

Press release

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MAHLE and volytica diagnose electric vehicle batteries via charging plugs

- MAHLE will use the charging plug in addition to the OBD port for battery diagnostics of electric vehicles in the future
- Measured data are evaluated in the cloud by cooperation partner volytica diagnostics
- New solution makes vehicle battery condition more transparent and repair requirements predictable
- Solution already in field testing and expected to be available by the end of 2022

MAHLE Aftermarket will use the charging plug in addition to the existing OBD port for battery diagnostics of electric vehicles in the future. To this end, the service and spare parts division of the Stuttgart-based automotive supplier is collaborating with volytica diagnostics, a software developer based in Dresden. It evaluates the measured data in the cloud and provides valuable information about the state of the electric vehicle battery. In this way, projections can be made of, for example, necessary repairs. Since the start of 2022 the new diagnostics solution for passenger cars has been tested in practice together with TÜV NORD Mobilität and a well-known European fleet operator. It is expected to be available from MAHLE by the end of 2022. In the next phase, both partners want to offer the battery diagnostics for battery electric trucks and buses.



Direct wire: the new MAHLE battery diagnostics control the battery directly via the charging plug.

“In terms of workshop equipment, we have massively accelerated our innovation rate. Now we are making the battery a fully predictable variable and thus creating future security for independent workshops in the mobility transition,” said Olaf Henning, member of the MAHLE Management Committee and head of the Aftermarket business unit.

“Inspection agencies, owners, fleet operators, and workshop networks have to date been subjected to a

massive lack of transparency when it comes to battery quality and therefore vehicle value. Until now, it has hardly been possible to reliably evaluate battery data and communicate the status quo of their batteries to owners of electric vehicles. This paralyzes the further market ramp-up of e-mobility as well as the decarbonization of the transportation sector. At the same time, such a test must not take long and must be affordable. This is exactly where we come in with our technology,” said Claudius Jehle, CEO of volytica.

A special combination of charger and diagnostic tool is used for diagnostics. In this way, MAHLE can get initial diagnostics on the condition of the vehicle battery via the vehicle’s charging socket within ten minutes. This measurement is carried out independently of the data provided by the vehicle manufacturer via the OBD diagnostics port and is therefore particularly neutral and independent.

Afterwards, the battery data is comprehensively evaluated and interpreted in the volytica cloud and the result is provided to the user. With this new development, MAHLE is opening up new, future-proof business areas beyond the combustion engine for independent workshops. With the MAHLE TechPRO, MAHLE is the first supplier to enable its customers to perform basic battery diagnostics via the OBD port.

With the help of battery diagnostics, up to two million tons of batteries with a value of more than EUR 50 billion can be saved annually from premature discarding and thus, for example, be given a second life. By giving a battery a second life, the battery life can be extended by an average of five years. This is an important aspect, as the Group is clearly committed to the Paris Climate Agreement and is striving to significantly reduce its carbon footprint and to use its products to contribute to environmentally compatible mobility.

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About MAHLE

MAHLE is a leading international development partner and supplier to the automotive industry. Today, the technology group is broadly positioned in the areas of powertrain technology and thermal management, with a clear focus on the future-oriented topic of mobility. MAHLE is working both on the intelligent combustion engine for the use of hydrogen and other non-fossil fuels, as well as on technologies that will help fuel cells and e-mobility achieve broad acceptance in the markets. The product portfolio of the company, founded in 1920, covers all important areas of powertrains and air conditioning technology. Today, one in every two vehicles globally is equipped with MAHLE components. #weshapefuturemobility

MAHLE generated sales of around EUR 11 billion in 2021 and is represented in more than 30 countries, with over 71,000 employees at 160 production locations and 12 major research and development centers. (Last revised: 12/31/2021)

About MAHLE Aftermarket

MAHLE Aftermarket, the business unit specializing in spare parts, uses the expertise from original equipment series production for its product range and supplies partners in the trade, workshops, and engine repair shops. The products developed by the MAHLE Service Solutions business segment for workshop equipment, as well as comprehensive services and individual training offers, round out the offer. MAHLE Aftermarket operates out of 25 locations around the world and has additional sales offices with around 1,700 employees. In 2020, the business unit recorded a worldwide turnover of around EUR 898 million.