PCE

Connection
to the future



PCE Wallbox GLB

Quickstart guide installation of standalone GLB Wallbox



Manual 380226-4.1

TABLE OF CONTENTS

WARNINGS 3

INSTALLATION OF STANDALONE GLB WALLBOX 10
NORMAL USE / CHARGING 11
BASIC LED INDICATIONS 11
SOFTWARE GLB 11
SERVICE/MAINTENANCE 11
TROUBLESHOOTING/SUPPORT/FAQ 11
TECHNICAL SPECIFICATIONS 12
HANDOVER REPORT 13
WARRANTY CONDITIONS 14

WARNINGS

This document contains general descriptions which are verified to be accurate at the time of printing. However, because continuous improvement is a goal at PCE, we reserve the right to make product and software modifications at any time.

Latest manual can always be found at www.pcelectric.at/de/info/emobility.html

Dielectric Voltage Withstand Test is not allowed on GLB Wallbox.

This equipment should not be used by anyone (including children) with reduced physical, sensory or mental capacity, or anyone lacking in experience or knowledge, unless they are provided with supervision or prior instruction in how to use the equipment by the person responsible for their safety.

The GLB Wallbox range of charging stations is designed exclusively for charging electric vehicles.

The GLB Wallbox must be grounded according to local country installation requirements.

Do not install or use the GLB Wallbox near flammable, explosive, harsh, or combustible materials, chemicals, or vapors.

Turn off the electrical power at the circuit breaker before installing, configuring or cleaning of the GLB Wallbox.

Use the GLB Wallbox only within the specified parameters.

Never spray water or any other liquid directly at the GLB Wallbox. Never spray any liquid onto the charge handle or submerge the charge handle in liquid. Store the charge handle in the dock to prevent unnecessary exposure to contamination or moisture.

Do not use this equipment if it appears to be damaged or if the charging cable appears to be damaged.

Do not modify the equipment installation or any part of the product.

Do not touch the GLB Wallbox's end terminals with fingers or any other objects.

Do not insert foreign objects into any part of the GLB Wallbox.

Do not use private power generators as a power source for charging.

Incorrect installation and testing of the GLB Wallbox could potentially damage either the vehicle's battery and/or the GLB Wallbox itself.

Do not operate the GLB Wallbox in temperatures outside its operating range – see technical specificatrions.

All installation must be carried out by an authorised installer and comply with local installation regulations. If any questions, please contact your local electrical authority.

Ensure that the GLB Wallbox's charging cable is positioned so it will not be stepped on, driven over, tripped on, or subjected to damage or stress.

Unroll the charging cable to prevent it from overheating.

Do not use cleaning solvents to clean any of the GLB Wallbox's components. The outside of the GLB Wallbox, the charging cable, and the end of the charging cable should be periodically wiped with a clean, dry cloth to remove accumulation of dirt and dust.

Be careful not to damage the circuit boards or components during installation.

Refer to local standards and regulations not to exceed charging current limitations.

The front cover must always be locked in its upper position in order to ensure compliance with IP Code IP44.

Avoid to install the GLB Wallbox in direct sunlight to avoid any heat-problems.

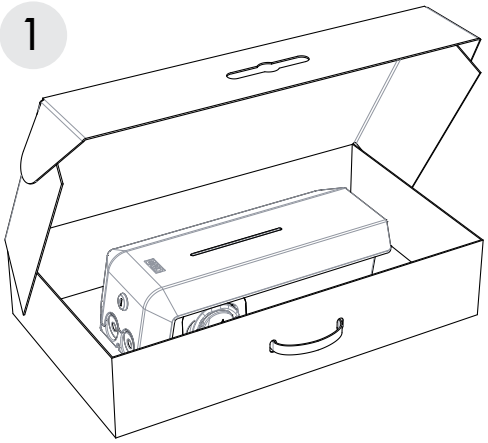
To even out the load, it is important to rotate the phases when connecting several of GLB Wallboxes to the same system. Note that 1-phase charging is common in electric vehicles and L1 in the GLB is used for this purpose.

Ventilation signal from EV is not supported.

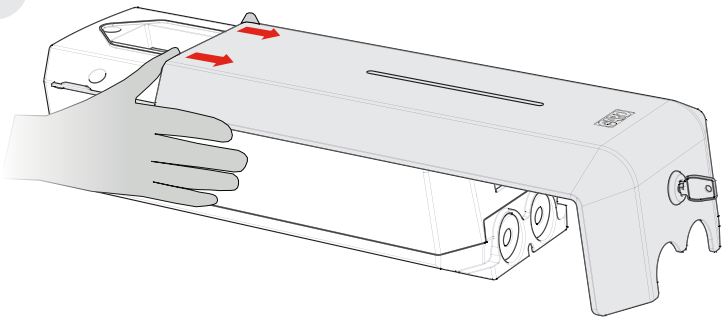
Adapters for charging connectors are not allowed to be used.

Cord extension sets for charging cable is not allowed to be used.

1

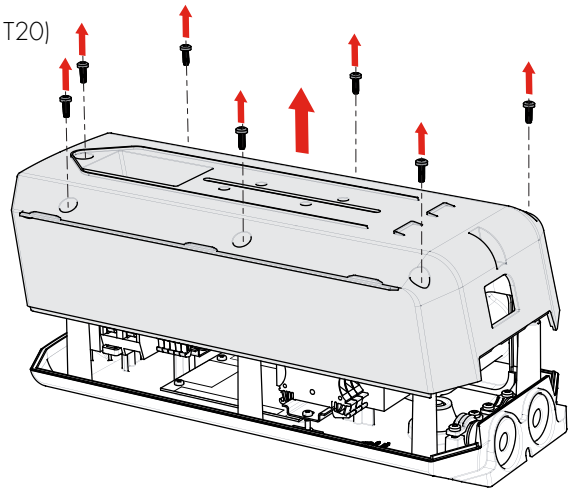


2

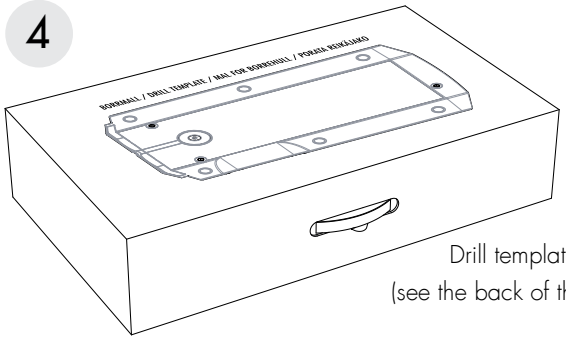


3

(7 x T20)

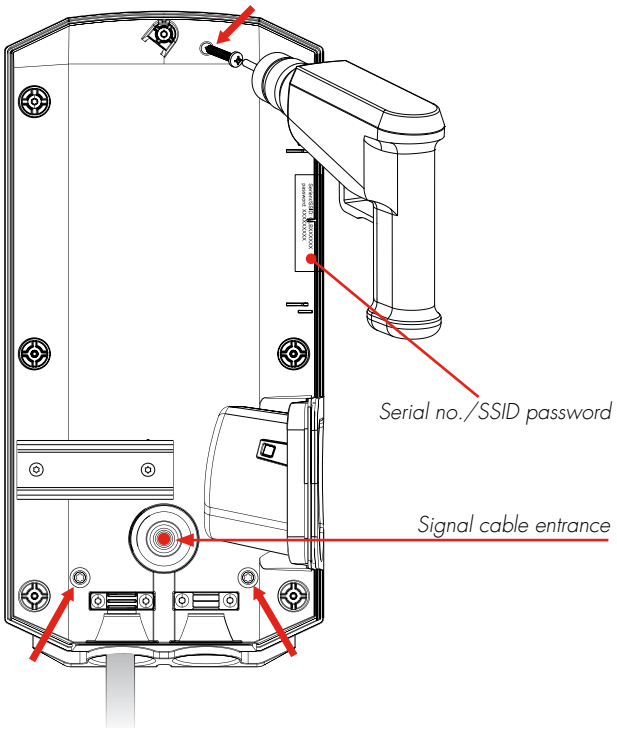


4

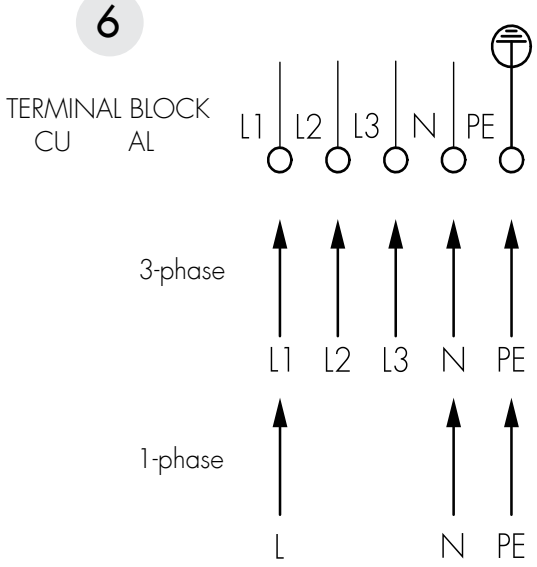


Drill template
(see the back of the box)

5

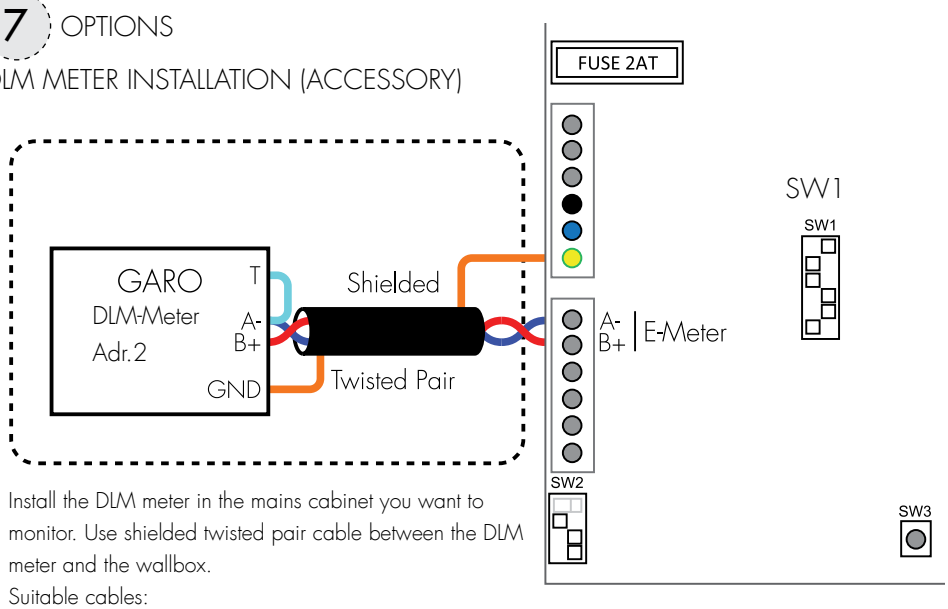


6



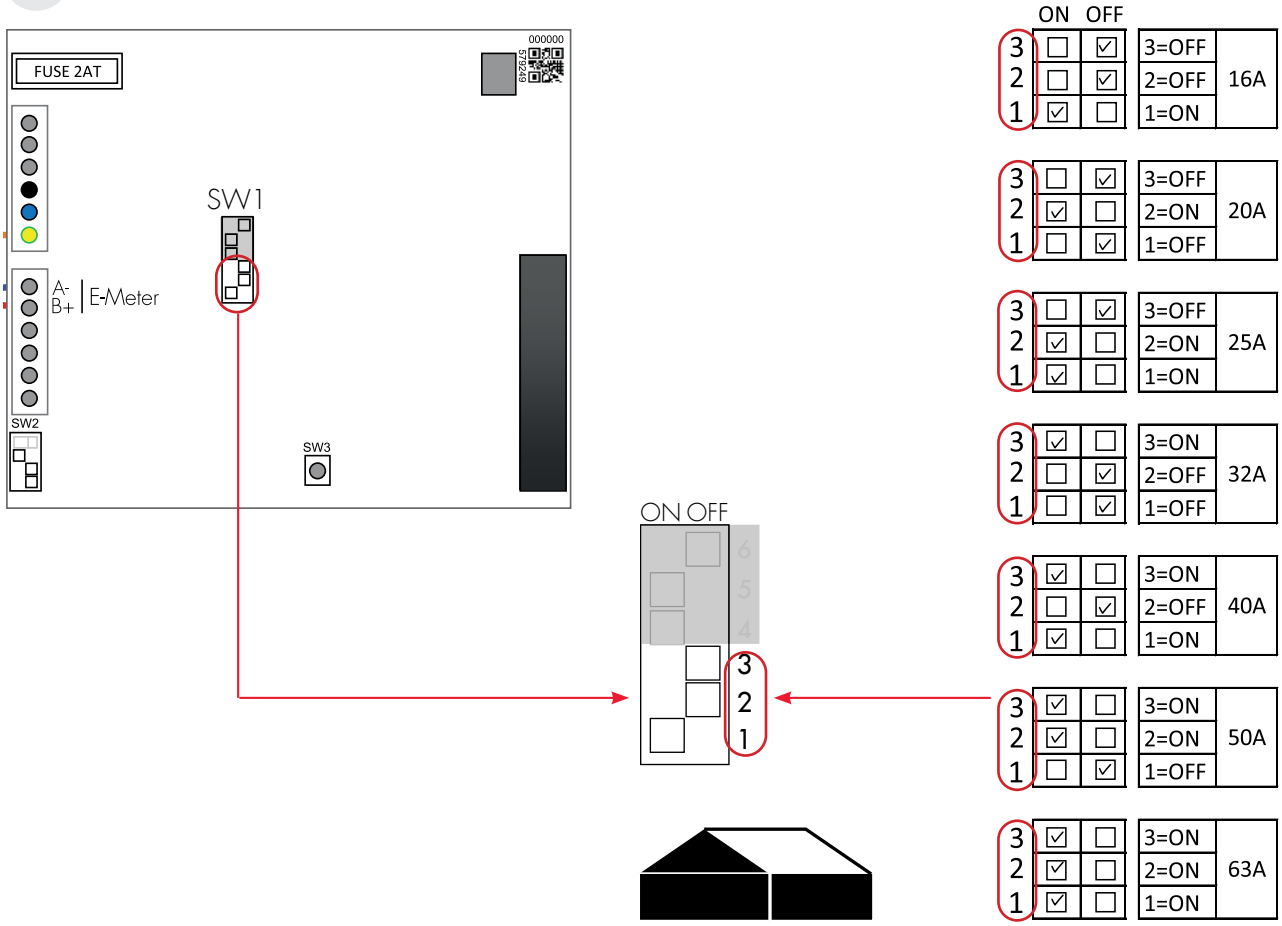
7 OPTIONS

DLM METER INSTALLATION (ACCESSORY)



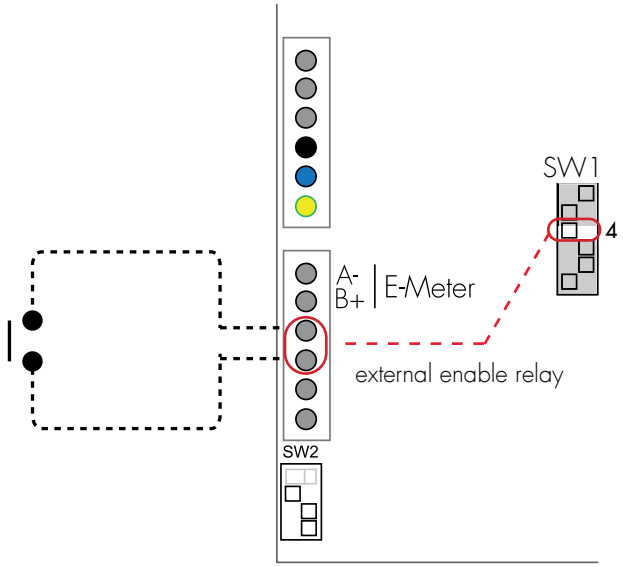
Install the DLM meter in the mains cabinet you want to monitor. Use shielded twisted pair cable between the DLM meter and the wallbox.
Suitable cables:
CAT5 FTP, CAT5e FTP, CAT6 FTP, ELAKY-S, ELAQBY-S or similar.
For full DLM manual and settings:
www.pcelectric.at/de/info/emobility.html

8 SET FUSE SIZE IN MAINS CABINET (FOR A WALLBOX)



	ON	OFF		
3	☐	☑	3=OFF	16A
2	☐	☑	2=OFF	
1	☑	☐	1=ON	
3	☐	☑	3=OFF	20A
2	☑	☐	2=ON	
1	☐	☑	1=OFF	
3	☐	☑	3=OFF	25A
2	☑	☐	2=ON	
1	☑	☐	1=ON	
3	☑	☐	3=ON	32A
2	☐	☑	2=OFF	
1	☐	☑	1=OFF	
3	☑	☐	3=ON	40A
2	☐	☑	2=OFF	
1	☑	☐	1=ON	
3	☑	☐	3=ON	50A
2	☑	☐	2=ON	
1	☐	☑	1=OFF	
3	☑	☐	3=ON	63A
2	☑	☐	2=ON	
1	☑	☐	1=ON	

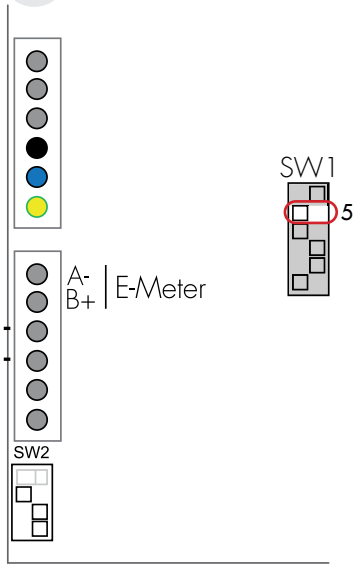
9 REMOTE ENABLE SETTING OF A WALLBOX



4 ON OFF ☑ ☐ — ON (default): Use when not connected to external enable relay.

4 ON OFF ☐ ☑ — OFF: Use when connected to external enable relay.

10 MASTER / SLAVE SETTINGS



5 ON OFF ☑ ☐ — ON (default): Master

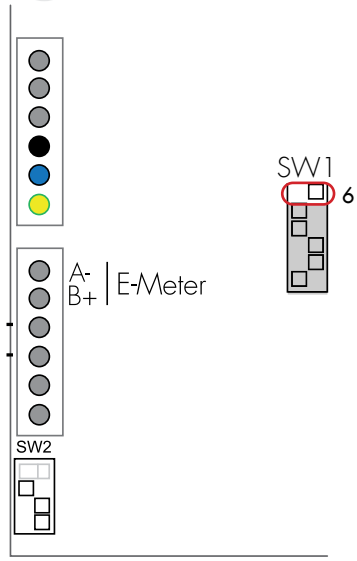
5 ON OFF ☐ ☑ — OFF: Slave

Stand allone installation = ON

Cluster installation = See Full manual at www.pcelectric.at/de/info/emobility.html

11 DATALINK END TERMINATION SETTINGS

(N/A FOR STAND ALONE INSTALLATION)



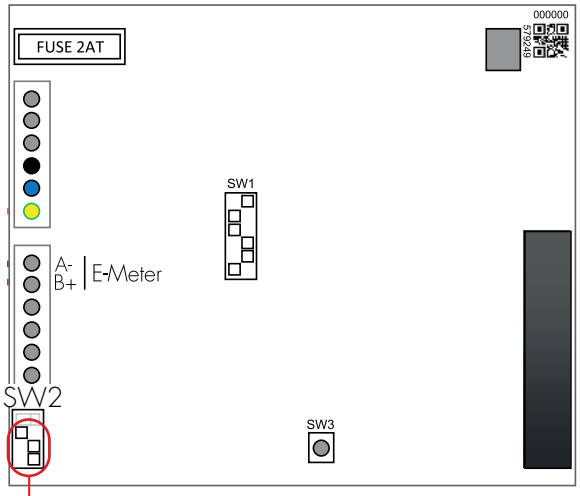
6 ON OFF ☑ ☐ — ON: Datalink end termination resistor active.

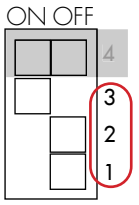
6 ON OFF ☐ ☑ — OFF (default): Datalink end termination resistor not active.

No function for stand alone installation. Only for cluster installation via Datalink Cluster installation = See Full Guide at www.pcelectric.at/de/info/emobility.html

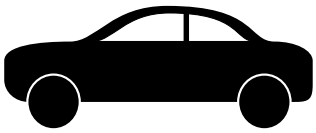
12 MAX VEHICLE CHARGING CURRENT (A)

DIP-SWITCH 2

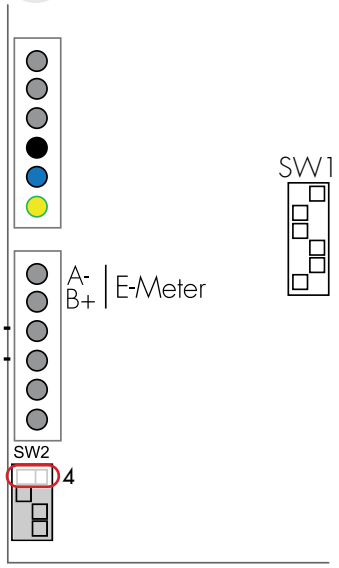




ON	OFF		
3 ☐	☑	3=OFF	6A
2 ☐	☑	2=OFF	
1 ☑	☐	1=ON	
3 ☐	☑	3=OFF	10A
2 ☑	☐	2=ON	
1 ☐	☑	1=OFF	
3 ☐	☑	3=OFF	13A
2 ☑	☐	2=ON	
1 ☑	☐	1=ON	
3 ☑	☐	3=ON	16A
2 ☐	☑	2=OFF	
1 ☐	☑	1=OFF	
3 ☑	☐	3=ON	20A
2 ☐	☑	2=OFF	
1 ☑	☐	1=ON	
3 ☑	☐	3=ON	25A
2 ☑	☐	2=ON	
1 ☐	☑	1=OFF	
3 ☑	☐	3=ON	32A
2 ☑	☐	2=ON	
1 ☑	☐	1=ON	

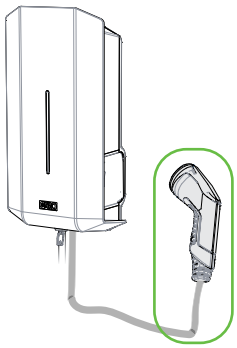


13 WALLBOX TYPE



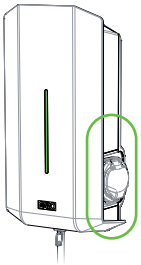


ON: Fixed cable





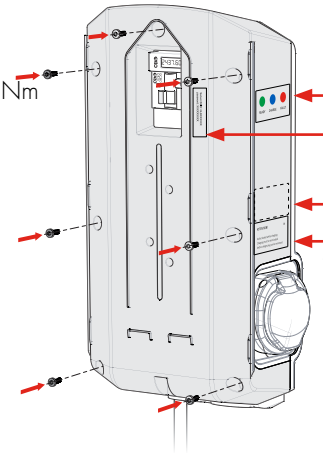
OFF: Outlet



Main fuse	16A	20A	25A	32A	40A	50A	63A
SW1(DIP 1-3)	16A	20A	25A	32A	40A	50A	63A
SW2(DIP 1-3)	13A	16A	20A	25A	32A	32A	32A

14

(7 x T20)
MAX 1,6 Nm



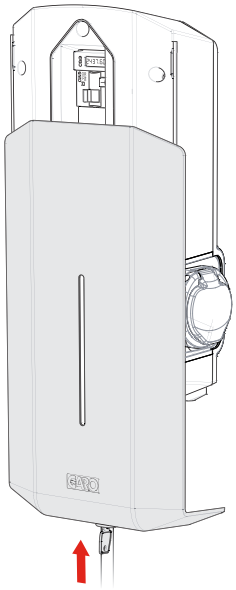
label explaining charger status indication

Serial No / SSID

language label is placed on the side

english information label

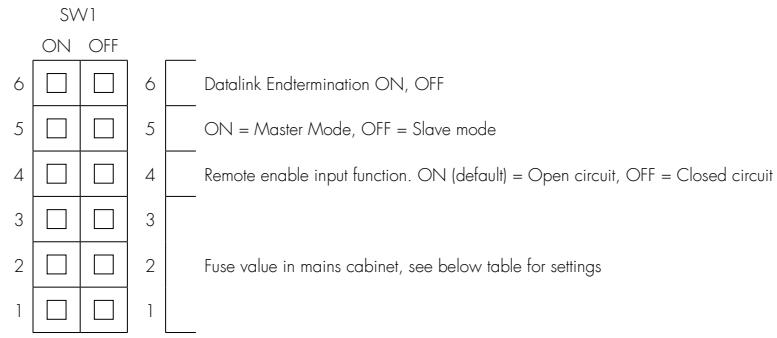
15

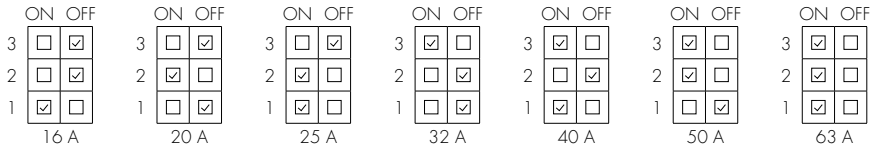


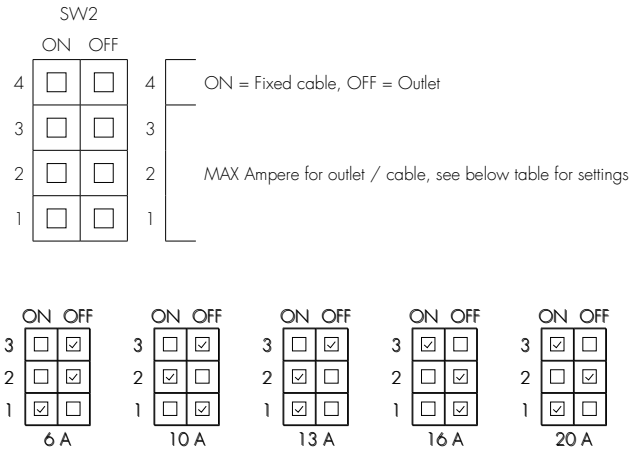
TROUBLESHOOTING / INFORMATION

INDICATION	TYPE OF FAULT	MEASURE
Solid red light	RCCB has tripped or EV earth check error is detected.	Reset. Refer to section on resetting the residual-current or personal protective current breaker.
Solid red light for 3 sec	RFID card not accepted.	Check RFID card
Red fast flash light	DC current >6mA - charging has stopped.	
Solid yellow light	Broken cable.	Check charging cable
Yellow flash light	Motor lock socket not in latched position.	Contact a qualified electrician.
Shifting red/green/yellow light	DC detection hardware error.	
Purple flash light	Chargebox overheating, charging has stopped.	After cool down, the charging process is restarted automatically.
White fast flash light	Search light indication.	Comparison with complete operating instructions
One quick white flash light repeating every minute ○ ○ ○	Indicate an error in DLM function.	Auto reset occurs as soon as the connection to the energy meter is re-established.
Solid blue light	RFID accepted - waiting to start charging.	
Shifting blue light intensity	EV charging in progress.	
Shifting red/blue light	Software upgrade in progress.	
Shifting blue/black light	Chargesession not enabled due to scheduled mood.	
Solid green light	Charger in idle, waiting for EV to connect.	
Green flash light	EV connected, wait to start charging or EV has finish charging.	
Green fast flash light	RFID reader is active, waiting to read card for authorization.	

DIP-SWITCH INFORMATION







INSTALLATION OF STANDALONE GLB WALLBOX

(for installation of GLB in cluster, see User manual at www.pcelectric.at/de/info/emobility.html

GLB Type			Protection type				
	1-phase	3-phase	No RCBO or RCCB	RCBO	RCCB type A	RCCB type B	DC-fault protection
GLB..-..37.. [2) 4)]	●			●			
GLB..-..74.. [2) 4)]	●			●			
GLB..-..22.. [1) 2)]		●	●				
GLB..-..22..-A [2) 3)]		●			●		
GLB..-..22..-B [3)]		●				●	
GLBDC..-..37.. [4)]	●			●			●
GLBDC..-..74.. [4)]	●			●			●
GLBDC..-..11.. [1)]		●	●				●
GLBDC..-..22.. [1)]		●	●				●
GLBDC..-..22..-A [3)]		●			●		●

1) GLB Wallbox without RCCB or RCBO included in the enclosure must have Residual Current protection and must be protected with a max 32A fuse in the supply distribution box.

2) GLB Wallbox without RCCB Type B fitted or DC fault protection in the enclosure must in accordance to IEC 60364-7-722 be protected with a Residual Current Device (RCD) Type B.

3) 3-phase GLB Wallbox equipped with a Residual Current Circuit Breaker (RCCB) must be protected with a max 32A fuse in the supply distribution box.

4) 1-phase GLB Wallbox fitted with a Residual Current Breaker with Overcurrent Protection (RCBO) can be connected in parallel. This group of chargers must be protected by a backup fuse in the distribution box. The backup fuse shall not exceed 125A.

1. Select the appropriate group fuse (1x6A - 3x32A) and cable area for the electrical installation. Some countries require earth fault breakers to be installed. Follow local country regulations and select the appropriate earth fault equipment for the electrical installation. NOTE! Due to high currents for a long time in the cable, there is a high risk of voltage drop if the cable is under-dimensioned which can damage the electronics in an EV.
2. Fill in the information in the handover report.
3. Mount the GLB Wallbox according to the installation sketch, (figure 1-7)
4. Install the electrical power supply cable according to local regulations.
5. Set dip switch SW1 to same (A) as the main fuse (16-63A). SW1 is located at the center left hand side of the main board. See figure 8-11.
6. Set the dip switch SW2 according to your group fuse for the GLB Wallbox (6-32A). Dip switch 2 is located at bottom left corner of the main board. See figure 12-13.
7. Fill in serial number in the handover report. See figure 14, Serial No / SSID label.
8. Mount the box cover on the enclosure + front lid, see figure 14-15.
9. Turn on the electrical power to the GLB Wallbox.
10. For GLBW... and GLBDCW... models: Connect a mobile device (PC/Tablet/Mobile) to the GLB Wallbox Wifi network. You find SSID and password on the rating label. Type in 172.24.1.1 in your web browser and check that the GLB webinterface is visible. This action confirms that the GLB Wallbox communication module is working properly.
11. Test the charger with a test instrument or test to charge an electric vehicle to ensure that the charger is working properly.
12. Doublecheck that the handover report is filled in completely, sign with name, date and company that the warranty is valid.

NORMAL USE / CHARGING

Connect the charging cable to the EV. Charging will start instant if the EV is ready for charging.
See your EV charging manual.
When finishing charging, follow the car's instructions.
After charging: Release the charging cable from your EV and place the charging cable at designated place.

BASIC LED INDICATIONS



Solid green light: ready for charging
Green flash light: GLB Wallbox waiting for start signal from electric vehicle
Shifting blue light intensity: charging
Other LED indications: see User manual at www.pcelectric.at/de/info/emobility.html

GLB-SOFTWARE
SERVICE/MAINTENANCE
TROUBLESHOOTING/SUPPORT/FAQ

See User manual at www.pcelectric.at/de/info/emobility.html

TECHNICAL SPECIFICATIONS

Product type	All GLB models
Standards / Directives	IEC 61851-1 and IEC 61439-7 
EMC Classification:	2014/30/EU
Installation method:	Wall
Installation environment:	Indoor / Outdoor
Location type:	Non-restricted Access
Rated Voltage:	230V / 400V 50Hz
Installation systems:	TT, TN and IT systems
Charging type:	Mode 3
Charging method:	AC
Protection class:	IP44
Mechanical impact resistance:	IK08
Temperature range:	-25C - +40C
Weight:	3-5,4 kg (depending on model)
Standard cable length (fixed cable version):	Standard 4,5m
Rated current withstand	10kA
Rated short-time withstand current	10kA
Rated conditional short-circuit current of an assembly	10kA
Short-circuit protective device type	Type C
Rated impulse withstand voltage	4kV
Rated insulation voltage	230/400V
Rated current of each circuit	32A
Standby power	6W
Rated diversity factor	RDF=1
Pollution degree:	3
EMC environmental condition	A and B

HANDOVER REPORT

Charging device for electric vehicles (EV)

Version 07/2021

EN

1 Modell

GLB: ☐ GTB: ☐

Serial No: ..... Software version: .....

RFID-Reader: yes ☐ no ☐ Communication Module: yes ☐ no ☐

2 Location

Street: ..... Zip code/Place: .....

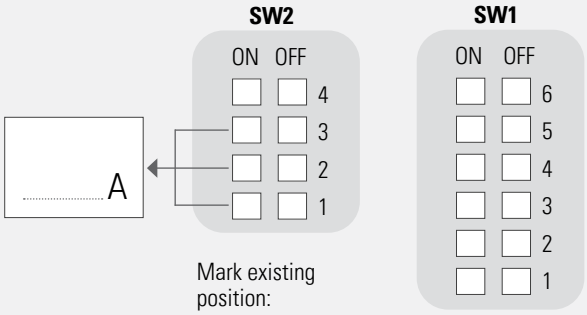
Exact placement: (e.g.: carport, garage, outdoors, ...) .....

3 Electrical installation

Group Fuse (A): .....

Supply line: Cable dimension: ..... Cable length: .....

4 Settings DIP-Switch



5 Function test performed with:

EV test adapter: ☐ Electrical vehicle (EV): ☐

6 Load management settings (DLM)

Against building: ☐ In the supply line: ☐

Meter adressing: 2 ☐ 100/101 ☐

Total current (A): .....

7 Notes/Others

.....

.....

8 Authorised Electrician

Company Name: .....

Street: .....

Zip code/Place: .....

Name of electrician: .....

Sagnature: .....

9 Client

Name: .....

Street: .....

Zip code/Place: .....

Sagnature: .....

Place, date: .....

ⓘ All installation must be performed by a qualified electrician in accordance with local installation regulations. If you have any questions, contact your local regulatory authority.

PC Electric Ges.m.b.H. I Diesseits 145, 4973 St. Martin i. I. I AUSTRIA I +43 7751 61220 I emobility@pcelectric.at I **www.pcelectric.at**

WARRANTY CONDITIONS

EU COUNTRIES (EXCEPT SWEDEN)

1. The product benefits from manufacturer´s warranty. The applicable warranty period must be stated in purchase documents from your supplier.
2. The product must be installed by a certified installer / contractor.
3. Proper installation, storage and operation conditions must be obtained.
4. Warranties apply only to products installed in their original installation location.
5. Installation, use, care, and maintenance must be normal and in accordance with instructions.
6. Warranty requires a dated, fully filled in handover report by an certified installer/contractor. If the original installation date cannot be verified, then the warranty period begins ninety (90) days from the date of product manufacture (as indicated by the model and serial number).
7. Warranty does not cover damage occurred by incorrect use of equipment, use of any non-original spare parts, lack of maintenance or faults caused by disassembly of the product or unauthorized persons intervention.
8. Warranty does not cover software or update thereof.
9. Warranty does not cover aesthetic deficiencies caused by negligent manipulation or accidents (breaks or damage to the carcass).
10. Warranty does not cover damage caused by external overvoltage from either grid or car/ charging object.
11. Warranty does not cover damage caused by force major like for example but not limited to: floods, winds, fires, lightning, accidents, sabotage, military conflicts, terrorism, volcanos, earthquakes or corrosive environments.

NOTICE!

Completely filled out handover report required.

The warranty does not apply if the product has been subjected to an insulation test.



Manufacturer:
GARO AB
Box 203, SE–335 25 Gnosjö
Tel.: +46 (0) 370 33 28 00
Fax: +46 (0) 370 33 28 50
info@garo.se
garo.se

Distribution:
PC Electric GmbH
Diesseits 145, AT–4973 St. Martin i. I.
Tel.: +43 (0) 7751 61220
Fax: +43 (0) 7751 6969
office@pcelectric.at
www.pcelectric.at

PCE