

Intended use

The Wallbox eM4 Single has a single charging socket and is suitable for group installations in semi-public areas. It is also recommended for charging in public and private areas. The eM4 Single is available either as a Controller or Extender version for use in a charging group, but can also be set up for stand-alone use. To ensure intuitive management and billing of all charging operations, the eM4 Single Wallbox is available as a reev ready version with backend connection.

Technical information

This document explains how to operate your Wallbox eM4 Single after it has been installed, configured and commissioned by a qualified specialist electrical contractor. Detailed information on installation and configuration can be found in the installation instructions, which are provided in digital form (PDF) via the website www.ablmobility.de/en. In addition, the technical data for your wallbox are collated in product-specific data sheets.

Technical information	User	Specialist electrical contractor
• Operating manual (this document)	✓	✓
• Data sheets	✓	✓
• Installation manual	✗	✓

You can download these documents from the ABL website using the following link:



<https://www.ablmobility.de/en/service/downloads.php>

You can find further information about our product range, as well as about separately available accessory components on our website at www.ablmobility.de/en.

Safety instructions



DANGER

Dangerous electrical currents

The violation or non-observance of the safety information contained in this manual may lead to electric shock, fire, severe injury and/or death.

- Please read all safety information carefully.
- Always follow all safety notices provided!

Please observe the following notes:

General safety information

- Please read this manual carefully.
- Heed all warnings and follow all instructions.
- Keep this manual in a safe place where it can be accessed at all times: The contents of this manual, and the safety notices in particular, must be available to all users of the product.
- The product must not be covered with stickers or other objects or materials.

- No liquids or receptacles containing liquids must be placed on the product.
- The product must only be operated after final approval by a qualified specialist electrical contractor.

Guidelines and regulations

Please note that electrical grid operators, energy suppliers or national regulations may require notification of or approval for the installation or operation of a charging station.

Forfeiture of manufacturer's warranty

Do not under any circumstances make alterations to the product. Any violation of this instruction constitutes a safety risk, fundamentally breaches the guarantee provisions and may void the warranty with immediate effect.

Restriction of the range of users

- This product is not intended to be used by persons (including children) with limited physical, sensory or mental abilities or lack of experience and/or knowledge, unless they are supervised by someone responsible for their safety or they have received instructions on how to use the product.
- Children must be supervised so that they do not play with the product.

Accessories

- Only use charging cables certified according to current product standards in compliance with IEC 62196-1 and IEC 62196-2.
- It is advisable to only use accessories intended and sold for the product by ABL.
- Use of extension cables is not permitted.

Troubleshooting

- Please note that operating a radio transmitter in the immediate vicinity (< 20 cm) of the product may lead to malfunctions.
- Malfunctions affecting the safety of persons, connected electric devices or the device itself must be resolved by a qualified specialist electrical contractor.
- Should one of the following malfunctions occur, please contact the qualified specialist electrical contractor who carried out the installation:
 - The housing has been damaged mechanically, or the housing door has been removed or can no longer be closed.
 - The product does not function properly.
 - The charging socket, the fixed charging cable or its charging coupler is visibly damaged or no longer functions correctly.

User information

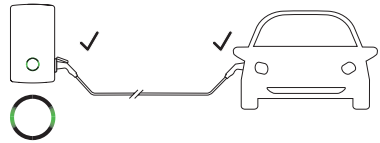
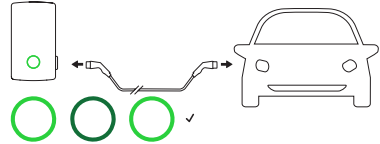
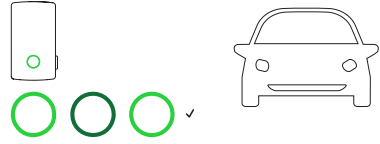
- Make sure that the product is always closed and locked when in use.
- Local safety regulations regarding the operation of electrical devices for the country in which you operate the product always apply.
- To disconnect the product completely from the electricity grid, the power supply must be interrupted using the upstream safety switches and fault current protection devices in the domestic power distribution.
- Ensure that the charging cable is not subjected to tensile stress at any time.
- Ensure that the charging cable is not driven over, kinked or pinched. Always treat charging plugs, connectors and sockets with special care.
- Only have the product repaired by a qualified specialist electrical contractor authorised by ABL.

Charging procedure

The charging process with the Wallbox eM4 Single is described below.

Proceed as follows:

- 1 Park the vehicle so that its charging inlet can be easily reached with the charging cable's charging connector.
 - When the charge point of the wallbox is ready for charging, the status indicator pulsates green (display: 1 cycle).
- 2 Prepare the charging cable of the wallbox and the vehicle's charging inlet.
 - Open the charging inlet at the vehicle and plug in the charging connector.
 - Open the charging socket lid on the wallbox and plug in the charging connector.
- 3 Check the status indicator of the wallbox.
 - When the vehicle is connected and recognised, the status indicator lights up static green.



! NOTE

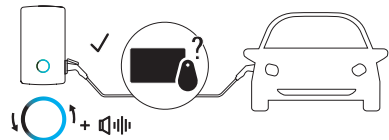
Authentication of the Wallbox eM4 Single

Depending on the model version, the Wallbox eM4 Single can be configured differently during installation.

- **Controller:** A Controller can be operated as a stand-alone wallbox or with a backend.
- **Controller with Extender:** A Controller can be operated with one or more Extender wallboxes as a charging group in a backend or without a backend.
- **Stand-alone Extender:** An Extender configured for stand-alone operation is operated without a backend.

If it is necessary to authenticate the charging operation via an RFID card, carry out the following steps 4 to 6. If authentication is not required, go to step 7.

- 4 Check the status indicator of the wallbox.
 - If the charging operation has to be enabled using an RFID card, a blue chase light is shown dynamically on the status indicator.

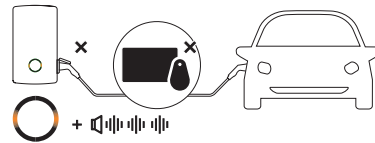
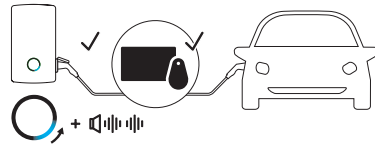
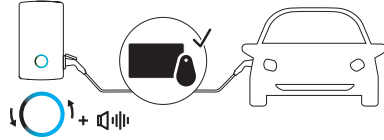


- 5 Hold a valid RFID card in front of the status indicator.



- 6 Check the status indicator and acoustic signals of the wallbox.

- If the RFID card has been read successfully, the wallbox emits a short sound signal and checks the authentication of the RFID card.
- After successful authentication, the wallbox emits two further short sound signals and activates the charging operation.
- If the authentication is not successful, the status indicator lights up orange and the wallbox emits three long sound signals.



! NOTE

The authentication of the RFID card is not successful

If the RFID card could not be verified, do one of the following:

- Remove the charging connector from the charging socket of the wallbox and wait until the status indicator pulsates green again. Then repeat steps 2 to 6.
- **Operating the wallbox with a backend:** Please contact the issuer of the RFID card.
- **Operating the wallbox without backend:** Make sure that the RFID card has been registered to the relevant wallbox. You can find further information in the comprehensive **installation manual**.

! ATTENTION

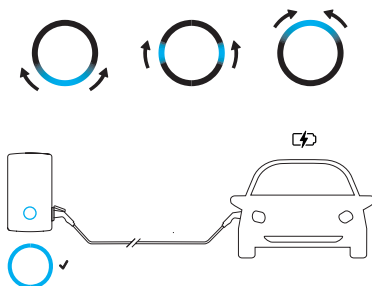
RFID card not readable

If the antenna of your RFID card is blocked or damaged, the card cannot be recognised.

- Remove the RFID card from its protective cover or card holder to register at the RFID reader.
- Do not make any modifications to the RFID card: The card must never be perforated, stamped, folded, have stickers attached, or otherwise be manipulated mechanically.
- Make sure that the RFID card corresponds to a standard that is supported by the wallbox. You can find further information in the comprehensive **installation manual**.

7 Check the status indicator of the wallbox (display: 1 cycle).

- After a request by the vehicle, the charging operation in progress is displayed dynamically via the blue status indicator.



- When the charging operation is complete, it is automatically terminated by the vehicle, and the status indicator lights up solid blue.

! NOTE

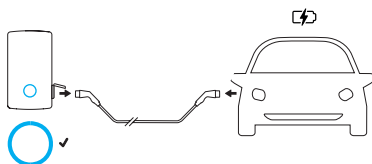
No charging request or interruption of the charging operation

The status indicator also lights up solid blue under the following circumstances:

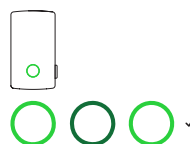
- The charging operation has not yet been started or has been paused by the vehicle.
- The charging operation has not yet been started or has been paused by the internal load management. You can find further information in the comprehensive **installation manual**.

8 Unplug the charging connector from the vehicle's charging inlet and close it.

9 Unplug the charging plug from the charging socket of the wallbox and store the charging cable. The charge point lid closes automatically.



10 The wallbox is ready for operation and awaits the next charging procedure (illustration: 1 cycle).



Resolving errors

Errors may occur during the operation of the wallbox.

Description

The vehicle is connected to the wallbox via the charging cable, but the status indicator continues to pulsate green: The vehicle is not recognised (display: 1 cycle).



Cause and suggested solution

The charging cable is not properly plugged in.

- Remove the charging connector from the vehicle's charging inlet and the charging plug from the wallbox's charging socket. Then plug the charging connector back into the vehicle first and then the charging plug into the wallbox.
- Check the charging cable and replace it if required.

Description

The status indicator pulsates red (display: 1 cycle).



Cause and suggested solution

The wallbox has detected an error that prevents or interrupts charging operations. The status indicator pulsates red until the fault has been cleared.

- Remove the charging connector from the vehicle's charging inlet and the charging plug from the wallbox's charging socket. Then plug the charging connector back into the vehicle first and then the charging plug into the wallbox.
- If the error persists, remove the charging cable from the vehicle and from the wallbox. Unlock and open the wallbox's RCCB flap, switch the RCCB off (position 0) and on again (position I) and lock the RCCB flap again (see also „Testing the RCCB“ on page 27). Then reconnect the charging cable to the vehicle and then to the wallbox.
- If the error persists, remove the charging cable from the vehicle and from the wallbox and switch off the wallbox's RCCB. Also switch off the MCB in the domestic power distribution box (position 0). Next, switch on the upstream MCB first and then the RCCB of the wallbox (position I). Finally, reconnect the charging cable to the vehicle and then to the wallbox.
- Should the error persist, please contact a qualified specialist electrical contractor to resolve the error.
- Should the wallbox have to be repaired or replaced, please contact the qualified specialist electrical contractor or the dealer/manufacturer from whom you purchased your wallbox.

Description

The wallbox's status indicator does not work, the side energy meter does not display any information.

Cause and suggested solution

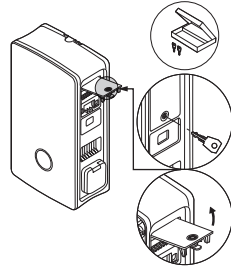
- The wallbox is not connected to the electricity grid.
 - Check the internal RCCB and switch it back on if required.
 - Check the upstream circuit breaker in your domestic power distribution and switch it back on if required.
 - Have a qualified specialist electrical contractor check the power supply cable and restore it if required.
- The wallbox is defective.
 - Please contact a qualified specialist electrical contractor to have the error resolved.
 - Should the wallbox have to be replaced, please contact the qualified specialist electrical contractor or the dealer from whom you purchased your wallbox.

Testing the RCCB

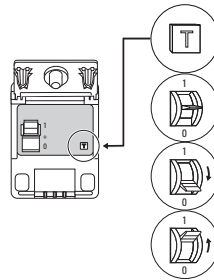
To ensure continuing safe operation, you must test the function of the wallbox's internal RCCB according to locally applicable regulations: For this purpose, the RCCB has a push button with which to initiate the test function.

Proceed as follows to test the mechanical functionality of the RCCB:

- 1 Unlock the wallbox's side RCCB flap using the key supplied and flip it up.

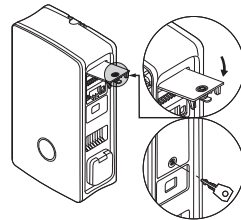


- 2 Locate and press the push button engraved T.
 - The RCCB must now trip and flip the toggle switch into the centre position.



- 3 Now flip the pivot lever first to the 0 position and then back to the I position.

- 4 Close the RCCB flap and lock it with the key.



DANGER

Dangerous electrical currents

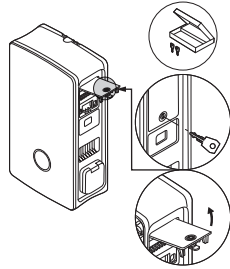
Should the RCCB malfunction during testing, you must not continue to operate the wallbox under any circumstances!

- Take the wallbox out of operation (see next section) and contact a qualified specialist electrical contractor to resolve the error.

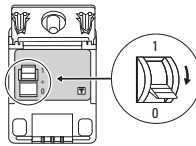
Taking the Wallbox eM4 Single out of operation

In case of severe malfunctions or damage to the device, you must take the Wallbox eM4 Single out of operation. To do so, proceed as follows:

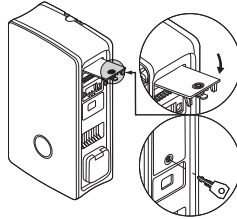
- 1 Unlock the wallbox's side RCCB flap using the key supplied and flip it up.



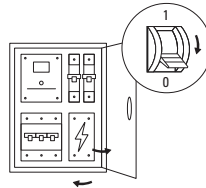
- 2 Flip the toggle switch of the RCCB to the 0 position.



- 3 Close the RCCB flap and lock it with the key.



- 4 Open your domestic power distribution box, disconnect the wallbox's power supply cable from the electricity grid via the MCB, secure the MCB against being switched on again and close the distribution box.



The Wallbox eM4 Single is no longer connected to the electricity grid and can be removed by a qualified specialist electrical contractor if required.

Maintenance

Except for testing the integrated RCCB, the eM4 Single Wallbox is basically maintenance-free. However, we still recommend the wallbox is cleaned and the charging socket checked regularly.

- Use only a dry cloth for cleaning the wallbox. Do not use aggressive cleaning agents, waxes or solvents (such as cleaning fluid or paint thinner) as they may dull the status indicator and surface of the wallbox.
- The wallbox must under no circumstances be cleaned with a pressure cleaner or similar device.
- Check the housing and the charging socket of the wallbox regularly for any damage.

Reading the energy meter

The energy meter on the side of the Wallbox eM4 Single shows various information about the charging operation via three display lines. In contrast to the top line, the values displayed in lines 2 and 3 are switched cyclically:

A Total electric energy consumed

The top line always shows the total electric power consumed in kWh, and therefore the sum of all the electrical charge obtained via this particular charge point. This line is not switched.

B Current or last electric energy consumed

In this state, the second line shows the electric energy in kWh during the active (*Run*) or completed (*End*) charging process.

C Charge point allocation

After switching, the second line on the left-hand side shows the identification that was assigned to the charge point during installation.

D Malfunction display

In this state, the third line shows the code for identifying a malfunction (error, note, warning).

E Duration of the charging operation

After switching, the second line in this state shows the duration of the active charging operation in hours, minutes and seconds.

F Current electric power consumption

In this state, the third line shows the active power that is currently being drawn by the vehicle: During charging, the value varies dynamically; without a vehicle connected, the value is 0.0 kW.

