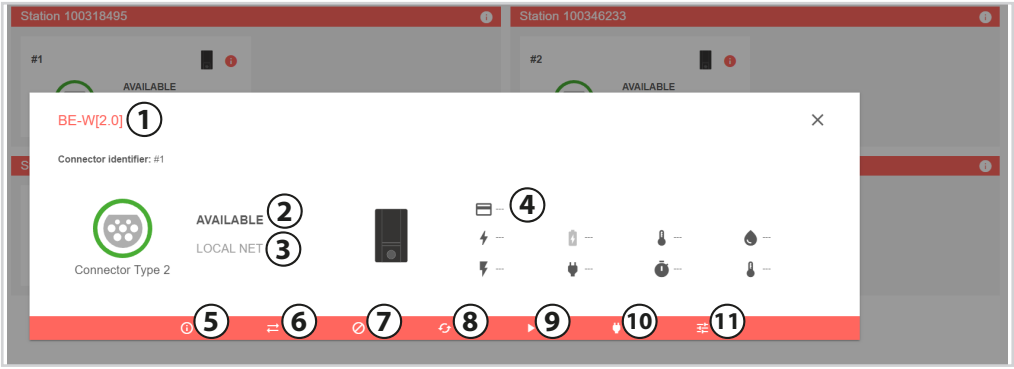
It is recommended that you write it down before continuing with the registration process.

5.3.2.1 MONITOR STAZIONI

This screen displays the charging stations and the status of the respective connectors.



1. View more station details
2. View more connector details



Connector detail screen

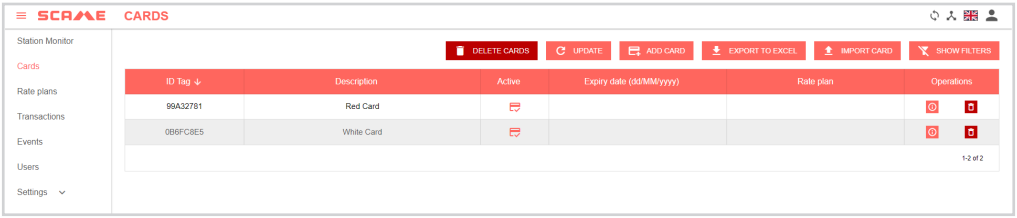
In the connector detail screen you can view more details and perform various actions.

1. Connector indications
2. Connector status
3. Operating and identification mode
4. Charging session status information
5. Connector details: to find information on connector identifier and name.
   In the "name" field, it is possible to add a description of the charging point.
   The description will be visible in the Scame Management System in the "station monitor" screen.
6. Changing the identification rule: Local Free (without identification) or Local Net (identification required)
   - **LOCAL FREE:** access to charging takes place freely, i.e. without the need for identification
   - **LOCAL NET:** access to charging is via card identification (RFID card reading) or via the "Start charging" command from the Scame Management System (see point 9 of the list below)
7. Connect enabling/disabling
8. Connector Hard Reset
9. Start charging: To start charging, it is necessary to select the card number (Tag) with which to start the session (function available only in Local Net mode)
10. Adjustment of the maximum power that can be delivered by the individual connector
11. Hardware Configuration: allows enabled users to change the connector system parameters and perform Firmware updates

5.3.2.2 CARDS AND TARIFF PLANS

- In "Local Free" mode, the identification rules set out in the "Cards" and "Tariff Plans" screens are not considered since access to charging takes place freely and does not require user identification.
- In "Local Net" mode, it is possible to view and manage the enabling of the cards registered in the Scame Mana-

gement System and their possible validity date.



In the "Cards" screen, it is possible to view, add and change the enabling/disabling of cards.

If you want to add a new card and don't have the corresponding card code, you can acquire it directly using the RFID reader integrated into the charging station.

Proceed as follows:

1. Hold the user card close to the station's RFID reader.
2. Access the "Cards" menu.
3. Click the "Update" button.
4. Select the "Card Information" icon.
5. The "Card Information" screen will appear, with the "Card Code" automatically populated.

Before saving the card in the system, in addition to enabling it and entering a description, you can:

- Define an expiry date after which the card will no longer be enabled for **FREE** charging.
- Associate a "Tariff Plan" to define further charging limitations

In the "Rate Plans" screen, it is possible to view, change and create new tariff plans.

Tariff Plans consist in defining certain limitations that can be applied to the charging session.

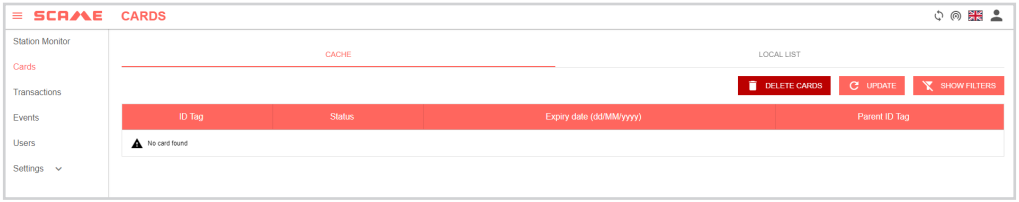
The following variables can be defined:

- **Maximum number of charging sessions** –corresponds to the maximum number of charging sessions that can be started by a card.
  Each time a charging session is started, the card will deduct one unit regardless of the time or power output.
- **Total Time:** a total value of time available to be used within the expiry date of the card
- **Partial Time**: a maximum value of time available per charging session
- **Total Energy:** a total value of deliverable energy to be used within the expiry date of the card
- **Partial Energy:** a maximum value of deliverable energy per charging session

NOTAE

The "Tariff Plans" screen is only available in Local Net mode.

- In "OCPP" mode, it is possible to view the "Local List" and the "Cache" defined by the OCPP protocol.
  The identification rules are managed in the central station of the OCPP provider



5.3.2.3 TRANSACTIONS

In this screen, it is possible to view and export the list of charging transactions carried out on the charging stations.



5.3.2.4 EVENTS

This screen records all the operations performed within the "Scame Management System"



5.3.2.5 USERS

In this screen, it is possible to define the users who have access to the system.

Each user can be assigned a Role, which defines their access permissions to the Scame Management System.

ROLES

- Administrator: has full access to the system
- Data manager: has access only to the "Cards" and "Tariff Plans" screens
- Operator: has access only to the "Transactions" screen

NOTE

There can be several users with the same Role



5.3.2.6 CONFIGURATION

In this section, it is possible to configure the following settings of the "Scame Management System".

- General: language and time zone configurations
- Network: network configurations for remote access to the station
- Operating mode: change of operating mode, from LOCAL to OCPP, and configuration of OCPP protocol parameters
- Load Balancing: configurations corresponding to the balancing of the power output of the charging stations (see paragraph 5.3.2.8)
- Advanced: in this screen, it is possible to:
    - Update the software and firmware of the entire charging system

NOTE

Firmware updates carried out via this screen affect the entire charging system (Master stations and respective Satellite stations).

To update the firmware of a specific connector, go to "Hardware Configuration" in the "Connector Monitor" screen; see paragraph 5.3.2.1

    - Restart the hardware and restart the software

5.3.2.7 LOAD BALANCING

The Scame Management System can be used to define different rules with which to manage the balancing of the power that can be delivered by the charging system.

If the system does not have enough power available to allow all charging points to deliver the minimum power required for a charging session to run smoothly, any new sessions will be temporarily suspended. Temporarily suspended charging sessions will be automatically re-initialised when one of the current charging sessions ends.

NOTE

The Scame Load Balancing feature can be activated in all WEB/NET operating modes (Local Free, Local Net, OCPP).

- **Disabled:** the system does not perform load balancing
- **Load Balancing:** This functionality allows for a maximum power threshold (Set Point) for the entire Master/Satellite system to be defined. In the event that the s**um of the nominal powers of the charging points in use** exceeds this threshold, the "Democratic Load Balancing" algorithm will be activated. This will democratically redistribute the power available from the entire system to all connectors, thus keeping it below the set maximum threshold, but allowing all vehicles to continue charging.
  The algorithm does not take into account how many and which phases are involved in the charging session and imposes the same power on both three-phase and single-phase vehicles
- **Dynamic Load Balancing:** This feature allows for a maximum power threshold (Set Point) for each phase

of the system (R-S-T) for the entire Master/Satellite system to be defined. In the event that the **sum of the instantaneous powers delivered by the charging points in use** exceeds this threshold, the "Dynamic Load Balancing" algorithm will be activated. This will redistribute the power available from the entire system to the different charging points.
The algorithm takes into account how many and which phases are involved in the charging session and adjusts the power depending on whether the vehicle is three-phase or single-phase.

NOTE

In order for the algorithm to work, it will be necessary to configure the phase cabling for each individual charging point.

This configuration is set in the dedicated menu item.

- Set Point: this is the maximum power threshold that is defined for the entire system; check that the sum of the instantaneous powers delivered by the charging stations does not exceed this value. It can be of two types
  - Static: The system does not take into account any absorption of other loads. (Dynamic Load Balancing and Load Balancing)
  - Dynamic: The system takes into account any absorption of other loads. (Dynamic Load Balancing only)

NOTE

To allow the system to take into account the consumption of other loads, it will be necessary to install an Energy Meter upstream of the system to be monitored. See the following paragraph for further details.

ENERGY METER INSTALLATION AND CONFIGURATION

For Dynamic Load Balancing operation with Dynamic Set-Point, an energy meter must be installed upstream of the system to be monitored.

The following Energy Meter models are compatible with the Scame Management System:

- **Algodue UEM6C-A E** (1113.0021.0001)
- **Lovato DMG300** + **EXM1013 / DMG2000**
- **Gavazzi EM24**-DIN.AV5.3.X.E1.X / **EM630**.W.AV5.3.X.E2.S1.X

Scame has a compatible energy meter in its catalogue, code 208.PM06.

In order for the energy meter to be able to detect the absorption on the line, it is necessary to connect:

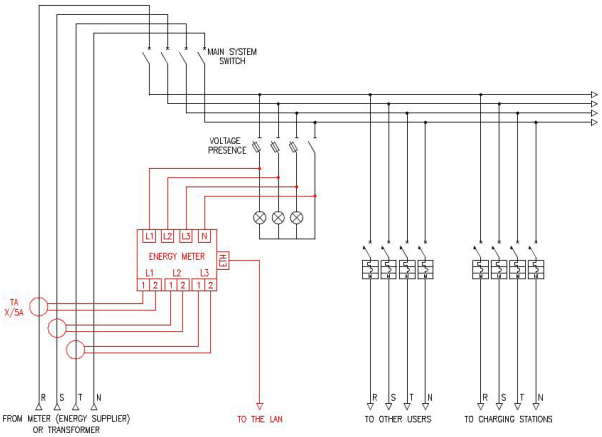
- 3 polarized current probes (one for each phase):
  - The probe is made with a current transformer (TA) with 5A output
  - It is recommended to size the CT according to the size of the cable and the current to be measured
  - To make installation and maintenance easier, it is advisable to choose an openable type CT

- 3 voltage probes (one for each phase):
  - The probe is made with a simple electrical connection.
  - To make installation and maintenance easier, it is advisable to connect the energy meter downstream of the voltage presence protections (if present)

NOTE

Check the installation regulations in force in the country of use.

Below is an example of a typical energy meter connection:



In order for the energy meter to be reachable from the Scame Management System, it is necessary to configure its network parameters: refer to the documentation accompanying the designated energy meter to set:

- IP Address, Subnet mask, Gateway:
  - To be expressly requested from your network administrator..
- Primary DNS:
  - To be requested from your network administrator, if not strictly necessary you can leave default 8.8.8.8
- Secondary DNS:
  - To be requested from your network administrator, if not strictly necessary you can leave default 8.8.4.4
- Modbus Address:
  - Default 01
- Modbus Port
  - Default 1001 for the Lovato model DMG300
  - Default 502 for all the other models

6. FUNCTIONS

6.1 CHANGE DISPLAY LANGUAGE

- Change language: short press on the button.
- Set default language: long press on the button.

N.B.

If there is a delay of more than one minute following a short press of the button, the language will return to the default configurations.

6.2 USER MANAGEMENT

In the PERSONAL operating mode it is possible to enable or disable User Cards to use the device.

6.2.1 INSERTING NEW USER CARDS

1. Set the device to PERSONAL mode (display: PM SHOW CARD).
2. Present the Master Card to the RFID reader to switch to database management (display: DATABASE MANAGEMENT - SHOW CARD)
3. Present the User Card to the RFID reader to be inserted into the memory (display: ID REGISTER – 001 USERS).
4. Present any additional User Cards you wish to enter in the memory.
5. Close the database management by presenting the Master Card or letting the countdown expire.

N.B.

Procedure valid only for Business stations. For PRO stations see chapter 5.3.2.2.

6.2.2 DELETING USER CARD

1. Set the device to PERSONAL mode (display: PM SHOW CARD).
2. Present the Master Card to the RFID reader to switch to database management (display: DATABASE MANAGEMENT - SHOW CARD)
3. Present the User Card to the RFID reader to be deleted from the memory (display: DELETE USER?).
4. Present the User Card to the RFID reader to confirm the deletion (display: ID DELETED–000 USERS).
5. Present any additional User Cards you wish to delete from the memory.
6. Close the database management by presenting the Master Card or letting the countdown expire.

N.B.

Procedure valid only for Business stations. For PRO stations see chapter 5.3.2.2.

6.3 SCAME E-MOBILITY APP

The Scame E-Mobility APP (Android/iOS) allows you to configure, monitor, and control charging stations easily and securely, both in domestic and professional environments.

A single tool to manage users, sites, and consumption, even without an Internet connection.

The App works in different modes, adapting to any installation context:

- **Local Hotspot** – direct use even without Internet (underground garages, boxes).
- **Wi-Fi LAN** – management from local home or corporate network.
- **Cloud** – remote access and control from anywhere.

MAIN FEATURES

- Site and user management
- Simplified Power Management
- Access control
- Monitoring and Reportingl

6.3.1 INITIAL CONFIGURATION

Download the APP

To install the Scame E-mobility APP, search for it on Google Play or the App Store, or scan the QR code shown

1. Keep the instruction sheet provided in the box handy. The label attached to the sheet contains the QR code required to identify the wallbox and establish the connection



NOTE

The same data is also printed on the label attached inside the wallbox

2. Follow the guided wizard in the APP: Turn on the wallbox, open the APP, and register.
   From here on, each step is explained directly on the screen.

Da qui in poi ogni passaggio é spiegato direttamente a schermo.

NOTE

During configuration, the wallbox may update automatically. This is a normal step where the wallbox is updating its firmware to the latest version; it usually takes a few minutes. Do not turn off the wallbox and stay nearby until the APP confirms completion

The APP includes a dedicated section for troubleshooting configuration issues, which can be consulted if needed.

The APP only works on 2.4 GHz Wi-Fi networks.

NOTE

If configuration is performed via the button on the station (where provided by the product version), the station must be restarted for the APP to correctly detect the configuration update.

SCAME E-MOBILITY APP ACTIVATION VIDEO TUTORIAL:

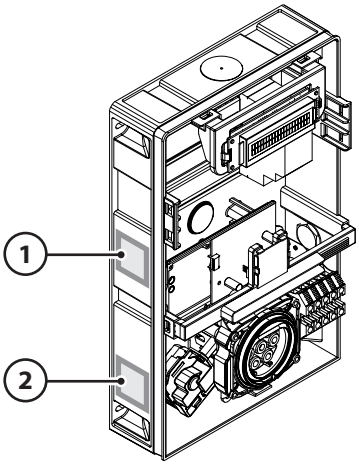
A video tutorial for configuration via APP is also available by scanning the QR Code below:

6.3.2 ACTIVATION CODES

N.B.

The labels shown below on the device are also present on the Safety instructions.

1. PIN/PASSWORD/SSID Wi-Fi: Required for SCAME E-MOBILITY app activation (par. 6.3.1)
2. QR CODE CHAIN 2: Required for Chain 2 activation (par. 6.3.3)



6.3.3 CHAIN2 ACTIVATION (ITALIAN MARKET ONLY)

ATTENTION

Before activating the Chain2 system, check with your energy supplier that:
- **the meter is second generation;**
- **the infrastructure of the power distribution box in the area is compatible with the Chain2 protocol.**

Before performing the Chain2 activation procedure, make sure that you have activated the device (par. 6.3.1). Then proceed as follows:

1. Download the free CHAIN2 ACTIVATOR app from Google Play/Apple Store.
2. Stand in front of the device powered on.
3. Launch the CHAIN2 ACTIVATOR app.
4. Register by filling in the required fields with the data of the POD owner.
5. Confirm registration after having received the verification e-mail.
6. Log-in.
7. Create a system by filling in the required POD data.

8. Wait for service activation (3 to 5 working days) when the POD status changes from orange to green.
9. Add the Chain2 card.

N.B.

GPS and Bluetooth must be activated on the device in order to add the Chain2 card.

10. Scan the QR code on the Safety Instructions leaflet or inside the device and proceed (one Chain2 card must be switched on, LED 1 must be steady green and LED 2 flashing yellow).
11. If activation is completed successfully, the Chain2 card will be paired with the POD (LED 1 steady green, LED 2 flashing green when the signal is received).
12. If activation is not successfully completed, repeat the procedure from step 9.
13. Save and close the app.

N.B.

Saving requires that the device to be connected to the Internet. If the connection is not available do not close the app but save again when the connection is available.

ATTENTION



The connection between the station and the meter is made thanks to "Power Line" technology which also allows for significant distances to be reached.
However, the quality of the signal can be degraded by the number of power line branches between the meter and the station or by electrical interference caused by the presence of other devices on the network that compromise the signal.

CHAIN2 ACTIVATION TUTORIAL VIDEO

To activate the Chain2 system you can also use the video tutorial by scanning the QR Code on the side:

6.3.4 TIC-LINKY ACTIVATION (FRENCH MARKET ONLY)

The following steps are required to activate the device with a connection to the LINKY energy meter:

1. Check that the LINKY energy meter is connected to the main switch of the electrical system downstream.
2. Connect the power supply to the device, making sure you also connect the PE.
3. Use a CAT6 cable to connect the I1 and I2 terminals of the LINKY energy meter to the TIC connector to the two inputs located on the TIC-LINKY electronic board inserted on the left side of the device.

N.B.

We recommend using a Belden 9842 cable.

ATTENTION



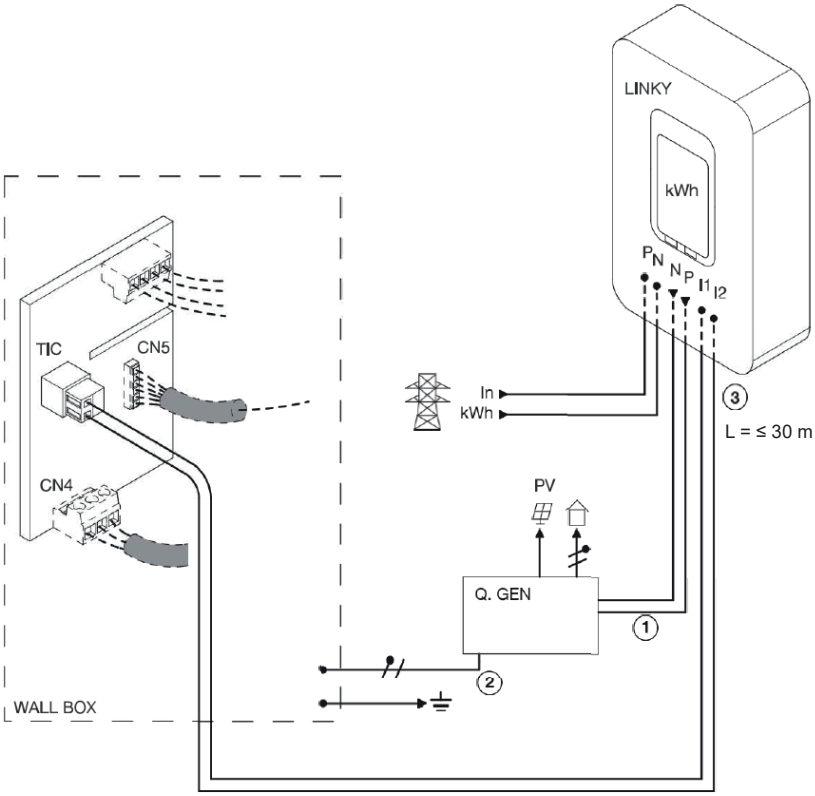
For installations with cable lengths exceeding 30 metres, the manufacturer declines any and all liability for any malfunctioning and/or failure of the device.

4. Power the device on by energizing the electrical system.
5. Activate the device (see par. 6.3.1).

N.B.

- **The maximum PMAX power must be lower than the power indicated in the contract with the supplier.**
- **There is no ECO Plus power management mode.**

LINKY CONNECTION DIAGRAM



7. ACCESSORIES

N.B.

To consult the technical specifications of the various accessories available, please refer to the online documentation provided by the Manufacturer.

7.1 CARD PROGRAMMER (208.PROG2)

N.B.

The Card Programmer software is only compatible with Microsoft operating systems Windows 7, 8, 10 and 11.

N.B.

For Business stations only.

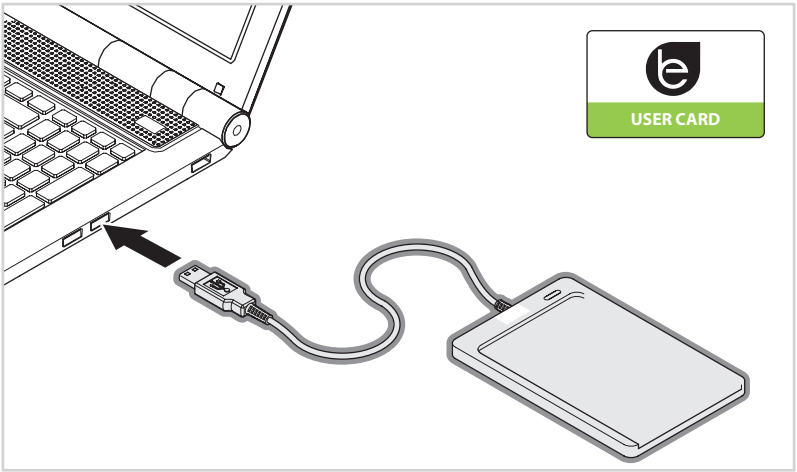
7.1.1 FIRST USE

1. Download the Card Programmer software onto your computer *208Prog2_V20.zip* from the Manufacturer's download area: https://e-mobility.scame.com/download.
2. Run the file *208Prog2Installer_V20.exe* to install the Card Programmer software.

N.B.

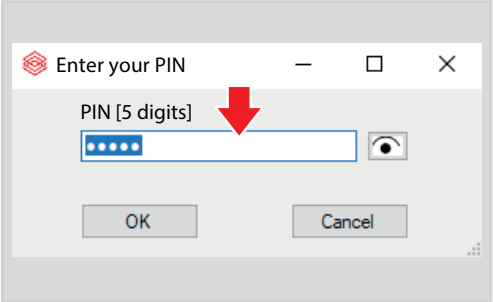
Unless there are special requirements, we recommend that you accept the proposed choices and install the drivers (if driver installation is not possible, proceed anyway).

3. Connect the Card Programmer to a USB port on your computer.



4. Run the file *208Prog2_V2.exe* to start the Card Programmer software.

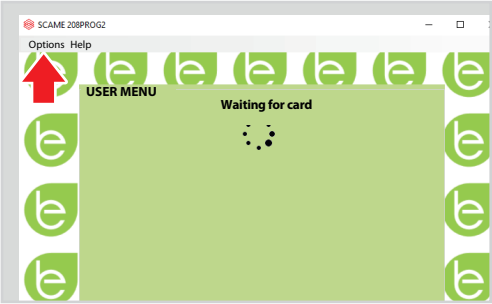
5. Enter the unauthorised write-protection PIN (optional, 5 digits, default 00000).



6. Check the correct connection of the Card Programmer (green box in the bottom left).

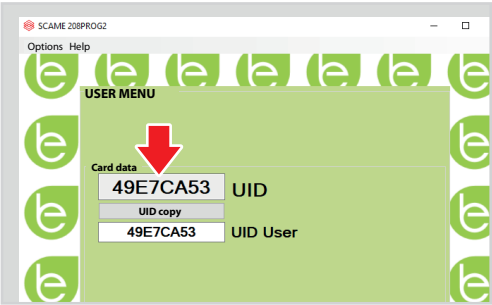


7. Select the desired language from the OPTIONS menu.

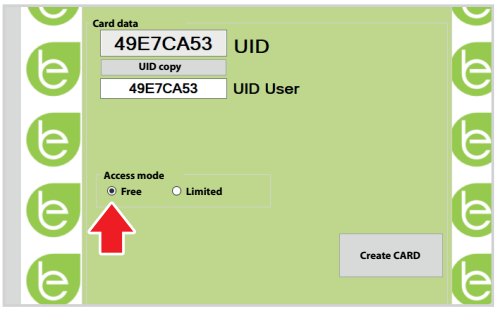


7.1.2 PROGRAMMING THE USER CARD

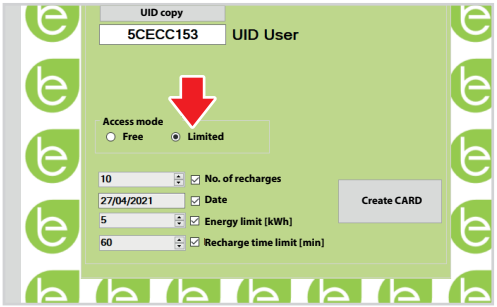
1. Place the User Card on the Card Programmer. The software will display the programming screen.
2. To change the User Card code (optional): Change the UID field by entering 8 hexadecimal digits (e.g. AAAA0001).



3. To create an unrestricted card, leave the access type selected at FREE.
4. Click on the CREATE CARD button, a short beep will confirm the creation of the card.



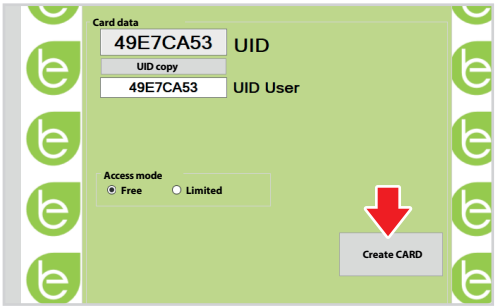
5. To enable restrictions, select the access type LIMITED:
   - To activate one or more restrictions, mark the relevant field.
   - To change the parameter, click on the arrows.
   - Leave the field blank if you do not wish to activate the relevant restriction.



N.B.

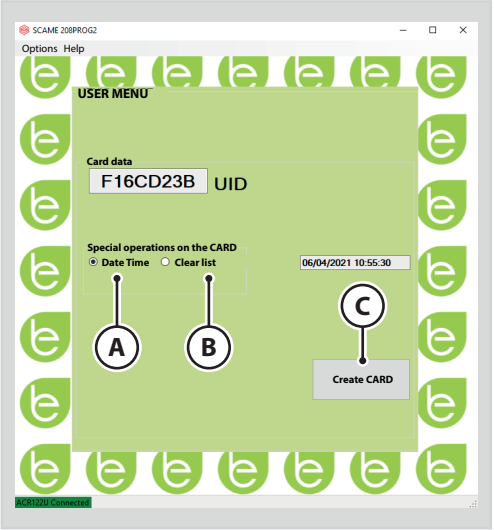
The Energy Limits [kWh] and Charging Time Limits [min] parameters can only be set for firmware versions 1.4.020 or later and apply to every single charging session.

6. Click on the CREATE CARD button, a short beep will confirm the creation of the card.



7.1.3 PROGRAMMING THE MASTER CARD

1. Place the Master Card on the Card Programmer. The software will display the programming screen.
   - To set the date and time of the device, select DATE TIME (**A**).
   - To delete User Cards stored in the device, select DELETE LIST (**B**).
   - Click on the CREATE CARD button (**C**), a short beep will confirm the creation of the card.
2. Swipe the Master Card on the device's RFID reader to implement the configuration.



7.2 POWER MANAGEMENT (OPTIONAL)

ATTENTION

Power Management must be active with external energy meters.

N.B.

Power Management is not available on Chain2, Tic-Link.

The Power Management function makes it possible to automatically modulate the charging current of the electric vehicle according to the user's contractual power and the power used by the household (e.g. washing machine, TV, oven, etc.) in order to prevent the meter from disconnecting.

N.B.

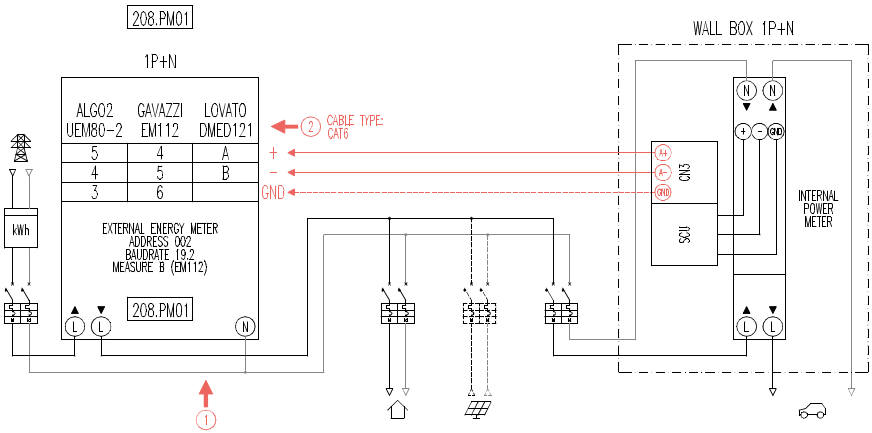
- **If the available power is less than the minimum value accepted by the vehicle, the station will suspend any ongoing charge and resume it when possible.**
- **Please note that there are electric vehicles on the market which are not compatible with this function, therefore the 'wake-up' procedure implemented in the station (according to IEC/EN 61851-1) has no effect. These vehicles may remain in a 'sleep' state and not resume charging unless disconnected from the station or other unlocking actions are taken (please refer to your car manual).**

7.2.1 POWER MANAGEMENT INSTALLATION

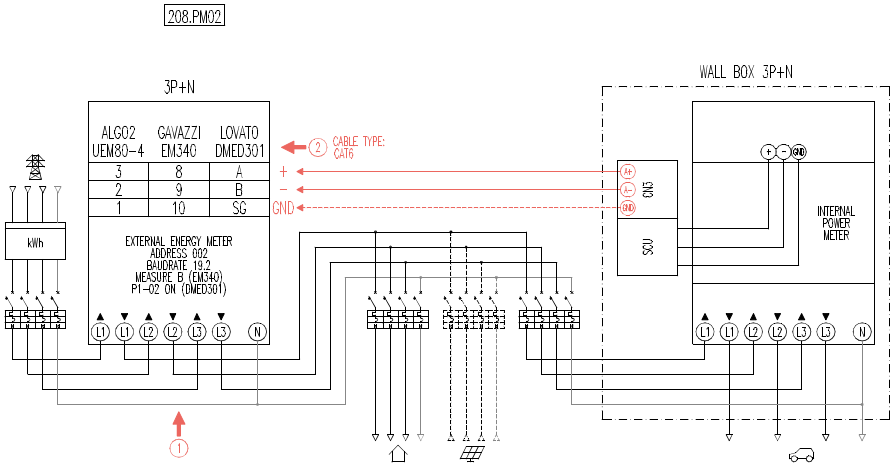
7.2.1.1 POWER MANAGEMENT INSTALLATION 208.PM01/ 208.PM02

The Power Management installation kit consists of an additional energy meter already configured to be installed as shown below:

SINGLE-PHASE STATION 208.PM01



THREE-PHASE STATION 208.PM02



ATTENTION

- **Install the additional energy meter downstream of the energy meter and/or main switch and upstream of any photovoltaic system.**
- **Connect the additional energy meter to terminal CN3 on the SCU electronics with a shielded cable (e.g. CAT6), see par. 3.6.**
- **The maximum power supported by the additional energy meter depends on the model supplied*: Single-phase 80A = 18.4kW; Three-phase 80A = 55.3kW;**

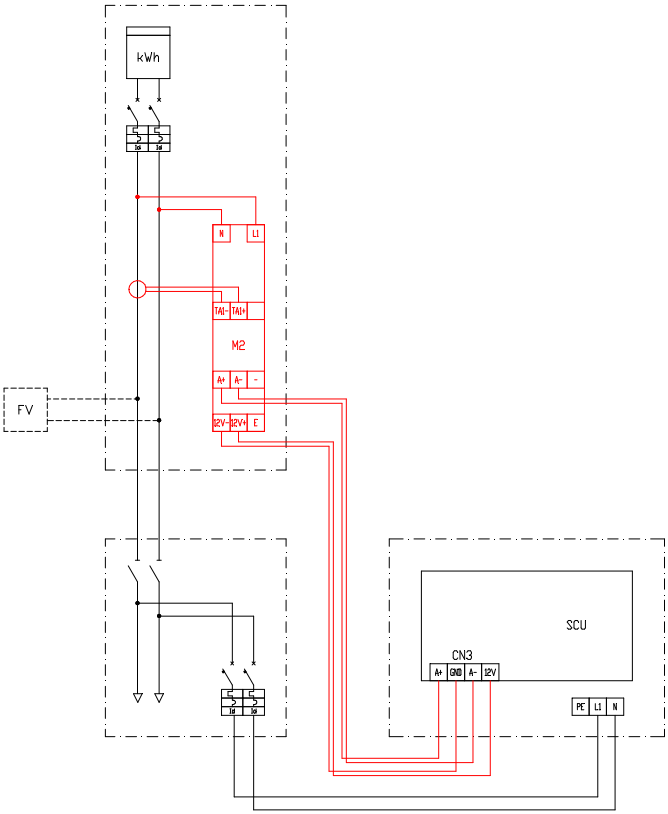
N.B.

If there is a communication failure with the additional energy meter, the station inhibits charging and the displayed status message will be "EMEX FAULT"

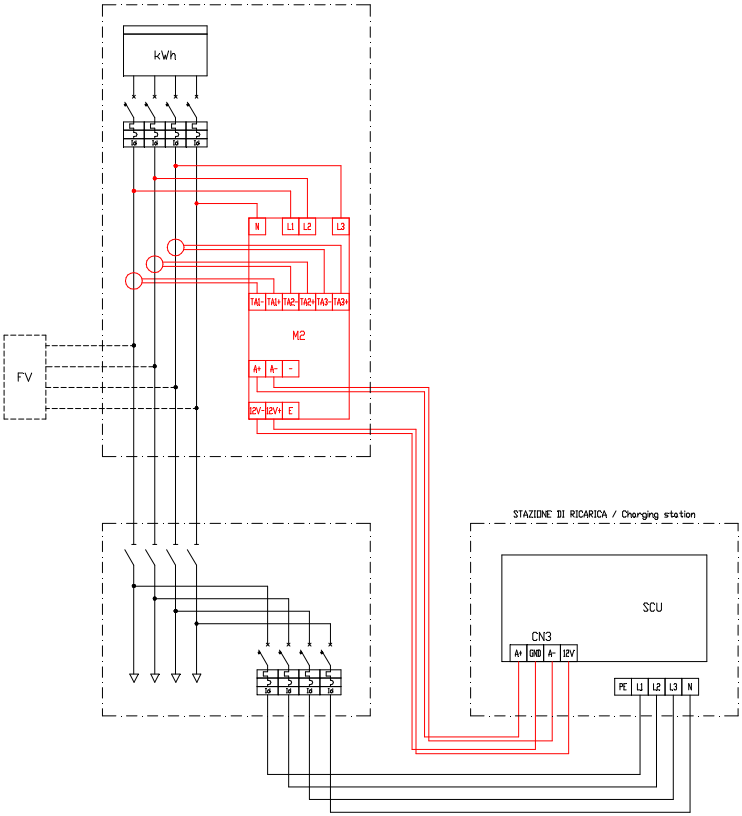
7.2.1.2 POWER MANAGEMENT INSTALLATION 208.PM03/ 208.PM04

The Power Management Installation Kit consists of an additional power meter already configured to be installed as shown below:

SINGLE-PHASE STATION 208.PM03



THREE-PHASE STATION 208.PM04



WARNING

- **Install the additional power meter downstream of the energy meter and/or main switch and upstream of any photovoltaic system.**
- **Connect the current and voltage sensors to the additional power meter.**
- **Open the core of the current sensor, position it around the conductor of a single phase to be monitored, and close it, ensuring it is properly tightened. Pay close attention to the correct direction of line input, as indicated by the arrow on the device label.**
- **Connect the additional power meter to terminal CN3 on the station controller using shielded cable (e.g., CAT6).**
- **Make sure the configuration selector is set to position "2".**
- **The maximum power supported by the additional energy meter depends on the model supplied*: Single-phase 110A = 25.3kW; Three-phase 110A = 75.9kW.**

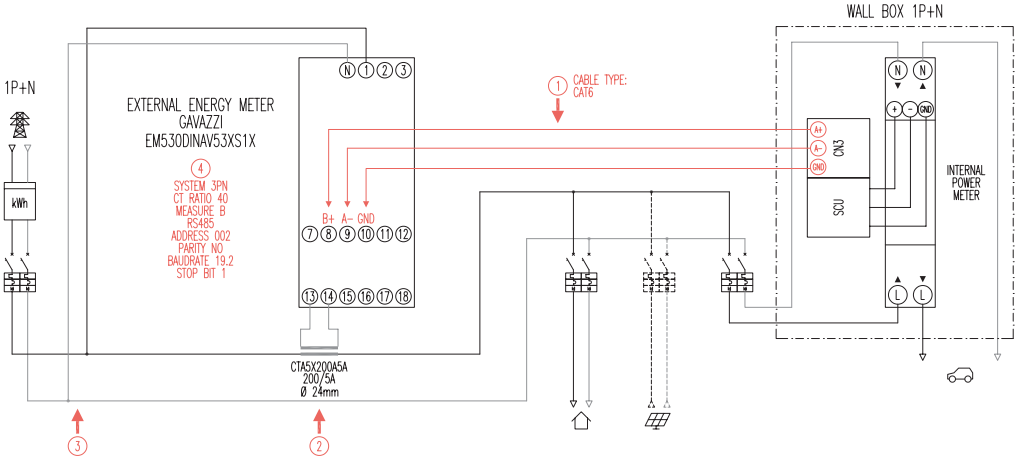
NOTE

- **If there is no communication with the additional energy meter, the station inhibits charging and the status message displayed will be "EMEX FAULT".**

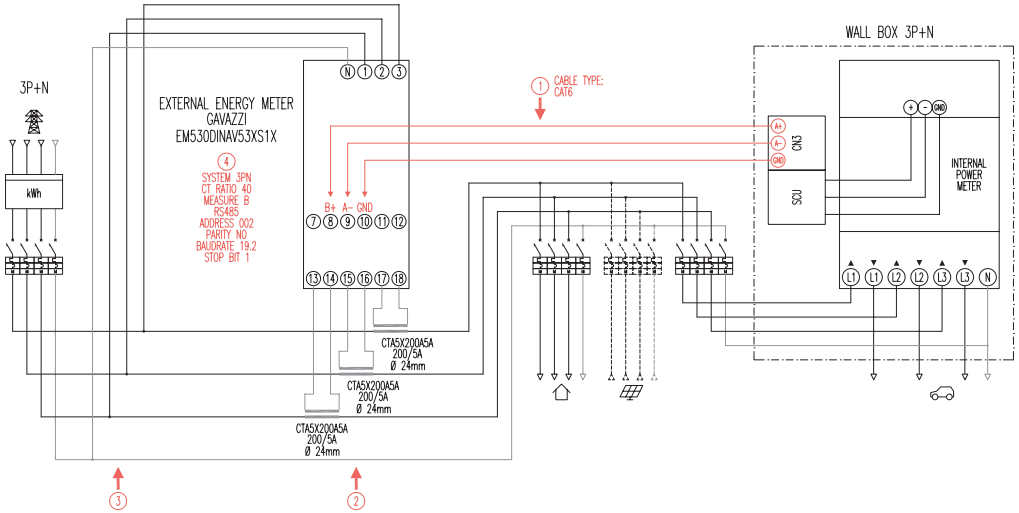
7.2.1.3 POWER MANAGEMENT INSTALLATION 208.PM05

The Power Management Installation Kit consists of an additional energy meter already configured to be installed as shown below:

SINGLE-PHASE STATION 208.PM05



THREE-PHASE STATION 208.PM05



WARNING

- **Install the additional power meter downstream of the energy meter and/or main switch and upstream of any photovoltaic system.**
- **Connect the additional power meter to terminal CN3 on the station controller using shielded cable (e.g., CAT6).**
- **Connect the 5A current transformers to the additional energy meter.**
- **Open the core of the current sensor, position it around the conductor of a single phase to be monitored, and close it again, ensuring it is properly tightened. Pay close attention to the correct direction of line input.**
- **The maximum power supported by the additional energy meter is 99 kW.**

NOTE

In case of failure to communicate with the additional energy meter, the station inhibits charging and the status message displayed will be "EMEX FAULT"

7.2.2 ENABLING POWER MANAGEMENT

To enable the Power Management:

- In versions without APP, set the Power Management parameter to ON (see par. 7.2.3.2).
- In the versions with APP, make sure that EMEX ON is active in the settings menu and then select the Power Management parameter to ON.

When Power Management is enabled, the display shows the charging time (hours/minutes/seconds) while charging is in progress. It also displays the following (in a loop):

- Power output in kiloWatt hours (**Etot**)
- Current absorbed by the vehicle in amperes (only **L1** for single-phases, **L2+L3** for three-phase)
- Vehicle power consumption in kiloWatts (**Pist**)
- Total power consumption from the mains network in kiloWatts (**Pest**)

7.2.3 PROGRAMMING POWER MANAGEMENT

N.B.

This paragraph only refers to versions without device APP.

To access the programming menu, proceed as follows:

1. When the display shows SOCKET AVAILABLE (in FREE mode) or PRESENT CARD (in PERSONAL mode), press and hold the button until the display shows SUPPLIED ENERGY.
2. Release the button and press it again; press and hold the button until the display shows PASSWORD.
3. Enter the password (default password 000):
   - Short press the button to increase the value.
   - Long press the button to confirm the value.
4. After correctly entering the password, the display cycles through the programming parameters (par. 7.2.3.2).

7.2.3.1 PROGRAMMING MENU NAVIGATION

The next programming parameter can be displayed with a short press of the button.

The displayed programming parameter can be changed with a long press of the button, after which:

- Short press the button to increase the value.
- Long press the button to confirm the value.

N.B.

If the button is not pressed again, after the long press, the device returns to its initial state after 10s.

7.2.3.2 PROGRAMMING PARAMETERS

The following programming parameters can be changed:

- **POWER MANAGEMENT** (default OFF): enables or disables the Power Management function.
- **PM MODE** (default FULL): manages the absorption of current from the electricity distribution network and from a possible renewable source:
  - **FULL**: Uses the power available from the main power network and the power generated by the local renewable energy plant, if any.
  - **ECO Smart**: Uses the power generated by the renewable source plus a contribution from the grid to make up for any power shortfalls by guaranteeing a minimum level of charge. This mode can only be selected when there is a local renewable production plant present (e.g. photovoltaic, wind power. . .).
  - **ECO Plus**: Uses the power generated by the local renewable production plant alone (e.g. photovoltaic, wind power. . .).

N.B.

- **In this mode, charging is completely dependent on the generation status of the renewable source and may be subject to interruptions to the point that the vehicle may not charge in the desired timeframe.**
- **ECO Plus mode is not included in Tic-Linky versions.**

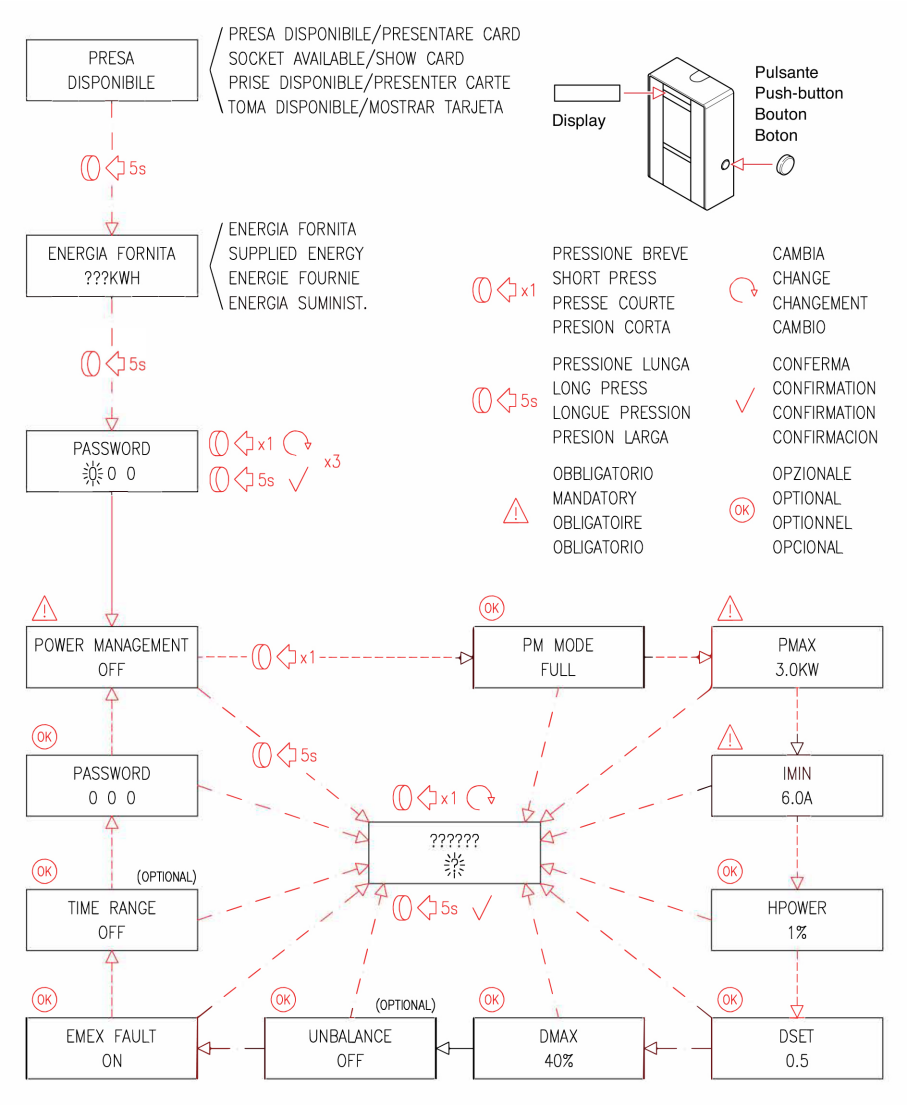
- **Pmax** (default 3kW single-phase, 6kW three-phase): this is the maximum power value that can be absorbed from the grid (we recommend entering the contractual power value of your energy meter).
- **Imin** (default 6.0A): this is the minimum current value at which your vehicle can charge (please consult your vehicle manual to determine the value).
- **Hpower** (default 1%): this is the hysteresis value of the power threshold at which the station suspends and resumes charging (for systems characterised by power fluctuations, it is advisable to increase the value to avoid frequent charging interruptions and restarts).

- **Dset** (default 0.5kW): this is the power variation value that does not affect the control system (for systems characterised by power fluctuations, it is advisable to increase the value to avoid frequent modulations of the vehicle charging current).
- **DMAX** (default 40%): this is the power surplus (compared to the contracted power) above which the current charge is immediately suspended (it is advisable to reduce the value if the meter suddenly trips).
- **UNBALANCE** (default OFF): only for three-phase, this allows the load to be unbalanced on phase L1 when charging single-phase electric vehicles.

EXAMPLE: THREE-PHASE WALL BOX WITH PMAX SET AT 6 kW		
UNBALANCE	**MAXIMUM POWER TAKE-OFF**	
	FROM A THREE-PHASE VEHICLE	**FROM A SINGLE-PHASE VEHICLE**
OFF	6 kW	2 kW
ON	6 kW	6 kW

- **EMEX FAULT** (default ON): enables or disables the communication control with the external energy meter (it is recommended to disable the control only in the event of an emergency as, without communication, the station does not modulate power and constantly charges at the set PMAX).
- **TIME RANGE** (default OFF): with PMAX set between 3 and 4.5kW, it enables the extension of contracted power to a maximum of 6kW (including 10% surplus) in consumption time band 3 (exclusive function for Italy, only for stations with local server).
- **PASSWORD** (default 000): to change the default password.

POWER MANAGEMENT FLOWCHART



8. CLEANING AND MAINTENANCE

8.1 CLEANING

Use a damp cloth or neutral detergent compatible with plastic materials to clean the device.

After charging the vehicle, make sure that the charging flap of the device is closed. This is to prevent external agents from settling on the charging socket.

8.2 MAINTENANCE

WARNING

Maintenance work on the device must only be carried out by qualified and authorised personnel.

The following checks on the condition and operation of the device must be carried out at regular intervals:

- **Every six months**: Inspect the structure, external components and check operation of the protective circuit breakers.
- **Every twelve months**: check internal components and check terminal tightness.

9. DISPOSAL



"Implementation of Directive 2012/19/EU on Waste Electrical and Electronic Device (WEEE)' on the reduction of the use of hazardous substances in electrical and electronic device and the disposal of waste".

The crossed-out wheelie bin symbol on the device or its packaging indicates that the product must be disposed of separately from other waste at the end of its useful life.

The user must then take the discarded device to a separate collection centre for electrical and electronic waste.

For further details, please contact the relevant local authority.

Adequate separate collection of the devices for subsequent recycling, treatment or environmentally sound disposal helps prevent damage to the environment and human health and encourages the reuse and/or recycling of device materials.

N.B.

Unauthorised disposal of the device or its parts by the user entails the application of administrative sanctions in accordance with the legal provisions in force in the country of disposal of the device.

10. TROUBLESHOOTING

WARNING



In the event of anomalies or faults not described in this document, or if they remain after having applied the recommended solution, do not work on the device or tamper with it in any way, but contact the installer. Contact the Manufacturer directly for any further support.

10.1 DEVICE FAULT REPORTS

ON-SCREEN DISPLAY	RGB LED	CAUSE	SOLUTION
x	x	Device not powered on	Check that voltage is present
RCBO FAULT	●	Protective device tripped	Check the vehicle, reset the switch and restart the device.
MIRR FAULT	●	Overlapping contacts detected	Check the contactor, reset the switch.
CPLS FAULT	(((●)))	Pilot circuit open.	Vehicle disconnected or check charging cable.
CPSE FAULT	(((●)))	Pilot circuit fault	Check charging cable.
PPLS FAULT	(((●)))	Plug presence open.	Check the connection and check the condition of the charging cable.
PPSE FAULT	(((●)))	Plug presence fault.	Check charging cable.
BLCK FAULT	(((●)))	Plug block not in position.	Check the charging cable connection or check the correct operation of the block actuator.
OVCE FAULT	(((●)))	Current absorption higher than maximum set current detected.	Check the vehicle.
VENT FAULT	(((●)))	Vehicle requiring ventilation detected.	Bridge the J21 contact (SCU) with system present or with natural ventilation.
RCTE FAULT	(((●)))	Pilot circuit control diode missing.	Check the vehicle.

ON-SCREEN DISPLAY	RGB LED	CAUSE	SOLUTION
PEN FAULT	●	Abnormal voltage detected.	Check mains power network.
EMTR FAULT	●	Failure to communicate with internal energy meter.	Check internal meter operation or interferences on the serial line.
EMEX FAULT	●	Failure to communicate with external energy meter.	Check external meter operation or interferences on the serial line.
RCDM FAULT	(((●)))	Earth leakage detected with continuous component greater than 6mA.	Check the vehicle.
MAINS BREAKDOWN (Vbus)	x	No voltage while charging. In case of absence of voltage, charging is terminated.	
PLUG OUT	(((●)))	Plug inserted without prior authorisation detected.	Remove the plug and present an authorised card.
UNAUTHORIZED USER	(((●)))	Unknown or unauthorised card code.	Add or authorise the new card code.
CLOSE LID	●	Charging flap open	Close charging flap or check switch operation.
MFRE FAULT	●	Failure to communicate with RFID reader.	Check reader operation or for interference on serial line.

x off

● - ● steady light

(((●))) - (((●))) flashing light

SCAME

InfoTECH

ITALY

Numero Verde

800-018009

WORLDWIDE

ScameOnLine

www.scame.com

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