USER MANUAL
BE-T SERIES

SCAME

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

GENERAL INFORMATION

Scame charging stations use the mode 3 charging technique (as per IEC/EN 61851-1 standard), which involves connecting an electrical or hybrid vehicle to a power network in AC using specific connectors (as per standards IEC/EN 62196-1 and 2).

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.

- This manual contains warnings and instructions that must be followed for the installation, use and maintenance of the charging station and which must be available for consultation by authorised personnel.
- Station installation and start-up, together with maintenance operations, must be carried out by qualified and specifically authorised personnel in compliance with current safety standards, regulations and legislation.
- The manufacturer of the station shall not be held liable for any damage to persons, animals and/or property resulting from failure to comply with the instructions in this manual.
- Given that improvement is continuous, we reserve the right to make changes to the product and this manual at any time.
- The total or partial reproduction of this manual without the prior consent of Scame Parre S.p.A. is prohibited.

HAZARD: Risk of electrical shock, explosion or electric arcs

- In the event of fire, comply with the regulations in force in the country where the station is installed
- Prior to performing any operations on the charging station, disconnect the power and use suitable tools to check that the power is disconnected from all parts.
- Before starting up the station, check that the metal structure is earthed by way of the yellow-green conductor and protect the power line using an automatic safety device and differential switch coordinated with the grounding system.
- Before connecting the vehicle to the station, make sure it is firmly secured.
- Power cables, sockets and plugs used to connect the vehicle must comply with safety requirements laid down by current legislation.
- It is prohibited to use extension cords to connect the vehicle.
- Failure to comply with safety precautions may cause serious injury and even death.

CAUTION: Risk of damaging the station

- Do not touch the printed circuit boards and/or use suitable instruments when accessing components/parts subject to electrostatic discharges.
- If necessary due to the environmental conditions, install devices to protect against atmospheric discharges in the upstream power distribution board (e.g. surge arrester type 2, Up = 1.5 kV, In = 20 kA).
- If the station is damaged it should not be installed or used.
- To clean, use a damp cloth or neutral detergent compatible with plastic.

WARRANTY

- The charging station referred to by this manual is covered by a two-year manufacturer's warranty in accordance with the Consumer Code (articles 128 and following), which includes reimbursement, necessary repairs or replacement to rectify any manufacturing defects encountered during normal use for a period of 24 months from the date of delivery of the product.
- Any modifications to the station, or installations and start-ups not compliant with the instructions reported in this manual shall result in the nullification of the warranty and the invalidation of the product certificates.

TECHNICAL FEATURES

- Rated current: 32A
- Rated voltage: 230Vac-400Vac
- Rated frequency: 50-60 Hz
- Insulation voltage: 250V-500V
- Protection rating: IP55
- Installation temperature: -30°C +50°C
- Material: Thermoplastic/Aluminium
- Self-extinguishing behaviour: (GWT): 650°C
- Impact resistance (IK rating): IK09
- Installation: Wall-mounted
- Saline solution: Resistant
- UV light: Resistant

ASSEMBLY INSTRUCTIONS

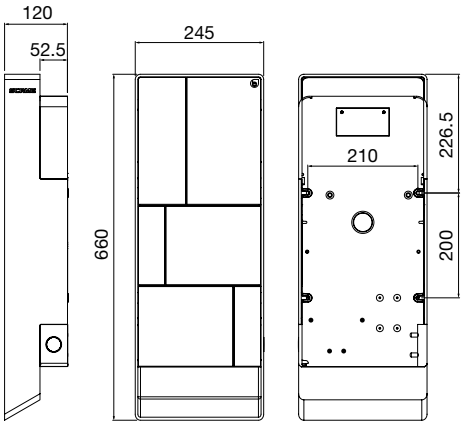
WALL STATIONS

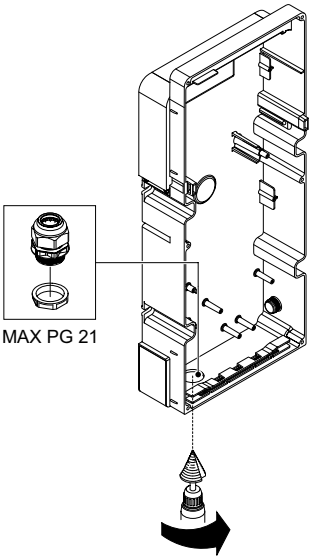
- Wall charging stations are supplied assembled (base and cover).
- Access the internal compartment by removing the shutter to secure the station. Follow the instruction sheet to secure.

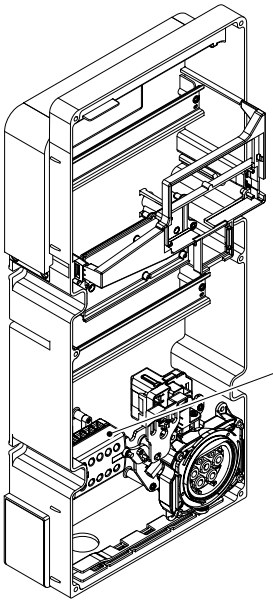
INSTALLATION IN AREAS NOT DIRECTLY EXPOSED TO THE SUN IS RECOMMENDED. USE SUITABLE SUPPORTS.

ASSEMBLY AND WIRING INSTRUCTIONS

ART. 205.Txxx







L-L: 380 ÷ 400 Vac
L-N: 220 ÷ 230 Vac
N-PE : < 5 Vac
f: 50/60 Hz
Rt: < 150 Ω
THD: < 8%

SERIAL LINE

A+	A-

0,5 mm²
ES. BELDEN 9841

TCP/IP LINE

RJ45
CAT5

POWER SUPPLY

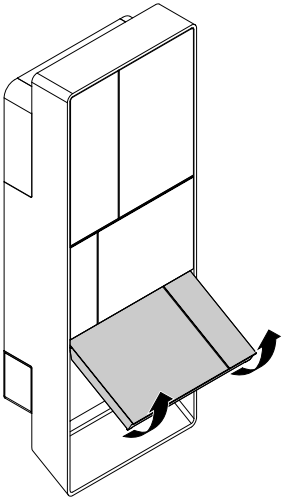
L	N	PE

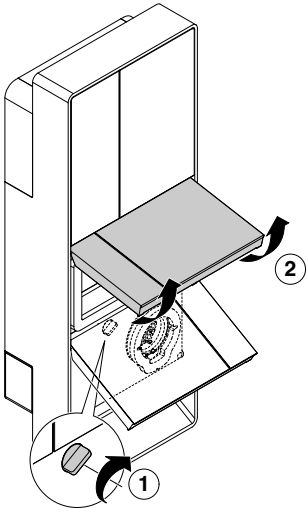
2,5÷16 mm²

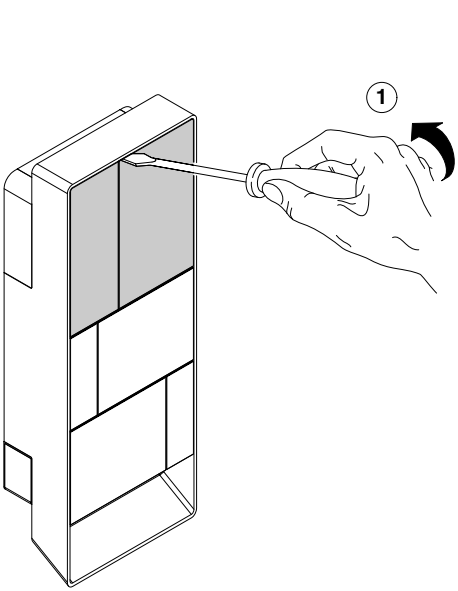
OR

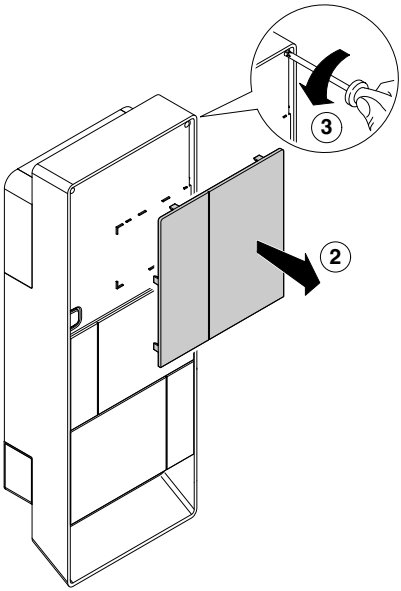
L1	L2	L3	N	PE

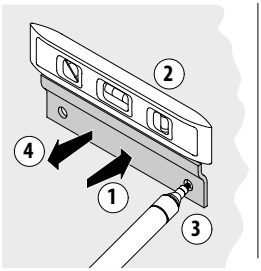
2,5÷16 mm²

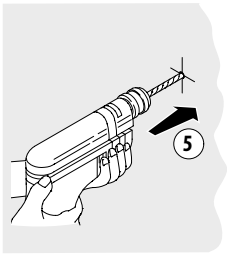


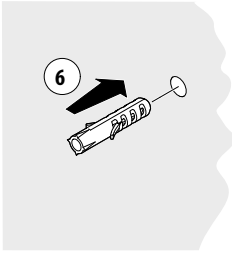

2
1

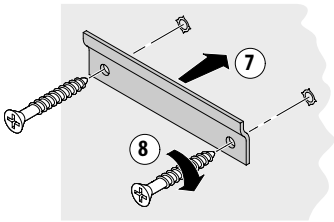

1

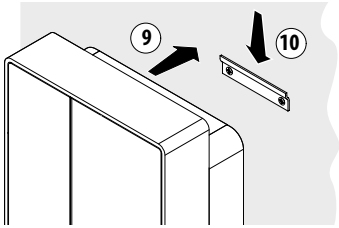

3
2

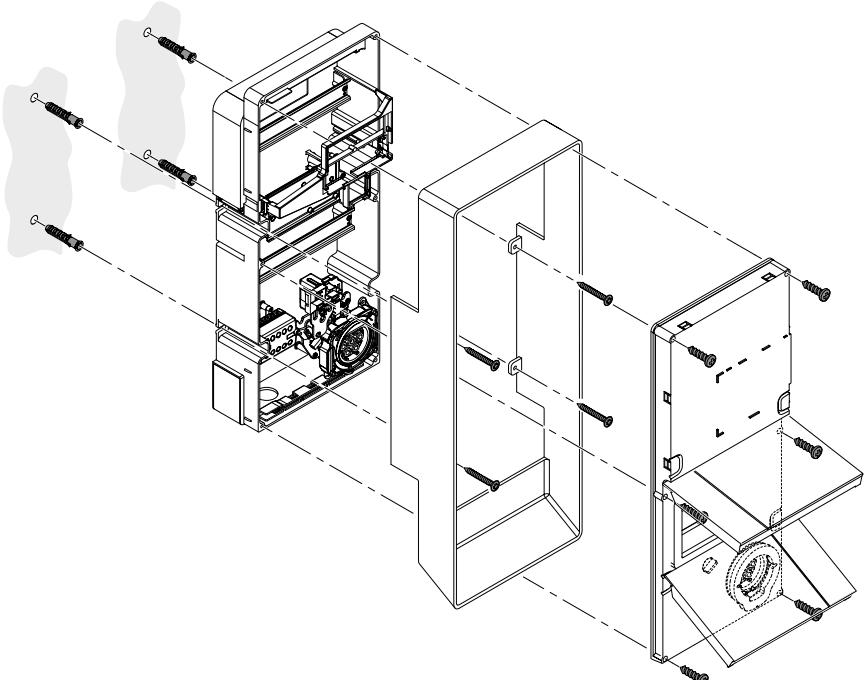

2
4
1
3


5


6


7
8


9
10



CABLE INSTRUCTIONS

SYSTEM REQUIREMENTS

- Check the following electrical values:
  - ◊ Grounding system: TT, TN(S), TN(C),
  - ◊ Phase to phase voltage (L-L): between 380 and 400Vac inclusive
  - ◊ Phase to neutral voltage (L-N): between 220 and 230Vac inclusive
  - ◊ Neutral to ground voltage (N-PE): less than 5Vac
  - ◊ Frequency (f): 50 or 60Hz
  - ◊ Ground resistance (Rt): less than 50Ω
  - ◊ Total Harmonic Distortion (THD): less than 8%
- Other values may compromise charging.

POWER LINE

- The stations have spaces provided for cable entry: drill holes and install cable glands as indicated on the instruction sheet.
- The stations have terminal blocks for cable connections: connect phase, neutral and earth conductors as shown in the wiring diagram (included).
- Create the power supply line with protection and ducting of a section suitable for the load

In the case of tethered stations without RCBO installed in IT/NL, the installer is recommended to connect the shunt release coupled to the external protections of the microcontroller as indicated in the electrical diagram provided with the product.

Power (kW)	Voltage (V)	Current (A)	Wire gauge (mm^2)	Max. length (m)
7.4	230	32	3G6	40
11	400	16	5G4	100
22	400	32	5G6	80

Values determined considering cables of FG16OR16 type 0.6/1kV and voltage drop <4%

According to the table above, we recommend installing (minimum) protection upstream with the following characteristics: 7.4 kW = 1P+N C32 11 kW = 3P+N C16 / 22 kW = 3P+N C32

The designer of the electrical system is solely responsible the sizing of the power line.

ADDITIONAL INFORMATION

SCU: controller board

SW1: reboot button.

- Press briefly to restart the station.
- Long press (>20S) will reset the board to the default configuration (You will need to contact support).

Caution: the default configuration is to be used only in the event of an emergency and may not work correctly on some versions, and the original configuration must be restored as soon as possible.

CN3: External Power Meter

- In stations compliant with the ISO 15118-20 standard, terminal CN3 might be located next to terminal J7.

CN8: maximum current output selector

- 0: 6A, 1: 10A, 2: 13A, 3: 16A, 4: 20A, 5: 25A, 6: 32A, 7: 40A, 8: 50A, 9: 63A

AB-REM: remote enable contact (open by default)

- If closed, stops the charging under way or prevents a new charging session.
- If open, resumes charging in progress or permits new charging session.

SBC-LAN: local server with OCPP protocol (Optional):

- Device for remote management

J21: VENTILATION PRESENCE

The connector stops the charging of vehicles that require ventilation:

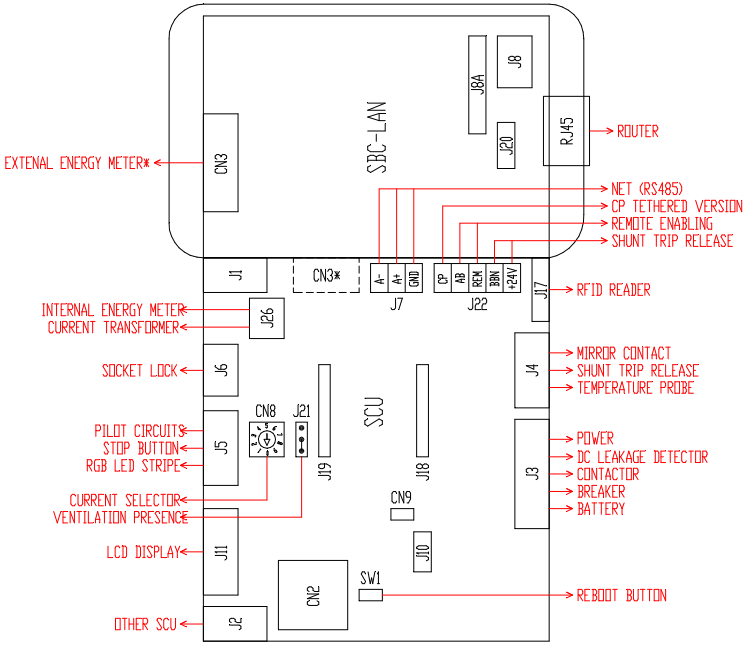
- If the environment is equipped with ventilation, the jumper can be moved to the free pin.

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. If the internal switching device malfunctions, 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 supplied), which, integrated with the system protections (if not already supplied), allows the power supply upstream of the station to be interrupted.



PRODUCT DESCRIPTION

Depending on the version, the stations can be equipped with:

1. **Display (multilingual).** Only for versions without an app.

- Alphanumeric LCD / TFT touch screen

2. **RFID reader (Mifare Classic or Mifare Plus).**

3. **LED - RGB strip**

4. **Button:** Only for versions without APP and with alphanumeric LCD display

- Change language (press when charging point is not in use).
- Consumption display (long press when charging point is not in use. Only with

energy meters).

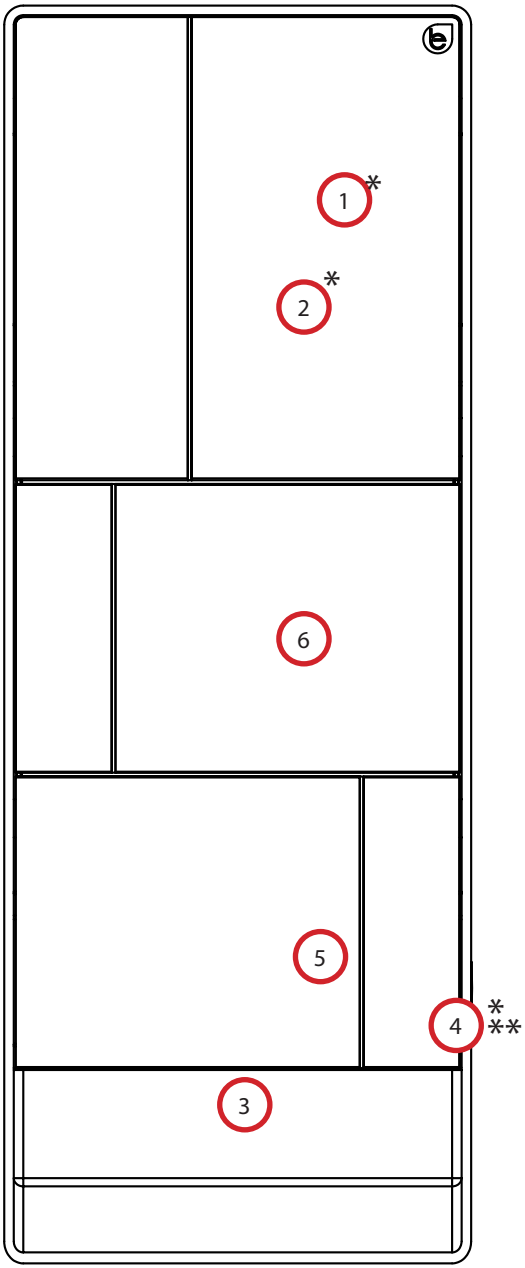
- Charging interrupted (press during charging in free mode).

5. Sockets:

- Picoblade connector with cable (type 2).
- With plug block (e.g. type 2).

6. Protection (where expected)

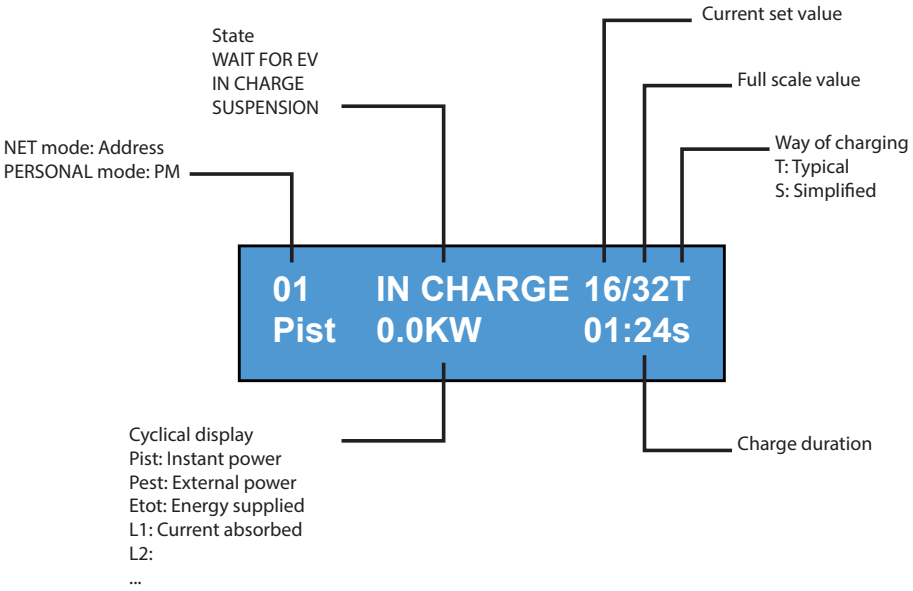
- 7,4 kW = 1P+N C40 30 mA, type A
- 22 kW = 3P+N C40 30 mA, type A
- 11 kW = 3P+N C16 30 mA, Type A



"*" for versions without an app

"**" for versions without an app and with an alphanumeric LCD display

ALPHANUMERIC LCD DISPLAY



DISPLAY LANGUAGE CHANGING

LANGUAGE CHANGING

Short pression of the push button (after 1 minute it will return to the default language).

SETTING DEFAULT LANGUAGE

Long pression of the push button

TFT DISPLAY DISPLAY

The charging station can be equipped with a high-resolution 5-inch TFT color display, designed to ensure a clear and intuitive interface at every stage of the charging process.

The system integrates:

An ambient light sensor that automatically adjusts the display's brightness

based on external light conditions, ensuring optimal readability and visual comfort;

- a proximity sensor that detects the user's presence and activates the display's functions to ensure energy savings at the station.

MAIN FUNCTIONS

The display features an intuitive graphical interface that allows the user to:

1. Start and manage charging

- Select the authentication method
- View the connection status with the vehicle
- Monitor charging progress in real time

2. View charging information

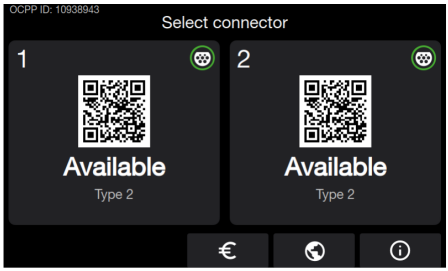
- Charging energy delivered (kWh)
- Real-time charging power (kW)
- Charging session duration

3. View station information

- General information about the station and connectors
- Choosing the language of the graphical interface
- Rates and costs (for configurations see dedicated chapter)
- Custom screensaver (see dedicated chapter for configuration)

4. Manage interruptions and notifications

- Station Anomaly Alerts
- Charging end notice and disconnection instructions



DIRECTIONS FOR USE

- The display is designed for simple interaction: follow the on-screen instructions to charge.
- For a better user experience, we recommend keeping the display surface clean and avoiding contact with sharp or dirty objects.

Depending on the version of the charging station (Lite/Business/Pro), yes

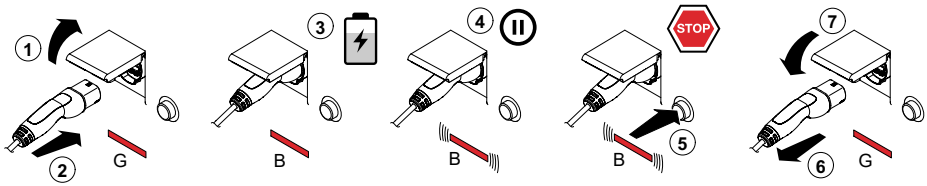
can configure the following operating modes:

- FREE: access to charging occurs freely, i.e. without the need for identification
- PERSONAL: access to charging occurs via identification via app or with RFID card
- WEB/NET: access to charging occurs with or without identification based on the rules defined on the Scame Management System

FREE OPERATING MODE

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

Starting a charging session in FREE operating mode occurs by simply connecting the charging cable to the vehicle.



G: 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 flash. 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: Once charging is complete, it is mandatory to disconnect the charging cable. In case of a station with Scame E-mobility APP, the interruption of charging is managed by the APP.

See the video tutorial downloadable from the chapter dedicated to Adding (see the video tutorial downloadable from the chapter dedicated to the SCAME E-MOBILITY APP)

CHANGE OF OPERATING MODE FROM FREE TO PERSONAL

Not applicable for PRO stations

- End the current charge
- Press and hold the button and at the same time present the Master Card on the RFID reader to change mode
- Repeat the operation to return to the previous mode

NOTE: in the case of a station with Scame E-mobility APP, the change of operating mode is managed by the APP see the video tutorial downloadable from the chapter dedicated to the SCAME E-MOBILITY APP

STATUS SIGNALS FREE OPERATING MODE

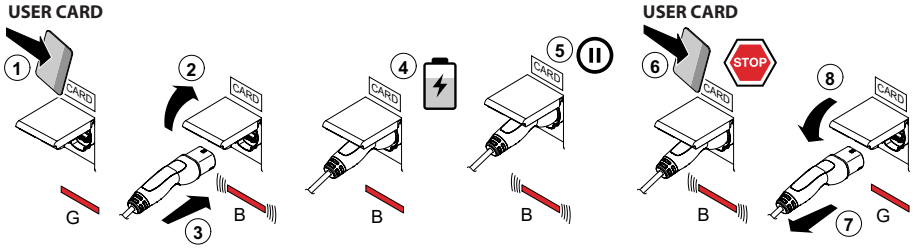
Status	RGB LED	Description
Station not powered	×	×
Supply power to station	(((●)))	SCAME PARRE (firmware release)
Station powered	●	SOCKET AVAILABLE
Insert plug in socket	●	PLUG INSERTED
Connect vehicle	(((●)))	WAITING FOR EV
If vehicle needs charging	●	CHARGING (calibration) (current)(power)(time)
If vehicle does not need charging	(((●)))	SUSPENSION (current)(power)(time)
If station suspends charging	(((●)))	WAITING FOR RM (time)
Press button	(((●)))	REMOVE PLUG
Remove plug	●	SOCKET AVAILABLE
Socket not available	●	SOCKET NOT AVAILABLE

× = off ● - ● - ● = steady light (((●))) = flashing light

PERSONAL OPERATING MODE

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

Starting a charging session in PERSONAL operating mode occurs through the charging station identification method which varies based on the version (APP or RFID card)



G: Green B: Blue

VEHICLE CHARGING PROCEDURE

1. Present 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. Wait for the blue LED to flash. The flashing blue LED indicates that charging is complete.
6. Present 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: Once charging is complete, it is mandatory to disconnect the charging cable.

CHANGE OF OPERATIONAL MODE FROM PERSONAL TO FREE

Not applicable for PRO stations

- End the current charge
- Press and hold the button and at the same time present the Master Card on the RFID reader to change mode
- Repeat the operation to return to the previous operating mode

NOTE: in the case of a station with Scame E-mobility APP, the change of operating mode is managed by the APP.
See the video tutorial downloadable from the chapter dedicated to the SCAME E-MOBILITY APP.

STATUS MESSAGES IN PERSONAL OPERATING MODE

Status	RGB LED	Description
Station not powered	×	×
Supply power to station	(((●)))	SCAME PARRE (firmware release)
Station powered	●	CARD PRESENT
Present card	(((●)))	INSERT PLUG
Insert plug in socket	(((●)))	PLUG INSERTED
Connect vehicle	(((●)))	WAITING FOR EV
If vehicle needs charging	●	CHARGING (calibration) (current)(power)(time)
If vehicle does not need charging	(((●)))	SUSPENSION (current)(power)(time)
If station suspends charging	(((●)))	WAITING FOR RM (time)
Present card	(((●)))	REMOVE PLUG
Remove plug	●	CARD PRESENT

× = off ● - ● = steady light (((●))) = flashing light

USER MANAGEMENT

PRESENT NEW USER CARDS

- With the station in PERSONAL mode
  (display: PM PRESENT CARD)
- Show the master card on the RFID reader to enter programming mode
  (display: DATABASE MANAGEMENT – PRESENT CARD)
- Show the user card on the RFID reader to be inserted into the memory
  (display: ID REGISTER – 001 USERS)
- Show all user cards to be inserted into the memory or close database management presenting the master card or allowing countdown to terminate

Procedure valid only for Business stations. For PRO stations see chapter dedicated to card and tariff plan management.

USER CARD DELETION

- With the station in PERSONAL mode
  (display: PM PRESENT CARD)
- Show master card on the RFID reader to enter programming mode
  (display: DATABASE MANAGEMENT – PRESENT CARD)
- Show the user card on the RFID reader to be deleted from the memory
  (display:DELETE USER?)
- Show the same user card on the RFID reader to confirm deletion (display:ID DELETED–000 USERS)
- Show all user cards to be deleted from the memory or close database management presenting the master card or allowing countdown to terminate

Procedure valid only for Business stations. For PRO stations see chapter dedicated to card and tariff plan management.

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 Scame Management System
- 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 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

Note: SCAME offers the external "Management System 208.AP59" kit in its catalogue. This accessory, equivalent 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.

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 the dedicated paragraph).

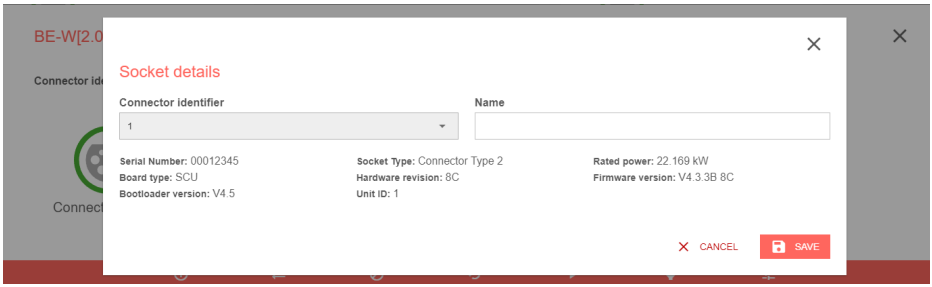
These connections must be made in the absence of power (system switched off).
When re-powering the system, the Master station must be switched on first and then the Satellite stations must be powered one at a time.
The Scame Management System will automatically detect the Satellite station within 30 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.
Le stazioni Satellite che hanno un unico punto di ricarica sono configurate in fabbrica con il valore numerico "16".
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 dedicated paragraph) and then disconnect the power supply to the entire system. Restart according to the procedure described above.

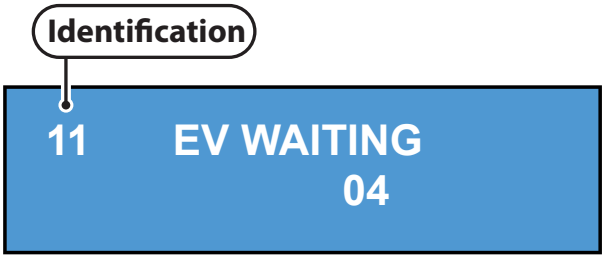
Changing the connector identifiers in the LOCAL and OCPP operating modes.

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



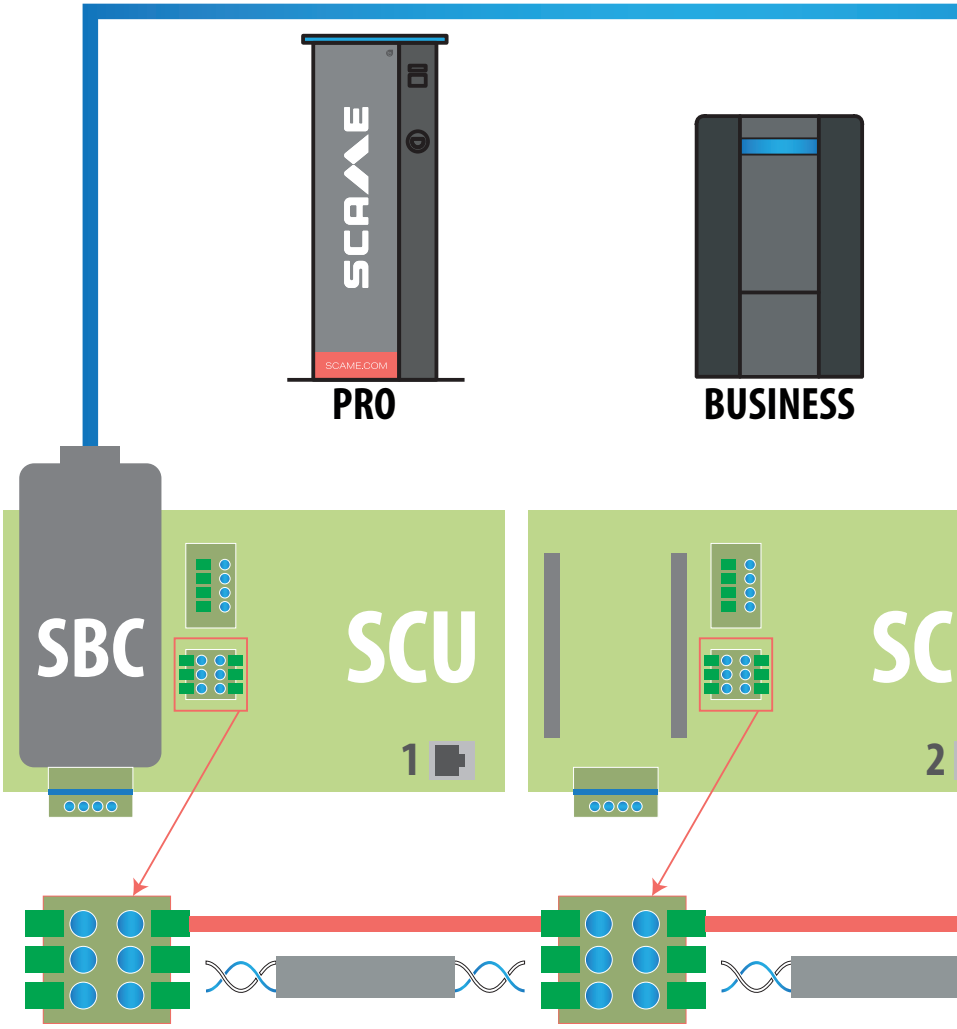
The connector identifier is automatically assigned during the configuration of the Master/Satellite system.

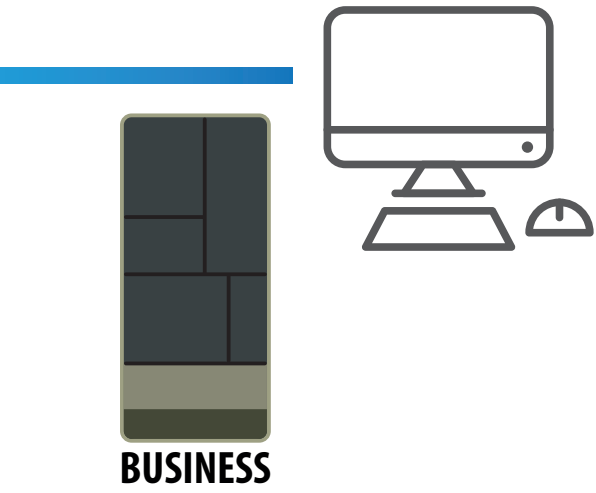
Via the Scame Management System, it is possible to change the numeric values of the connector identifiers to make them appear on the display in the desired sequence.



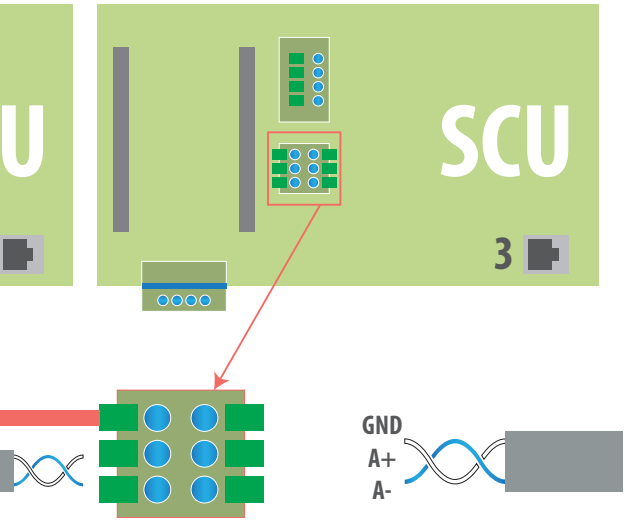
ATTENTION: the connector identifier, which is the value visible on the station display, can currently be changed when the Master/Satellite system is in the LOCAL operating mode.

CONNECTION INSTRUCTIONS
Connection system with SCU electronics only



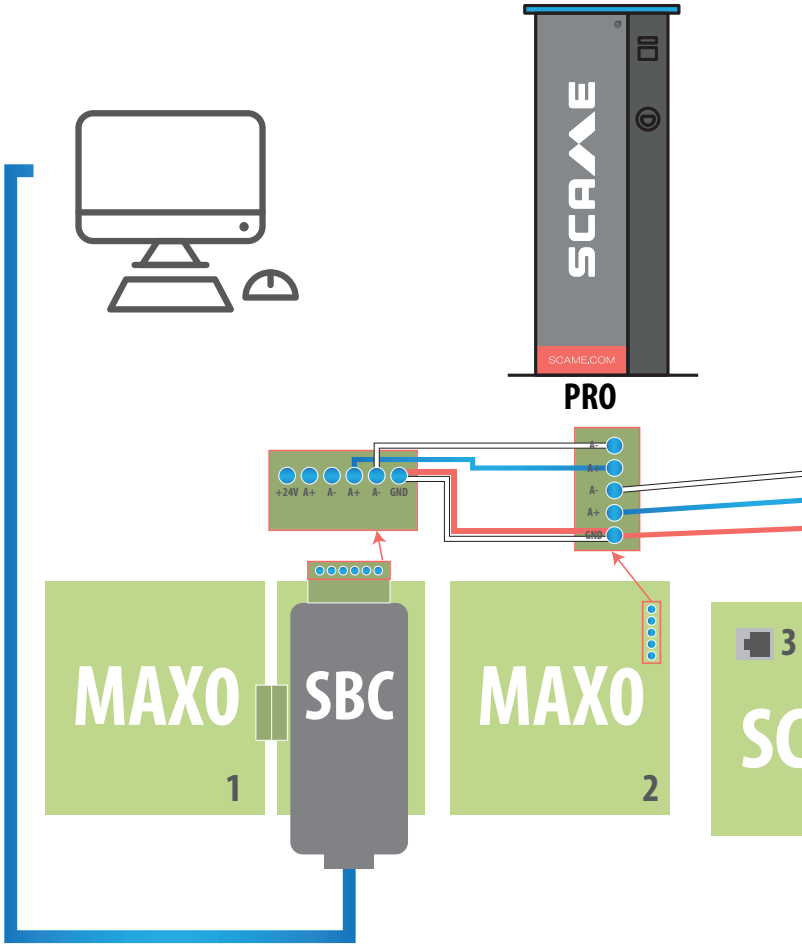


TYPE F/UTP CAT6 NETWORK CABLE
IN A SEPARATE PIPELINE
Mutual capabilities < 10 pF/m
Capacity imbalance < 60 pF/m
Blue/white pair :
Blue : A-
White : A+
Brown/white pair :
Brown : GND
White : GND
Maximum length of 400 m
between
first and last station



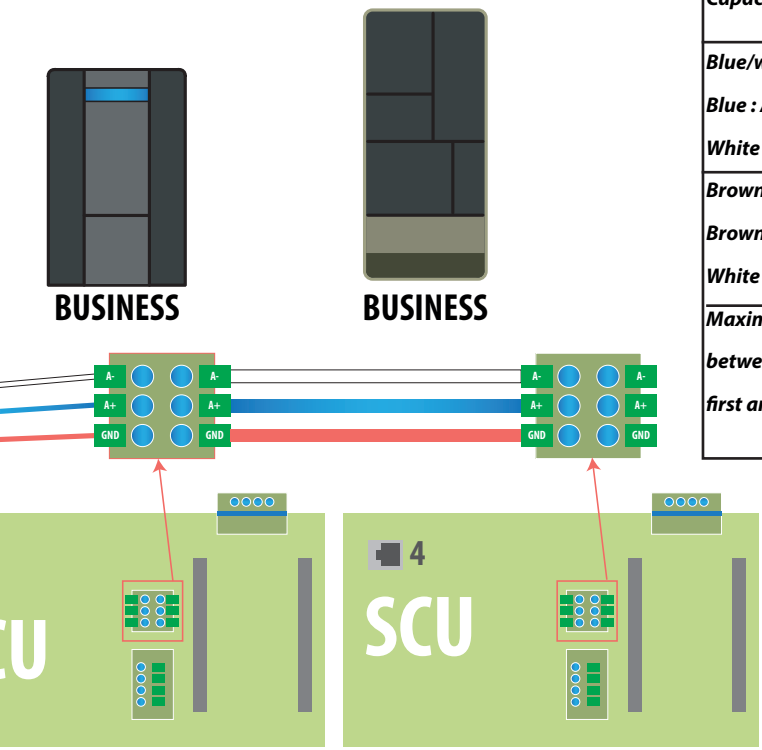
If the external Management System AC 208.AP59 kit is used in the "PRO" configuration, strictly follow the wiring instructions provided in the relevant dedicated technical documentation.

Mixed connection system with MAX0/SCU electronics



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

TYPE F/UTP CAT6 NETWORK CABLE
IN A SEPARATE PIPELINE
Mutual capabilities < 10 pF/m
Capacity imbalance < 60 pF/m
Blue/white pair :
Blue : A+
White : A-
Brown/white pair :
Brown : GND
White : GND
Maximum length of 400 m
between
first and last station



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

SCAME MANAGEMENT SYSTEM

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.

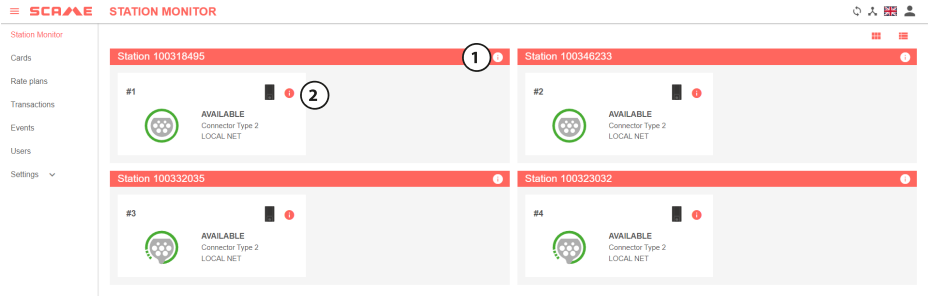
- Via web browser, access the server's IP address (default address: 192.168.30.126; **username: administrator ; password: Admin123-**)

NOTE: Your initial password will be retained until your first login, after which you will be prompted to enter a new password.

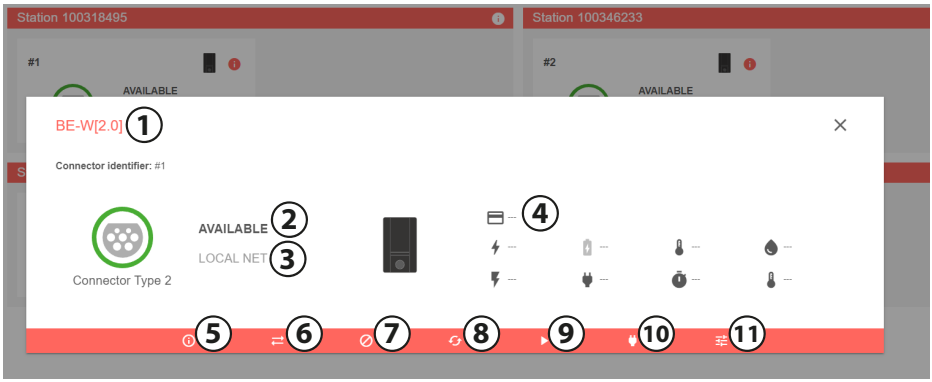
It is recommended that you write it down before continuing with the registration process.

STATION MONITOR

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)

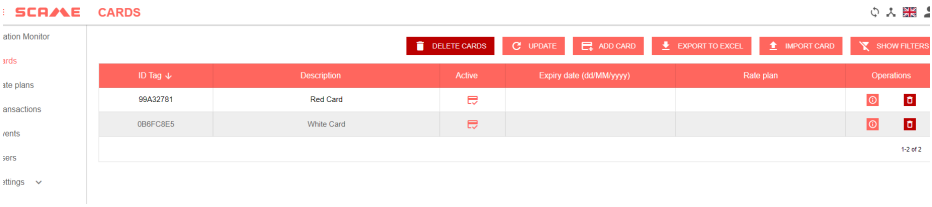
7. Connect enabling/disabling
8. Connector Hard Reset
9. Start charging: To start charging, it is necessary to select the card number (Tag) with which to start the session (function available only in Local Net mode)
10. Adjustment of the maximum power that can be delivered by the individual connector

nected.

11. Hardware Configuration: allows enabled users to change the connector system parameters and perform Firmware updates.

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 Management 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 via the RFID reader integrated into the charging station.

Proceed as follows:

1. Hold the user card close to the RFID reader at the station.
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" already filled in automatically.

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 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.

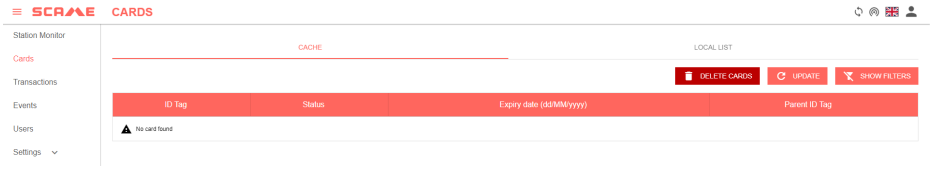
Tariff Plans consist in defining certain limitations that can be applied to the charging session.

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
- Energia Totale – un valore complessivo di energia erogabile da utilizzare entro la 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

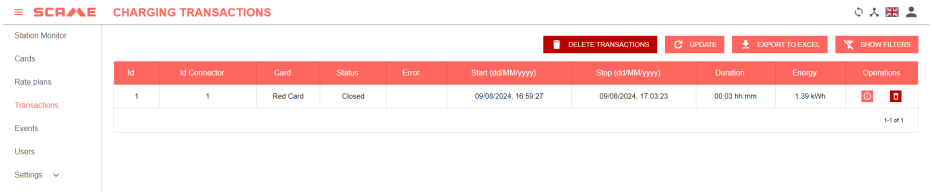
Note: the "Tariff Plans" screen is only available in Local Net mode.

- 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.



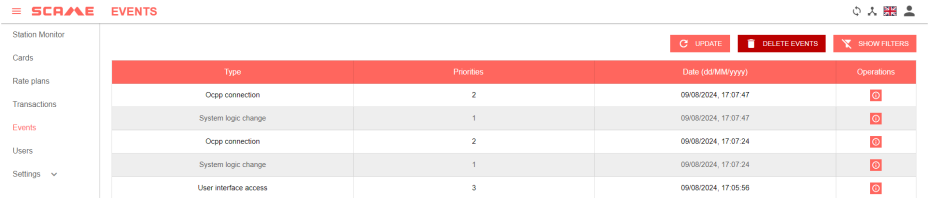
TRANSACTIONS

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



EVENTS

This screen records all the operations performed within the “Scame Management System”



PRICE CUSTOMIZATION AND SCREENSAVER

Features available only for stations with TFT displays

Charging stations equipped with TFT displays offer the possibility of customization by uploading an image for the screensaver and for indicating charging prices.

IMAGE LOADING:

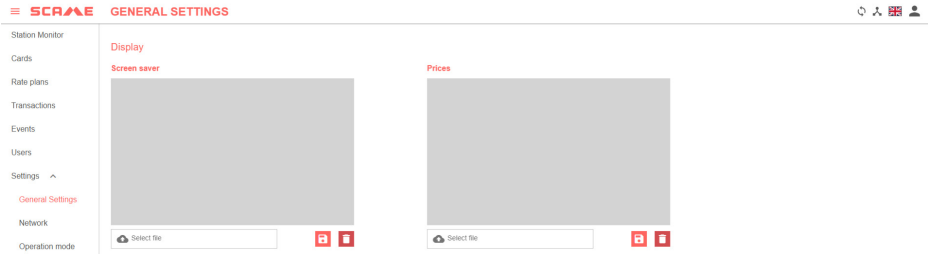
Images for the screensaver and for the indication of top-up prices can be uploaded in the dedicated section:

“Menu --> Settings --> General”

IMAGE REQUIREMENTS FOR UPLOADING:

- Supported file formats: .jpg, .jpeg
- Maximum size: 1 MB

To ensure correct functioning, it is recommended to check that the images meet the above requirements.



USERS

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

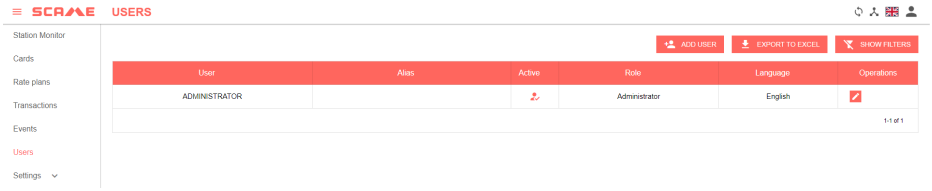
Each user can be assigned a Role, which defines their access permissions to the Scame Management System.

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



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 following paragraph)
- 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 en-

tire 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 the Load Balancing paragraph

◊ Restart the hardware and restart the software

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 sum 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 charging system. It can be of two types:

o Static: The system checks that the sum of the instantaneous powers delivered by the charging stations does not exceed this value. The system does not take into account any absorption of other loads. (Dynamic Load Balancing and Load Balancing)

o Dynamic: The maximum power threshold for the Master/Satellite 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):

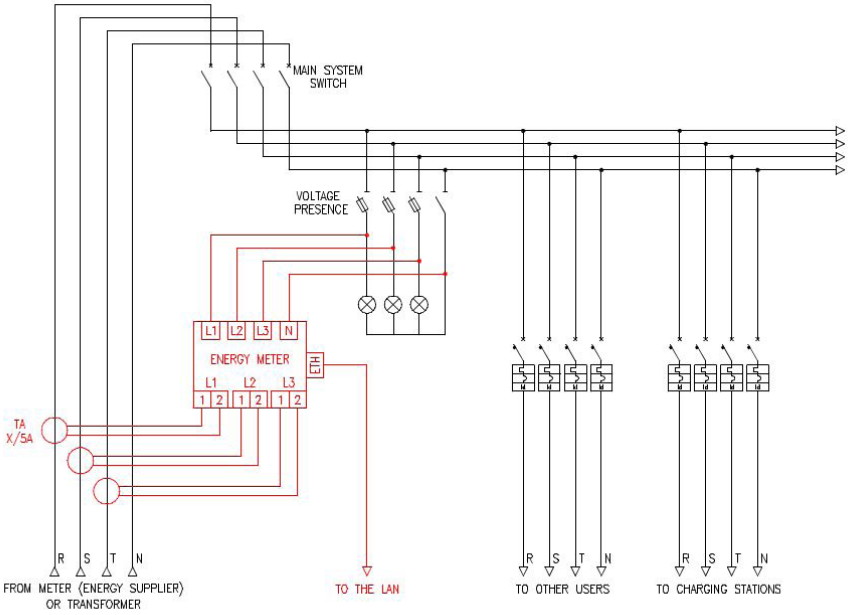
- The probe is made with current transformer (CT) with 5A output
- It is recommended to size the CT according to the size of the cable and the current to be measured
- To make installation and maintenance easier, it is advisable to choose an openable type CT

- 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 address

- Default 1001 for the Lovato DMG300 model
- Default 502 for all other models

ERROR CODES

Display (if included)	RGB LED	Cause/Solution
x	x	The station is not powered. Check for voltage.
RCBO FAULT	●	Protection triggered. Check vehicle, reset switch and restart station.
MIRR FAULT	●	Overlapping contacts found. Check contactor, reset switch.
CPLS FAULT	(((●)))	Pilot circuit open. Vehicle disconnected or check cord-set.
CPSE FAULT	(((●)))	Pilot circuit fault. Check cord set.
PPLS FAULT	(((●)))	Plug presence open. Disconnected plug or check cord-set.
PPSE FAULT	(((●)))	Plug presence fault. Check cord set.
BLCK FAULT	(((●)))	Plug block not in position. Plug not inserted correctly or check operation of block actuator.
OVCE FAULT	(((●)))	Power draw higher than the maximum set current detected. Check vehicle.
VENT FAULT	(((●)))	Vehicle requiring ventilation detected. Bridge contact J21 (SCU) if present or if natural ventilation.
RCTE FAULT	(((●)))	Pilot circuit control diode absent. Check vehicle.
PEN FAULT	●	Abnormal voltage detected. Check mains power supply.

ERROR CODES

Display (if included)	RGB LED	Cause/Solution
EMTR FAULT	●	No communication with digital energy meter. Check meter operation or for any disturbances on serial line.
RCDM FAULT	(((●)))	Earth leakage detected with continuous component greater than 6 mA. Check vehicle.
EMEX FAULT	●	No communication with external digital energy meter. Check the operation of the external meter or the presence of disturbances on the serial line.
NO VOLTAGE (Vbus)	×	No voltage during charging. In case of absence of voltage the charging is terminated.
REMOVE PLUG	(((●)))	Plug inserted without prior authorisation. Remove plug and present an authorised card.
UNAUTHORISED USER	(((●)))	Unknown or unauthorised card code. Add or authorise the new code in the control system.
CLOSE SHUTTER	●	Shutter closure failure detected. Close shutter or check switch operation.
MFRE FAULT	●	No communication with RFID reader. Check reader operation or presence of disturbances on serial line.

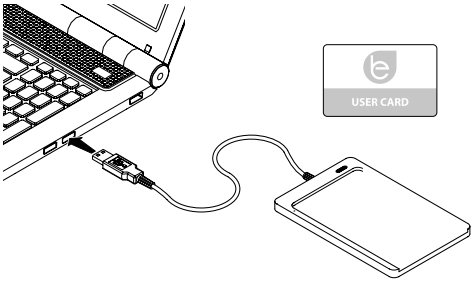
× = off ● - ● - ● = steady light (((●))) (((●))) = flashing light

CARD PROGRAMMER (208.PROG2)

For Business stations only

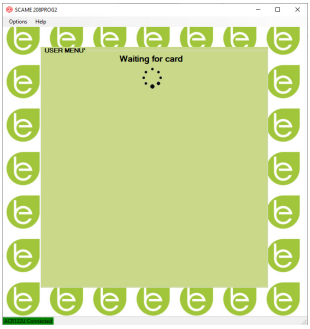
PROGRAMMER SOFTWARE – For Microsoft Windows 7, 8, 10, 11 operating systems only

- Before connecting the programmer to the computer, download the application software 208Prog2_V20.zip from the download area of our website https://e-mobility.scame.com/download.
- Install the software by launching the program 208Prog2Installer_V20.exe.
- Except for special needs, it is advisable to accept the proposed selections and to install the drivers (if it is not possible to install the drivers, continue anyway).
- Connect the programmer to a USB port on the computer.



- Run 208Prog2_V2.exe, the programme will display the following screens





- Enter locking PIN unauthorised entry
  (optional, 5 digits, default 00000)
- Check that the programmer is correctly connected (see the green box in the bottom left corner).
- Select the desired language from the OPTIONS menu.

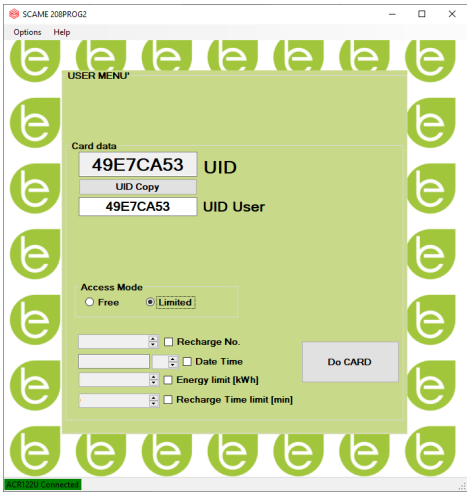
USER CARD PROGRAMMER

- Place the user card on the programmer; the following screen will be displayed:



- To change the card code (optional): Edit the UID field, entering 8 hexadecimal digits of your choice (e.g. AAAA0001).
- To create a card without restrictions, leave the FREE access type selected.
- Click on the CREATE CARD button; a short beep will confirm the creation of the card.

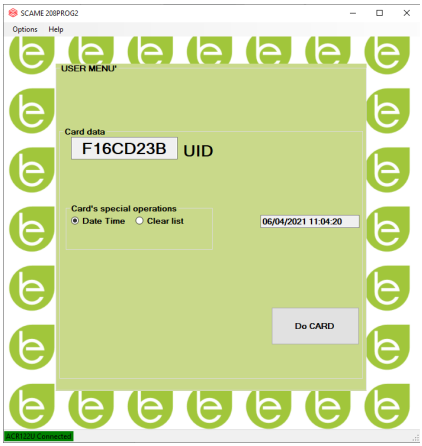
- To activate the restrictions, select the LIMITED access type; the following screen will be displayed:



- To activate one of more restrictions, flag the relative field.
- To change the parameter, click on the arrows.
- Leave the field empty if you do not want to activate the relative restriction.
- Click on the CREATE CARD button, a short beep will confirm creation of the card (Energy and time limits can only be set for firmware versions 1.4.020 or later and apply to every single charging session).

MASTER CARD PROGRAMMER

- Place the master card on the programmer; the following screen will be displayed:



- To set the date and time at the station, select DATE TIME.
- To delete the user cards stored in the station, select DELETE LIST
- Click on the CREATE CARD button; a short beep will confirm the creation of the card.
- Swipe the master card on the station reader to confirm the setting.

POWER MANAGEMENT (OPTIONAL)

For versions with TFT, we recommend using the DLB Dynamic Set Point Energy Meter (see dedicated chapter)

The POWER MANAGEMENT function allows the charging current of the electric vehicle to be automatically modulated based on the user's contracted power and the power used by the dwelling (e.g. washing machine, TV, oven, etc.) in order to prevent untimely tripping of the meter.

WARNING

In the event that the available power is not sufficient, the station will suspend any charging in progress and will resume it when possible.

It should be noted that there are electric vehicles on the market that are not compatible with this function, therefore the "wake up" procedure implemented in the station (according to standard IEC/EN 61851-1) has no effect.

These vehicles may remain in "sleep" mode and may not resume charging unless they are disconnected from the station or other unblocking operations are performed (it is advisable to refer to the manual supplied with your car).

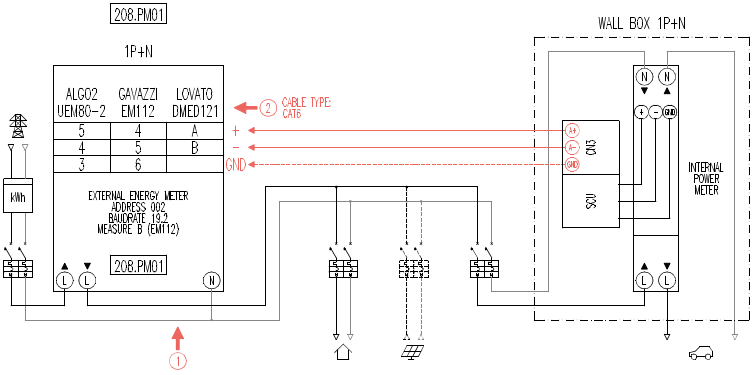
*To activate the load-dependent current modulation feature, the "POWER MANAGEMENT" parameter must be set to ON

POWER MANAGEMENT INSTALLATION 208.PM01/ 208.PM02

The kit consists of an additional energy meter that is already configured to be installed as follows:

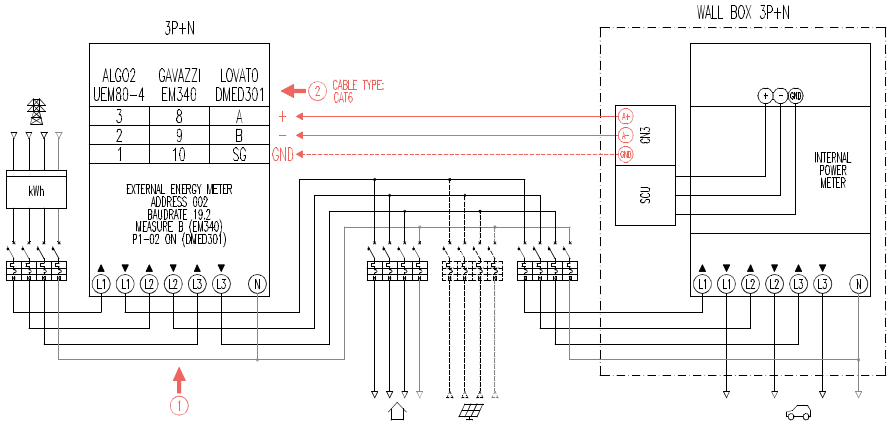
SINGLE-PHASE STATION

208.PM01



THREE-PHASE STATION

208.PM02



Notes:

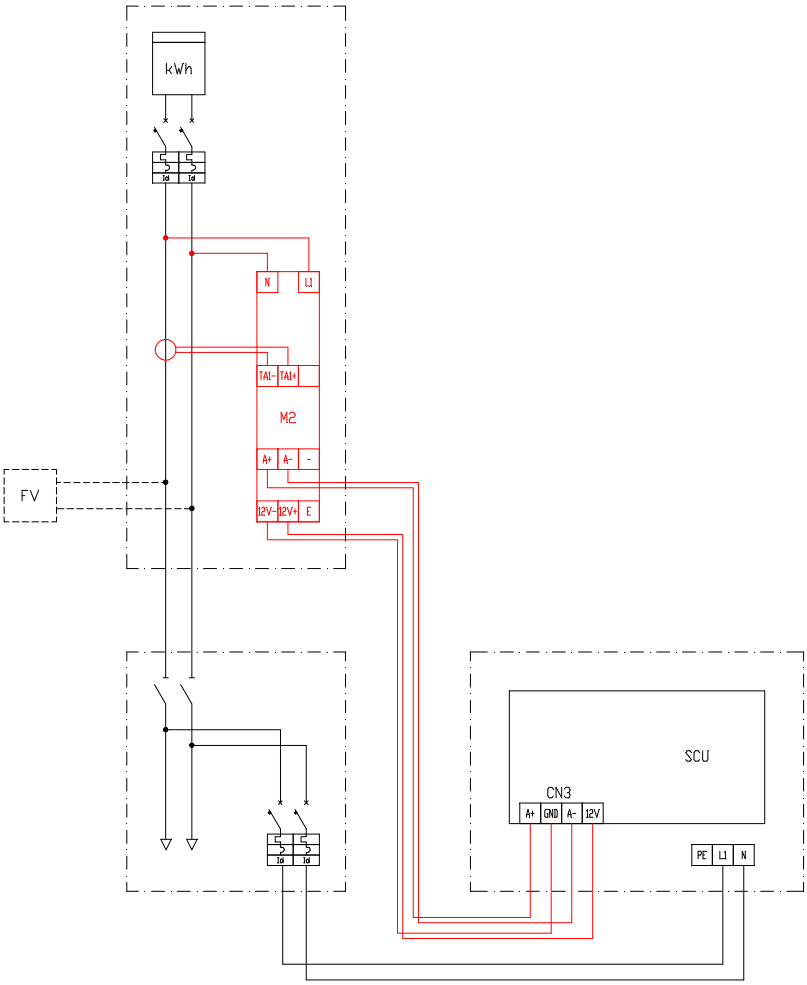
1. Install the additional energy meter downstream of the energy meter and/or the main switch and upstream of any photovoltaic system.
2. Connect the additional energy meter to terminal CN3 on SCU board with shielded cable (e.g. CAT6 type).
3. In the event of failed communication with the additional energy meter, the station prevents charging and the status displays "EMEX FAULT" (see programming).
4. The maximum power load of the additional energy meter depends on the model supplied:
   - Single-phase 80A = 18.4kW;
   - Three-phase 80A = 55.3kW

See block diagram (see configuration chapter) for versions with no APP. For versions with APP, enable Power Management from the configuration menu.

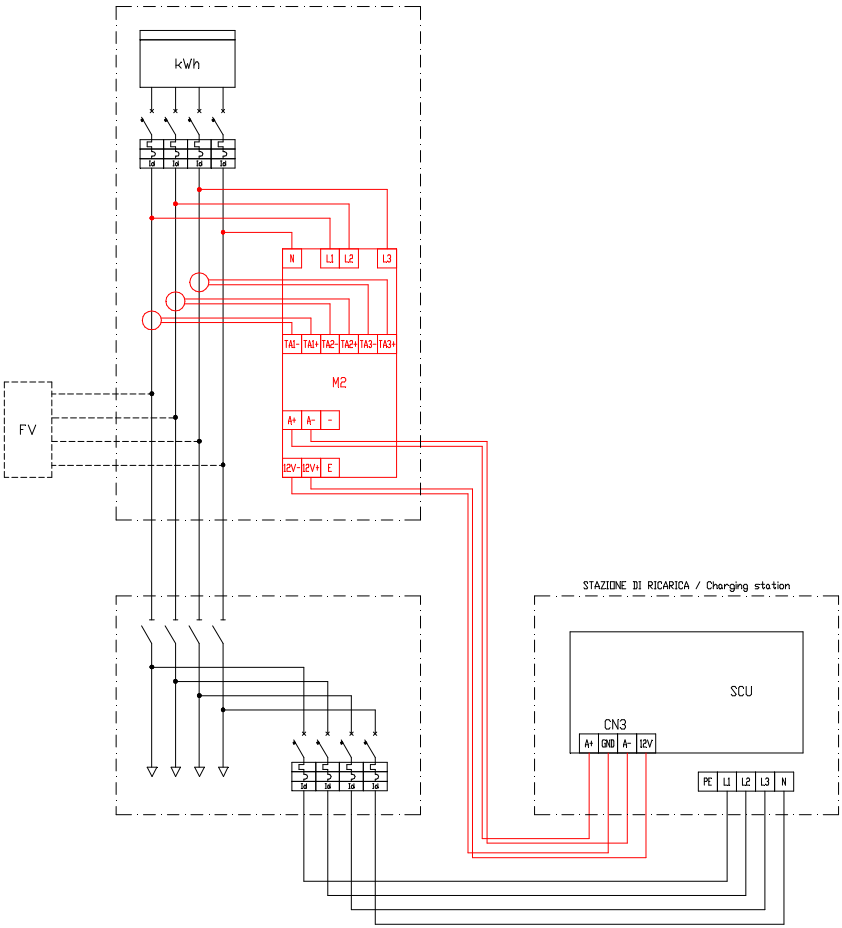
POWER MANAGEMENT INSTALLATION 208.PM03/ 208.PM04

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



Notes:

- 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.

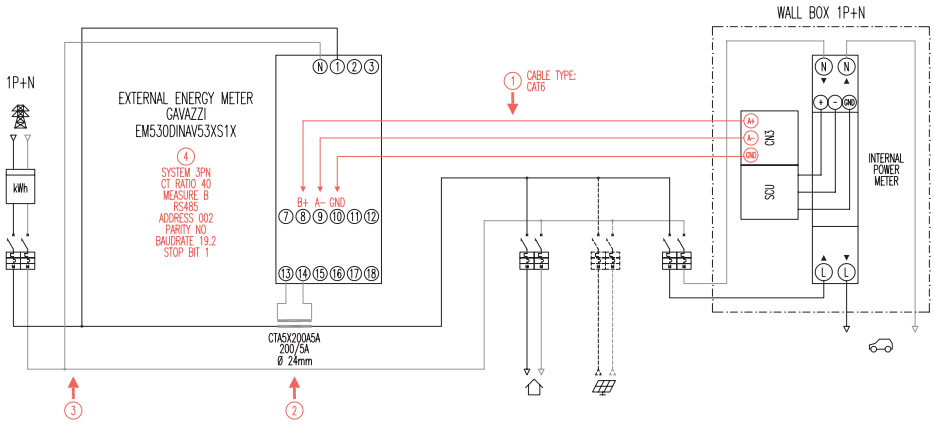
- Connect the additional power meter to terminal CN3 on the station controller using shielded cable (e.g., CAT6), see section 3.6.
- Make sure the configuration selector is set to position "2".
- The maximum power supported by the additional energy meter depends on the model supplied*: Single-phase 110A = 25.3kW; Three-phase 110A = 75.9kW.

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

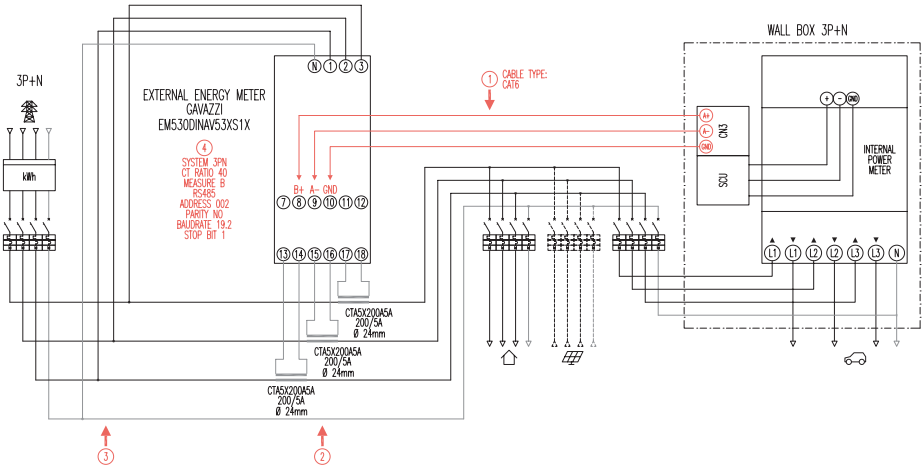
POWER MANAGEMENT INSTALLATION 208.PM05

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



Notes:

- 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 with shielded cable (e.g., CAT6), see section 3.6.
- 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, 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.In caso di mancata comunicazione con il misuratore di energia aggiuntivo, la stazione inibisce la carica e la segnalazione di stato visualizzata sarà “EMEX FAULT”.

POWER MANAGEMENT ENABLEMENT

To enable Power Management:

- In versions without an app, set the Power Management parameter to ON.
- In versions with an app, make sure EMEX ON is active in the settings menu and then set the Power Management parameter to ON.

When Power Management is enabled, the display shows the charging time (hours/minutes/seconds) during charging. It also cyclically displays:

- Power output in kilowatt hours (**Etot**).
- Current absorbed by the vehicle in Amperes (only **L1** if single-phase, **L2+L3** for three-phase).
- Power absorbed by the vehicle in kilowatts (**Pist**).
- Total power absorbed from the mains in kilowatts (**Pest**).

Not available in CHAIN2 version

PROGRAMMING

This paragraph refers only to the versions without APP of the station

To access the programming menu, when SOCKET AVAILABLE (in free mode) or PRESENT CARD (in personal mode) appears on the display, hold in the stop button until POWER OUTPUT appears on the display.

Release the button and hold it in again until PASSWORD (default 000) appears on the display: short-press to increase the value, long-press to confirm the value.

After entering the password correctly, the following parameters will appear cyclically (short-press) on the display:

- **POWER MANAGEMENT** (default OFF): enables or disables power management.
- **PM MODE** (default FULL): this is how a contribution from a renewable source can be managed:
  - ◊ **FULL**: Always recharge at maximum power
    Uses the power available from grid and the power generated by local renewable generation plant, if any.
  - ◊ **ECO Smart**: Carefree green charging
    Uses the power generated by renewable source plus a contribution from the

grid to make up for any power shortfalls while guaranteeing a minimum level of charging.
Mode selectable only when there is a local production system from a renewable source (e.g. photovoltaic, wind...).

◊ **ECO Plus**: Green charging from renewable sources only
Uses power generated by the local production system from a renewable source only (e.g. photovoltaic, wind...).
Caution! Charging in this mode is completely dependent on the state of generation of the renewable source and may be subject to interruptions such that the vehicle may not charge in the desired time frame.

- **PMAX** (default 3kW single-phase, 6kW three-phase): this is the maximum power that can be drawn from the grid (we recommend entering the contractual power rating of your energy meter).
- **Imin** (default 6.0A): this is the value of the minimum current at which your vehicle can charge (we recommend reading your vehicle's manual to determine the value).
- **Hpower** (default 1%): this is the hysteresis value of the power threshold at which the station pauses and resumes charging (for systems characterised by power surges, we recommend increasing the value to prevent frequent charging pauses and restarts).
- **Dset** (default 0.5kW): this is the value of power variation that does not affect the regulation system (for systems characterised by power surges, we recommend increasing the value to prevent frequent modulations of the vehicle charging current).
- **DMAX** (default 40%): this is the power surplus (compared to the contractual power) above which current charge is immediately suspended (we recommend reducing the value in the event of inadvertent meter tripping).
- **UNBALANCE** (default OFF): only for three-phase, allows the load to be unbalanced on phase L1 when charging single-phase electric vehicles.

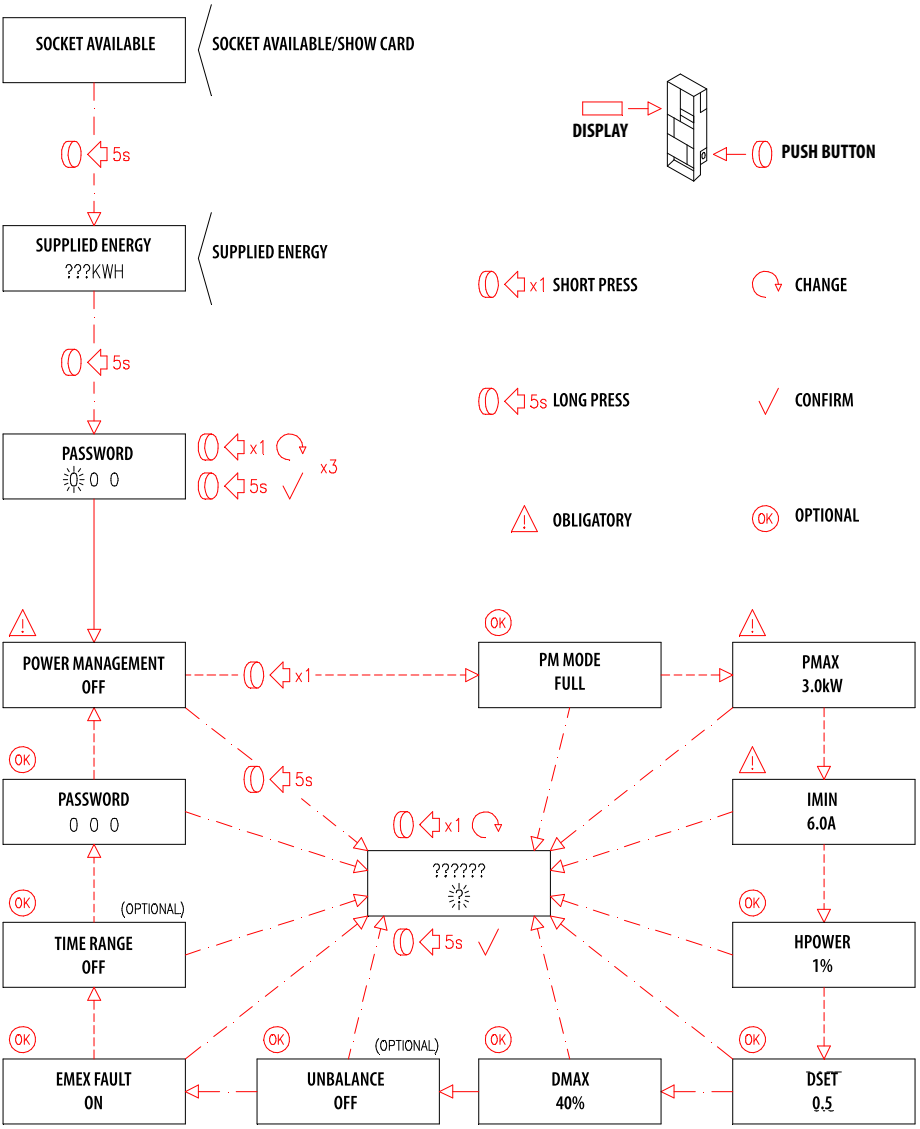
EXAMPLE: THREE-PHASE WALL BOX WITH PMAX SET TO 6 kW		
UNBALANCE	MAXIMUM DRAWABLE POWER	
	FROM THREE-PHASE VEHICLE	FROM SINGLE-PHASE VEHICLE
OFF	6kW	2kW
ON	6kW	6kW

- **EMEX FAULT** (default ON): this enables or disables control of communication with the external energy meter (we recommend disabling control only in the event of an emergency since, without communication, the station does not modulate the power and charges constantly at the rated current set).
- **TIME RANGE (**default OFF**):** with PMAX between 3 and 4.5kW, enables the extension of the contractual power to a maximum of 6kW (including a 10% surplus) in consumption band 3 (this is valid exclusively in Italy, only for stations with a local server in accordance with resolution 541/2020/R/EEL).
- **PASSWORD** (default 000): to change the default password.

The displayed parameter can be changed with a long press on the stop button, short press to increase value, long press to confirm the value. If the button is not pressed, the station returns to its initial state after 10s.

CONFIGURATION

1) Stations with button and display - Power management ON=display



2) Stations with APP management - Power management ON=tutorial APP

APP SCAME E-MOBILITY

The Scame E-Mobility APP (Android/iOS) allows you to configure, monitor, and control charging stations easily and securely, for both residential and professional use.
A single tool to manage users, locations, 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, single garages).
- **WLAN / LAN** – Management via local home or company network.
- **Cloud** – Remote access and control from anywhere.

MAIN FEATURES

- Location and user management
- Simplified Power Management
- Access control
- Monitoring and Reporting

INITIAL CONFIGURATION

Download the APP

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

1. Keep this manual handy. The label attached to the chapter dedicated to activation codes includes the QR code required to identify the wallbox and establish the connection.
   Note: The same data is also printed on the label inside the wallbox.

2. Keep this manual handy. The label attached to the chapter dedicated to activation codes includes the QR code required to identify the wallbox and establish the connection. Note: The same data is also printed on the label inside the wallbox

Notes: During configuration, the wallbox may update automatically. This is a normal process, as 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 area 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 using the button on the station (where supported 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 is also available for configuration via the APP by scanning the following QR Code:

CHAIN2 ACTIVATION (ONLY FOR THE ITALIAN MARKET)

Before carrying out the procedure listed below, ensure that you have performed a STATION ACTIVATION (previous section):

1. Download the free CHAIN2 ACTIVATOR app from Google Play/Apple Store.
2. Stand in front of a station that is switched on
3. Run the CHAIN2 ACTIVATOR app.
4. Register by filling in the required fields using the POD holder's data.

5. Confirm registration upon receipt of a verification e-mail.
6. Log in.
7. Create a system by filling in the required data using the 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 board (caution: GPS and Bluetooth on your smartphone must be switched on).
10. Scan the QR code in the manual or inside the station and proceed (note: only one Chain2 board must be switched on, LED 1 must be steady green and LED 2 flashing yellow).
11. If activation is successful, the Chain2 board will be associated to the POD (LED 1 steady green, LED 2 flashing green when signal is received)
12. If activation is not successful, repeat the procedure from step 9.
13. Save and close (note: saving requires the phone to be connected to the internet. If not, do not close the app and repeat the save when a connection is available).

The connection between station and meter occurs thanks to "Power Line" technology which allows you to reach even large distances.

However, the quality of the signal can be degraded by the number of branches of the electricity line that run between the meter and the station or by electrical disturbances caused by the presence of other devices on the network that compromise the signal.

VIDEO TUTORIAL CHAIN2 ACTIVATION

NOTE: To activate the Chain2 system you can also use the video tutorial by framing the QR Code shown on the side.

MAINTENANCE

The charging station is essentially a distribution panel. The following operations should therefore be carried out by qualified personnel at regular intervals:

- Every six months: check structure and external components and check operation of safety switches.
- Every twelve months: check internal components and check tightness of terminals.

DISPOSAL INSTRUCTIONS



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

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

The user must then dispose of discarded equipment at appropriate separate collection centres for electrical and electronic waste.

For further details, contact the appropriate authorities.

Proper separate collection of equipment for subsequent recycling, treatment or environmentally sound disposal helps to prevent harm to the environment and human health and promotes reuse and/or recycling of equipment materials.

Unauthorised disposal of the product by the user will result in the enforcement of administrative sanctions as prescribed by current legislation.

ASSISTANCE

In the event of operating issues, the first person to contact is your trusted installer.

The Scame customer service centre is available to respond to additional technical queries.

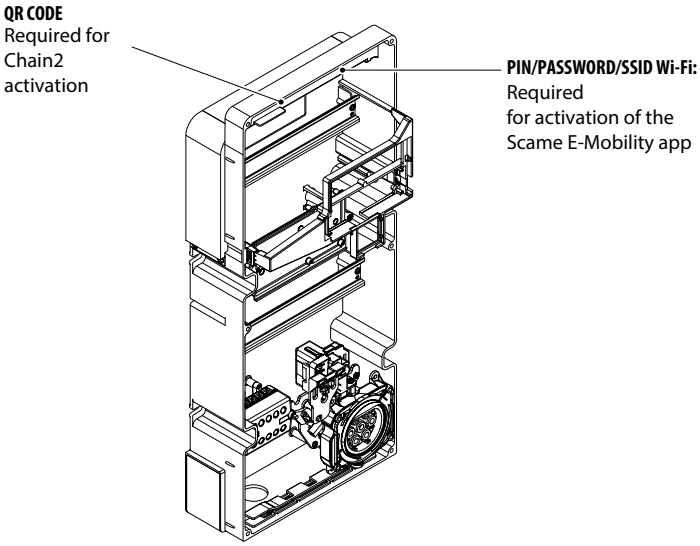
Visit our website: www.emobility-scame.com

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

ACTIVATION CODES

QR CODE APP CHAIN 2 ACTIVATOR

PIN APP Scame E-Mobility



SCAME PARRE S.P.A.
VIA COSTA ERTA, 15
24020 PARRE (BG) ITALIA
TEL. +39 035 705000
emobility-scame.com

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