

# WHEMH10 1W0001 PVEMH10

### ii | Contact

# Contact

# ΛBL

ABL GmbH

Albert-Büttner-Straße 11 91207 Lauf an der Pegnitz Germany



+49 (0) 9123 188-0 +49 (0) 9123 188-188

info@abl.de₩www.ablmobility.de

#### **Customer Service**

+49 (0) 9123 188-0
service@abl.de
www.ablmobility.de/en/service/support/



Revision: 0301894\_EN\_b, Version: 25.02.22

<b>Contents</b>	;
-----------------	---

Contact	ii
Additional technical information	4
Intended use	4
Information in this document	4
Important information	5
General	5
Safety instructions	5
User information	6
Dimensional drawings and dimensions	7
WHEMH10	7
1W0001 PVEMH10	7 8
	0
Introduction to the WHEMH10, 1W0001 and PVEMH10 mounting plates	9
	-
Identification of the mounting plate Items supplied	9 9
Compatible products	10
Installation	11
Requirements for the installation site	11
Specifications for mechanical installation	11
Preparation for installation on a wall	12
Preparation for installing the PVEMH10	
mounting plate	14
Screwing to the wall	15
Preparation and fixing to the POLEMH1	10
mounting pole	16 18
Preparing the eMH1 Wallbox for installation Mechanical installation of the wallbox on	10
the mounting plate	19
Using the mounting plates in practice	24
Enabling and blocking the charging function	21
with the 1W0001	24
Selecting the charging mode for the PVEMH10	25
Troubleshooting and maintenance	27
Maintenance	27
Appendix	28
Technical specifications	28
IP rating	28
Trademarks	29
Copyright and disclaimer	29
Disposal advice	29
Drilling template	30

# Additional technical information

Additional technical information is required to install the WHEMH10, 1W0001 and PVEMH10 mounting plates on a wall or on the POLEMH1 mounting pole and to install an eMH1 Wallbox on the mounting plate. It is contained in separate documents.

In addition, the technical data for your mounting plate and the compatible products are collated in product-specific data sheets. You can download these documents from the ABL website using the following link:



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



**Displaying the additional information on a computer, tablet or smartphone** Additional technical information is made available in the Portable Document Format (PDF).

• To display PDF files, you need the free Adobe Acrobat Reader or comparable software.

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



https://www.ablmobility.de

# Intended use

The WHEMH10, 1W0001 and PVEMH10 mounting plates are holders for various eMH1 wallboxes from ABL. They can be fixed either to the wall or to the POLEMH1 mounting pole from ABL. While the WHEMH10 mounting plate only serves as a cable holder, the 1W0001 offers an integrated key switch for controlled enabling of the charging process. The PVEMH10 mounting plate can be used in conjunction with a PV system for charging via photovoltaics or via mains power.

### Information in this document

This document describes how to install the WHEMH10, 1W0001 and PVEMH10 mounting plates, as well as the additional switching functions of the 1W0001 and PVEMH10 models. It is recommended that all working steps described in this document are carried out by qualified specialist electrical contractors only.

	User	Specialist electrical contractor
Installation manual (this document)	×	$\checkmark$
Additional technical information		
<ul> <li>Data sheets</li> </ul>	$\checkmark$	$\checkmark$
<ul> <li>eMH1 installation instructions</li> </ul>	×	$\checkmark$
<ul> <li>POLEMH1/2/3 installation instructions</li> </ul>	×	$\checkmark$

# Important information

### General

This manual describes all working steps required to install and/or operate the product it concerns.

Certain sections of this manual are specially formatted for quick and easy reference.

- Descriptions listing equally valid options are indicated by bullet points.
- 1 Descriptions listing operating steps are numbered in chronological order.

# DANGER!

#### Indicates life-threatening electrical voltages

Sections marked with this symbol indicate electrical voltages that present a danger of loss of life or grievous bodily injury.

Actions marked with this symbol must not be carried out under any circumstances.



# WARNING!

#### Indicates important actions and further hazards

Sections marked with this symbol indicate further hazards that may result in damage to the product or to other connected components.

Actions marked with this symbol must be carried out with special care.

# ! NOTE

Indicates important information for operation or installation

Sections marked with this symbol indicate further important information and features necessary for successful operation.

- Actions marked with this symbol should be carried out as required.
- Passages marked with this symbol contain valuable additional information.

# Safety instructions

The safety notices serve to ensure the proper and safe installation, as well as subsequent safe operation of the device.



### DANGER!

#### Violation of the safety information

Disregard of or actions contrary to the safety information and instructions contained in this manual may lead to electric shock, fire, severe injury and/or death.

Please pay attention to the following points:

- Please read this manual carefully.
- Heed all warnings and follow all instructions.
- Only use components intended and sold for the product by ABL.
- Do not install this device in close vicinity to running water, water jets or areas subject to flooding.
- The product must not be installed in explosive atmosphere areas (EX areas).
- Mechanical installation should be carried out by qualified specialist personnel.

#### 6 | Important information – User information

- Electrical installation and testing must be carried out with reference to local rules by a qualified specialist electrical contractor, who, on the basis of their specialist training and experience, as well as their knowledge of the relevant standards, is able to assess and carry out the working steps described in this manual and recognise potential hazards.
- In case of installation faults, or malfunctions that can be traced back to faulty installation, always contact the contractor who carried out the installation first.
- The product must not be covered with other objects or materials.
- No liquids or receptacles containing liquids must be placed on the product.
- Do not under any circumstances make alterations to the product. Any disregard of this instruction represents a safety risk, fundamentally breaches the guarantee provisions and may void the warranty with immediate effect.
- 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 specialist electrical contractor who has carried out the installation of your wallbox and accessories:
  - The product housing has been damaged mechanically, or the housing cover has been removed or can no longer be closed.
  - Sufficient protection against splashing water and/or foreign objects is no longer provided.
  - The product does not function properly or has been otherwise damaged.

# WARNING!

#### Observation of further safety instructions

Please always observe all further safety instructions in the manuals for the optionally available eMH1 Wallbox and the POLEMH1 charging pole.

### **User information**

- Ensure that rated voltage and rated current of the supply cable at the installation location comply with the parameters of your local electricity grid and that the rated output of the wallbox installed on the mounting plate is not exceeded during operation.
- Local safety regulations regarding the operation of electrical devices for the country in which you operate the wallbox installed on the mounting plate always apply.
- No user-maintainable parts are located inside the device.
- Only have the mounting plate repaired by a qualified specialist electrical company.
- An eMH1 Wallbox installed on the mounting plate may only be operated after it has been installed without any technical faults and subsequently approved by a qualified specialist electrical company.

# ! NOTE

#### Changes to functions and design features

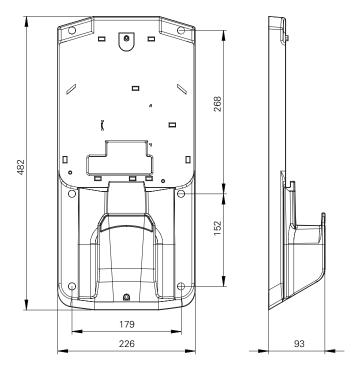
Please note that all technical details, specifications and design characteristics of the product may be changed without prior notice.

# **Dimensional drawings and dimensions**

The following dimensional drawings show the dimensions and drill holes of the WHEMH10, 1W0001 and PVEMH10 mounting plates.

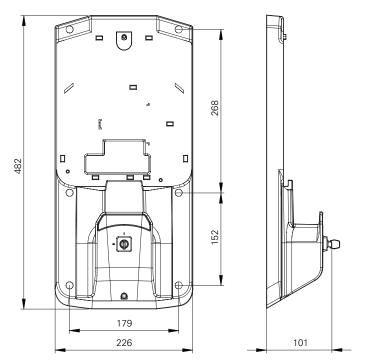
### WHEMH10

Mounting plate for an eMH1 Wallbox, front and side view (all dimensions in mm)



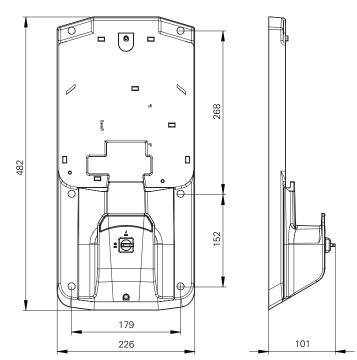
### 1W0001

Mounting plate with key switch for an eMH1 Wallbox, front and side view (all dimensions in mm)



### **PVEMH10**

Mounting plate with selector switch for an eMH1 Wallbox, front and side view (all dimensions in mm)



# I NOTE

Further information on installing on the POLEMH1 charging pole

If you wish to install the mounting plate on the optionally available POLEMH1 mounting pole, you will need the installation instructions for the POLEMH1/2/3 mounting poles: All information on the mechanical and electrical installation of the POLEMH1 mounting pole can be found here.

→ www.ablmobility.de/en > Service > All downloads > Operation manuals > Accessories > Installation instructions for POLEMH1, POLEMH2 and POLEMH3

# Introduction to the WHEMH10, 1W0001 and PVEMH10 mounting plates

Thank you very much for choosing the WHEMH10, 1W0001 or PVEMH10 mounting plate from ABL!

The mounting plates are used for attaching an ABL eMH1 Wallbox to a wall or the optionally available POLEMH1 mounting pole. All mounting plates have a holder on the front for winding up your wallbox's charging cable to minimise the risk of tripping at the point of use. The 1W0001 mounting plate also has an integrated key switch which can be used to block the wallbox's charging function and only enable it for authorised access. The PVEMH10 mounting plate has a selector switch which can be used in conjunction with the supplied coupling relay and the inverter of a PV system to switch between charging via photovoltaics (ECO mode) or via mains power (GRID mode).

With housing impermeability in accordance with IP44, the mounting plates are suitable in principle for outdoor installation. Further information on technical data is available in the appendix from page 28.

### Identification of the mounting plate

There is a rating plate on the back of each mounting plate for identification purposes. Check the rating plate to make sure that the model you have is the mounting plate suitable for your intended use.



# Items supplied

All mounting plates are supplied with the following components:

Mounting plate, 1 pc 

6 pcs



Drilling template, 1 pc



- 11 (N an an
- Flat-head screw (5×20 mm, T20), 3 pcs
- Countersunk screw (5×20 mm, T20), 6 pcs
- Blind plugs, 8 pcs



The 1W0001 mounting plate additionally contains:

Key for enabling the charging process, 2 pcs

Download note (multilingual), 1 pc

Countersunk screw (5×60 mm, T20),

Wall plugs (8×40 mm), 6 pcs







# WARNING!

#### Retaining the lock number

If you lose one or both keys, you can order more via ABL's Customer Service, as long as you have noted down the lock number. Without a lock number, the entire switching element of the 1W0001 must be replaced.

 Be sure to make a note of the lock number of both keys supplied with the 1W0001! The lock number is the three right-hand digits directly below the key head.

The PVEMH10 mounting plate additionally contains:

 8 – 230V AC/DC coupling relay for connecting to the inverter of a PV system, 1 pc



 Top-hat rail 12 V power supply unit for powering an inverter with floating output, 1 pc



# ! NOTE

#### Checking the components included

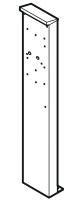
Check immediately after unpacking whether all components are included: should any components be missing, please contact the dealer from whom you purchased the mounting plate.

### **Compatible products**

No separate accessories are offered for the WHEMH10, 1W0001 and PVEMH10 mounting plates. However, the following products are compatible with the mounting plates:

### POLEMH1

Mounting pole for installing the eMH1 Wallbox with or without mounting plates h = 1,647 mm, w = 285 mm, d = 180 mm

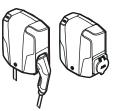


### Wallbox eMH1

Charging station from ABL for charging an EV, available either as a version with a permanently integrated charging cable or with a charging socket

h = 273 mm, w = 222 mm, d = 116 mm (Housing without protrusions)

You can find further information on ABL charging stations and accessories at www.ablmobility.de.





# Installation

The WHEMH10, 1W0001 and PVEMH10 mounting plates are designed exclusively for installing an eMH1 Wallbox indoors or outdoors. When operating the eMH1 Wallbox, the following specifications regarding the location and the connection technology must be met in order to ensure safe operation.

# **Requirements for the installation site**

To operate an eMH1 Wallbox on a mounting plate, you as the operator must adhere to the following specifications regarding the location and positioning.

- Be sure to observe all local regulations for electrical installations, fire prevention and accident prevention.
- All guidelines for the installation of low-voltage systems in accordance with IEC 60364-1 and IEC 60364-5-52 apply.
- The installation surface must have sufficient strength to withstand the mechanical loads.
- A sufficiently dimensioned supply cable for the power supply of the respective wallbox must be provided at the installation location. If necessary, the supply cable must be protected against mechanical influences by a suitable hose or pipe.
- To ensure safe operation, minimum distances to other technical installations must be observed: you can obtain further information from your electrical contractor or distributor.
- It is important to ensure that the maximum permissible operating temperature is not exceeded due to external influences such as direct sunlight or similar. Otherwise, adequate cooling or shading must be provided.

# WARNING!

#### Observation of environmental conditions for the eMH1 Wallbox

Always pay attention to all additional environmental conditions for the eMH1 Wallbox. These are listed in the section "Specifications for the installation location" in the installation instructions for the eMH1 Wallbox:  $\rightarrow$  Installation instructions for the eMH1 Wallbox

# **Specifications for mechanical installation**

The WHEMH10, 1W0001 and PVEMH10 mounting plates can be installed either on a wall or on the POLEMH1 mounting pole.

- The process for installing on a wall is described from page 15 onwards.
- The process for installing on the POLEMH1 mounting pole is described from page 16 onwards.

The entire installation of the mounting plate should always be carried out by qualified personnel. For mechanical installation, you will need the following components included:

Drilling template, 1 pc



 Mounting pole installation: M5×20 countersunk screw, 6 pcs

 Wall mounting: Wall plugs (8×40 mm), 6 pcs

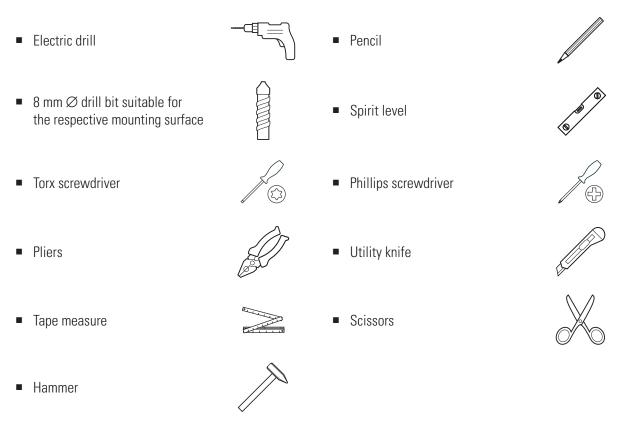


 Wall mounting: Countersunk screw (5×60 mm, T20), 6 pcs



### 12 | Installation – Preparation for installation on a wall

In addition, you will need the following components and tools:



### Preparation for installation on a wall

A sufficiently dimensioned surface-mounted or concealed supply cable must be laid at the installation location in order to establish an electrical connection to the eMH1 Wallbox. The supply cable is fed through the central opening in the mounting plate and can then be inserted into the eMH1 Wallbox for the electrical connection (see "Mechanical installation of the wallbox on the mounting plate" on page 19).

# ! NOTE

#### Inserting a surface-mounted supply cable

If you wish to insert a surface-mounted supply cable into the mounting plate, you must open one of the six prestamped plastic guides in the edge of the plate by cutting it on both sides with a cutter and then carefully breaking it out with pliers.

There are two plastic guides on the top edge, two on the bottom edge and two in the middle of the side edges of the mounting plate.

# DANGER!

#### Dangerous electrical currents

Always observe the 5 safety rules:

- 1 Cut power source
- 2 Secure all cut-off devices
- 3 Verify absence of voltage
- 4 Ground and short-circuit
- 5 Cover or bar access to adjacent components under voltage

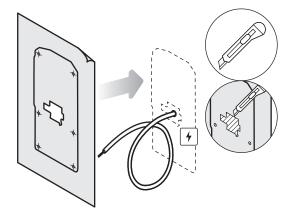
As a matter of principle, the electrical supply cable in the domestic power distribution must be switched off for the entire duration of mechanical and electrical installation. The connection to the power grid must only be made live for the purpose of commissioning after electrical installation is complete (see **Step 16** in section "Mechanical installation of the wallbox on the mounting plate" on page 23).

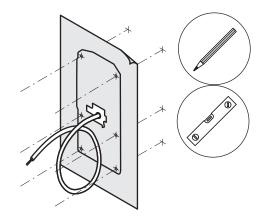
Proceed as follows:

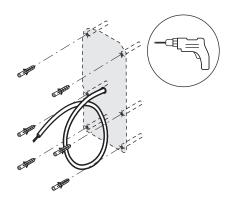
- 1 Cut crosswise into the marks for the fixing points on the drilling template using the utility knife.
  - If necessary, you can also use the cutter to cut out the central opening for the supply cable.

**2** Align the drilling template vertically and horizontally on the wall with the spirit level and mark the fixing points with the pencil.

- **3** Pre-drill the marked fixing points with the electric drill and drill bit.
- **4** Drive the wall plugs into the pre-drilled fixing points (with a hammer if necessary).







# Preparation for installing the PVEMH10 mounting plate

If you are installing the PVEMH10 mounting plate, you will need to install the supplied coupling relay in the eMH1 Wallbox and then establish a connection to the inverter of the PV system (see **Steps 7** to **9** in the section "Mechanical installation of the wallbox on the mounting plate" from page 21 onwards).

When the PVEMH10 selector switch is set to ECO, the inverter enables the charging process based on the power threshold set for the system in the ABL Configuration Software.

# **!** NOTE

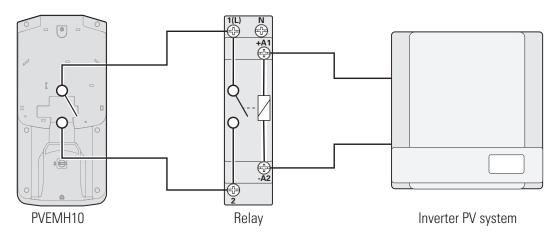
on page 21.

Information on the inverter and wiring

- Please read the operating instructions for your inverter before installation. All the requirements for the control cables as well as the permissible peak voltages for the control cables will be specified there.
- You'll also be able to find out how to set the threshold value for enabling the charging process. The threshold value is the power at which the inverter enables charging in **ECO** charging mode.
- When selecting the threshold value, you should always take into account the size of the PV system, the average consumption for your own use and the charging power of the eMH1 Wallbox set in the ABL Configuration Software.

#### Operation with an inverter with digital output

Can be used for inverters with a control output with switching voltages from 8 to 230 V AC/DC.

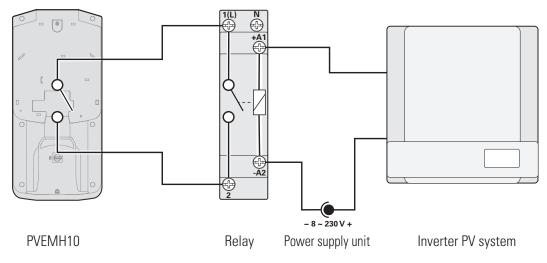


You must always provide an appropriate cable connection to the inverter at the installation location, which is then connected to the +A1 and -A2 contacts of the relay. The allocation is shown in the following table. The connection itself is described in **Step 7** in section "Mechanical installation of the wallbox on the mounting plate"

PVEMH10	Relay terminal	Relay contact	Inverter
Black wire $\rightarrow$	1 (L)	+A1	$\leftarrow$ Relay control terminal A
Blue wire $\rightarrow$	2	-A2	$\leftarrow$ Relay control terminal B

#### Operation with an inverter with floating output

Can be used for inverters with a control output with switching voltages from 8 to 230 V AC/DC.



For an inverter with a floating output, you will need to provide a power supply via the supplied top-hat rail power supply unit. Install the power supply unit in a suitable switch cabinet or similar and then lay the cable at the installation location. The allocation is shown in the following table.

The connection itself is described in **Step 8** in section "Mechanical installation of the wallbox on the mounting plate" on page 21.

PVEMH10	Relay terminal	Relay contact	Power supply unit 12 V	Inverter
Black wire $\rightarrow$	1 (L)	+A1	$\leftarrow$	Relay control terminal A
Blue wire $\rightarrow$	2	-A2	$\leftarrow$ Minus/Plus pole $\rightarrow$	Relay control terminal B

# WARNING!

Maximum cable length between power supply unit, inverter and relay

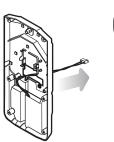
Please note that the length of the cables between the power supply unit and the inverter or relay must not exceed 30 metres.

### Screwing to the wall

Once the installation location has been prepared, you can screw the mounting plate to the wall.

Proceed as follows to prepare the 1W0001 and PVEMH10 mounting plates:

1 Loosen the control cable which is fixed to the back of the 1W0001/PVEMH10 with a cable tie.





**2** Run it through the opening to the front of the mounting plate.

Proceed as follows to screw the mounting plate to the wall:

- 1 Place the mounting plate on the wall and align it with the pre-drilled fixing points.
  - WHEMH10: Run the supply cable through the opening.
  - 1W0001: Run the supply cable and the control cable of the mounting plate through the opening.
  - **PVEMH10**: Run the supply cable, the control cable of the mounting plate and the cable from the inverter (and the cable from the power supply unit, if applicable) through the opening in the mounting plate.
- 2 Screw the mounting plate into the holes using the six 5×60 countersunk screws and the Torx screwdriver.

**3** Close the openings in the mounting plate with the six blind plugs.

After fixing the mounting plate to the wall, you can proceed with the preparation of the eMH1 Wallbox. Go to the section "Preparing the eMH1 Wallbox for installation" on page 18.

# Preparation and fixing to the POLEMH1 mounting pole

Instead of fixing it to a wall, you can also attach the mounting plate to the POLEMH1 mounting pole. To do this, the mounting pole must be installed at the desired location and prepared for electrical connection to an eMH1 Wallbox. Please read the corresponding chapters in the installation instructions for the POLEMH1/2/3:  $\rightarrow$  POLEMH1/2/3 installation instructions

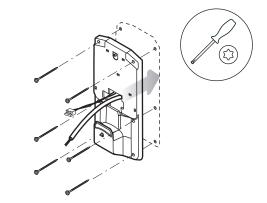


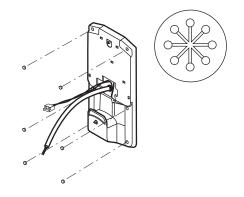
# WARNING!

#### Detaching the control cables for the 1W0001 and PVEMH10 versions

In contrast to the WHEMH10, the 1W0001 and PVEMH10 versions have additional control cables on the back that are connected in the eMH1 Wallbox during electrical installation.

Disconnect the control cables and run them through the opening to the front of the mounting plate before screwing it to the POLEMH1!





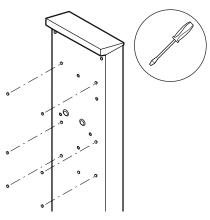
Once the POLEMH1 is properly installed and the supply cable properly laid, proceed as follows to fix the mounting plate to the POLEMH1:

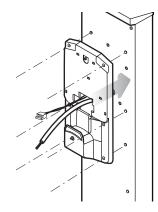
- 1 Remove the blind plugs from the six thread points of the mounting pole by carefully pushing them forward with a screwdriver on the inside of the mounting pole.
  - Keep the blind plugs in case you want to operate the eMH1 Wallbox without the mounting plate on the POLEMH1 at a later time.
- **2** Install the mounting plate and align it with the thread points on the mounting pole.
  - WHEMH10: Run the supply cable through the opening.
  - 1W0001 and PVEMH10: Run the supply cable and the control cable of the mounting plate through the opening.

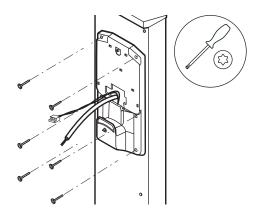
**3** Screw the mounting plate into the thread points using the six M5×20 countersunk screws and the Torx screwdriver.

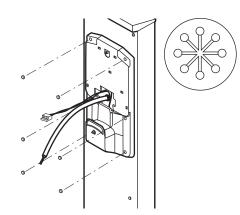
**4** Close the installation openings with the six blind plugs.

After fixing the mounting plate to the POLEMH1, you can proceed with the preparation of the eMH1 Wallbox.









18 | Installation – Preparing the eMH1 Wallbox for installation

### Preparing the eMH1 Wallbox for installation

Before screwing the eMH1 Wallbox to the mounting plate, you must first prepare it.

Steps 1 to 5 are identical for all mounting plates. For the 1W0001 and PVEMH10 versions you will also need to perform Step 6.

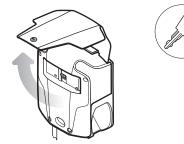
Proceed as follows:

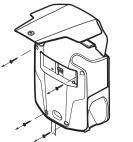
1 Open the housing cover of the Wallbox eMH1 using the key supplied and flip it up.

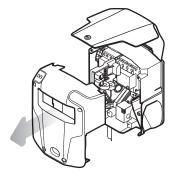
- **2** Loosen the four screws of the upper part of the housing using the Phillips head screwdriver.
  - Keep the four screws in a safe place.

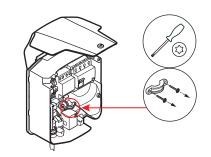
**3** Remove the upper part of the housing from the housing base.

**4** Using the Torx screwdriver (T20), loosen the internal strain relief, which is located on the inside of the rear shell of the housing above the large grommet for the supply cable.







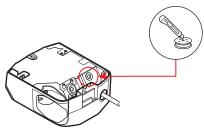




- **5** Remove the large grommet for the supply cable, use the cutter to cut an opening for the supply cable in the membrane and then replace the grommet.
  - Step 2 in the next chapter describes how to insert the supply cable into the wallbox.

# For installation on the 1W0001 and PVEMH10 mounting plates, you will also need to carry out the following working step:

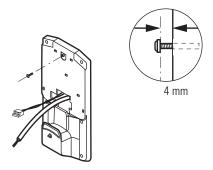
- 6 Remove the small grommet for the control cable(s), use the cutter to cut an opening in the membrane and then replace the grommet.
  - Step 2 in the next chapter describes how to insert the supply cable(s) into the wallbox.

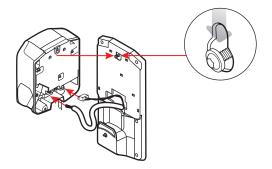


### Mechanical installation of the wallbox on the mounting plate

Proceed as follows to attach the wallbox to the mounting plate:

- 1 Using the Torx screwdriver, screw a 5×20 flat-head screw from the scope of delivery into the upper fixing point of the mounting plate.
  - The distance between the bottom of the screw head and the mounting plate must be 4 mm.
- 2 Insert the supply cable through the large grommet into the housing of the eMH1 Wallbox.
  - 1W0001: In addition, insert the mounting plate control cable through the smaller grommet into the housing of the wallbox.
  - **PVEMH10:** In addition, insert the mounting plate control cable, the inverter cable and, if applicable, the power supply unit cable through the smaller grommet into the housing of the wallbox.
- **3** Hang the wallbox on the screw in the upper fixing point.





- 20 | Installation Mechanical installation of the wallbox on the mounting plate
  - 4 Using the Torx screwdriver and the two remaining 5×20 flat-head screws, hand-screw the wallbox into the two lower fixing points of the mounting plate (torque: max. 2 Nm).

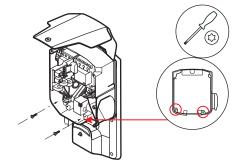
**5** Connect the supply cable to the internal RCCB or terminal block (basic models) of the eMH1.

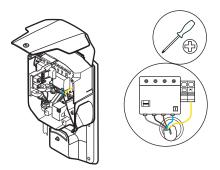
**6** Using the Torx screwdriver, secure the power supply cable in the internal strain relief.

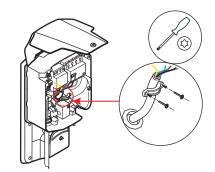
# **I**NOTE

### Completing the installation

- To complete the installation of the WHEMH10 mounting plate, go to **Step 13**.
- The following working steps are only relevant to the PVEMH10 mounting plate (Steps 7 to 10) and the 1W0001 mounting plate (from Step 11 onwards).

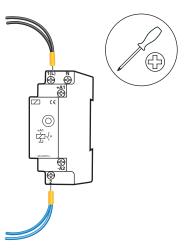






- 7 Insert the two free ends of the control cable into the terminals 1 (L) and 2 of the coupling relay and screw them together with the Phillips screwdriver.
  - See also illustrations in the section "Preparation for installing the PVEMH10 mounting plate" on page 14.

Wire colour	<b>Relay connection</b>
black	1 (L)
blue	2



#### 8 Insert the connecting cable of the PV system inverter into the relay contacts +A1 and -A2 and screw them together with the Phillips screwdriver.

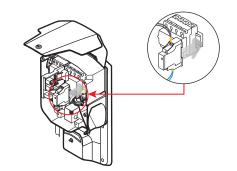
- In the case of an inverter with a floating output, connect the cable of the power supply unit (negative pole) to relay contact -A2 instead of the connecting cable.
- See also illustrations and tables in the section "Preparation for installing the PVEMH10 mounting plate" on page 14.

# ! NOTE

#### Information on the inverter and wiring

Please read the operating instructions for your inverter before installation. All the requirements for the control cables as well as the permissible peak voltages for the control cables will be specified there. You'll also be able to find information on how to set the threshold value for enabling the charging process.

**9** Insert the supplied coupling relay into the free righthand terminal slot of the top-hat rail in the eMH1 Wallbox.



- **10** Remove the right-hand panel in the upper part of the eMH1 Wallbox housing.
- **11** Remove the jumper at the switching input **EN1**.
  - The contact EN1 is located on the charge controller's circuit board under the built-in units.
- **12** Connect the control cable of the mounting plate via the reverse polarity protected JST connector to the switching input EN1.

# ! NOTE

#### Retaining the jumper

Retain the jumper so that you can reinsert it if you want to operate the wallbox without the mounting plate at a later time. In this case, you will need to reinsert the jumper in contact EN1.

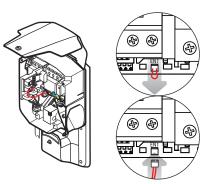
# WARNING!

#### Connection to contact EN1 for wallboxes with E2I interface

On all eMH1 wallboxes manufactured from mid-2021 onwards, the E2I interface is located on the inside left-hand side, and this is connected by default to the switching input EN1 on the charge controller's circuit board via a green and black cable ( $\rightarrow$  Installation instructions for the eMH1 Wallbox).

- Pull the cable out of EN1 on one side of the circuit board so that you can connect the control cable of the 1W0001/PVEMH10 mounting plate there.
- Make sure the cable is still connected to the E2l interface of the wallbox and lay the cable on the inside of the wallbox.
- If you want to operate the wallbox again without the mounting plate at a later time, you will need to reconnect the cable to the switching input EN1 on the charge controller's circuit board.





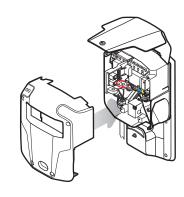
**13** Place the upper part of the housing onto the housing base.

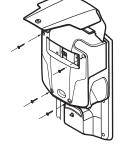
14 Fix the upper part of the housing to the housing base using the screws removed in Step 2 in section "Preparing the eMH1 Wallbox for installation" on page 18.

**15** Switch on the RCCB in the wallbox and/or the domestic power distribution.

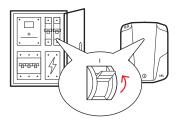
**16** Now lock the housing cover using the key.

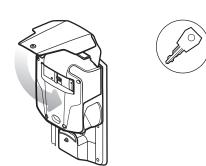
This completes the installation of the eMH1 Wallbox on the mounting plate and you can now start up the wallbox. You can find information on this in the section "Starting up the wallbox" in the eMH1 installation instructions ( $\rightarrow$  Installation Instructions for the eMH1 Wallbox).











# Using the mounting plates in practice

All three mounting plates offer the option to roll up the charging cable of the eMH1 Wallbox using the bracket on the front and thus store it neatly at the charge point.

The 1W0001 and PVEMH10 mounting plates also allow the charging process to be specifically blocked/enabled (1W0001) or the enabling of the charging process to be controlled via the inverter of a PV system (PVEMH10) via their respective switching functions.

The following sections describe these functions in more detail.

# Enabling and blocking the charging function with the 1W0001

The 1W0001 mounting plate offers a switch lock on the front of the cable holder which can be used to block and specifically enable access to the charging function of the installed wallbox for authorised persons. In normal operation, the key switch should always be switched off and only unlocked for the charging process.

# WARNING!

#### Replacement of keys in the event of loss

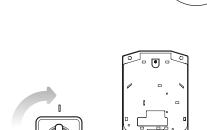
The 1W0001 is supplied with two keys for the switch lock. If you lose one or both keys, you can order more via ABL's Customer Service, as long as you have noted down the lock number. Without a lock number, the entire switching element of the 1W0001 must be replaced.

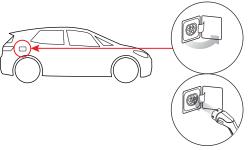
Be sure to make a note of the lock number of both keys supplied with the 1W0001! The lock number is the three right-hand digits directly below the key head.

Proceed as follows to authorise the charging procedure:

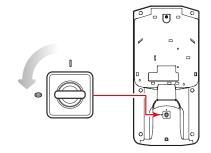
1 Connect the vehicle to the wallbox.

- 2 Turn the key to the I position in order to authorise the next charging procedure.
  - The charging procedure starts upon request of the vehicle.





- **3** When charging is complete, return the key to the **0** position.
  - The charging function is locked no charging takes place until the charging function is enabled again.



# ! NOTE

#### Interrupting the charging process using the key switch

If you move the key switch to the **0** position during an active charging process, the charging process is interrupted immediately. Return the key switch to the **I** position in order to authorise the charging procedure.



# WARNING!

#### Cancelling the charging process via the vehicle

You are advised to always cancel the charging process via the vehicle first and then move the key switch to the **0** position. Otherwise, the internal components of the eMH1 Wallbox may wear out.

### Selecting the charging mode for the PVEMH10

The PVEMH10 mounting plate has a selector switch on the front of the cable holder which allows you to switch the supply for the charging process between photovoltaic (ECO) and mains (GRID) power.



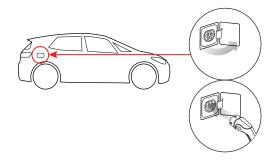
#### Setting up the inverter

All operation settings as well as the setup of a threshold value from which the charging process is enabled via PV current are made on the inverter.

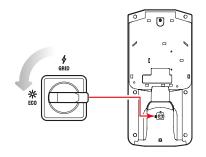
• You will find all the necessary information in the instructions for your inverter.

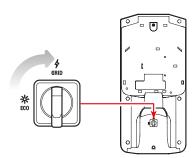
Proceed as follows to switch the charging mode:

1 Connect the vehicle to the wallbox.



- 2 Turn the selector switch to the ECO position in order to control the charging current via the inverter.
  - The charging process is enabled by the relay contact depending on the predefined values of the inverter.





**3** Turn the selector switch to the **GRID** position in order to authorise the charging procedure independently of the inverter.

# **Troubleshooting and maintenance**

If a malfunction should occur during operation, first check the points mentioned below. If the error cannot be rectified, contact your local sales partner and jointly determine how to proceed. The following malfunctions may occur:

Malfunction	Possible cause and suggested solution
An installed wallbox is not functioning.	<ul><li>The supply cable has not been connected properly.</li><li>Check all connections.</li></ul>
	The RCCB/MCB for the house connection are not switched on.  Check the upstream RCCB/MCB.
	The internal RCCB/MCB of the wallbox are not switched on.  Check the RCCB/MCB on the wallbox.
	<ul> <li>1W0001 and PVEMH10: The JST connector has not been correctly plugged into the EN1 connection of the wallbox.</li> <li>Check the EN1 connection in the wallbox, disconnect the JST connector and recon-</li> </ul>
	nect it.
1W0001 only: The keys for enabling the charging	If both keys supplied with the 1W0001 are lost, contact ABL Customer Service (see "Contact" on page ii).
process have been lost.	<ul> <li>You can reorder a new set of keys at a charge by providing the lock number.</li> </ul>

# I NOTE

#### Detailed information on other causes of errors

The installation instructions for the Wallbox eMH1 contain further detailed information on possible faults and causes of faults during start-up and operation of the wallbox.

 $\rightarrow$  eMH1 installation instructions

### Maintenance

The WHEMH10, 1W0001 and PVEMH10 mounting plates are essentially maintenance-free. However, we still recommend that the mounting plates are regularly cleaned and, in the case of the 1W0001 and PVEMH10 models, that their function is checked:

- Use a dry or slightly damp, well-wrung cloth to clean the mounting plate.
- Do not use aggressive cleaning agents, waxes or solvents (such as cleaning fluid or paint thinner) as they may dull the surface.
- Check the mounting plate regularly for signs of damage.
- Check the lock of the 1W0001 as well as the selector switch of the PVEMH10 and ensure that they move freely.

# Appendix

# **Technical specifications**

Model code	WHEMH10	1W0001	PVEMH10
Compatibility (Wallbox eMH1)			1W7201, 1W7208, 1W7221,1W7248, 1W1101, 1W1108, 1W1121, 1W2208
Compatibility (inverter)	-	-	All inverters with control output
Switching function	_	Key switch with two positions	Selector switch with two positions
Key position	_	horizontal: Charging blocked vertical: Charging enabled	ECO: Charging via PV power GRID: Charging via mains power
Interface	– Internal		ernal
Storage temperature	-30 to 85°C		
Operating temperature	-30 to 50°C		
Relative humidity	10 to 90%, no condensation		
IP rating	IP44		44
Туре	Wall bracket with integrated cable storage holder		
Fixing type	Plug and screw fixing (fixings included)		
Material	Plastic		
Housing colour	black, similar to RAL9005		
Dimensions ( $H \times W \times D$ )	482 × 226 × 93 mm 482 × 226 × 101 mm		
Weight	approx. 0.9 kg	approx. 0.95 kg	approx. 1 kg

# **IP** rating

IP rating	Explanation
IP44	Protection class of the unit (protection against penetration of solid foreign bodies with a diameter greater than 1 mm and against splashing water from all sides)

# **I** NOTE

IP protection after correct installation of the eMH1 Wallbox

Please note that full IP44 protection is only achieved if the eMH1 Wallbox has been properly installed on the mounting plate. To do this, read the installation instructions for the eMH1 Wallbox, too, and follow all the instructions and notes in this document:

 $\rightarrow$  eMH1 installation instructions

# Trademarks

All trademarks mentioned in this manual, including those that may be protected by third parties are, without restriction, subject to the regulations of the respectively applicable trademark law and the property rights of the respective registered owners. All trademarks, trading names or company names marked here as such are, or may be, trademarks or registered trademarks of their respective owners. All rights not explicitly granted here are reserved.

The absence of explicit identification of trademarks used in this manual must not lead to the conclusion that a name is free from the rights of third parties.

# **Copyright and disclaimer**

Copyright © 2022 Version 0301894\_EN\_b, date: 25/02/2022

All rights reserved.

- Any information contained in this manual may be changed without prior notice and does not represent any obligation on the part of the manufacturer.
- Illustrations in this manual may show designs different from the delivered product and do not represent any obligation on the part of the manufacturer.
- The manufacturer does not take responsibility for any loss and/or damage that occurs because of the data or possible misinformation contained in this manual.

# **Disposal advice**

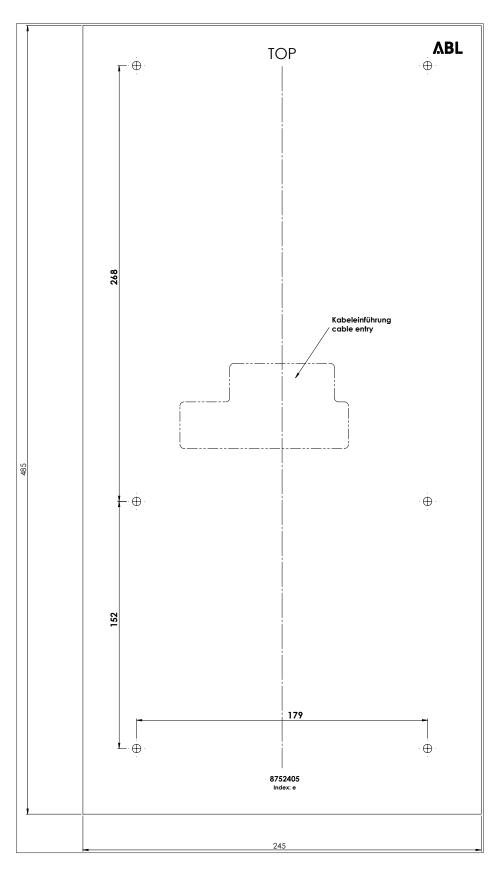


The crossed out rubbish bin symbol indicates that electrical and electronic devices including accessories must be disposed of separate from household refuse.

The materials are recyclable as marked. The reuse or recycling of materials, or other forms of repurposing of old devices make an important contribution towards protecting the environment.

# **Drilling template**

The WHEMH10, 1W0001 and PVEMH10 mounting plates come with a drilling template (see illustration below) for marking the fixing points. Should the drilling template have been lost, you can obtain the drilling dimensions from the illustration below.



| 31



ABL GmbH

Albert-Büttner-Straße 11 91207 Lauf an der Pegnitz Germany



+49 (0) 9123 188-0 +49 (0) 9123 188-188



info@abl.de www.ablmobility.de