1V0002 EXTERNAL CONTROL UNIT

Quick Start Guide, current 12/2021, Article number: 0301673_EN_e

Thank you for choosing the 1V0002 external control unit by ABL!

- Please read this quick start guide carefully.
- Please also consider the information and safety notices provided in the installation and operating manuals for the Wallboxes eMH2 and eMH3 by ABL.
- Please affix the type plate included near the 1V0002 control unit as mandated.

Items supplied

1 × 1V0002 external control unit

The 1V0002 has four pre-drilled holes (∅ 7 mm) for mounting at the installation site. Fasteners (screws, wall plugs etc.) are not included with the 1V0002. These must be supplied by the installation contractor.

Mechanical and electrical installation

During the installation, the circuit breaker for the supply line must be switched off in the house distribution.

Tools and materials required: Pozidriv screwdriver, wire stripper, crimping tool

1 Attach the 1V0002 control unit using the DIN rail at the chosen installation site.

2 Strip the wires of the supply line, put ferrules on the wires and crimp on the ferrules (tools: wire stripper, crimp tool)

3 Operate the spring loaded mechanism of the **PE** terminal and clamp the PE protective earth conductor onto it.

4 Insert the **L** and **N** conductors of the power supply cable into the RCCB terminals and screw down hand-tight (tool: Pozidriv screwdriver).

Conductor colour*	Connector RCCB	Description
Brown	L	Phase 1 current-carrying conductor
Blue	N	Neutral
Green-Yellow	PE	Protective earth

* Colour-coding is not internationally standardised and may therefore vary

The electronic components of your wallbox will be damaged if a voltage above 250 V is applied between the current-carrying conductor **L** and the neutral conductor **N**.

This step concludes the installation of the 1V0002.

Connecting controller/extender communications and commissioning

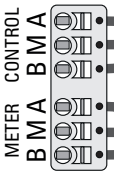
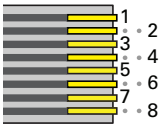
Tools and materials required: M32 cable gland with strain relief, cable cutters, wire stripper, data cable (twisted pair, at least CAT5 or above), Pozidriv screwdriver, Voltmeter

During the installation, the circuit breaker for the supply line must be switched off in the house distribution until step **5**.

1 Cut the data cable to the required length for connecting to the daisy chain circuit board and strip as required (tools: cable cutter, wire stripper).

2 Strip the wire strands of the data cable.

3 Clamp the wires of the data cable onto the left or right hand side terminal block of the daisy chain circuit board.

Spring terminal		Conductor colour*	RJ45 plug	
Top view of terminal	ABL bus allocation	Twisted pair-cable	PIN allocation	Top view of RJ45 plug
	CONTROL A	Orange-White	1	
	CONTROL M	Green-White / Green	3 & 6	
	CONTROL B	Orange	2	
	METER A	Brown-White	7	
	METER M	Blue-White / Blue	4 & 5	
	METER B	Brown	8	

* Colour coding according to EIA/TIA-T568B, variations possible

4 Insert the data cable into the first extender wallbox and clamp in onto the left or right hand side terminal block of its daisy chain circuit board (see the detailed installation and operating manual for the wallbox).

For correct functioning, the colour coding between the individual data cable wire strands and the daisy chain terminal blocks must be strictly observed in all controller/extender units!

Only the first extender wallbox will be connected directly to the 1V0002. Each additional extender will be connected to the extender wallbox that precedes it.

5 Switch on the circuit breaker for the power supply to the 1V0002 in the domestic power distribution and measure the voltage at the RCCB if required (tool: voltmeter).

6 Flip the pivot levers of the internal MCB and RCCB to the **I** position.

This completes the commissioning of the 1V0002 control unit.

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Setting up controller/extender communications

Tools and materials required: Computer, Ethernet cables with RJ45 plug-in connectors

In order to proceed with configuration, the 1V0002 must be connected to the power supply. Special caution is therefore required due to the presence of electrical voltages!

1 Use the Ethernet cable to connect the computer to the RJ45 socket on the centrally located SBC circuit board of the 1V0002.

2 On the computer, open the browser and enter the address http://169.254.1.1:8300/.

In case of connection errors, check the network settings of the computer and adjust them as follows:

- Network: 169.254.0.0
- Subnet mask: 255.255.0.0
- Address: 169.254.1.2

3 The online administration interface opens in the browser. The following functions are available using the tabs:

Tab	Functional description
Overview	• Checking the status of all recognised controller and extender model variants • Checking the system software version
Configuration	• Checking information about the 1V0002 control unit, the backend and OCPP • Editing backend operator details (only when changing backend operator) • Assigning backend ID to control unit
Devices	• Checking the system's total connected load • Checking the maximum connected load for each extender wallbox
Products	• Registering additional extender wallboxes in the system • Editing 1V0002 properties
Certificates	• Checking backend operator certificates
Diagnostic Functions	• Checking version and status information for all communicating components in the system
Logs	• Checking logged access to the communicating components in the system
Maintenance	• Carrying out a restart (software and/or hardware) • Updating the system software • Running system diagnostics

4 Disconnect the Ethernet cable from the RJ45 sockets in both the 1V0002 and the computer.

The 1V0002 control unit is now configured as controller to control the extender wallboxes.

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