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## Overview

This standard is for individuals who work on or 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.

## 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 (ADAS)**

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:**

- a. Driver safety
- b. Pedestrian safety
- c. Motion/stability control
- d. Collision Avoidance Systems

**2. Sensors:**

- a. Optical
- b. Radar
- c. Lidar
- d. Ultra-sonic
- e. Sound
- f. 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.*

**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.

**Pedestrian safety:**

For example, pedestrian detection systems.

**Motion/stability control:**

For example, lane change assistance, hill descent control

**Collision avoidance system:**

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

**Agreed timescales:**

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

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**Developed by** IMI

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**Originating Organisation** IMI Ltd

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**Relevant Occupations** Mechanical, Electrical and Trim Technician (Automotive); Tyre exhaust and windscreen fitters ; Sales Executive (Automotive); Sales Controller (Automotive); Vehicle Fitting Operations (Automotive); Vehicle Valet (Automotive); Specialist Tyre Fitting Operations (Automotive); Hire and Rental Delivery and Collection Operations; Hire and Rental Operations; Hire and Rental Counter Operations; Rental and Leasing Customer Service Advisor (Automotive); Rental and Leasing Maintenance Advisors (Automotive); Rental and Leasing Technical Service Advisor (Automotive); Body Repair Technician (Automotive); Body Repair and Alignment Technician (Automotive); Cosmetic Refinishing Technician (Automotive); Cosmetic Senior Refinishing Technician (Automotive); PDR Senior Technician (Automotive); PDR Technician (Automotive); Body Builder (Automotive); Body Builder Workshop Controller (Automotive); Vehicle Damage Assessment Operators; Vehicle Damage Assessor (Automotive); Vehicle Fitters; Insurance Engineer (Automotive); Maintenance and Repair Technicians; Heavy Vehicle Service Technician (Automotive); Light Vehicle Service Technician (Automotive)

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**Suite** Maintenance and Repair - Light Vehicle; Automotive Glazing

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Carry out work on or with vehicles with Advanced Driver Assistance System components



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**Keywords**

ADAS; sensor; calibration

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