IMIVA01

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.

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**
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.

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

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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Status	Original
Originating Organisation	IMI
Original URN	IMILV20
Relevant Occupations	Auto-electrical Technician (Automotive), Automotive Aftermarket Electrical Enhancement Technician (Automotive), Automotive Paint Technician, Body Builder (Automotive), Body Builder Workshop Controller (Automotive), Body Repair and Alignment Technician (Automotive), Body Repair Technician (Automotive), Caravan and Motorhome Diagnostic Technician (Automotive), Caravan and Motorhome Service Technician (Automotive), Caravans and Motorhomes Diagnostic Technician (Automotive), Caravans and Motorhomes Service Technician (Automotive), Cosmetic Refinishing Technician (Automotive), Cosmetic Senior Refinishing Technician (Automotive), Heavy Vehicle Diagnostic Technician (Automotive), Heavy Vehicle Fleet/Service Manager (Automotive), Heavy Vehicle Master Technician (Automotive), Heavy Vehicle Service Technician (Automotive), Heavy Vehicle Trailer Diagnostic Technician (Automotive), Heavy Vehicle Trailer Fleet/Service Manager (Automotive), Heavy Vehicle Trailer Master Technician (Automotive), Heavy Vehicle Trailer Service Technician (Automotive), Insurance Engineer (Automotive), Lift Truck Service Technician (Automotive), Lift

	Truck Trailer Diagnostic Technician (Automotive), Lift Truck Trailer Master Technician (Automotive), Light Vehicle Diagnostic Technician (Automotive), Light Vehicle Fleet/Service Manager (Automotive), Light Vehicle Master Technician (Automotive), Light Vehicle Service Technician (Automotive), Mechanical, Electrical and Trim Assistant Technician (Automotive), Mechanical, Electrical and Trim Technician (Automotive), Motor Vehicle Valeting (Automotive), Motorcycle Diagnostic Technician, Motorcycle Fleet/Service Manager (Automotive), Motorcycle Master Technician (Automotive), Motorcycle Service Technician, PDR Senior Technician (Automotive), PDR Technician (Automotive), Rental and Leasing Customer Service Advisor (Automotive), Rental and Leasing Maintenance Advisors (Automotive), Rental and Leasing Technical Service Advisor (Automotive), Sales Controller (Automotive), Sales Executive (Automotive), Senior Automotive Paint Technician, Specialist Tyre Fitting Operations (Automotive), Tyre Fitting Operations (Automotive), Vehicle Damage Assessment Operators, Vehicle Damage Assessor (Automotive), Vehicle Fitters, Vehicle Fitting Operations (Automotive), Vehicle Parts Operative, Vehicle Parts Operators, Vehicle Parts Supervisor, Vehicle Recovery Operator, Vehicle Recovery Operators, Vehicle Recovery Technical Operator, Vehicle Sales Operators, Vehicle Trades, Vehicle Valeter (Automotive), Workshop Supervisor (Automotive), Customer Service Advisor (Automotive), Vehicle Delivery Driver, Motorcycle Preparation Technician, Vehicle Parts Assistant, Vehicle Parts Advisor, Vehicle Restorer
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