

ABL

eMH1 WALLBOX

Instruction manual
eMH1 513/824



Contact

Manufacturer



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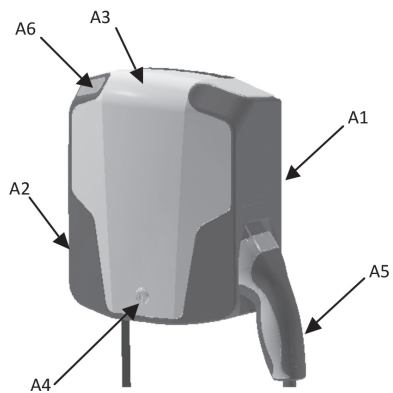
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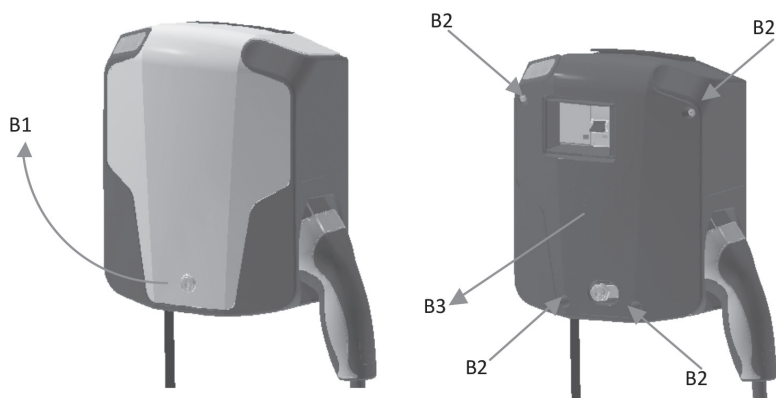
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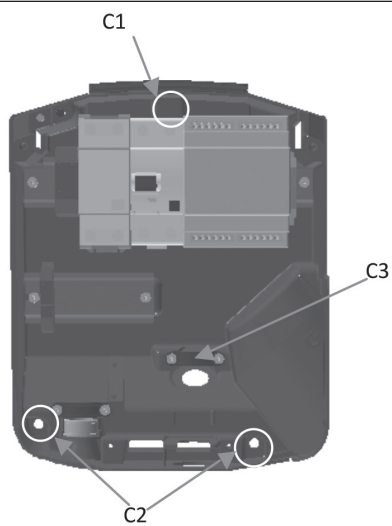
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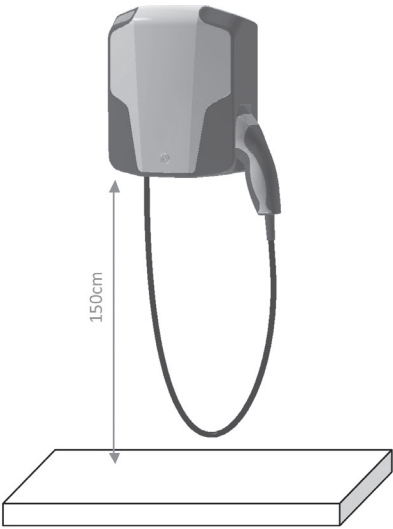


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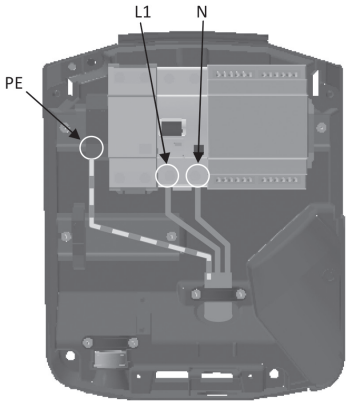


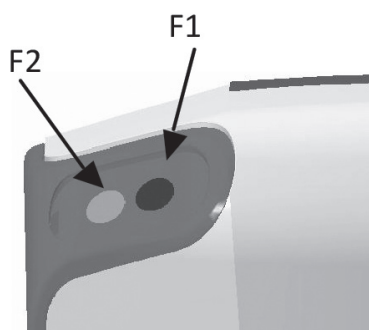
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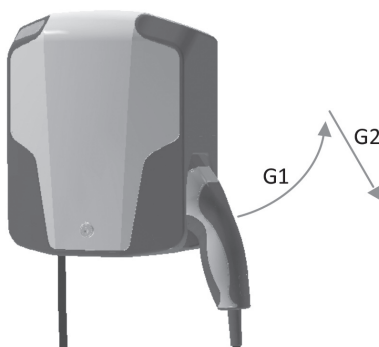


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Introduction

This operating manual contains important information about the installation and safe operation of the device. Please make sure to read and observe the safety instructions provided.

All safety information in this operating manual must be passed on to all users.

Meaning of the safety information

**DANGER!**

Failure to heed this warning may lead to death or serious injury.

**WARNING!**

Failure to heed this warning could damage the device or any appliance connected to it.

**NOTE!**

This symbol refers to recommendations or special features.

General safety information

The device has been manufactured according to current technical standards and safety regulations. Failure to adhere to the safety instructions and advice may lead to electric shock, burns and/or serious injuries.

The device may only be used if it is in a technically sound condition. Any faults compromising the safety of the device or anyone using it may only be repaired by qualified personnel.

Warnings

The symbols and warning signs displayed on the charging station have the following meanings:

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(A)  (B) 	(A) Read operating manual before opening (B) Warning: dangerous electrical voltages
	Consult the operating manual
   (A) (B) (C)	(A) WARNING: (B) Potential risk of electric shock from residual direct currents (C) For further information, see the operating manual

DANGER!

- The electrical system complies with all applicable guidelines and standards
- Do not tamper with electrical installations
- Do not modify the device in any way
- Electrical connection should only be carried out by qualified personnel and in accordance with the guidelines provided in this manual
- Do not operate the device if wiring or connections are faulty
- Do not carry out any repair work on the device while it is electrically live
- Install all electrical connections properly
- Make sure the device is properly connected to the electrical installation of the building

WARNING!

- The charging station is designed exclusively for connection and operation with a 230 V 50 Hz power supply
- The supply lines may be laid either in a surface- or flush-mounted manner
- It is recommended to feed in the cable at the bottom of the housing base

Read and take note of the safety instructions before assembling, starting up or opening the charging station.

Product overview

Description

The charging station allows safe and convenient charging of electric vehicles in accordance with IEC 61851-1, Mode 3. In this mode, the charging station ensures that the vehicle is only supplied with electrical energy if the vehicle is connected properly.

EVSE 513 charging station scope of delivery (Fig. A)

- Charging station with lower housing A1, upper housing A2 and housing cover A3 with lock A4
- Connected charging cable with coupler (A5)
- Two keys
- Assembly and operating manual
- Drilling template

Residual direct current ('DC residual current')



Warning!

When charging an e-vehicle, sometimes a DC residual current will flow from the charging device into the electrical installation of the building. This could affect the reliability of the built-in or external circuit breaker (RCCB Type A) during the charging process.



A non-functional RCCB cannot detect alternating residual currents in the electrical installation of the building etc. and is therefore unable to short-circuit and protect against life-threatening electric shocks and serious injuries.



- Only electrical vehicles equipped with a residual current protective device may be connected to this charging station. Never connect e-vehicles to the charging station if they are not equipped with such a protection.
- Before charging an electric vehicle, always check whether the vehicle is equipped with a residual current protective device. Information about DC residual current protection can be found in the vehicle's instruction manual (such as in the case of

PRODUCT OVERVIEW

Volkswagen vehicles), obtained from authorised dealers or even from the manufacturer themselves.

- If you do not know whether the vehicle has a residual current protective device, it may not be connected to this charging station. In this event, additional protective measures are required in the charging station or the electrical wiring in order to prevent DC residual currents from compromising the reliability of an RCCB during the charging process.

Assembly

Assembly location

The charging station is designed for outdoor use (splash proof). In order to best protect the appearance of the charging station, it should only be installed in locations that are not exposed to constant, direct sunlight. We recommend installing the charging station in a garage or carport.

Opening the charging station (Fig. B)

1. Open the housing cover (B1)
2. Loosen the fastening screws (B2)
3. Remove the upper housing (B3)

Attaching the charging station (Fig. C)

1. Check the installation site (floor, routing of cable to be connected)
2. Drill a hole for feeding the cable through the lower housing (centre points!)
3. Drill holes into the wall (drilling template)
4. Hang the charging station on attachment point C1
(4-mm Ø cylinder head screw with 8-mm Ø head)
5. Attach the charging station to attachment point C2 with 4-mm Ø cylinder head screw
6. Connect power supply (see electrical connection) and attach with strain relief (C3)

Ensure solid mounting of the housing base, particularly for the lower part, because this is where the tensile forces of the charging cable are absorbed.

Use the drilling templates to mark drill hole positions for wall installation. The mounting surface must measure at least 260 mm x 220 mm!

Mounting height (Fig. D)

A mounting height of 150 cm is recommended for a 3-m charging cable.

Electrical connection (Fig. E)



WARNING!

Before operating, installing or opening the charging station, read and observe the safety information provided. Switch off the power before opening the device, and ensure it cannot be switched back on.

Only trained personnel may connect the charging station to the building's supply grid and put the device into operation. Any applicable national standards and regulations must be observed.

The power supply of the charging station must be protected by a circuit breaker (MCB) whose nominal current exceeds neither the maximum charging current of the charging station nor the maximum capacity of the supply cable itself.

Connect the power supply to the connectors on the charging station marked L1 and N on the RCCB. The earth conductor (PE) is connected to the earth conductor terminal on the mounting rail.

Operation

Charging process and LED indicators (Fig. F)

The charging process complies with IEC 61851-1 Mode 3

Step	LED F2 (green)	LED F1 (blue)	Description
Ready	Off	short flash every 5 s	
Power supply connected to the vehicle inlet	Off	On	Vehicle detected, charging starts automatically
Charging	flashing	On	Green LED is flashing
Charging stopped by vehicle1)	On	On	Remove charging cable from the vehicle and place it back in the charging station
Error2)	Flashing sequence F1 x 1, F2 x 3		- The vehicle is requesting additional ventilation during the charging process - Charging is not taking place - Charging process will auto- matically restart after 30 s
Error2)	F1 and F2 are flashing alternately		- Communication with vehicle disrupted - Charging is not taking place - Charging process will auto- matically restart after 30 s

1) The charging process can also be stopped by removing the charging cable from the vehicle

2) The flashing sequence is repeated continuously

Removing the coupler from the charging station (Fig. G)

Disengage the coupler by first lifting the coupler in the direction indicated (G1) and then taking it out of its bracket (G2).

Checking the RCCB (Fig. H)

The RCCB (H1) should be checked at least every six months!

When pushed, the RCCB test button must function and break the circuit. Switch on again using the lever. The charging station must no longer be used in the event of a malfunction.

Lockable panel

In order to prevent unauthorized access to the charging station (and the RCCB, for example), the panel can be locked (not vandalism proof!). If you lose your key, please consult your designated service provider.

Troubleshooting

In the event the RCCB triggers, open the panel with the supplied key and use the lever to reset the station to operating mode.

If the RCCB is triggered again, this may indicate a fault that can only be repaired by trained personnel.

Please note that any inappropriate repair work voids the warranty, and ABL cannot be held liable for any damage caused as a result.

Malfunction	Possible cause	Solution
No LED indicator	No power supply	• Test upstream MCB • Check RCCB
	LED indicator defective	Inform your service provider
Charging process does not start	Charging cable not properly connected to the vehicle	Check whether plug is properly connected to the vehicle (unplug, then plug in again)
Error display	Error	Charging station restarts charging after 30 s. If the problem persists, please inform your service provider.

Care and maintenance

- The charging station can be cleaned with a dry cloth.
- Harsh cleaning agents may cause the displays (LED indicators) to become dull.
- **Never use a pressure washer or similar device to clean the charging station.**
- The built-in RCCB situated below the protective panel must be tested every six months.
- Regularly check the charging cable for signs of damage.
- In addition, the respective local legal requirements governing the operation of electrical devices apply.

Specifications

Conditions of operation

Storage temperature	–30 °C ... 85 °C
Operating temperature	–30 °C ... 50 °C
Humidity	5 % ... 95 % rH (non-condensating)
Rated voltage	230 V 50 Hz
Rated current	16 A
Overvoltage category	III
Class of protection	I
Protection degree	IP54

Declaration of compliance



The eMH1 EVSE 513 / 824 charging station bears the CE mark.
The corresponding declarations of compliance are available on request

ABL SURSUM Bayerische Elektrozubehör GmbH & Co. KG
or can be downloaded from www.abl.de.

Disposal note



The symbol with the crossed-out dustbin means that electrical and electronic devices and their accessories should not be disposed of with general household waste.

The materials are recyclable according to their labelling. The reuse or recycling of materials and old units makes an important contribution towards protecting our environment.



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