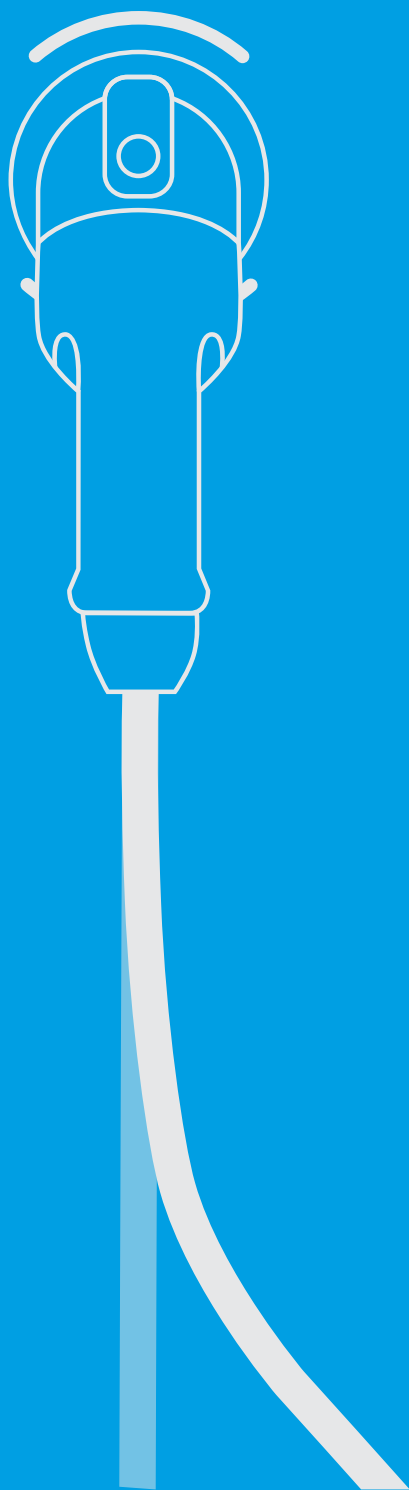


User manual

Full instructions
for using chargers



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1. Important information

1.1. General provisions

The Enelion charger (further called the device, the charger or the charging terminal) is a charging station dedicated for charging electric cars as defined in the Act of 11 January 2018 on Electromobility and Alternative Fuels, in Art. 2, subsections 5, 12, 13 and 27 of the above mentioned Act.

Before installing and using the device read this instruction.

Installing and servicing the device must be done by qualified individuals with proper certification, and repair works may only be carried by the manufacturer or by entities authorized by the manufacturer.

Tampering with the mechanical, electrical and electronic elements as well as the software of the device is forbidden under the pain of forfeiting the guarantee. The actions defined in this instruction and the actions which were agreed upon with the manufacturer in writing are an exception.

The manufacturer shall not be liable for property damage resulting from the above mentioned incidents of tampering with the product.

The electric wiring system which will be used by the device when in operation must meet the requirements described in the fitting manual. The manufacturer is not responsible for the improper installation and/or inadequate security of the wiring system used by the device.

The manufacturer is not responsible for the improper operation of the wiring system used by the device.

The electric wiring system which will be used by the

device when in operation must be in compliance with the legal norms binding for the place where the wiring system is installed and the device is used. The manufacturer is not responsible for any damage caused by the wiring system which does not meet the legal norms.

The device is not equipped with an inbuilt switch. It starts operating once power supply is accessed. Isolation from power supply must be done through proper instruments described in the fitting manual. Except for emergency situations the device may not be switched off while charging.

It is forbidden to provide power supply when the device casing remains open.

It is forbidden to use a charger which has mechanical damages or which signals critical error.

It is forbidden to place in the charger socket any objects which are not intended for this purpose. The only object intended to be placed in the charger socket is a working wire which has the right section for the capacity of the device and the type of vehicle, with a working type 2 plug according to EC 62196-2.

The cord extension sets are not allowed to be used.

The manufacturer is not responsible for health or life loss resulting from not following the above mentioned recommendations.

The nameplate on the device is its integral part and cannot be removed or damaged under the pain of forfeiting the manufacturer's guarantee.

2. Using the charging station

2.1. Preparing for use

Before the initial use of the charger make sure that:

1. The charger has been properly installed and poses no risk to the safety of the user. More information about the fitting instructions on <http://enelion.com/manuals>.
2. The chargers has been initialized with the use of a configuring card. More information in Chapter 3 *Configuring the device*.
3. The charger starts properly and informs about being ready to use. More information in Chapter 4 *User interface*.

2.2. Starting to charge

In order to start charging a car place the user card onto the RFID reader located behind the display, and in case of Stilo chargers on the top lid. Applying the correct card will be signaled with lightning a sequence of diodes on a light bar in green and in one direction (see Chapter 4.3 *Light bar*). Once the card is accepted:

1. connect the cable to the charger¹,
2. connect the cable to the car,
3. make sure it is locked correctly² and the process of charging has initiated.

After performing those actions the charger will enter into the charging mode, which is communicated with a green light on the light bar and will present the charging level on the display. When charging the light bar will pulsate, radiating from the center towards the edges and the graphic interface bar will show a charging icon. Absence of the charging icon and/or a uniform green color on the light bar means the charger is ready for charging and is waiting for response from the car. More information in Chapter 4 *User interface*.

2.3. Finishing charging

In order to finish the charging process disconnect the charging cable from the car. It will cause the lock in the charger cable to release and the charger will return to stand-by. In case of RFID configuration applying the correct card once more will also result in stopping the charging process and releasing the lock. More information in Chapter 3 *Configuring the device*.

INFO

In case of **online** chargers applying the correct card may be required in order to unlock the charging cable.

¹Concerns those devices which have a socket.

²Does not concern the devices with a Plug and Charge configuration and the devices with a cable.

3. Configuring the device

3.1. Available variants

The system of configuring the settings of Enelion chargers consists in reading the settings from the configuration card attached to the device. This allows for personalizing particular settings depending on what the client requires. The settings are read into the card by the Dealer after receiving a request from the client, who must give some basic information.

Available variants resulting from the configuration of the device are presented below:

- **Type of power system**
 - **One-phase power system** — only the first phase connected to the device will be used for charging. The power range may be set between 1,4 kW–7,4 kW.
 - **Three-phase power system** — three phases will be used for charging. The power range may be set between 4,1 kW–22 kW.
- **The charger power** — Available power capacity: 1,4 kW–22 kW
This is set depending on the type of power system of the user. Allows the power used for charging the car to be limited in order to protect the mains against overload.
- **Authorizing methods**
 - **Plug and Charge** — User authorization is not required: connecting the car will initiate the charging process
 - **RFID** — The charging process will initiate only after applying the correct RFID card. In case of offline chargers only the card dedicated to a specific charger will be accepted. Authorization in online chargers requires the user to be accepted by the administrating system.
- **Deauthorizing methods**
The above options are applicable only with offline chargers. Deauthorizing the user in an online charger must be processed by the administrating system.
 - **Only with an initiating card** — Ending the charging process is possible only after applying the same card which was used to initiate the charging

- **With each card issued for the charger** — This configuration is used in offline chargers. It allows to finish the charging process with the use of any card which was issued for a specific charger.

- **The charger number in a network**
All chargers in a network need an individual identification number. This parameter is important when creating a network of online chargers or chargers supporting DLB.

Additional parameters related to the operation of *Dynamic Load Balancing*:

- **Current limits**
Given in amps. Limits current available for a single phase in the power connection. It is the border value of power which will not be exceeded by the total power of all chargers operating at the same time.
- **Interleaving phases**
The sequence of connecting phases to the charger. There are three possible connection sequences: L1 L2 L3, L2 L3 L1 and L3 L1 L2. It allows for the power of the connection in a network of chargers to be used more effectively.

3.2. Initiating the device

INFO

Before the configuration is read into the device, the charger is locked and unable to initiate the charging process.

Once the charger is switched on for the first time it will wait for user configuration to be read into it. This will be signaled with a pulsing white light on the light bar and when the charger is equipped with a OLED display, a proper message will be displayed (the **Unconfigured** status):

Charger is not configured
Use the configuration card
to unlock

To configure the charger you need to:

1. Install the charger according to the fitting instruction available on <http://enelion.com/manuals>.
 2. Turn power supply on.
 3. Apply the RFID card attached to the charger to the reader.
 4. Wait a few seconds for the charger to respond. A properly read configuration will cause the light bar to flash four times in white light.
 5. In case of chargers with displays you can check if the read configuration is the same as the one provided when you were buying the device. The charger configuration should be displayed on the screen (**Configuration**).
5. in case of a charger with a display you may check if the read configuration is the same with the configuration which was requested to be issued on the configuration card order.

After changing the configuration the charger will restart and after a restart it will be ready for use.

i INFO

After the device has been configured, the configuration card may be used as the user card.

3.3. Changing the configuration

The process of initializing the device is carried only once at first initiation. Upon each next start the charger will read the configuration which was initialized. When needed it is possible to change the configuration of the charge which was already initialized. This requires a new configuration card to be read into a given charger. It may be connected with requesting the new card to be issued by the Dealer who sold the charger.

In order to change the configuration using a new configuration card issued for a specific device, you must follow the steps below:

1. disconnect the car from the charger,
2. make sure the charger is ready for use,
3. apply the new configuration card to the RFID reader,
4. wait a few seconds for the charger to respond,

i INFO

A correctly read configuration card will cause the light bar to flash four times with white light.

4. User interface

4.1. The display

The user display includes three elements:

1. **Status bar** — includes general information about the charger status,
2. **Display area** — includes messages depending on the charger status,
3. **Banner** — includes additional information useful for the operation of the charger.

INFO

Some elements of the interface may differ depending on the model or the charger configuration.

4.1.1. Status bar

The status bar is located in the top part of the display. It is shown in each state the charger is in, except for the sleep mode, when the charger is blocked, reserved and when information about the status of reading the card is displayed.

The left side of the bar shows the maximum available power with which the charger is able to charge. The value will change dynamically according to the below charging power limits:

- charging power limit set in the configuration,
- charging power limit set remotely,
- charging current limit related to the charging cable plugged into the socket³,
- charging current limit related to the dynamic load balancing (DLB)⁴.




³In case of chargers with a socket.

⁴In case of chargers with the additional DLB function enabled.



INFO

The currently used charging power limit is the lowest value of all the limits mentioned above. The value serves for information purposes and is not the guaranteed power with which the connected car will be charged. In case of three-phase chargers the available power will always be given for charging a car which has a three-phase on-board charger.

On the right side of the bar there are icons designating the status of particular elements of the charger:

| Icon | Meaning |
|---|--|
|  | The plug is locked |
|  | The plug is unlocked |
|  | Charging in progress Warning: line voltage on the socket pins. Be careful when disconnecting the plug. |

In the Wallbox DUO charger there is an additional icon which shows the socket currently selected for charging. When the left socket (A) is selected, the icon showing an arrow and the correct letter is shown on the left, and when the right socket (B) is chosen, the icon appear on the right.

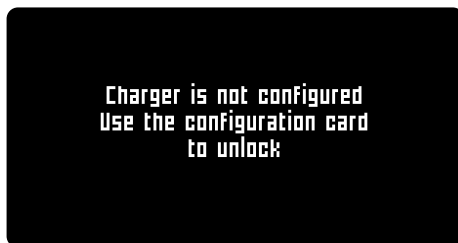
| Icon | Selected socket |
|---|------------------|
|  | Left socket (A) |
|  | Right socket (B) |

4.1.2. The display area

The display area includes messages informing about which actions should be taken by the user in order to start the charging process or informing about the current status of the charger.

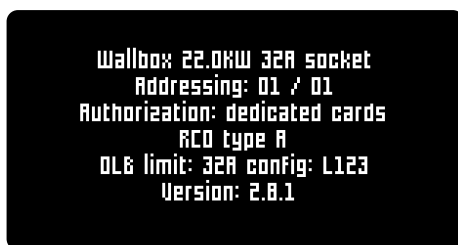
Unconfigured charger

The Unconfigured state means waiting for the configuration card. In this state the charging function is locked. The only option to unlock the charger is to apply the RFID card supplied with the charger. Upon applying the card the charger will display the configuration read out from it and will restart. More information in Chapter 3 *Configuring the device*.



Configuration

Information about the charger configuration is displayed. It is shown for the first 6 seconds after the configured charger is initialized or after a configuration card is applied.



It includes the following information:

- **It includes the following information:** Wallbox, Wallbox DUO, Vertica, Adspace,
- **Maximum charging power:** from 1,4 kW to 22 kW,
- **Current limit per phase:** from 6 A to 32 A,
- **The type of connection with the car:** cable or socket,
- **Network addressing:** address/number of connectors in a network of chargers,
- **The means of unlocking the charging process:** any card, a dedicated card or Plug And Charge,
- **Type of inbuilt RCD:** type A or type B,

- **Optional DLB configuration:** the connection current limit per phase and the phase (one-phase charger) or rotation of phases connected to the charger (three-phase charger),
- **Software version.**

Starting the charging process

The instructions displayed before the charging process is initiated will differ depending on the charger configuration.

In case of chargers unlocked with a card the following message will appear:



Once the card is verified correctly the charger will wait for the car to be connected. The timer located under the message shows time within which the user should connect the car in order to start the charging process. When the time elapses, you should place the card on the display again. When the car is correctly connected and the lock in the chargers equipped with sockets are locked, the charging process will begin.



Chargers with Plug And Charge configuration only wait for the car to be connected. Once the cable is properly connected the charging process will start.



Charging

The charging status includes the following information:

- Total charging energy,
- Current charging power,
- The total time of the charging process.



INFO

In case of chargers configured in Plug And Charge the charging may be stopped by unplugging the charging cable from the car or the charger.

INFO

In case of chargers configured to be unlocked with the use of cards, the charging may be stopped by placing the card to the display or by unplugging the charging cable from the car.

INFO

In this state the charger allows for charging, but it is the car that decides it will be charged or not. The actual charging state is displayed as an icon on the status bar.

Summary

Once the charging process is finished the summary information will appear. The display will go back to the charging initialization status after 5 minutes of being idle, after the plug is connected to the charger once more or the card is placed on the display.

The summary includes the following information:

- **Charging time** — the time during which there was transfer of energy to the care,
- **Total charging time** — the time elapsed from the beginning to the end of the charging process,
- **Energy** — total energy supplied to the car,

- **Average power** — average car charging power.



Error detection

In case of an error a message with the error code and source will be displayed. In some cases a timer counting down to error reset will appear below.



INFO

You will find more information about the errors in the section [7.1 Error codes](#).

Card reading status

The card reading area in Enelion chargers is located in the display area in case of chargers with a display or on the cover in case of the Stilo charger. The message informing about the RFID card reading status is displayed when the card is placed in the card reading area. The message is shown for 5 seconds from the moment the card was last placed on the display. When the card is placed while a current card reading status is showing the message content will be updated.

The following messages may be displayed:

- **Card accepted** — the card placed on the display was accepted by the charger. The charging will start or end depending on the previous status.
- **Card reading error Try again** — there was an error while reading the card. The card must be placed on the display once again. It may mean that the applied card is wrong or damaged.
- **Wrong card Use different card** — the card placed on the reader was denied locally by the charger in the offline mode. You must use a different card.

- **The time for connecting is over Try again** — the time for connecting the car elapsed. To start the charging process use the same card again.
- **Connecting to the server...** — The charger is waiting for the card to be accepted by the server.
- **Card denied Use different card** — the card was denied by the administrating system. You must use a different card.
- **Connection error Try again** — an error in connecting to the administrating system occurred. You must wait for the connection to be re-established and try to use the card again.
- **Connection terminated Try again** — the time for the administrating system to respond elapsed. You must wait for the connection to be re-established and try to use the card again.
- **Car disconnected** — the car has been disconnected during the charging process. The plug in the charger has been unlocked.

In case of chargers with the Plug And Charge mode the following message may appear:

- **Initializing the charging** — shown when the car has been connected to an online charger. The charger is being accepted by the administrating system and the charging process will soon begin.
- **Charging forbidden** — the charger has been blocked in the administrating system and it cannot initialize the charging process.

Sleep mode

The sleep mode activates after 5 minutes of the charger being idle. By showing scrolling messages the charger informs about the available power and the means of deactivating the sleep mode.

Any of the following actions taken by the user will deactivate the sleep mode:

- Connecting or disconnecting the charging cable plug,
- Connecting the car,
- Placing the card on the display.

i INFO

A charger to which a car is connected will not activate the sleep mode.

Reservation

The reservation of a charger may only be done remotely from the administrating system. The reserved charger will display its number in order to facilitate identification of the reserved device.



Deactivating the reservation status takes place after the reserved time has elapsed or when the correct card is placed.

Charger unavailable

The situation when the charger is blocked by the operator in the administrating system. This state may be connected with a software update or maintenance works. The charger is blocked until the administrating system operator makes it available.



4.1.3. The banner

The banner is placed in the bottom part of the display and includes additional scrolling information.

- **Website / text** — one of the banners is a personalized text which is entered by the dealer. It may be a webpage address or a phone number. When the dealer does not enter any text the banner will not show.
- **Total energy: 000000.0 kWh** — the total energy consumption counter reader in the charger. The counter shows the total energy which was measured by the charger. In the Wallbox DUO charger it is the total energy of the currently active charging socket.
- **The car is overheating! Ventilation required!** — the battery inside the car is overheating. The battery needs to be ventilated.

- **Connector #01** — number of a charger in the network. Displayed when the charger is in the online mode.
- **Use card to unlock** — use the card to finish the charging process and release the socket lock.
- **Disconnect the car to unlock** — disconnect the car to finish the charging process and release the socket lock.
- **To change the connector press A** — displayed in DUO chargers. Informs about the possibility to change the displayed socket by pressing A button.

The charging and authorization processes in the charger are supported independently and have no influence on one another. This allows for the Wallbox DUO charger to be used by two separate users.

INFO



The card reader is active only for the currently selected connector. To initialize or finish charging with the use of a card first make sure that a proper connector is active.

INFO

In an online charger both connectors have their own unique addresses and are visible in the administrating system as two separate charging point.

4.2. Wallbox DUO charger

In the Wallbox DUO charger the display and the card reader serve to operate both charging connectors. The display shows information only about an active connector and the current selection is signaled by a proper icon on the status bar.

| Icon | Selected socket |
|---|------------------|
|  | Left socket (A) |
|  | Right socket (B) |



The active connector will switch over upon pressing the button located on the left under the display or automatically upon connecting or disconnecting the cable to the charger. During the switch the display will show a letter informing which connector the user interface has been switched to.



4.3. Light bar

All Enelion chargers are equipped with a line of LED diodes called the light bar, which informs about the current state of the device with the use of light signals.

Light signals may be distinguished into **Continuous charger states** or **Signaling actions**.

4.3.1. Continuous charger states

1. Uninitialized charger

In the event when the charger has not been initialized yet, after five seconds the light bar will remain white. The charger will wait for applying the configuration card. More information in Chapter 3 *Configuring the device*.



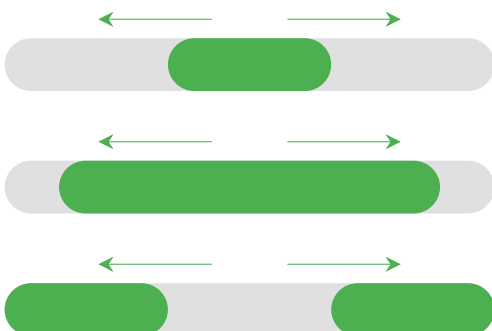
2. Availability

In the Available state the light bar will light in a uniform blue color. The charger is ready to begin the charging process and, depending on the configuration, will wait for applying the adequate RFID card or connecting the car.



3. Charging in progress

The light bar will light in green, pulsating in a radiant manner from the center toward the edges. The pulsation rate depends on the charging power. When the power is smaller than 0,5kW, the pulsation rate is 6 seconds, and for the maximum charging power (22 kW) the pulsation rate is 1 second. In a situation when the charger allows for charging, but the car does not draw power, the light bar will light in a uniform green light.



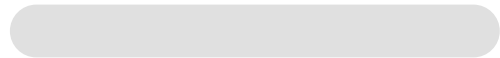
4. Reservation

When in the reservation state, the charger shows a dimmed light bar which flashes with blue light every three seconds. The charger is waiting for the adequate card of the user who made the reservation to be applied.



5. Charger locked

A charger which has been locked by the administrating system has a fully dimmed light bar. The charger remains locked until it is unlocked by the operator.



4.3.2. Signaling actions

Some user actions are signaled by light effects on the light bar. Colors of some light signals depend on the continuous state the chargers is in.

- **Connecting or disconnecting the charging cable**

Results in one flash of a light bar in the current color of the charger's continuous state.

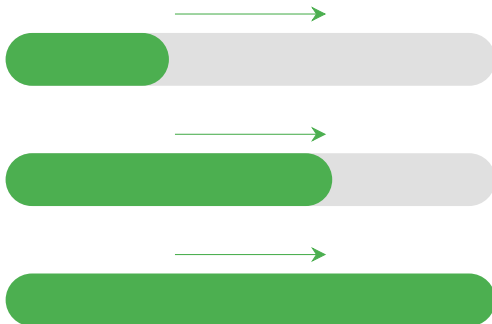


- **Connecting or disconnecting the cable to the car**

Results in two flashes of the light bar in the current color of the charger's continuous state, the same as in "Connecting or disconnecting the charging cable".

- **Accepting the applied RFID card**

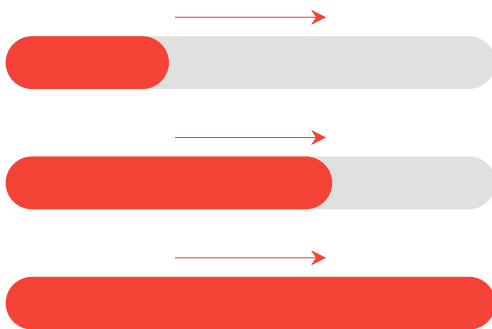
The diodes on the light bar light up subsequently in **green** in one direction. After this the charger will wait for the car to be connected.



read the light bar will turn white. The time for restart is signaled with four flashes at one second intervals.

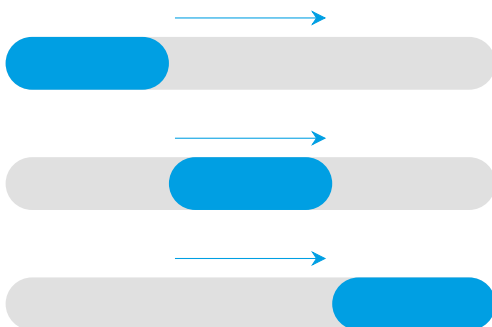
- **Rejecting the applied RFID card**

The diodes on the light bar light up subsequently in one direction in **red**. The reason for rejecting the card may result from an error in reading the card, applying the wrong card or exceeding the time limit for connecting after a correct authorization.



- **Waiting for the card to be accepted by the Administering System**

Waiting for response from the administering system is signaled with a moving animated light dot. The color of the dot depends on the current state the charger is in.

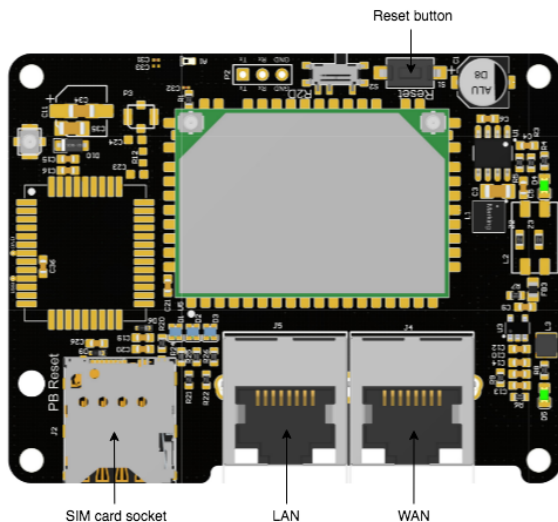


- **Reading the configuration card correctly**

After the configuration card has been correctly

5. Enelion Bridge

The Enelion Bridge module (also called the communication module) is a device which allow a network of Enelion chargers to be connected to a server which supports the OCPP protocol.



The Enelion Bridge module extends the charger features to the following functions:

- Managing remotely the database of users who can use the chargers.
- Sending the transaction records with detailed information about such charging parameters as the power used, momentary charging power, voltage or mains frequency and other to the OCPP server.
- Remote reservations of a specific charging point or any available charger.
- Initiating and finishing transactions, unlocking the plug in the socket, deactivating and activating the charging station remotely.
- Managing the list of users applicable in situations in which the server is unavailable (e.g. due to no Internet connection).
- Configuring and diagnosing a network of chargers remotely.
- Arranging a charging plan which specifies the capacity and number of phases used for charging for each individual charger and for the whole network.
- Accessing the network configuration panel.

- 3 types of Internet connection: Ethernet, WiFi, GSM.

5.1. Installing the Enelion Bridge module in an offline charger

The communication module may be connected to any charger in a network.

⚠ WARNING

All chargers which are to work within one on-line network must be connected with each other with a communication cable. More information can be found in the instruction

Details relating to their physical connection have been described in the instruction for fitting the charger.

5.2. Starting the charger the first time

After the power supply is turned on in the charger in which the Enelion Bridge module is installed you should wait about 2–3 minutes until the module starts running. Immediately after the module starts, an additional step in the charging procedure ("Wait for auth") will appear on the chargers' displays. Each charger with this step signaled on the display will try to communicate with the communication module when starting a transaction. If the message "Wait for auth" is displayed on every charger in the network, this means the whole network is working properly, because each charger has communicated correctly with the Enelion Bridge module.

5.3. Gaining access to the configuration panel

If the Enelion Bridge module is not connected to the Internet, it will detect it and after a while (up to 5 minutes) will create an open WiFi network with the following parameters:

| SSID | EnelionChargerXXX |
|----------|----------------------------|
| Password | no password — open network |

where XXX are the last 3 characters of the module's serial number. Using any device which uses WiFi we can connect to the network transmitted by the charger, and after the correctly established connection enter into

the Internet browser the following command: **Enelion-ChargerXXX.local/** — name of the WiFi module with the ending "local/" (you must not forget the slash at the end). An alternative to the address described is 192.168.1.150.

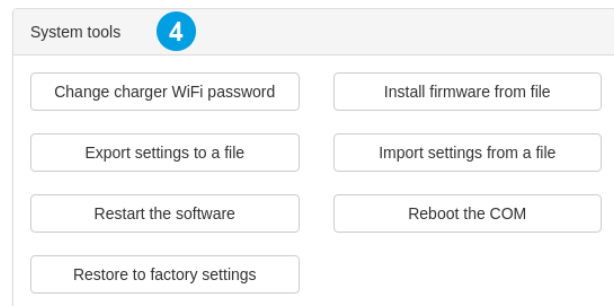
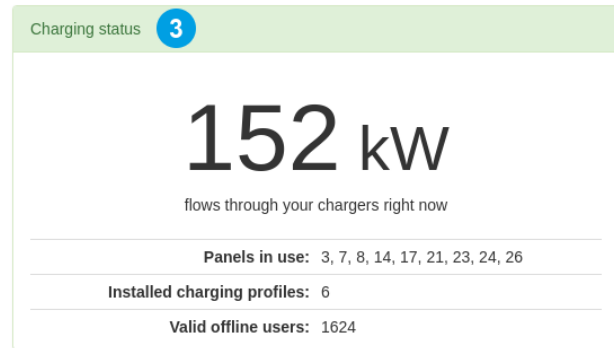
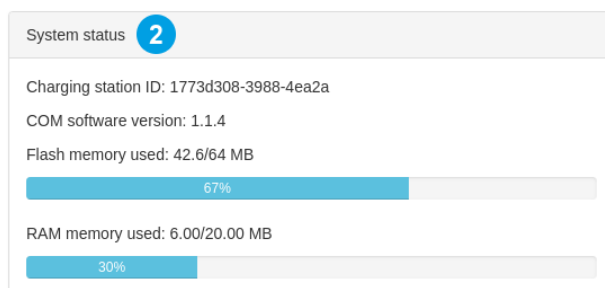
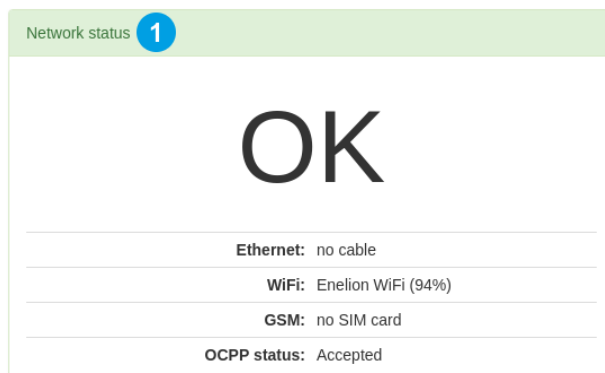
When making the first connection instead of a configuration panel the screen will show a request for setting a password to the WiFi network transmitted from the charger. After you enter the password, press "Save".

HINT

The password must contain at least 8 characters. Make sure the password is strong enough, try to use small and capital letters, digits and special characters

The password must be set, because by default the charger's WiFi network is not secured and everyone can gain access to it.

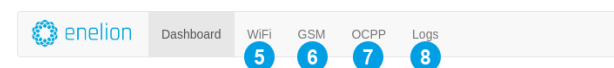
After the password is saved and each time a connection with the panel is established again the main administration panel of the network of chargers, similar to the one in the pictures below, will start automatically.



On the main screen, which also shows a summary of the state the network of chargers is in, you can see four tiles:

- 1 **Internet access status** which allows to check which network the Enelion Bridge module is connected to and the OCPP server connection status.
- 2 **Charging status** which presents the momentary power usage of the network, currently used charging panels, number of installed charging profiles and user profiles recorded on the local authorization list.
- 3 **System status** which shows the Enelion Bridge module serial number, software version and memory usage.
- 4 **Administrative tools** which allow for updating the software, managing settings and the Enelion Bridge module restart.

On the top bar, to the right of the Enelion logo there are buttons leading to other features in the configuration panel:



- 5 **WiFi** — wireless network access settings,

- 6 **GSM** — GSM network settings,
- 7 **OCPP** — OCPP related settings,
- 8 **Logs** — charger operations log.

5.4. Internet connection

The Enelion Bridge module may connect with the Internet in three ways:

1. Ethernet cable (RJ45)

In order to connect the Enelion Bridge module with the use of an Ethernet cable it is enough to plug the wire into the WAN connection slot (the right one) and after a few seconds the device should connect with the Internet.

2. WiFi

A list of wireless network detected by the Enelion Bridge module will appear in the WiFi tab. In order to connect to one of them you should choose it from the list, and this will take you to the adding networks screen. After the password is provided you must press the "Save and apply" button, which will result in an attempt to connect the newly added network. The configuration panel allows for saving only one WiFi network at a time. In order to change the settings of an existing network you should choose it from the 'Saved WiFi networks' list, which will take you to the network editing screen. Once changes are made you must click the "Save and apply" button to apply them.

3. GSM

In the GSM tab you will find settings which allow you set the APN network.

In a situation when more than one type of connection is available, the Enelion Bridge module will use the connection with the highest priority (in the following order: Ethernet, WiFi, GSM).

INFO

For the best level of network stability using an Ethernet cable is recommended.

5.5. OCPP Configuration

WARNING

Change these settings only when you are sure of what you are doing.

By default the Enelion Bridge module connects with a OCPP server managed by Enelion. In order to change server address you must enter a new address in "Server address". If the number of panels connected to the network changes, this must be changed by entering the current number in "Number of panels". The changes must be confirmed by pressing "Save and apply".

5.6. Restoring factory settings

This feature restores the following settings to their default options:

- the OCPP configuration, including deleting the list of users for online authorization and the list of charging profiles,
- WiFi and GSM network configuration,
- deleting the password to WiFi generated by the Enelion Bridge module.

The Enelion Bridge module may be reset to default settings in two ways:

1. Using the configuration panel

While on the main page of the administrating panel press "Restore to factory settings" and confirm your choice. For a while (up to 2 minutes) the configuration panel will be unavailable.

2. Using the switch on the device

After disconnecting the charger from the power supply move the restore to factory settings switch. When the charger starts again the Enelion Bridge module will realize that the switch location changed and will restore the settings to default options.

6. Maintenance

The device is programmed to work in temperature ranging from -40°C to 80°C . The manufacturer does not guarantee a proper operation of a charging station which is located in temperatures outside this range. Chargers which were damaged as a result of being exposed to temperatures below -40°C or over 80°C are not covered by the warranty.

In case it is necessary to open the device you must make sure that it is disconnected from power supply. If the device is located outside you must make sure there is no rain, snow or any strong wind.

WARNING

The device may only be opened by a qualified and authorized individual.

6.1. Cleaning

The proper way to clean the charger is to wipe the casing with a microfiber cloth, using a detergent dedicated to anodized aluminum. The Plexiglas elements (front panel) and plastic elements (socket) should be cleaned with a microfiber cloth with a detergent dedicated to cleaning windows. Other methods of cleaning (e.g. with a wire brush) may cause damages in the device casing. Damages resulting from improper cleaning are no basis for warranty claims.

WARNING

The device meets the IP 54 requirements for sealing. Therefore, cleaning the charger with pressure washers, garden hoses, showers or streams of water from any other source is forbidden.

7. Troubleshooting

7.1. Error codes

Error codes consist of three elements corresponding respectively to: error category, source of error and error number.

Example:

W01/02

where:

- **W** — error category (in this case: a warning),
- **01** — source of error (communication with the car error),
- **/** — separator,
- **02** — error number (short circuit on the CP signal line).

7.2. Error categories

Error category indicates how serious the error which occurred in the charger is. There are three error categories:

- **warning,**
- **error,**
- **failure.**

7.2.1. Warning

Errors from the warning category are the errors which the charger will try to fix on its own or once the error is eliminated the charger will be able to return to the state before the error occurred. The display will show the time counting down to the moment the occurring error is reset. Light bars will light in a solid yellow light and will flash with impulses of green light. The number of flashes depends on the source of the error.

7.2.2. Error

Error in this category are the errors which require user intervention in order to have the charger return to operation. To reset the error the user must disconnect the car from the charger. After the car is disconnected the charger should return to a default state. When there is an error of this sort the light bar will be dimmed and will flash with impulses of red light. The number of flashes depends on the source of the error.

7.2.3. Uszkodzenie

Errors from the category of failure are critical errors detected by the charger which prevent any further operation of the device. After detecting an error of this category the charger should be sent to a servicing point. When there is an error of this sort the light bar will light in solid red light and will flash with impulses of red light. The number of flashes depends on the source of the error.

7.3. Sources of errors

The source of error signaled as the first number in the error code should be read according to the table below:




| Number | Sources of errors |
|--------|----------------------------|
| 01 | Communication with the car |
| 02 | Locking system |
| 03 | Residual current detected |
| 04 | Residual current detected |
| 05 | Device failure |



i INFO




In case of STILO chargers it is only possible to define the error category and the source of error.

7.4. Error number

A detailed error number may be read from the charger display. Each source of error has its own set of errors which may occur when the charger is in operation. The tables below include all possible errors:

| Warnings | | | | |
|----------|--------|---|---|---|
| Source | Number | Type of error | Possible solution | Light bar response |
| 01 | 01 | Short circuit on the PP line | Check the cable connection to the charger or replace charging cable. |  |
| | 02 | Short circuit on the CP line | Wait for another attempt to communicate with the car or try to disconnect and reconnect the car. | |
| | 03 | Diode failure in the car | Wait for another attempt to communicate with the car or try to disconnect and reconnect the car. | |
| | 04 | Wrong status in the communication protocol | Wait for another attempt to communicate with the car. | |
| | 05 | PP signal disappeared during the charging process | Wait for another attempt to communicate with the car or press the charging cable plug with greater force. | |
| | 06 | No PP signal detected | Disconnect and reconnect the charging cable. | |
| 03 | 01 | Residual current AC 30 mA type A detected when charging | Wait for the error to be reset. Charging will initialize again after a defined time. |  |
| | 02 | Residual current DC 6 mA type B detected when charging | Wait for the error to be reset. Charging will initialize again after a defined time. | |
| 04 | 01 | Phase loss on the first phase connected to the charger | Check the circuit breakers which supply the charger and wait for the error to be reset. |  |
| | 02 | Overvoltage in the power grid detected | Wait for the power grid to stabilize and the error to be reset. | |
| | 03 | Voltage dip in the power grid detected | Wait for the power grid to stabilize and the error to be reset. | |
| | 04 | Overvoltage in the car charging process detected | The charging will be stopped and retaken after some time. | |

| Errors | | | | |
|--------|--------|--|---|---|
| Source | Number | Type of error | Possible solution | Light bar response |
| 02 | 01 | Socket lock error | Adjust the cable plug in the charger socket. If necessary place the card to the display again |  |
| | 02 | Socket unlock error | Adjust the cable plug in the charger socket and wait for another attempt to unlock the socket. | |
| 03 | 03 | Repeated residual current AC 30 mA type A detected when charging | After another detection during one charging process the process will be stopped until the car is disconnected. Disconnect and reconnect the car to the charger. |  |
| | 04 | Repeated residual current DC 6 mA type B detected when charging | After another detection during one charging process the process will be stopped until the car is disconnected. Disconnect and reconnect the car to the charger. | |

| Failures | | | | |
|----------|--------|--|---|---|
| Source | Number | Type of error | Possible solution | Light bar response |
| 03 | 05 | Residual current type A or B detected at any moment when no car is charging. | The charger may be damaged. Shut down the device and send it to the servicing point. |  |
| 04 | 05 | Incorrect phase connection to the charger | Turn off the charger and check the power connection. The power supply can only be connected in the order: L1, L2, L3 or in the appropriate sequence. |  |
| 05 | 01 | Communication module failure | Turn off the charger and disconnect the cables connecting the charger to the network. If the error still appears after switching on, the charger may require service. Contact the Dealer. |  |

7.5. Frequently Asked Questions

7.5.1. Communication module

THE COM MODULE DOESN'T CONNECT TO THE WIFI NETWORK

Make sure the WiFi password was entered correctly and that the proper security method was chosen ("Authentication type" box). Positioning the WiFi router closer to the charger may also prove helpful.

THE COM MODULE DOESN'T CONNECT TO THE GSM NETWORK

Make sure the GSM network settings were entered correctly and that the charger is in the network signal range.

NOT ALL CHARGING PANELS WERE ACTIVATED BY THE COM MODULE

Check in the OCPP tab if the number in "Number of panels" reflects the real number of panels connected to the network. Check if the network was set properly, if there is connection between the proper cables and if all charging panels were connected to the network correctly.

I CANNOT ACCESS THE CONFIGURATION PANEL

Make sure the COM module is connected to the same network as your device. If you are connected to the WiFi network created by the charger or via Ethernet to the COM's LAN connection, try entering "192.168.1.1" into the address bar in the browser. If your device and the charger are both connected to the same different network, try entering "192.168.1.150" or the charger's local IP address obtained from the network.

In other cases contact technical support. Describe in detail the situation in which the problem occurs, which will help the technicians locate the source of the problem quicker and help you more effectively. If possible attach the file with the charger operations log (you can download it by pressing "Download logs" in the configuration panel "Logs" tab).

