

## IMIHV18

### Conduct diagnostic consultations within a large goods or passenger vehicle environment



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#### Overview

This standard is about carrying out a diagnostic consultation with customers to investigate their concerns relating to their large goods or passenger vehicle. It also includes making recommendations to ensure that the customer's concerns are addressed and explaining the results of diagnostic activities so that customers fully understand what the problem with their vehicle is.

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Customers include the following; operator, driver, Transport Manager, Service Receptionist, Diagnostic Technician and any other appropriate person.

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IMIHV18

Conduct diagnostic consultations within a large goods or passenger vehicle environment



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#### Performance criteria

You must be able to:

- P1 respond to **customer's** concerns in a positive and professional manner
- P2 give a positive impression of yourself and your organisation when dealing with **customers**
- P3 obtain sufficient, detailed information using suitably structured questions
- P4 carry out a suitable road test, when appropriate, to obtain further detailed information on, or clarification of, **customer's** concerns
- P5 provide **customers** with accurate, current and relevant **advice and information** on any further investigation(s) needed
- P6 explain the implications of any investigation(s) that may be needed clearly
- P7 give technical **advice and information** accurately, clearly and in a form and manner which the **customer** will understand
- P8 make clear and relevant recommendations for the next course of action
- P9 liaise with the **customer** and or other relevant person(s) to agree the next course of action
- P10 explain to **customers**, when appropriate, the action that has been taken regarding their vehicle clearly
- P11 ensure your records are complete, accurate, in the format required and signed by the **customer**, when necessary
- P12 suggest possible methods for improving the **customer** care process to your manager, when necessary

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IMIHV18

Conduct diagnostic consultations within a large goods or passenger vehicle environment



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Knowledge and understanding

Legislative and organisational requirements and procedures

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IMIHV18

Conduct diagnostic consultations within a large goods or passenger vehicle environment



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You need to know  
and understand:

- K1 the legislation and workplace procedures relevant to
  - K1.1 health and safety
  - K1.2 the environment (including waste disposal)
  - K1.3 appropriate personal and vehicle protection
- K2 legal requirements relating to the vehicle (including road safety requirements)
- K3 your workplace procedures for
  - K3.1 recording fault location and correction activities
  - K3.2 reporting the results of tests
  - K3.3 the referral of problems
  - K3.4 reporting delays to the completion of work
  - K3.5 gaining up to date technical information and repair methods
- K4 the importance of working to recognised diagnostic procedures and processes and obtaining the correct information for diagnostic activities to proceed and how to formulate and construct your own diagnostic procedures and processes in order for diagnostic activities to proceed
- K5 the importance of documenting diagnostic and rectification information
- K6 the importance of working to agreed timescales and keeping others informed of progress and delays
- K7 the relationship between time, costs and productivity

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You need to know  
and understand:

#### Electrical and electronic principles

- K8 the hazards associated with working on or near high voltage electrical vehicle components
- K9 electrical and electronic principles including types of sensors and actuators, their application and operation
- K10 how electrical and electronic vehicle systems operate, including electrical component function, electrical inputs, outputs, voltages and oscilloscope patterns, digital and fibre optics principles
- K11 the interaction between electrical, electronic, mechanical and hydraulic components and systems within a vehicle, including multiplexing
- K12 electrical symbols, units and terms
- K13 electrical safety procedures

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IMIHV18

Conduct diagnostic consultations within a large goods or passenger vehicle environment



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You need to know  
and understand:

#### Use of diagnostic and rectification equipment

- K14 how to prepare and check the accuracy of diagnostic testing equipment
- K15 how to use diagnostic and rectification equipment for mechanical, electrical, electronic, pneumatic, hydraulic and fluid systems, specialist repair tools and general workshop equipment

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You need to know  
and understand:

#### Vehicle faults, their diagnosis and correction

- K16 how vehicle mechanical, electrical, electronic, pneumatic, hydraulic and fluid systems are constructed, dismantled, reassembled and operate
- K17 the types and causes of vehicle mechanical, electrical, electronic, pneumatic, hydraulic and fluid system, component and unit faults and failures
- K18 vehicle mechanical, electrical, electronic, pneumatic, hydraulic and fluid component and unit replacement procedures, the circumstances which will necessitate replacement and other possible courses of action
- K19 how to find, interpret and use sources of information on vehicle mechanical, electrical, electronic, pneumatic, hydraulic and fluid system specifications, diagnostic test procedures, repair procedures and legal requirements
- K20 how to select the most appropriate diagnostic testing method for the symptoms presented
- K21 how to carry out systematic diagnostic testing of vehicle mechanical, electrical, electronic, pneumatic, hydraulic and fluid systems
- K22 how to interpret, evaluate and analyse test results and vehicle data in order to identify the location and cause of vehicle system faults
- K23 how to carry out the rectification activities in order to correct faults in the vehicle mechanical, electrical, electronic, pneumatic, hydraulic and fluid systems
- K24 your workplace procedure and policy for
  - K24.1 work carried out under warranty
  - K24.2 liaising with manufacturers and outside agencies
- K25 the relationship between test methodology and the faults repaired – the use of appropriate testing methods
- K26 how to make cost effective recommendations for rectification

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IMIHV18

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You need to know  
and understand:

**Personal Skills**

- K27 how to give straightforward presentations on technical matters
- K28 how to communicate effectively with and listen to **customers**
- K29 how to present yourself in a positive and professional manner to **customers**
- K30 how to recognise and handle different **customer** reactions
- K31 how to adapt your language when explaining technical matters to **customers**
- K32 how to use effective questioning techniques
- K33 how to care for **customers** and achieve **customer** satisfaction
- K34 your organisation's requirements for personal appearance and conduct when dealing with **customers**
- K35 how successful resolution of **customer** concerns and problems contributes to **customer** loyalty and improves relationships

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IMIHV18

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#### Scope/range

#### 1. Customers are:

- 1.1. operators
- 1.2. drivers
- 1.3. Transport Managers
- 1.4. Service Receptionist
- 1.5. Diagnostic Technician
- 1.6. any other appropriate person

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#### Additional information

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

#### Glossary

#### Large Goods and Passenger Vehicles:

These are medium and large goods vehicles, buses and coaches of 3500kgs gross vehicle mass (GVM) and above.

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IMIHV18

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Suite Maintenance and Repair Large Goods and Passenger Vehicle

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IMIHV18 Conduct diagnostic consultations within a large goods or passenger vehicle environment

8