WOW! Battery Check

BATTERY DIAGNOSTIC TOOL

W072800500 03/25

EN Original operating instructions

1

2

3

4

5

6

7

8

9

10

Version 1.6

11

1

2

3

2

Table of Contents

1. For your safety

Please read this user manual before using your appliance for the first time and follow the instructions. Keep this user manual for future reference or for any subsequent owners.

You can also download this manual from https://www.wow-portal.com/web/en/wow/service/handbuecher/handbuecher.php

Use only genuine WOW! accessories and spare parts.

2. Safety instructions

- If you have received a damaged appliance, please contact customer services.
- Under no circumstances should you open the casing of your device.
- Do not dismantle, crush, bend, deform, pierce or shred the WOW! Battery Check Box.
- Do not use the device in damp, wet and/or corrosive environments.
- Use the device only at altitudes of up to 2000 m.
- Only operate the device at a distance of more than 20 cm from the human body!
- Do not store or place the appliance in a location with high temperatures, in direct sunlight, in or near a heat source, in a microwave oven or in a pressurised container, and do not expose it to temperatures above 85 °C or below -40 °C.
- Do not use liquid cleaning agents on your device.
- Do not drop the device. If the device has been dropped and you suspect damage, please contact customer services.
- Changes or modifications not expressly authorised by WOW! are not permitted

3. Intended use

The WOW! Battery Check is designed to test high-voltage batteries (HV batteries) in electric and plug-in hybrid cars.

The device is intended solely for the applications described in the user manual. Any other use is prohibited and may result in accidents or damage to the device. Such use will result in the immediate forfeiture of any warranty or guarantee claims the user may have against the manufacturer.

The user is liable for any damage resulting from improper use.

4. Contents of the package [Fig. 1]

1 Carry case
2 WOW! Battery Check Box
3 Mains adaptor
4 Adapter cable for power supply unit (*Part No. 14005**)
5 2 m OBD-2 cable for all car models except Tesla (*part no. 14018**)
6 Tesla Model S and X adapter cable – new (manufactured from September 2015 onwards) (*Part No. 14006**)
7 Tesla Model S and X adapter cable (old) (manufactured up to September 2015) (*Part No. 14007**)
8 Tesla Model 3 and Y adapter cable (*Part No. 14008**)
9 Tesla Model 3 'Highland' adapter cable for the A-pillar on the passenger side (*Part No. 14019**)
10 DOIP adapter cables (Part No. 14017) for version 1.6 boxes only!
11 adapter cables for Ford models (part no. 14022)

** Part numbers can be found on the labels of the connectors*

5. Device components [Fig. 2]

1 OBD-2 interface
2 Front LED (indicates the status of the FLASH test)
3 Rear LED (indicates the status of the internet connection; if it flashes orange, a connection has been established)

6. Technical specifications

WOW! Battery Check Box	
Item No.	W072800500
Display	Visual feedback via multi-colour LED
Interfaces / Connections	OBD-2 for communication with the vehicle and power supply (SAE J1962 standard)
Nominal supply voltage	12 V DC or 24 V DC
External supply voltage range	9–28 V DC (power supply unit)
Power consumption	RMS: 5 W / Peak: 25 W
Ambient temperature	0 °C to 50 °C
Storage temperature	-40 °C to 85 °C
Weight	approx. 131 g
Dimensions	145 x 60 x 38 mm (L x W x H)
Protection class	IP20

7. Symbols on the device

Symbol	Description
CE	Compliance with EU legislation
UKCA	Compliance with UK legislation
	Electrical and electronic waste (WEEE Directive)

8. FLASH Test

The FLASH Test is a quick test that comprehensively assesses the functionality of traction batteries. The test takes just 3 minutes and no test drive is required.
Your vehicle's state of charge can be at any level.

8.1 Preparations

8.1.1 -compatible vehicle

To ensure that a FLASH test can be carried out, please check the following website to see if your vehicle is eligible for testing: https://aviloo.com/en/vehicle-coverage

8.1.2 OBD interface

Please refer to your vehicle's manual to find out where the OBD port is located; this varies depending on the vehicle.

Tesla vehicles

- Tesla Model S & X

You'll find the connector in the centre console beneath the windscreen.

- Tesla Model 3 & Y

You'll find the plug behind the seats, under the centre console.

- Tesla Model 3 'Highland'

You'll find the connector in the A-pillar between the door and
the vehicle.

8.1.3 Adapter cables

Various adapter cables are included in the scope of delivery. These are required to connect the WOW! Battery Check Box to your vehicle's OBD port. There are different adapter cables for the respective car models.

Refer to Figure 1 and the description in the 'Contents' section to select the correct adapter cable for your vehicle.

Tesla vehicles: Ensure you use the correct cable for your model.

8.1.4 Software updates

Plug the WOW! Battery Check Box into the mains before carrying out a FLASH test. A mains adaptor and an adapter cable are included in the pack. The box automatically connects to the internet.
This allows software updates to be downloaded and ensures that the box is up to date.

8.1.5 Optional: Web App

For the FLASH test, you can use the AVILOO web app on a mobile device (e.g. smartphone or tablet) zen. The app allows you to track which stage of the FLASH test you are at.
However, the app is not essential for taking the test.
You received access to the web app via email following the registration process.

8.2 Take the FLASH Test at

PLEASE NOTE!

Property damage
If the WOW! Battery Check Box is permanently installed in the vehicle, this may lead to the vehicle battery being deeply discharged.
► Connect the box to your vehicle only for the duration of the test and disconnect it as soon as the test is complete.

WARNING!

Property damage
► Ensure that the vehicle is not being charged during the test.

Operation	LED display of the WOW! Battery Check Box
► **Tesla vehicles:** Close all doors. ► **VW, Skoda, Cupra and Seat models:** Unlock the bonnet before connecting the WOW! Battery Check Box (it is not necessary to open it).	 **OFF (no light is displayed):** The WOW! Battery Check Box is 'asleep' or switched off. This means that the vehicle's ignition is switched off or the box is not connected.
1. Connect the AVILOO Box to the vehicle via the OBD-2 interface. **IMPORTANT!** Secure the box in a safe and stable position. Avoid twisting the cable. – Tip: The AVILOO web app helps you locate the OBD-2 port in the vehicle. **2.** Turn on the ignition to put the vehicle into drive mode. **3.** Put the vehicle into Drive mode and apply the brake. or ► Fasten your seatbelt to keep the systems required for the test active. **4.** Switch off the heating and air conditioning.	 **Flashing blue (slowly):** The WOW! Battery Check Box is booting up.  **Blue flashing (fast):** A firmware update is in progress. The box will restart after the update.

Function	LED display on the WOW! Battery Check Box
5. Wait for the LED to flash yellow, indicating that the WOW! Battery Check Box is ready for the FLASH test.	 **Flashing yellow:** The vehicle is sending its Vehicle Identification Number (VIN) and other information to the box so that it can identify the model.
6. Wait whilst the FLASH test is running.	 **Yellow steady light:** Vehicle identified – FLASH test in progress.
If the FLASH test could not be carried out, proceed as follows: ► Check at https://aviloo.com/en/vehicle-coverage to see if the vehicle can be tested. ► Repeat the FLASH test as per the instructions. ► Contact AVILOO Support on +49 89 3801 2609* if the first two steps were unsuccessful. Please have the following to hand: AB number (on the type plate of the WOW! Battery Check Box), car model and the time	 **Red light:** The FLASH test has failed. The ignition is off, the model could not be identified, or the model is not yet supported.
7. Wait for the LED to glow green continuously, indicating that the FLASH test has finished.	 **Flashing green:** FLASH test completed, but not fully uploaded to the server.  **Steady green light:** FLASH test fully uploaded to the server.
8. Switch off the vehicle. **9.** Unbuckle your seatbelt. **10.** Unplug the WOW! Battery Check Box. **11.** Close the driver's door and, if applicable, the bonnet. ✓ The battery certificate will be sent by email to the email address on file for this WOW! Battery Check Box. If you do not receive a battery certificate, please contact AVILOO Support on +49 89 3801 2609*.	

*For further information, see:
https://www.wow-portal.com/web/en/wow/produkte/batterie_check/DieZukunftistelektrisch.php

8.3 Battery certificate

8.3.1 Overview of the analysed values

Independent verification of the battery's condition

The certificate confirms the State of Health (SoH) of the drive battery and ensures that it meets current safety standards. The SoH value is determined using the certified AVILOO algorithm based on real vehicle data.

Benchmarking for market transparency

A comparison with similar electric vehicles enables a well-founded assessment of battery performance. A visual scale shows whether the battery is performing below, at or above average.

Battery analysis for safety

The test checks battery management, sensor accuracy, and voltage and communication stability. The voltages of the battery pack and individual cells are analysed to detect hidden faults at an early stage.

Range assessment

The WLTP range is realistically assessed to provide a reliable forecast of actual driving range

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INDEPENDENT

BATTERY CERTIFICATE

AVILOO
BATTERY DIAGNOSTICS

CERTIFICATE NUMBER: 8AB4F5A4-FE7A-41B9-841A-AF0EE89AAF0F

VEHICLE

BRAND: Audi
MODEL: Q4 e-tron – 77 kWh

MILEAGE: 36,249 km
VIN:
DATE AND TIME:
10/13/2025, 12:58:53 PM

PERFORMED BY: WOW! Würth Online World GmbH

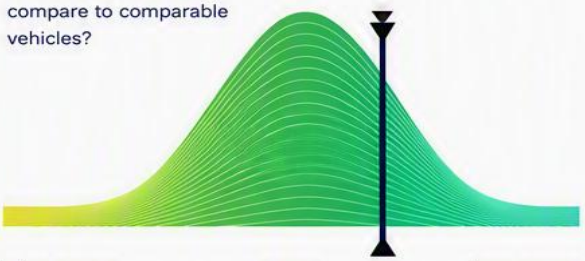
RESULTS

STATE OF HEALTH (SOH)

97.2 %

RATING

BENCHMARKING
How does your vehicle compare to comparable vehicles?



CHECKS

Battery Management System (BMS)	✓
Battery Sensor	✓
Battery Measurements	✓
Battery Cell Voltages	✓
Vehicle Communication	✓

SCAN FOR DETAILS

EVALUATION

EXCELLENT BATTERY HEALTH – NO ABNORMALITIES DETECTED

Based on the detailed battery diagnostics performed with the AVILOO FLASH Test, we hereby certify that the drive battery of this vehicle is in excellent condition.

The drive battery is therefore officially AVILOO certified.

Dr. Marcus Berger, CEO

CARA *Approved Battery Health Check

PERFORMED BY:

THIS BATTERY IS TESTED AND CERTIFIED FOR AVILOO
AVILOO CERTIFIED

ENERGY

	Gross	Net (nominal)	Usable
Current	:79.7 kWh	74.8 kWh	71.9 kWh
New	: 82.0 kWh	77.0 kWh	74.0 kWh

RANGE

	WLTP		
Current:	400–546 km	360 km	352km
New:	412–562 km	371 km	363 km

EXECUTION LOG

AVILOO box connected.	12:58:49
FLASH test started.	✓
Vehicle detected.	✓
Start of data recording. Data	✓
recording completed.	✓
Analysis of data.	✓
Analysis complete.	✓

SENSORS

	✓
Voltage sensor Current	✓
sensor Temperature sensors	✓
Cell voltage sensors	✓

BMS

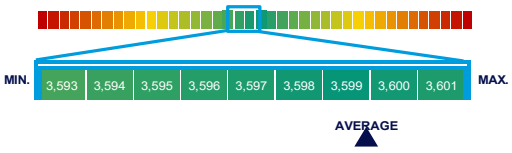
	Value	Status
BMS State of Charge (SoC)*:	31%	
Accuracy of SoC calculation:		✓
BMS State of Health (SoH)*:	98%	
Accuracy of SoH calculation:		✓

MEASUREME

	Min.	Max.	Delta	Status
Battery temperature	12.8°C	13.5°C	0.8°C	✓
Cell voltage	3.593 V	3.601 V	8 mV	✓
Battery voltage	345.4 V			
Average current	-10.5 A			

CELL VOLTAGE DIAGRAM

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1–20	3,596	3,595	3,596	3,595	3,595	3,594	3,598	3,596	3,599	3,598	3,599	3,598	3,599	3,597	3,599	3,598	3,600	3,598	3,599	3,599
21–40	3,599	3,597	3,599	3,598	3,599	3,598	3,599	3,600	3,599	3,598	3,599	3,599	3,596	3,593	3,596	3,594	3,596	3,596	3,596	3,595
41–60	3,601	3,599	3,600	3,600	3,598	3,598	3,600	3,597	3,600	3,599	3,600	3,600	3,599	3,598	3,600	3,600	3,597	3,594	3,596	3,595
61–80	3,597	3,596	3,598	3,596	3,600	3,599	3,600	3,600	3,599	3,599	3,600	3,599	3,600	3,599	3,601	3,600	3,600	3,599	3,600	3,599
81–96	3,601	3,598	3,600	3,600	3,600	3,598	3,600	3,599	3,601	3,598	3,600	3,599	3,599	3,599	3,600	3,599				



*The figures shown here were not calculated by AVILOO, but correspond to the values read from the battery management system (BMS) and were calculated by the manufacturer. AVILOO therefore accepts no liability for their accuracy.

DISCLAIMER: The test result reflects the currently calculated State of Health (SoH) of the drive battery. This calculation is based on data provided by the vehicle. This data is analysed by AVILOO's algorithms using statistical and analytical models. Tampering with the data in the control unit will result in an incorrect result. The stated SoH exhibits a technically induced margin of variation (deviation) of no more than 3% in at least 95% of reference measurements. It should be noted that this tolerance applies to the determination of the SoH value at cell level and not to the SoH value of the entire battery. This is because the state of health of individual cells may vary, which can have a negative impact on the battery's current SoH value. However, this can be compensated for by the battery management system (BMS) or during calibration. The result reflects the condition of the battery at the time of the test. No conclusions can be drawn from this regarding the future health of the battery. This diagnosis does not include any assessment of mechanical damage or external influences.

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9. Warranty

This appliance must be handled with due care, even though it has been designed for use in a workshop environment (impacts, shocks, vibrations, dust). We provide a warranty for this appliance in accordance with statutory/country-specific provisions from the date of purchase (as evidenced by the invoice or delivery note). Any damage incurred will be rectified by replacement or repair.

Damage resulting from improper handling is excluded from the warranty. Claims can only be accepted if the device is handed over, in its original condition and not dismantled, to a WOW!-authorised customer service centre.

Subject to technical changes. We accept no liability for printing errors.

Please refer to our Terms and Conditions at https://www.wow-portal.com/gtc

10. Contact

You can find contact details on the following website: https://www.wow-portal.com/contact

11. Environmental information

Power tools, accessories and packaging should be recycled in an environmentally responsible manner.
For EU countries only:
Do not dispose of the power tool in household waste!
In accordance with the European Directive on Waste Electrical and Electronic Equipment and its transposition into national law, power tools that are no longer fit for use must be collected separately and recycled in an environmentally sound manner.

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