Interact with vehicles that have Advanced Driver Assistance Systems



Overview

This standard is for individuals who interact with vehicles which have Advanced Driver Assistance Systems (ADAS) but may not maintain, service or repair these systems themselves. Examples of these job roles include sales staff, cleaners/valets, vehicle fitters or technicians who may not have specialist ADAS training.

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Performance criteria

You must be able to:

- P1 select and use appropriate personal and vehicle protective equipment
- P2 identify the correct manufacturer's information regarding the vehicle's Advanced Driver Assistance System and the location of parts and sensors
- P3 identify associated risks when working around **Advanced Driver Assistance Systems**
- P4 carry out work activities in a way which minimises risks of damage or de-calibration to **Advanced Driver Assistance Systems**
- P5 refer any problems working on vehicles with **Advanced Driver Assistance Systems** to the relevant colleague promptly
- P6 report the work activities you have carried out on the vehicle, ensuring your records are accurate, complete and passed to the relevant person(s)within the agreed timescale and in the format required.

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Knowledge and understanding

You need to know and understand:

- K1 the current health and safety legislation and workplace procedures relevant to workshop practices and personal and vehicle protection when working on vehicles with Advanced Driver Assistance System
- K2 Advanced Driver Assistance Systems and the implications of working with them
- K3 the fact that ADAS features can be switched off and the consequences of this
- K4 legal requirements relating to the **Advanced Driver Assistance Systems** and components
- K5 the reasons for and how to access the current codes of practice in connection with **Advanced Driver Assistance Systems**
- K6 how to find, interpret and use sources of information on **Advanced Driver Assistance Systems** for relevant vehicles and how they are named or described by different manufacturers.
- K7 the risks of causing damage to Advanced Driver Assistance System components or affecting their calibration and the consequences this could have for the vehicle's safety
- K8 features of ADAS system operation:
 - K8.1 steering
 - K8.2 braking
 - K8.3 lane departure warning
 - K8.4 driver assistance and parking
- K9 types of ADAS **sensor** and their basic functions
- K10 types of ADAS calibration i.e. static or dynamic
- K11 ADAS calibration equipment and their functions:
 - K11.1 manufacturer's approved equipment
 - K11.2 target boards
 - K11.3 radar boards
 - K11.4 diagnostic equipment
- K12 the type and symptoms of sensor failure
- K13 your workplace procedures for:
 - K13.1 the referral of problems associated with ADAS
 - K13.2 reporting delays to the completion of work
- K14 the importance of working to agreed timescales and keeping others, including customers, informed of progress.

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Scope/range

1. Advanced Driver Assistance Systems:

- 1.1. Driver safety
- 1.2. Pedestrian safety
- 1.3. Motion/stability control
- 1.4. Collision Avoidance Systems

2. Sensors:

- 2.1. Optical
- 2.2. Radar
- 2.3. Lidar
- 2.4. Ultra-sonic
- 2.5. Sound
- 2.6. GPS

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Glossary

This section contains examples and explanations of some of the terms used but does not form part of the standard.

Agreed timescales:

Examples include manufacturers' recommended work times, job times set by the company, or a job time agreed with the customer.

Collision avoidance system:

For example, forward collision warning, surround view sound, night vision, lane departure warning, emergency braking systems.

Driver safety:

For example, night vision, glare-free high beam and pixel light, automatic parking, blind spot monitor, driver drowsiness detector, driver monitoring system, traffic sign recognition.

Motion/stability control:

For example, lane change assistance, hill descent control

Pedestrian safety:

For example, pedestrian detection systems.

Vehicles:

These can be any of the following – light vehicles and commercial vehicles. Additionally, these vehicles may be SI, CI, Hybrid, Electric or Alternative fuel vehicles.



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