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Remote diagnostics – an enabler of the future of the auto aftermarket

Executive summary

Remote diagnostics refers to the capability of diagnosing vehicle issues and load software from a distance. By connecting a vehicle to a remote diagnostic server or network, technicians can retrieve data and diagnose problems without having physical access to the vehicle.

Remote diagnostics offer unparalleled advantages within the independent automotive aftermarket, such as improved efficiency, cost savings and enhanced customer experience. To remain competitive in an era defined by technological advancements, independent service providers must embrace remote diagnostics and the associated technologies.

Remote diagnostics will play an increasingly crucial role in shaping the future of automotive repair and maintenance, empowering independent workshops to deliver exceptional value to customers while strengthening their operational performance.

Independent automotive service providers can pave the way for a prosperous and innovative future by leveraging the opportunities presented by remote diagnostics today. MEKO helps independent repairers enhance their skills, gain access to expert guidance, and utilize advanced diagnostic tools to perform efficient and effective vehicle repairs.

This is remote diagnostics

In the rapidly evolving landscape of automotive technology, the shift towards digitalization and remote services has established a new paradigm within the independent automotive aftermarket. Remote diagnostics, presents significant advantages for independent garages and workshops, enabling them to enhance efficiency, reduce costs, and offer exceptional service to customers. As vehicles become increasingly complex, independent automotive service providers must leverage technology to remain competitive and meet the changing needs of consumers.

Benefits of remote diagnostics

A. Access to Data and Technical Information

OE manufacturers often have exclusive access to detailed vehicle data and diagnostic information when connected to the vehicle, giving them an advantage in accurately diagnosing and repairing vehicles. Remote diagnostics can provide independent repairers with similar access to real-time data and diagnostic codes, leveling the playing field by enabling them to perform precise diagnostics and repairs without needing the proprietary tools and information that are typically exclusive to OEs.

B. Efficiency and Speed

Remote diagnostics allows for quicker identification of problems, reducing the time needed for manual diagnostics. This can significantly improve service turnaround times for independent repair shops, making them as efficient as OE service centers, which are typically perceived to be faster due to their direct access to manufacturer-specific tools and parts.

C. Cost Savings

Independent repairers can avoid the high costs associated with purchasing multiple proprietary diagnostic tools for different vehicle makes and models. Remote diagnostic systems often cover a wide range of vehicles, allowing independent repairers to provide services for a diverse set of vehicles without the need for multiple, expensive OE-specific tools. This cost-saving can be passed on to customers, further enhancing the competitive edge of independent repairers.

Typical applications

- Calibrating front camera, radar and lidar systems
 - Calibrating rear cameras and 360° surveillance systems
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- Service reset (including secured vehicles, e.g. via Secure Gateway and SERMI)
- Programming keys -> remote control
- Code, reset and unlock replaced control modules e.g. steering, gearbox, headlamps
- Coding of accessories/functions, e.g. trailer coupling
- Storing maintenance records in the multimedia system at BMW
- Resetting AdBlue warnings
- Reading and clearing error codes on new models that still aren't covered by diagnostic equipment in the workshop

Remote diagnostics – the process

Remote diagnostics for automotive repairs involve a structured workflow between the remote diagnostic supplier and the workshop to ensure efficient and accurate vehicle diagnostics and repair services.

A. Preparations

- The workshop starts by connecting a remote diagnostic interface to the vehicle's OBD-II port, which is essential for accessing the vehicle's onboard diagnostic system. Additionally, the interface is connected to a network cable to facilitate communication. Wifi can be used but network cable provides a more stable connection.
- The technician logs into the diagnostic platform via a mobile phone or computer, using their unique username and password, ensuring secure access to the system.
- To maintain the a stable voltage in the vehicle during the diagnostic process, a charger capable of providing over 120 amps is connected to the vehicle.

B. Order

- The workshop identifies the vehicle by searching for its Vehicle Identification Number (VIN) within the diagnostic app, which allows the system to provide specific information about the vehicle.
 - The technician then selects the desired diagnostic service from a list provided within the app, which outlines various diagnostic and repair functions available for the vehicle.
 - Once the service is selected, the workshop reviews and accepts the price for the diagnostic service.
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C. Delivery

- At this stage, the OE (Original Equipment) diagnostic equipment is physically connected to the remote diagnostic server, which enables the remote diagnostic supplier to start the chosen diagnostic service through a remote interface.
- Throughout the diagnostic process, communication is maintained via a chat function, allowing the workshop and remote diagnostic supplier to coordinate and discuss any necessary actions or updates.

D. Actions

- Depending on the diagnostic requirements, specific actions may be needed from the workshop, such as switching the vehicle's ignition on and off. These steps are communicated to the technician via the chat interface.

E. Verification

- After the remote diagnostic service is completed, the workshop verifies that the operation has been successful, ensuring that the procedures have been performed accurately and that the vehicle is ready for use.

Limitations and challenges

Remote diagnostics provide many advantages for independent automotive aftermarket repairers, but they also come with some limitations and challenges.

Internet and Network Reliability: Remote diagnostics require a stable internet connection. Poor network connectivity or internet disruptions can hinder the communication process, leading to delays or incomplete diagnostics.

Some OEM diagnostic tools and software are specifically designed to work only with their authorized service centers, meaning independent repair shops may not be able to perform all diagnostic functions remotely.

MEKO helps repairers become experts in remote diagnostics

MEKO provide a range of services to the automotive aftermarket, depending on the market. These services include training, technical support, and remote diagnostics. Through these offerings, MEKO help independent repairers enhance their skills, gain

access to expert guidance, and utilize advanced diagnostic tools to perform efficient and effective vehicle repairs.

For further information, please contact:

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This is MEKO

MEKO's vision is to enable mobility — today, tomorrow, and in the future. Our aim is to be the most comprehensive partner for everyone who drives, repairs, and maintains vehicles in Northern Europe. We are the market leader with a presence in eight countries, 600 branches, and 20,000 workshop customers, including 4,500 workshops operating under our own brands. These include Mekonomen, MECA, Balti Autosaad, BilXtra, FTZ, Fixus, Inter-Team, Koivunen, and Sørensen og Balchen — among many others.

Short facts

President and CEO: Pehr Oscarson

The share: MEKO has been listed on the Nasdaq OMX Nordic Exchange in Stockholm since May 29, 2000.

Revenue 2023: SEK 16,762 M

Affiliated workshops: 4 528*

Number of branches: 662*

Average number of employees: 6 339*

**Second quarter 2024*
