

# USER MANUAL BE-T SERIES

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## 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).

- 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**

- 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,  $U_p = 1.5 \text{ kV}$ ,  $I_n = 20 \text{ kA}$ ).
- 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: IP54
- 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

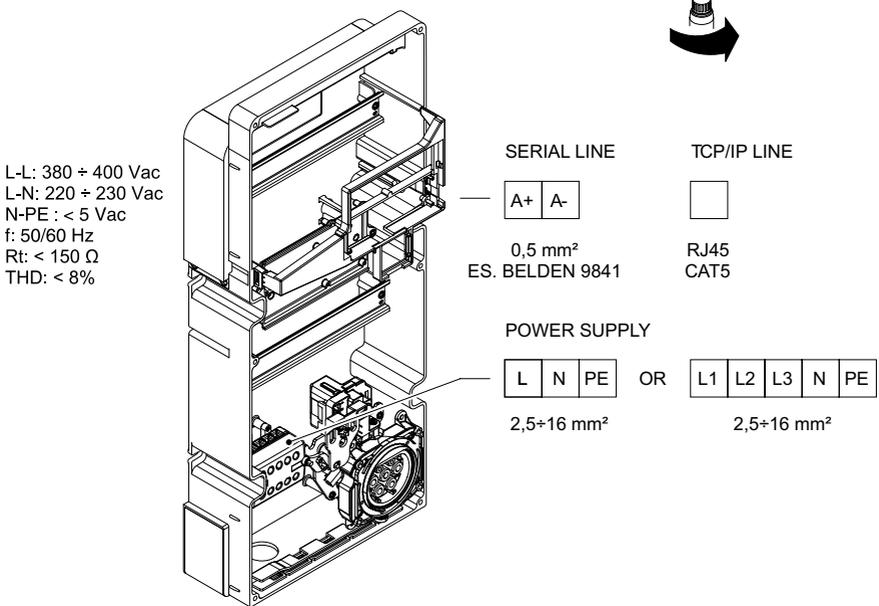
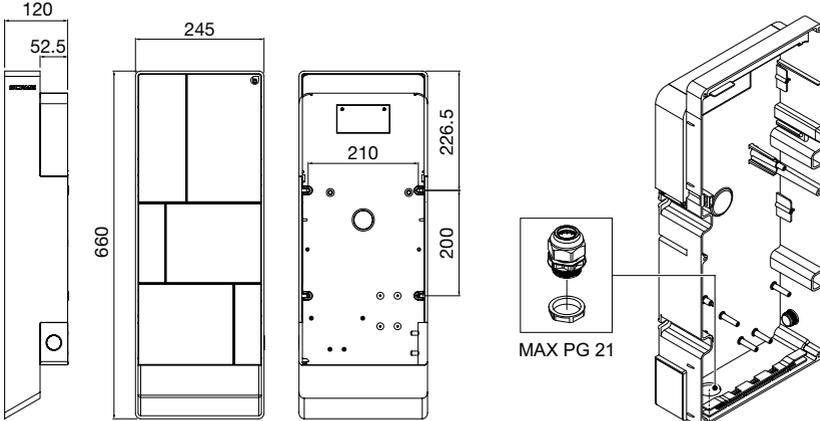
### *WALL STATIONS*

- 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.

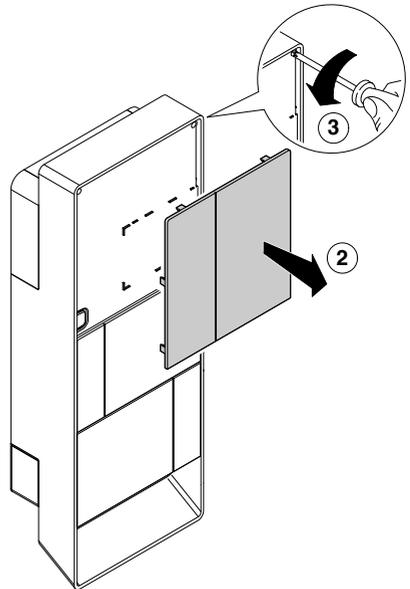
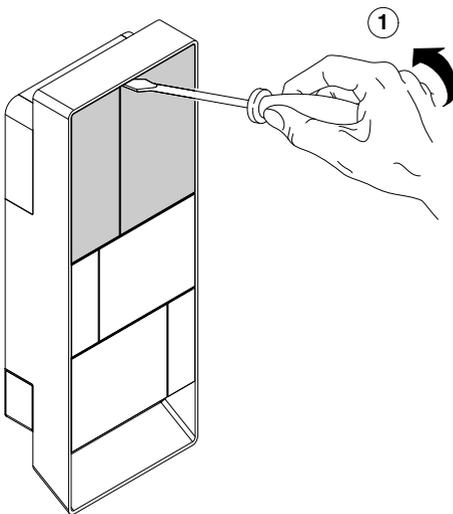
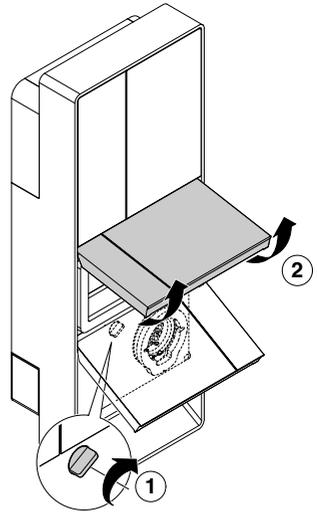
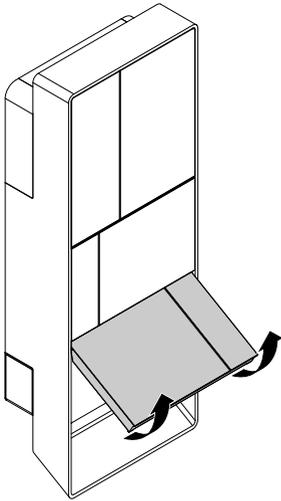
**INSTALLATION IN AREAS NOT DIRECTLY EXPOSED TO THE SUN IS RECOMMENDED. USE SUITABLE SUPPORTS.**

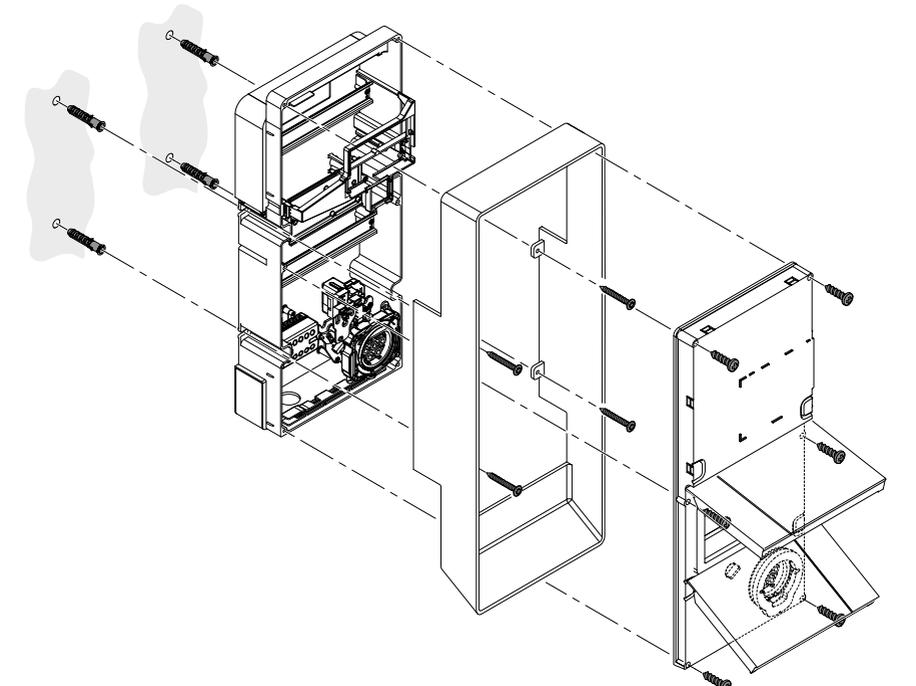
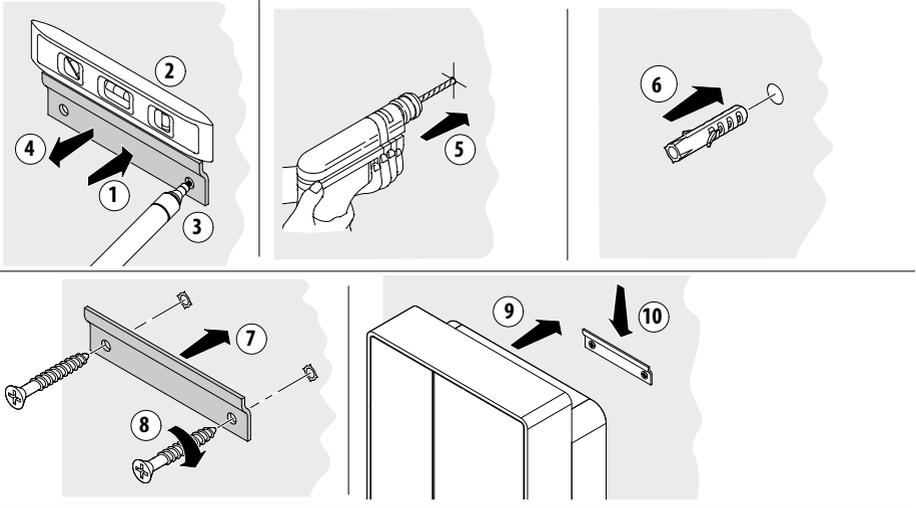
## ASSEMBLY AND WIRING INSTRUCTIONS

### 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%





## 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 (included).
- The stations have terminal blocks for cable connections: connect phase, neutral and earth conductors as shown in the wiring diagram (included).
- Create the power line using conductors of suitable cross-section for the load

Power (kW)	Voltage (V)	Current (A)	Wire gauge (mm <sup>2</sup> )	Max. length (m)
7.4	230	32	3G6	40
22	400	32	5G6	80

Values determined considering cables of FG7OR type 0.6/1kV and voltage drop <4%

***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 with controls disabled.

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.

#### CN8: maximum current output selector

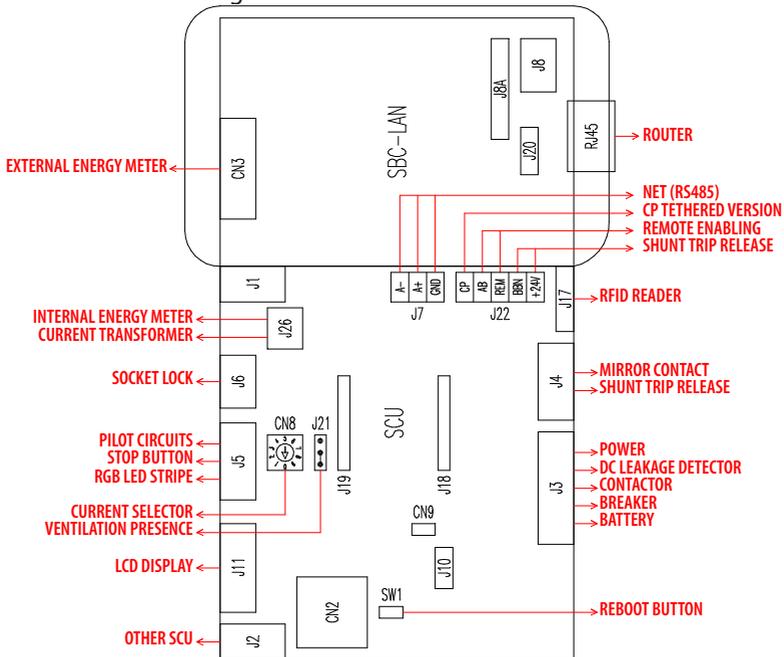
- 0: 6A, 1: 10A, 2: 13A, 3: 16A, 4: 20A, 5: 25A, 6: 32A, 7: 40A, 8: 50A, 9: 63A

#### AB-REM: remote enable contact

- 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



## PRODUCT DESCRIPTION

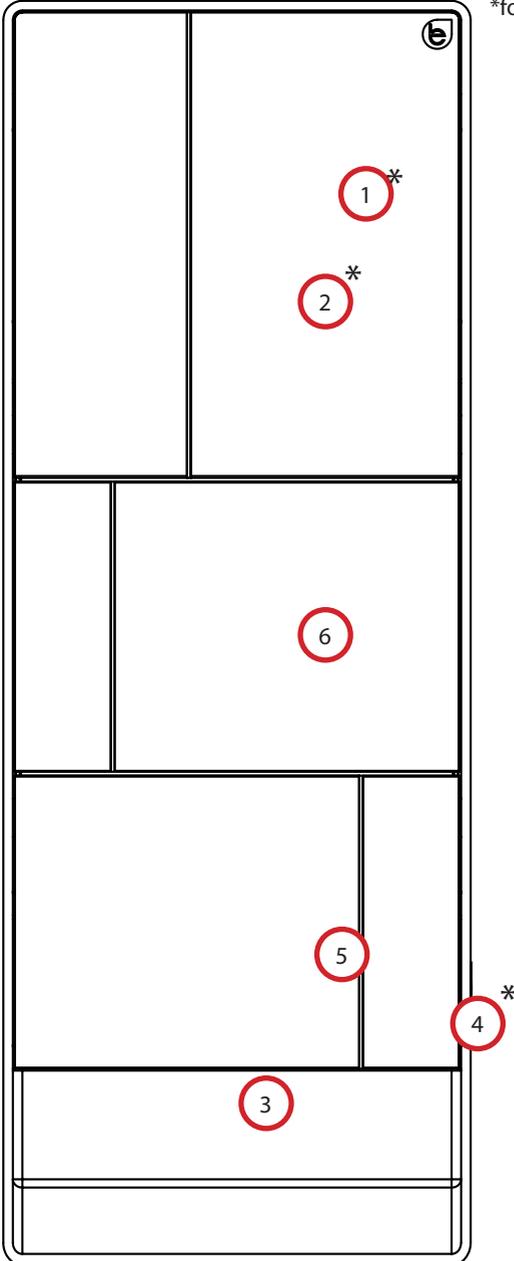
Depending on the version, the stations can be equipped with:

1. **Display (multi-language).** Only for versions w/o APP
2. **RFID reader (Mifare Classic or Mifare Plus).**
3. **LED - RGB strip**
4. **Button:** Only for versions w/o APP
  - 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**

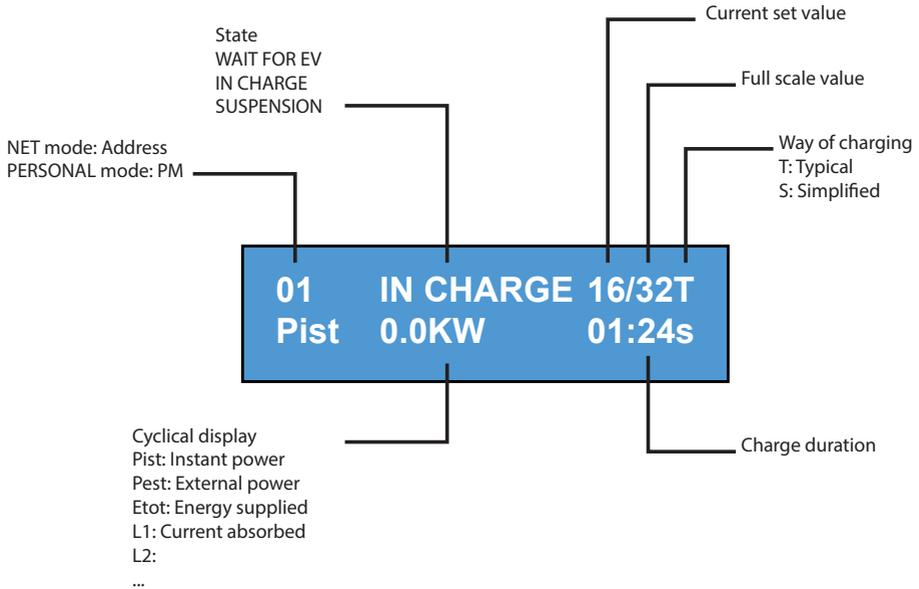
**Depending on the version, the stations can have the following operating modes:**

- FREE: user identification not necessary.
- PERSONAL: user identification necessary.
- NET: required user identification and remote management

\*for versions with no APP



## DISPLAY VISUALISATION



## DISPLAY LANGUAGE CHANGING

### LANGUAGE CHANGING

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

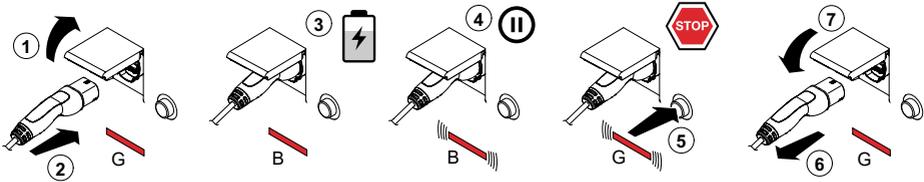
### SETTING DEFAULT LANGUAGE

Long pression of the push button

## FREE MODE

### STATION ACCESSIBLE TO ALL PERSONS

#### BE-T Stations



G: Green B: Blue

NB: Disconnection of the cord-set from the station is mandatory following charging. To begin a new charging session, re-connect the cord-set to the station.

#### CHANGE MODE

- Terminate charging in progress
- Press and hold the stop button and simultaneously present the **MASTER CARD** (red) to the RFID reader to change mode
- Repeat the procedure to return to the previous mode.

#### CHANGE MODE VIA APP

- Mode change is available directly via APP

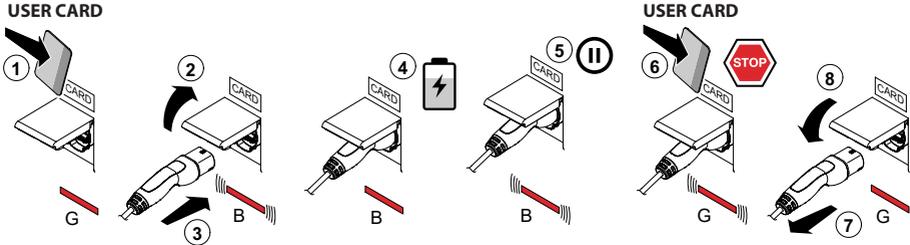
Status	RGB LED	Description
Station not powered	×	×
Supply power to station	(( ( ● )))	SCAME PARRE (firmware release)
Station powered	●	SOCKET AVAILABLE
Insert plug in socket	●	PLUG INSERTED
Connect vehicle	(( ( ● )))	WAITING FOR EV
If vehicle needs charging	●	CHARGING (calibration) (current)(power)(time)
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

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

## PERSONAL MODE

### STATION WITH RESTRICTED ACCESS VIA USER CARD

#### BE-T Stations



G:Green B: Blue

NB: Disconnection of the cord-set from the station is mandatory following charging. To begin a new charging session, re-connect the cord-set to the station.

#### CHANGE MODE

- Terminate charging in progress
- Press and hold the stop button and simultaneously present the **MASTER CARD** (red) to the RFID reader to change mode
- Repeat the procedure to return to the previous mode.

#### CHANGE MODE VIA APP

- Mode change is available directly via APP

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

### ***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

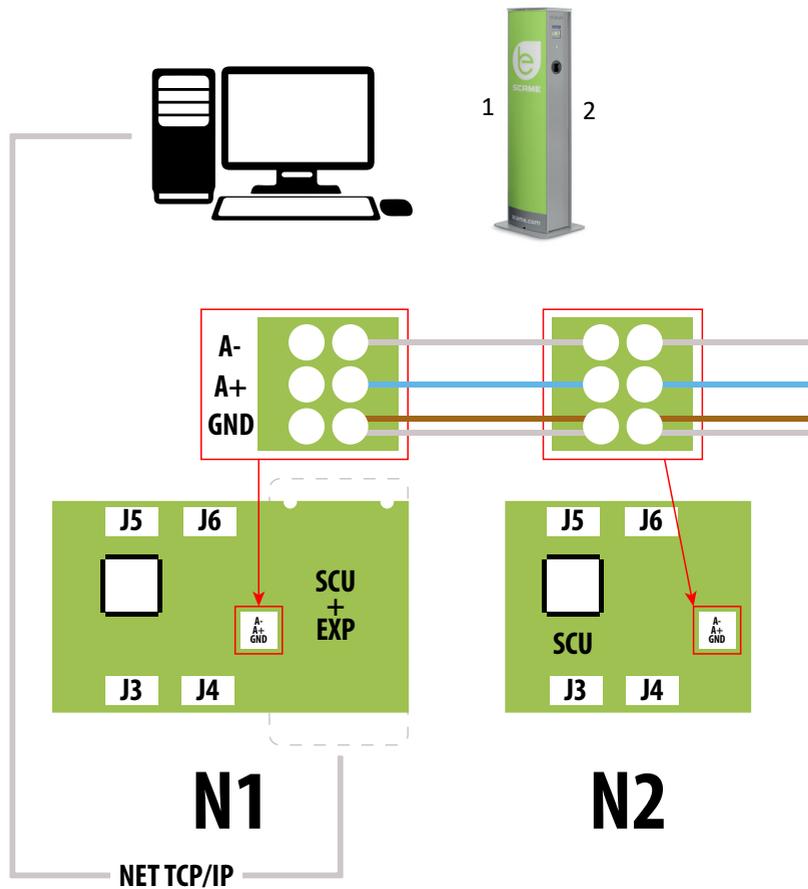
## NET OPERATION (OCPP)

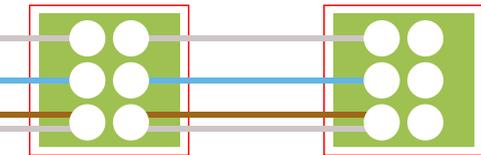
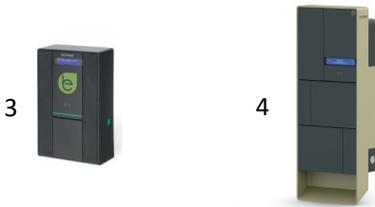
### REMOTELY MANAGED STATION

- **NET:** list of authorised users included in the local server memory
- **OCPP:** list of authorised users included in the central station memory

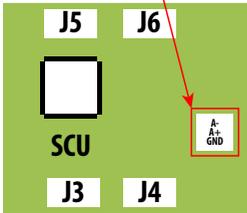
## CONNECTION INSTRUCTIONS

SCU electronics-only connection system

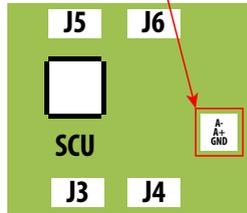




NETWORK CABLE TYPE F/UTP CAT6 IN SEPARATE TUBE
Mutual Capacitance < 10 pF/m
Capacitance Unbalance < 60 pF/m
Blue/white pair: Blue : A+ White : A-
Brown/white pair: Brown : GND White : GND



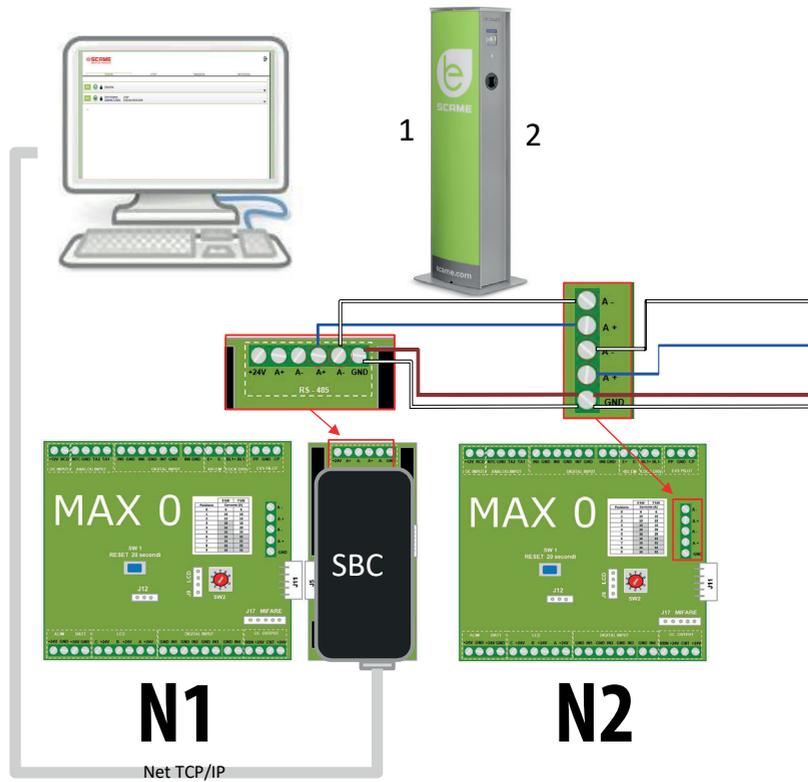
**N3**

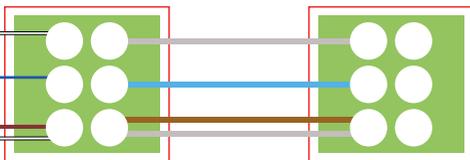


**N4...N16**

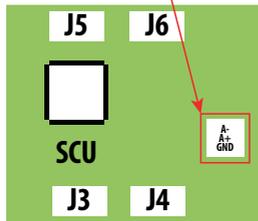
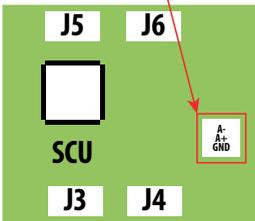
Maximum of 16 addresses for each Master station

## MAX0/SCU electronic mixed connection system





NETWORK CABLE TYPE E/UTP
CAT6 IN SEPARATE TUBE
Mutual Capacitance < 10 pF/m
Capacitance Unbalance < 60 pF/m
Blue/white pair:
Blue : A+
White : A-
Brown/white pair:
Brown : GND
White : GND



# N3      N4...N16

Maximum of 16 addresses for each Master station

## USER INSTRUCTIONS

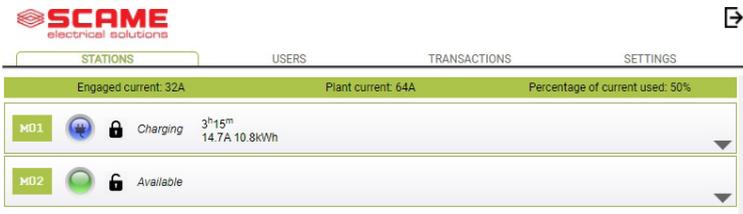
The Scame management system does not require any software installation. Simply access via browser like a normal web page.  
(Internet Explorer, Google Chrome, Firefox,...)

In the event of unsafe networks, an encrypted connection may be enabled (HTTPS protocol).

To connect to the control system, you need to:

- Connect the master station to the computer or to a local network via ETHERNET port or Wi-Fi (if present).
- Connect the RS485 serial line from the satellite stations to the master station (up to 16 charging points).
- Via web browser, access the server's IP address  
(default address: 192.168.30.126; **username: admin; password: gsroot**)

### SUMMARY OF STATIONS



The screen displays the status of the sockets in real time:

- If the socket is not in use, "Available" is displayed.
- If the socket is in use, the following are displayed: "Charging", the user who is using it, charging duration, the energy drawn and the instantaneous current.
- If there is no communication between station and server, "Disconnected" is displayed.
- if there is a fault, the error is displayed

## SOCKETS IN DETAIL



By clicking on the arrow at the bottom right, more detailed information can be viewed and commands sent.

### The following information is displayed:

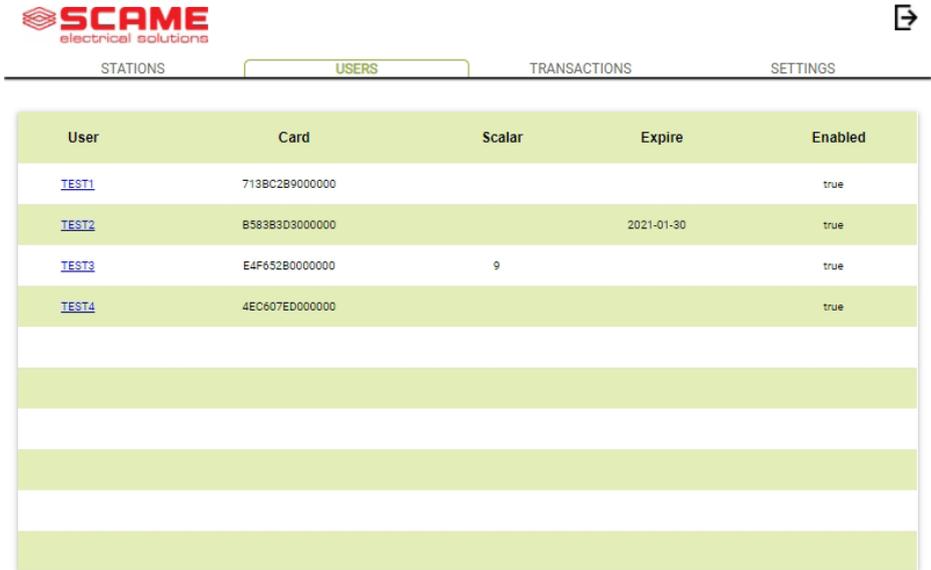
- Serial: serial number of the controller board
- Version: version of the firmware controlling the socket
- Socket: technical name of the device
- EMeter: type of current measuring system
- Max Current: maximum current output of socket (A)
- Mode: Socket operating mode
  - ◇ **FREE:** free access
  - ◇ **NET:** access with authorisation (RFID card)
- **RFID:** type of RFID reader installed

### The socket can be controlled using the following commands:

- **Start:** authorises charging (works only if the socket is in **NET** mode)
- **Stop:** starts the charging interruption process
- **Suspend/Resume:** interrupts/resumes the current output without interrupting the charging session (the connector remains blocked in the socket)
- **Set Pwm:** limits the maximum value of current output supplied to the vehicle (integer values between 6 A and 63 A. The maximum value of current output supplied cannot exceed the flow limit of the socket and/or the cord-set.)
- **Change Mode:** changes the socket operating mode (**FREE** or **NET**)

- **Reboot:** reboots the electronics controlling the socket.
- **Update Firmware:** updates the firmware of the electronics controlling the socket

## USERS



SCAME electrical solutions

STATIONS    **USERS**    TRANSACTIONS    SETTINGS

User	Card	Scalar	Expire	Enabled
<a href="#">TEST1</a>	7138C2B9000000			true
<a href="#">TEST2</a>	B583B3D3000000		2021-01-30	true
<a href="#">TEST3</a>	E4F652B0000000	9		true
<a href="#">TEST4</a>	4EC607ED000000			true

Add User

The **USERS** screen displays user data and access settings for the charging service, which may be changed by clicking on the name link (User column).

A new user may be added using “Add User” button.

## EDIT USER



STATIONS

USERS

TRANSACTIONS

SETTINGS

X

User

Card

Vehicle

Phone

E-mail

Scalar

Expire

Enabled

Delete

Save

Transactions >

On this display it is possible to:

- Enter or change user data.
- Enable or disable the user card or modify it according to the maximum number of charges and/or an expiry date.
- Delete a user from the control system.
- Display the data of all charges carried out by the user by clicking the link "**Transactions>**".

## TRANSACTIONS



STATIONS

USERS

TRANSACTIONS

SETTINGS

Id	Connector	User	State	Error	Start	Stop	Duration	kWh
62	2	< <a href="#">TEST1</a>	open		2020/09/15 10:05:43		5m	0.6
61	2	< <a href="#">TEST4</a>	canceled	timeout	2020/09/15 10:04:53	2020/09/15 10:04:58	0m	0
60	1	FREE	open		2020/09/15 06:45:48		3h 25m	11.4
59	1	FREE	closed	CPLS	2020/09/14 13:10:08	2020/09/14 13:10:47	0m	0
58	1	FREE	closed	CPLS	2020/09/14 13:09:25	2020/09/14 13:09:57	0m	0
57	2	FREE	closed		2020/09/14 11:54:36	2020/09/14 17:10:02	5h 15m	10
56	2	FREE	closed		2020/09/14 06:34:58	2020/09/14 11:01:41	4h 26m	26.7
55	1	FREE	closed	CPLS	2020/09/14 06:26:29	2020/09/14 13:09:05	6h 42m	15.8
54	1	FREE	closed	CPLS	2020/09/11 06:54:32	2020/09/11 16:00:55	9h 6m	29.4
53	2	FREE	closed	CPLS	2020/09/11 06:08:50	2020/09/11 12:18:59	6h 10m	44.8

All Transactions

The **TRANSACTIONS** displays all transaction data, monitoring the duration of each charge and the power output of each socket.

All transactions will appear by clicking on **ALL TRANSACTIONS**.

It is also possible to filter by user (by clicking on the [name](#) link) and exporting the data in CSV format (compatible with Excel) by clicking "save transactions".

## CONFIGURATION



STATIONS	USERS	TRANSACTIONS	SETTINGS
			▶ Network Setup
			▶ OCPP Type Selector
			▶ OCPP 1.5 Setup
			▶ OCPP 1.5 Configurations
			▶ Load Balancing
			▶ Advanced Setup

This screen allows configuration of the system settings.

### NETWORK CONFIGURATION

▼ Network Setup

IP Address	<input type="text" value="192.168.30.126"/>
Net Mask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="192.168.30.1"/>
DNS	<input type="text" value="8.8.8.8"/>
Hostname	<input type="text" value="SCMSRV0000"/>

The parameters of the SBC's network configuration can be specified in this section by setting which IP address the control system's web page will be listening to.

## OCPP SETTINGS

OCPP Enabled	<input type="checkbox"/>
WebSocket SSL	<input type="checkbox"/>
Central Station IP Address	<input type="text"/>
Central Station TCP Port	<input type="text"/>
Central Station Path	<input type="text"/>
Charge Box Identity	<input type="text"/>
SIM Card Serial Number (ICCID)	<input type="text"/>
SIM Card PIN (IMSI)	<input type="text"/>

Save

AuthorizationCacheEnabled	<input checked="" type="checkbox"/>
AuthorizeRemoteTxRequests	<input type="checkbox"/>
ClockAlignedDataInterval	<input type="text" value="0"/>
ConnectorPhaseRotation	<input type="text" value="Unknown"/>
ConnectionTimeOut	<input type="text" value="60"/>
GetConfigurationMaxKeys	<input type="text" value="100"/>
HeartbeatInterval	<input type="text" value="86400"/>
LocalAuthListEnabled	<input checked="" type="checkbox"/>
LocalAuthListMaxLength	<input type="text" value="10000"/>
LocalAuthorizeOffline	<input checked="" type="checkbox"/>
LocalPreAuthorize	<input type="checkbox"/>
MeterValueSampleInterval	<input type="text" value="300"/>
MeterValuesSampledData	<input type="text" value="Energy.Active.Import.Registe"/>
NumberOfConnectors	<input type="text" value="1"/>
ResetRetries	<input type="text" value="0"/>
SendLocalListMaxLength	<input type="text" value="10000"/>
StopTransactionOnEVSideDisconnect	<input checked="" type="checkbox"/>
StopTransactionOnInvalidId	<input checked="" type="checkbox"/>
StopTxnSampledData	<input type="text"/>
StopTxnSampledDataMaxLength	<input type="text" value="0"/>
SupportedFeatureProfiles	<input type="text" value="Core,FirmwareManagement"/>
TransactionMessageAttempts	<input type="text" value="3"/>
TransactionMessageRetryInterval	<input type="text" value="30"/>
UnlockConnectorOnEVSideDisconnect	<input checked="" type="checkbox"/>

Salva

Parameters can be set and configured in these sections to define the connection via OCPP 1.5 SOAP and 1.6 JSON to a CENTRAL STATION. Refer to the central station owner and the official OCPP document to populate the fields.

## LOAD BALANCING

▼ Load Balancing

Algorithm	Democratic Static ▼
Minimum socket current	6
Maximum plant current	64

Save

In this section it is possible to specify the load balancing algorithm that will be applied to the sockets controlled by the control system. To disable load balancing, select none in the “Algorithm” field.

The Static Democratic algorithm distributes the available current equally in the system to all connected sockets. If the system’s maximum current is not sufficient to allow simultaneous charging across all sockets, new charging sessions will be suspended (connector blocked but with no power output). The system is able to detect when a vehicle has finished charging and therefore redirect its share of the current to the other sockets, or resume any suspended charging sessions.

For correct operation, all sockets must be connected to one dedicated electrical power supply only.

The “Minimum socket current” field contains the value (integer value) of the electric current (in amperes) below which vehicle charging will be suspended (each vehicle has a minimum current value, below which it cannot be charged).

In the field “Maximum system current”, the value (integer value) of the current (A) dedicated to the charging systems must be entered. Inserting a value that is higher than the current that is actually available may trigger the line’s protection systems.

## ADDITIONAL SETTINGS

Date/Time	<input type="text" value="2016/11/03 18:20:09"/>	<input type="button" value="Save"/>
Language	<input type="text" value="English"/>	<input type="button" value="Save"/>
Update Configuration	<input type="button" value="Scegli file"/> Nessun...zionato	<input type="button" value="Update"/>
Software Version	<input type="text" value="1.4.2"/>	
Software Update	<input type="button" value="Scegli file"/> Nessun...zionato	<input type="button" value="Update"/>
Reset Software	<input type="button" value="Reset"/>	
Reboot SBC	<input type="button" value="Reboot"/>	
HTTPS Web Interface Enabled	<input type="checkbox"/>	<input type="button" value="Save"/>

In this section the date and system language can be set, updates installed and the software or the SBC operating system restarted.

## 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

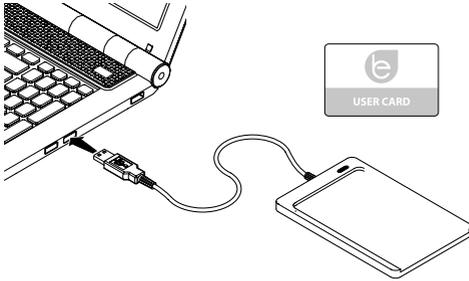
Display (if included)	RGB LED	Cause/Solution
EMTR FAULT	((( ● )))	No communication with digital energy meter. Check meter operation or for any disturbances on serial line.
RCDM FAULT	((( ● )))	Earth leakage detected with continuous component greater than 6 mA. Check vehicle.
NO VOLTAGE (timer)	((( ● )))	No voltage during charging. If voltage returns within 3 minutes, charging resumes, otherwise it ends (with auxiliary battery only).
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.
CLKE FAULT	●	Date and time not set.

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

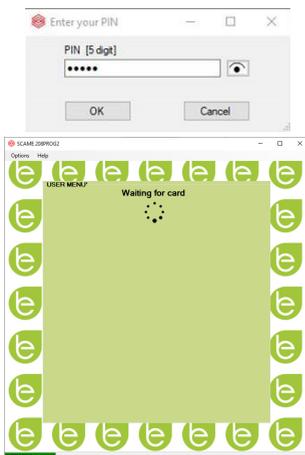
## CARD PROGRAMMER (208.PROG2)

### 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)

## 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): 208.PM01/ 208.PM02

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).

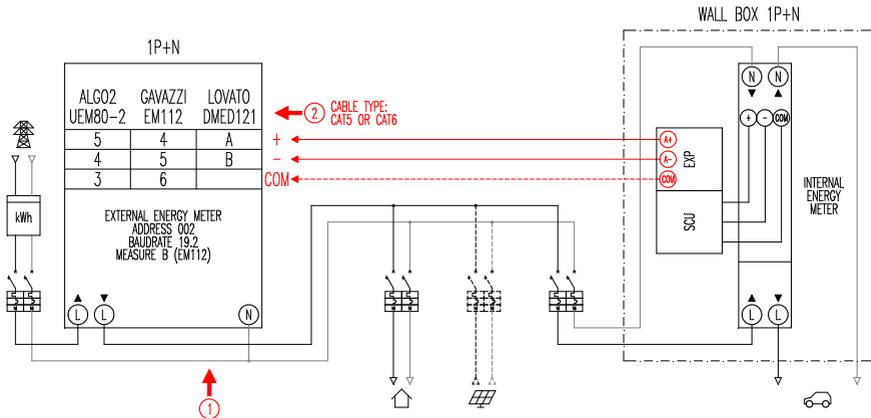
\*To activate the load-dependent current modulation feature, the "POWER MANAGEMENT" parameter must be set to ON

### INSTALLATION

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

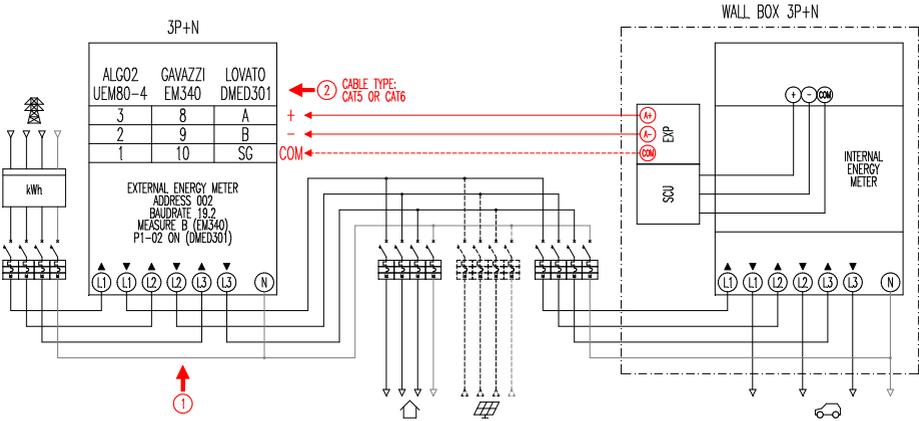
#### SINGLE-PHASE STATION

##### 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. CAT5-CAT6 type).
3. In the event of failed communication with the additional energy meter, the station prevents charging and "POWER MANAGEMENT" appears on the display (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

\* With external energy meters, "POWER MANAGEMENT" must be set to ON.

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

\*\*Not available on CHAIN2

## DISPLAY

During the charge, the charging time (hours/minutes/seconds) will appear on the display and the following will appear cyclically:

- 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**).

## PROGRAMMING

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.
- **P<sub>MAX</sub>** (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).
- **I<sub>min</sub>** (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).
- **H<sub>power</sub>** (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).
- **D<sub>set</sub>** (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).
- **D<sub>MAX</sub>** (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 P <sub>MAX</sub> SET TO 6 kW		
UNBALANCE	MAXIMUM DRAWABLE POWER	
	FROM THREE-PHASE VEHICLE	FROM SINGLE-PHASE VEHICLE
OFF	6kW	2kW
ON	6kW	6kW

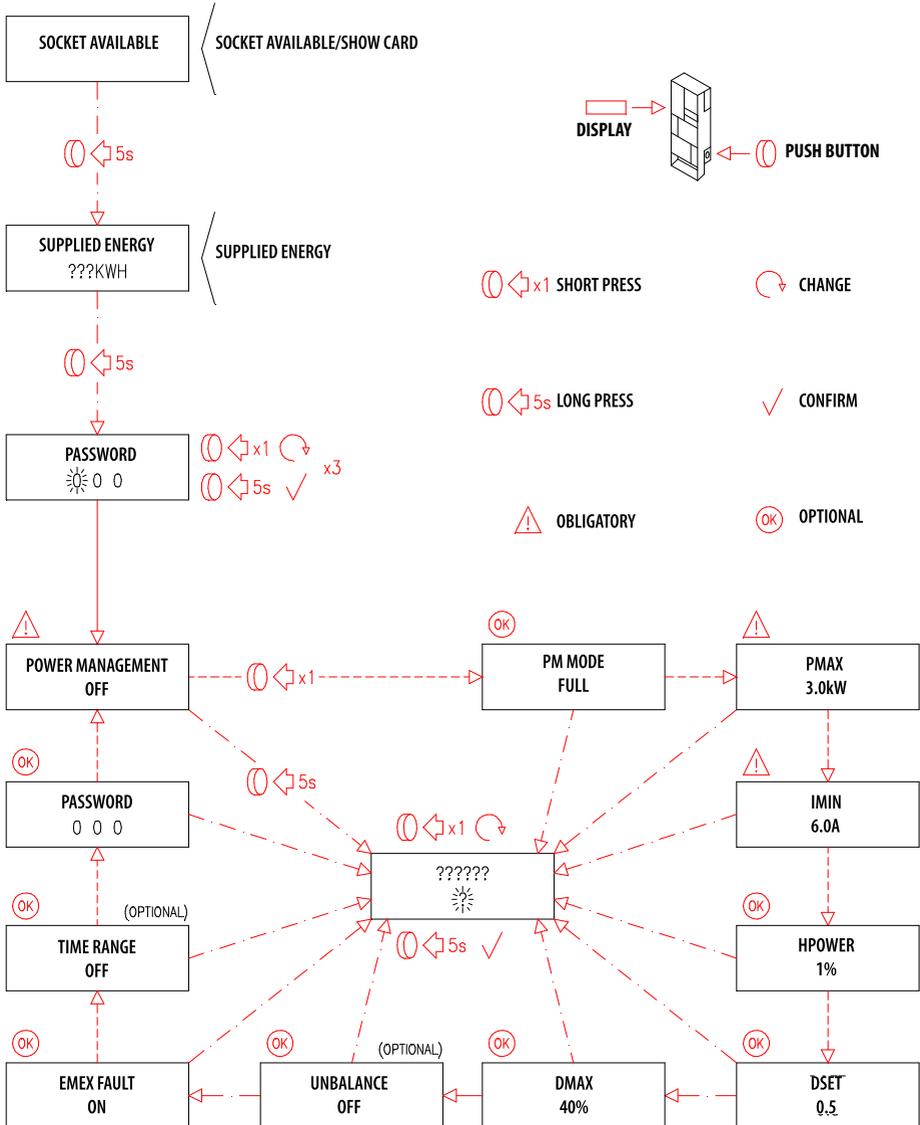
- **EMEX FAULT** (default ON): this enables or disables control of communication with the external energy meter (we recommend disabling control only in the event of an emergency since, without communication, the station does not modulate the power and charges constantly at the rated current set).
- **TIME RANGE** (default OFF): with P<sub>MAX</sub> 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.

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

## CONFIGURATION

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



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

## SCAME APP

You can download the Scame E-Mobility APP from Google Play for Android and/or Apple Store for IOS.

The APP allows you to manage the station in free or personal mode and to set the Power Management function.

For other functions, refer to the tutorial in the APP.

## STATION ACTIVATION (ONLY FOR VERSIONS WITH APP):

1. Download the SCAME E-MOBILITY app from Google Play/App Store.
2. Stand in front of a station that is switched on.
3. Run the SCAME E-MOBILITY app.
4. Search for the station's wifi network in the socket list (+ button).
5. Connect to the station (SSID: ChargePointScame 100xxxxxxx, PW: SCUwifi1963!).
6. Enter the activation code in the manual or inside the station
7. Set the socket name (we recommend not leaving the default name).
8. Set the 5-digit socket pin number (the pin will be saved in your smartphone and will only be requested if you try to log in with another smartphone).
9. Connect the station to an external wifi network (optional, can also be done later).

## CHAIN2 ACTIVATION

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).

## VIDEO TUTORIAL CHAIN2 ACTIVATION



NOTE: for CHAIN2 system activation verify that the energy meter is of second generation and that the cabinet of distribution infrastructure of the zone is suitable with CHAIN2 protocol (please contact your energy supplier).

## 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 wheellie 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.

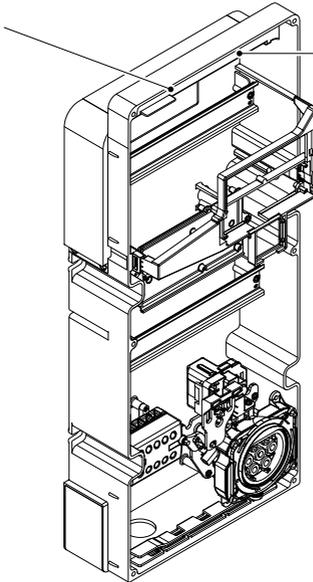
Visit our website: [www.emobility-scame.com](http://www.emobility-scame.com)

## ACTIVATION CODES

QR CODE APP CHAIN 2 ACTIVATOR

PIN APP Scame E-Mobility

**QR CODE**  
Necessary  
for activation  
CHAIN 2



**PIN/PASSWORD WI-FI**  
Necessary  
for APP  
Scame E-Mobility  
activation







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