ABL Web Manager – Introduction

This quick start guide describes how to set up your eM4 charging infrastructure with the new ABL Web Manager. The ABL Web Manager is a browser-based application that enables significantly faster and more intuitive configuration of your charging stations from the ABL eM4 series and is particularly recommended for configuring a Controller wallbox (wired or wireless) or a charging group (wired).

NOTE

Configuration options

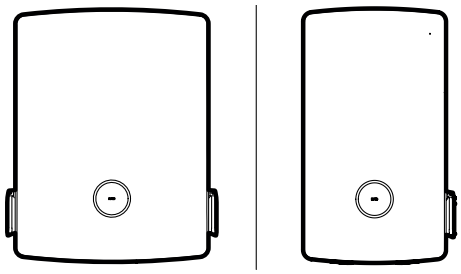
In addition to the ABL Web Manager, the ABL Configuration App as well as the browser-based Web Admin are still supported and should be used for the following tasks:

- Configuration of a Wi-Fi based charging group with an external Wi-Fi router (ABL Configuration App)
- RFID card management without a backend (Web Admin)
- Configuration of multigroups (Web Admin)

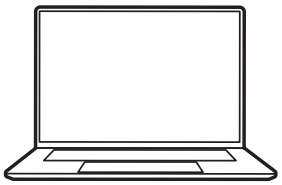
Connecting to the Web Manager

Before you can use the ABL Web Manager, a connection must be established between your computer and the eM4 Controller Wallbox.

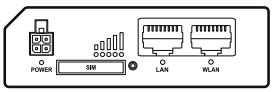
- **Required components**



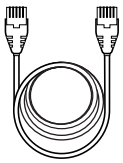
1 × eM4 Controller Wallbox



1 × Laptop / computer

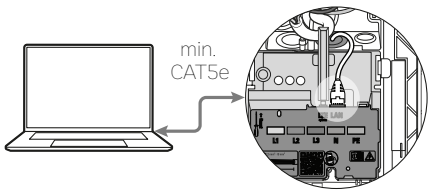


Optional: 1 × router LAN/WLAN



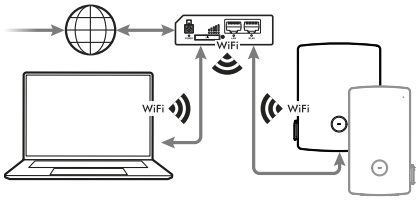
Optional: 1 × CAT5e (min.)

- **Select the connection type**



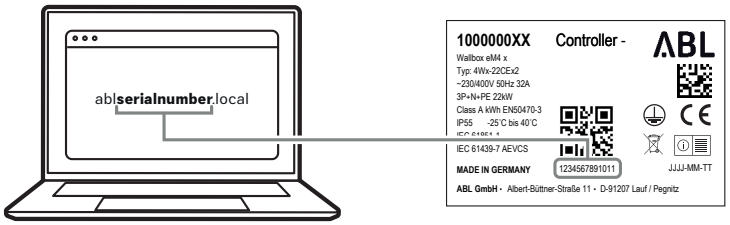
LAN

WLAN



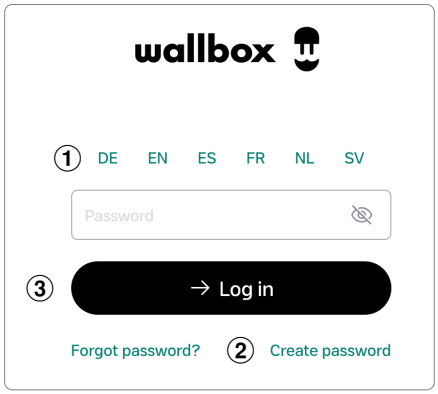
LAN | WLAN

- **Open a browser on your laptop/computer and enter** "abl**serialnumber**.local" in the address bar



Starting the Web Manager

When the connection between the computer and the eM4 Controller Wallbox is established, the log in screen for the Web Manager is displayed.



① Choose your preferred language

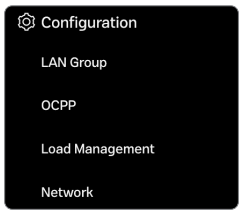
② Create a specific password

③ Enter your password and log in to the Web Manager

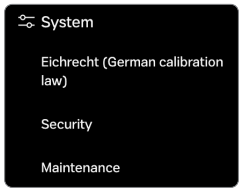
Navigating the Web Manager

When the Web Manager is displayed, the menu on the left side serves as the navigation panel, providing access to various status and configuration tabs.

The **Status** tab shows detailed information about the Controller wallbox and all Extender chargers that are grouped with the Controller. The current configuration can be edited using various **Settings** buttons (see "Status" on the next page).



On the **Configuration** tab, you can add additional devices (Extenders or energy meters), create a charging group and configure a load management for the group. In addition, communication within the network and with a backend can be set up (see "Configuration" on page 5)



The settings for a calibration-law-compliant charging group can be made on the **System** tab. In addition, the security of communication within the network can be configured in detail and maintenance tasks can be carried out in the event of a fault (see "System" on page 8).

Via the **User** entry, you can log out or create a new password for Web Manager.

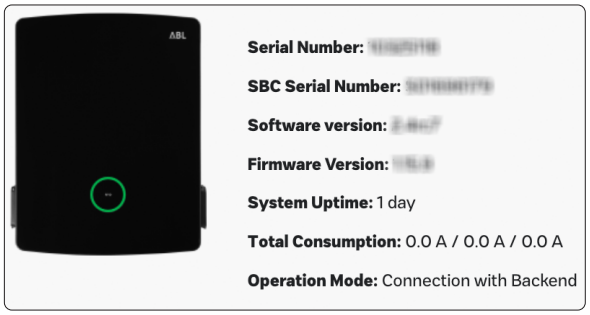
Status

This section shows the specific status information for the eM4 Controller Wallbox, the charging group and the network and backend communication via LAN, WLAN and Mobile (LTE).

Status > System Information

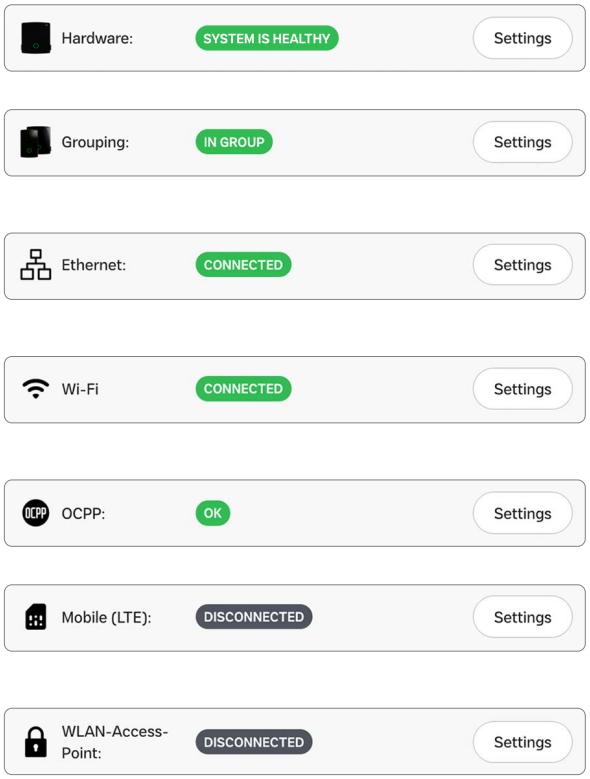
The **System Information** tab section shows the specific information for the eM4 Controller Wallbox.

- **Serial number:** Serial number of the wallbox
- **SBC Serial Number:** Serial number of the main module inside the wallbox
- **Software Version:** Current software version of the main module
- **Firmware Version:** Current software version of the baseboard inside the wallbox
- **System Uptime:** Total operating time of the wallbox to date
- **Total Consumption:** Total power output of the wallbox per phase
- **Operation Mode:** Selected method for authorising the charging process: communication with a backend, local RFID mode or free charging



The **System Health** section displays the overall status of your installation and provides direct access to the various settings.

- **Hardware:** Status of your eM4 charging group. Clicking the **Settings** button will open the **Status > Devices** tab.
- **Grouping:** Status of the charging group. Clicking the **Settings** button will open the **Configuration > LAN Group** tab.
- **Ethernet:** Status of the wired LAN connection of the eM4 Controller Wallbox. Clicking the **Settings** button will open the **Configuration > Network** tab.
- **Wi-Fi:** Status of the Wi-Fi connection of the eM4 Controller Wallbox. Clicking the **Settings** button will open the **Configuration > Network** tab.
- **OCPP:** Status of the backend connection. Clicking the **Settings** button will open the **Configuration > OCPP** tab.
- **Mobile (LTE):** Status of the mobile 4G communication with a backend. Clicking the **Settings** button will open the **Configuration > Network** tab.
- **WLAN-Access-Point:** Status of the WLAN access point of the Controller wallbox. Clicking the **Settings** button will open the **Configuration > Network** tab.



Status > Devices

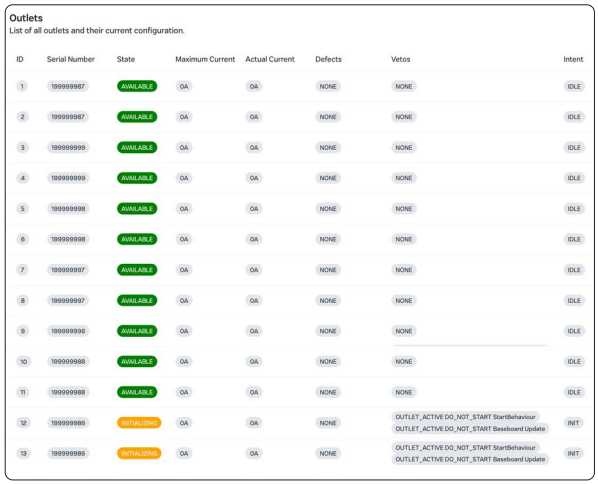
This section contains specific information about the main module in the Controller wallbox and shows the status of all charging connections and the maximum current limit for this charging group.

Devices > Device Information

This section mirrors the specific information about the main module in the eM4 Controller Wallbox (see “Status > System Information” on page 3).

Devices > Outlets

This section shows the status of all chargers within the charging group. The Controller unit is displayed first, with all additional Extender units listed below.



The following attributes are displayed per charger:

- **ID:** Identification number of the charging point (outlet) within the charging group. The Controller always receives **ID 1** (eM4 Single) or **ID 1&2** (eM4 Twin), the IDs of all other Extenders are numbered consecutively.
- **Serial number:** Serial number of the wallbox
- **State:** Status of each outlet (**SUSPENDEDEV, PREPARING, AVAILABLE, CHARGING, FINISHING, UNAVAILABLE, FAULTED, INITIALIZING**)
- **Maximum Current:** Configured maximum current for the corresponding outlet (up to rated current)
- **Actual Current:** Charging current currently in use
- **Defects:** Shows any faults for the outlet via the error identification code and a short error description (see “Actions in case of internal errors, notes and warnings” in the eM4 installation guide)
- **Vetos:** Events used by the Chargepoint application to initiate/prevent certain processes. This information is primarily used for debugging purposes.
- **Intent:** Information about the internal states of the Chargepoint application, primarily needed for debugging purposes

Devices > Power

This section shows the maximum current limit for the entire charging group. This value can be changed on the **Configuration > Load Management** tab.

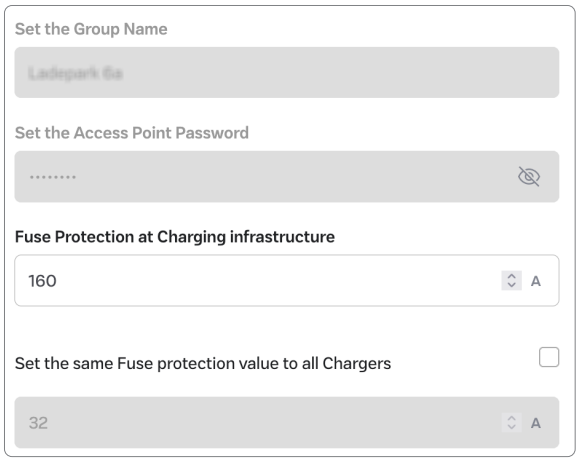
Configuration

On the **Configuration** tab, you can add and remove Extender chargers and ABL energy meters, create a charging group, set up the backend and network communication, and configure a load management for the charging group.

Configuration > LAN Group

This section is used to create a charging group consisting of the Controller and one or more Extender wallboxes. One ABL energy meter can also be added here, which can then be used to set up a dynamic load management.

In the upper part of the tab, the charging group can be named and protected against unauthorised access by assigning a password for the access point: This password replaces the password specified in the **Configuration > Network** tab (if set).



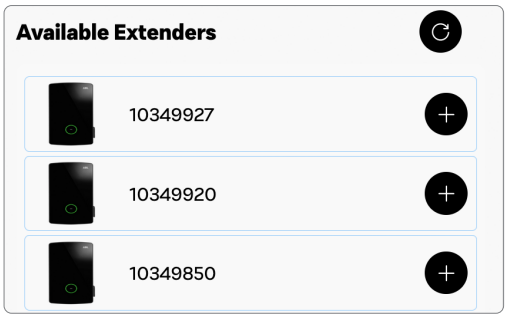
In the next step, the maximum current value for the charging group can be defined within the total current available for the local installation.

If required, click the check box below to configure a static load management by defining and assigning an identical fuse protection value for all chargers within the group.

Available Extenders

This section displays all unconfigured Extender wallboxes that have been detected on the wired LAN network and have not yet been added to a charging group.

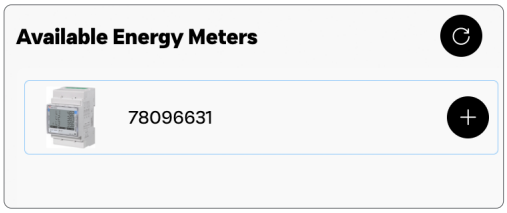
- If one or more Extenders are listed here, you can add them to the group using the ⊕ button.
- If an Extender connected via LAN has not been detected, you can search the network again using the ⟳ button.



Available Energy Meters

This section displays all compatible ABL energy meters that have been detected via the network connection.

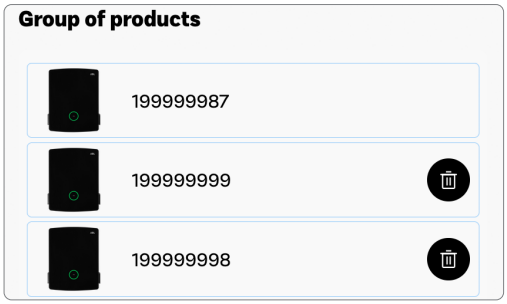
- If one or more energy meters have been detected, you can add one of them to the group using the ⊕ button.
- If an energy meter connected to the network has not been detected, you can search the network again using the ⟳ button.



Group of products

This section shows the charging group: In addition to the Controller, all extender devices and the ABL energy meter (if added) that have been added to the group installation are listed here.

- If necessary, the order of the Extenders within the group can be changed by Drag & Drop of the units in the list.
- If one or more Extenders or the ABL energy meter (if added) are no longer available or needed, you can remove them from the group using the 🗑 button.



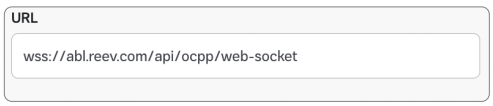
To finalise the creation of the charging group, click on the **Save** button. This will display a message indicating that a reboot is required for the changes to take effect. However, you can complete all other settings before restarting the system. If required, you can modify the saved charging group at any time later (rename it, add or remove chargers and/or an ABL energy meter, change fuse values etc.).

Configuration > OCPP

On the **OCPP > Backend connection** tab, the connection to a CMS/backend can be set up.

First, activate the **OCPP connection** by clicking the button. By default, the **Charge point identity** used to identify the charging station from the CMS/backend is set to **ABL_[serialnumber]**.

Next, click the Choose template button to use a pre-set configuration template provided by your CMS/backend provider: All entries for the **URL**, the **Basic authentication password** and the **Connection Type** (INFRASTRUCTURE_LAN, INFRASTRUCTURE_WLAN, MOBILE or ANY) are then assigned automatically.



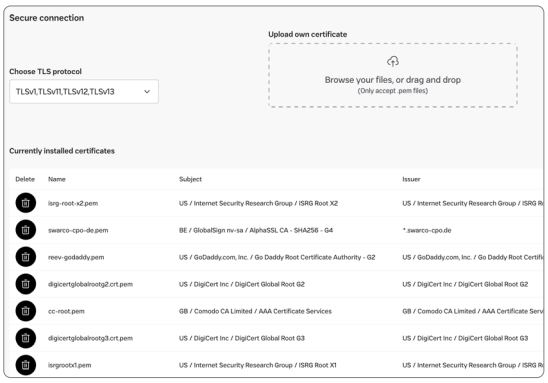
NOTE

Entering the APN credentials for mobile connectivity

When **Connection Type** is set to **MOBILE**, the **Access Point Network**, **APN username** and **APN password** must be entered in the fields below the backend information. The APN credentials are provided by the SIM provider.

The **Secure connection** section lists all internal and client certificates that can be used for TLS communication. The Web Manager allows you to delete existing certificates and upload new certificates via the **Upload own certificate** field: Drag and drop the certificate file into this area or click here to open a browser where you can select the certificate file from your local drive.

If necessary, use the **Choose TLS protocol** drop-down menu to select a protocol version other than the default **TLSv13** setting (not recommended).



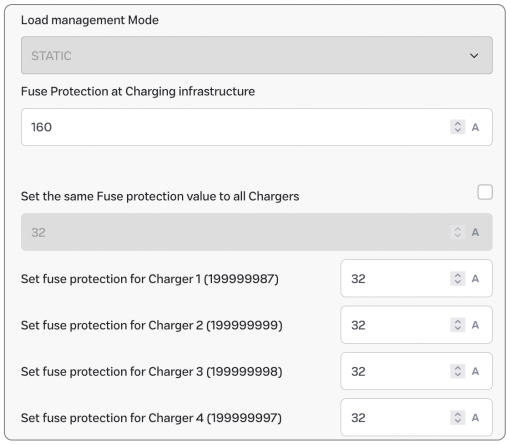
Configuration > Load Management

Depending on the detection/integration of an ABL energy meter, this tab allows to set up a static or dynamic load management for the charging group.

If no energy meter is available, the **Load Management Mode** in the **Mode Limits** section is automatically set to **STATIC** and therefore only allows the **Fuse Protection at Charging infrastructure** to be set, which limits the total charging currents of all chargers to the set value.

By clicking the check box below, the static load management is configured so that each charger within the group is limited to the maximum current value entered here.

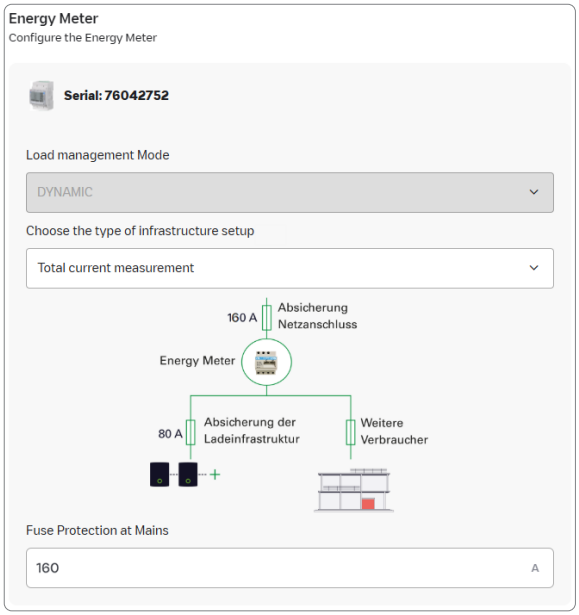
Alternatively, you can define individual current limits for each charger via the **Set fuse protection for Charger X** drop-down menus. However, the sum of all individually set currents per charger must not exceed the **Fuse Protection at Charging infrastructure** value.



When an ABL energy meter has been added to the charging group, it is displayed together with its serial number in the upper part of the tab. In addition, the **Load management Mode** is automatically set to **DYNAMIC**, allowing access to a drop-down menu where you can **Choose the type of infrastructure setup**:

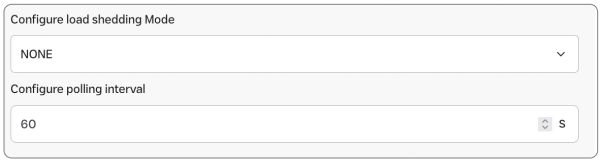
- When **Total current measurement** is active, the energy meter takes into account both the building load and the consumption of the charging group.
- When **Section current measurement** is active, the energy meter only takes into account the building load, but not the consumption of the charging stations.

To switch back to static load management, open the **Configuration > LAN Group** tab and remove the ABL energy meter from the **Group of Products** section. Once the energy meter has been removed, the **Load Management Mode** will switch back to **STATIC**.



In the lower part of the tab, the **Load shedding** mode for the installation can be set. Beside the default (**NONE**), the drop-down menu allows to choose between **VDE AR-N 4100** (4-stage reduction of the charging current from 100 to 0%) and **BK6-2-300 (§14a)** for a fixed reduction to a minimum of 4.2 kW.

The **Configure polling** field below allows to enter an interval in seconds for polling an activated load shedding circuit.

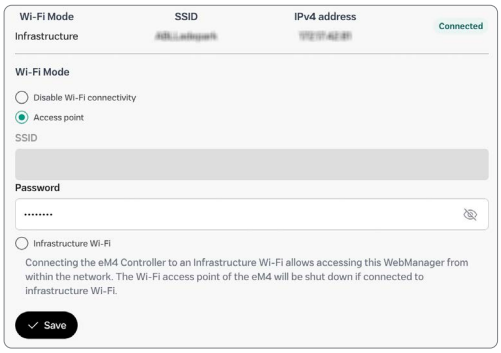


Configuration > Network

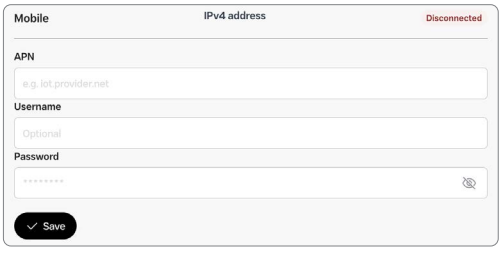
The **Network** tab offers three panels where you can configure the network settings for **Wi-Fi**, **Mobile** and **Ethernet**. All changes made in these panels must be saved using the corresponding **Save** button.

By default, the Wi-Fi access point of the eM4 Controller Wallbox is active and can be accessed via the individual SSID of the wallbox (**Access point:** ABL[serialnumber]).

However, via the radio buttons the **Wi-Fi Mode** panel allows to **Disable Wi-Fi connectivity** completely or to connect to an **Infrastructure Wi-Fi** by entering the corresponding **SSID** and **Password**. In the latter case, the wallbox's Wi-Fi access point is deactivated and the wallbox is connected to the infrastructure network so that you can access the Web Manager within the network.



If necessary, you can connect to an external CMS/backend via the LTE stick installed in the eM4 Controller Wallbox. To do this, enter the **APN** and **Password** you received from the SIM card provider (included with the wallbox). Depending on your credentials, the **Username** field may sometimes be left blank.



If the eM4 Controller Wallbox is connected with an external LAN network, the **Ethernet** panel shows the name, **IPv4** or **IPv6 address** and the **LAN Mode**. Otherwise, the status is **Disconnected**.

System

The **System** tab displays information about the calibration-law status if the charging group is set up with calibration-law compliant Controller and Extender wallboxes. You can also set parameters for secure data communication and perform maintenance tasks here.

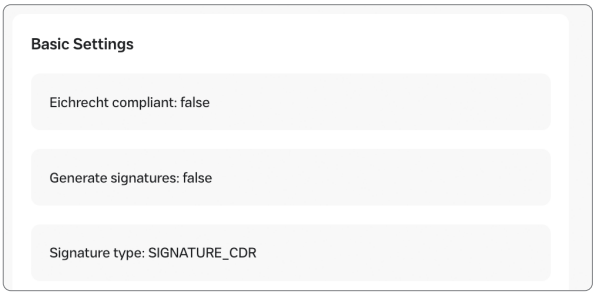
System > Eichrecht

NOTE

Exclusive tab for calibration-law compliant charging groups

Please note that the **Eichrecht** tab is only available for installations with eM4 chargers that comply with calibration law regulations. Otherwise, it will be greyed out.

The **Basic Settings** section shows the status for different settings of calibration-law-compliant chargers (**true** or **false**).



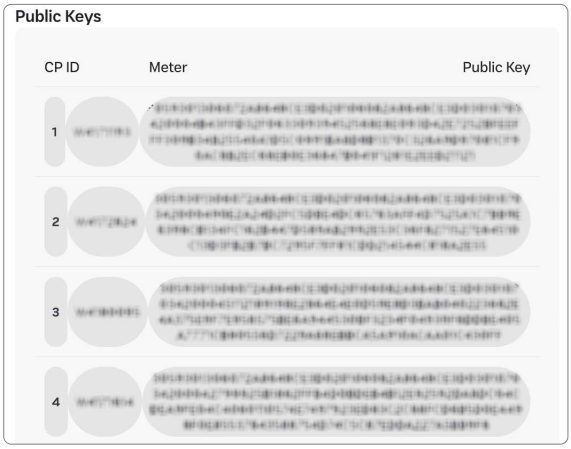
The **Software packages** section shows the installed version of the calibration law software and notifies of any available software updates. If a new version is available, it can be selected and installed using the **List of available version** drop-down menu.

ATTENTION

Necessary approval by the Office of Weights and Measures

Please note that any software installation is only permitted after prior approval by the responsible Office of Weights and Measures.

The **Public Keys** section is for information purposes only and lists all charging points (**CP-ID**) within the group, together with the serial number of the energy **Meter** and the associated numeric **Public Key**.



System > Security

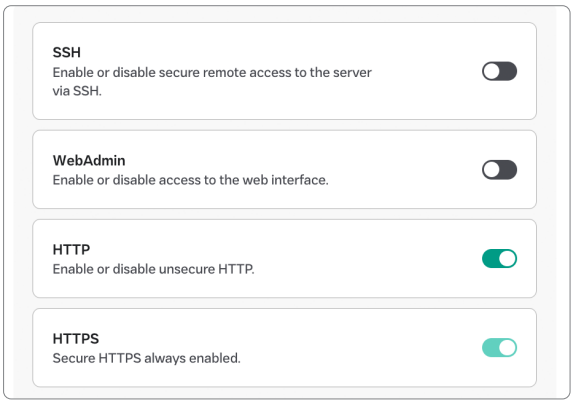
The **Set Configuration** panel allows to activate () or deactivate () various settings for a secure communication.

SSH is a secure communication interface that allows ABL customer service to perform troubleshooting on the eM4 charger. By default, the **SSH** option is disabled due to the Radio Equipment Directive, but it can be enabled to allow the service team to access the charger in the event of malfunctions.

In addition, communication with the browser-based Web Admin application can be set up.

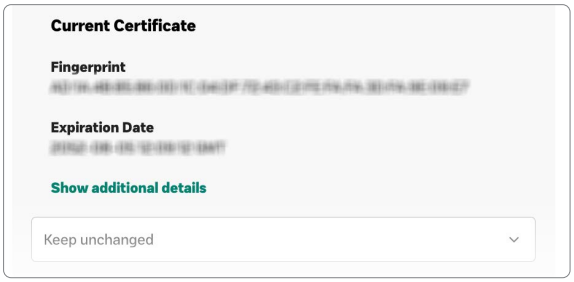
If required, unencrypted communication via **HTTP** can be enabled.

For secure communication, the **HTTPS** option is enabled by default and cannot be disabled.



The **Current Certificate** section displays the **Fingerprint** and **Expiration Date** of the TLS certificate used for HTTPS communication with the WebManager. If required, additional information about the certificate can be displayed by clicking on **Show additional details**.

The drop-down menu below allows to change the currently selected certificate by uploading a custom certificate, generating a new certificate or deselecting the certificate option (**None**).

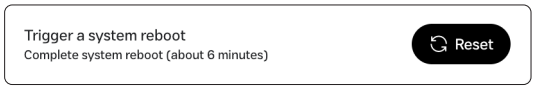


System > Maintenance

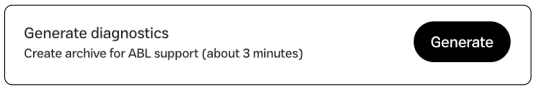
In the event of malfunctions, the upper control panel allows the charging group and internal software to be restarted and log files to be created for transmission to the Customer Service at ABL.

- Clicking the  button restarts the charger software and hardware. After the restart, all previously configured parameters are reset to their factory settings.

- Clicking the  button restarts the charger software and hardware. After the restart, all previously configured parameters remain active.



- If a malfunction occurs, you can create a diagnosis file that can be shared with the Customer Service at ABL.



When a new software version is available, the **Software Update** panel shows the installed software version and allows to upload the latest version, which is available in the **Support > Downloads > Software > Software Controller charging stations** section of the ABL website.

- Download the software update file to a local drive and then browse for the file or drag it manually into the panel field.
- The software is installed automatically and is active after restarting the system.