

Overview

This **standard** is about conducting, recording and evaluating results of comparative testing and interpreting results at the roadside relating to straightforward diagnostic testing.

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Performance

Criteria

- You must be able to:
- P1 carry out a dynamic risk assessment to determine your scope of work throughout the activity
 - P2 use suitable personal and vehicle protective equipment throughout all diagnostic activities
 - P3 secure the immediate safety of the driver and passengers effectively
 - P4 make an initial judgement on the suitability for a roadside repair
 - P5 work in a way which minimises the risk of:
 - P5.1 damage to other vehicle systems, units and components
 - P5.2 damage to your working environment
 - P5.3 injury to self or others
 - P5.4 contact with leakage, hazardous materials/substances or high voltage components
 - P6 identify symptoms in order to determine a system fault and cause
 - P7 take prompt and effective corrective actions to resolve any errors occurring within the limits of your responsibility
 - P8 demonstrate the correct use of test equipment
 - P9 make suitable recommendations for rectification based on your findings
 - P10 ensure your records are accurate, complete, signed by the customer (where appropriate) and passed promptly to the relevant person(s) in the required format
 - P11 ensure your working practices conform to:
 - P11.1 health and safety requirements
 - P11.2 any legal requirements
 - P11.3 any contractual requirements
 - P11.4 current industry Code of Practice
 - P11.5 your workplace procedures
 - P11.6 any environmental requirement

Knowledge and understanding

You must know and understand:

Legislative and organisational requirements and procedures

- K1 the legislation and workplace procedures relevant to:
 - K1.1 health and safety
 - K1.2 the environment including waste disposal
 - K1.3 the current industry Code of Practice for Safe Roadside Working
 - K1.4 appropriate personal and vehicle protective equipment for working at the roadside
- K2 legal and safe working requirements relating to the vehicle
- K3 your workplace procedures for:
 - K3.1 recording diagnostic activities
 - K3.2 the referral of problems
 - K3.3 reporting delays to the completion of work
- K4 the importance of documenting diagnostic information
- K5 the importance of working to agreed timescales and keeping others informed of progress/delays
- K6 the referral process for faults relating to High Energy systems and components
- K7 the hazards associated with working on or near high voltage electrical vehicle components
- K8 the importance of adhering to a robust, documented handover procedure

You must know and understand:

Vehicle systems

- K9 the system features and operating principles of:
 - K9.1 electrical systems and circuits
 - K9.2 engines
 - K9.3 manual, automatic and semi-automatic transmission
 - K9.4 manual and power assisted steering
 - K9.5 fuel systems
 - K9.6 independent and non-independent suspension
 - K9.7 exhaust systems including catalytic convertors and diesel particulate filters (DPF)
 - K9.8 brakes including ABS/EBS
 - K9.9 cooling systems
 - K9.10 high energy electrical systems

K10 how to recognise symptoms to determine a cause

K11 how to recognise vehicle system faults

You must know and understand:

Use of diagnostic equipment

K12 how to prepare and test the accuracy and functioning of diagnostic equipment required

K13 how to use the appropriate diagnostic and testing equipment at the roadside

K14 the types and causes of errors that can arise during the use of diagnostic equipment

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Scope/range

1. **Test equipment** includes:
 - 1.1. multi-meter
 - 1.2. LED test probe
 - 1.3. inductive current clamp
 - 1.4. cooling system pressure tester
 - 1.5. fault code reader
 - 1.6. battery tester

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