



Australian Government

Assessment Requirements for AURTTA121

Diagnose complex system faults

Release: 1

Assessment Requirements for AURTTA121 Diagnose complex system faults

Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- diagnose complex system faults on three different vehicles, machinery or vessels in which the work must involve the following complex faults, each on a separate vehicle, piece of machinery or vessel:
 - one fault that is in a complex system that integrates two or more automotive systems
 - one fault that incorporates three or more mechanical, hydraulic, pneumatic, electrical or electronic sub-systems
- develop a testing strategy to diagnose the cause of the complex faults in the work above.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to diagnose complex faults, including:
 - manufacturer specifications and other technical information
- workplace procedures required to diagnose complex faults, including:
 - establishing the serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment
 - storage of equipment
 - identification, tagging and isolation of faulty equipment
 - safe disposal of materials
 - recycling procedures
- workplace health and safety (WHS) requirements relating to diagnosing complex system faults in vehicles, vessels or machinery, including:

- working safely with the systems being tested
- selecting and using personal protective equipment (PPE)
- safely using tools and equipment
- types and operation of complex systems, including:
 - systems that integrates two or more automotive systems
 - systems that incorporate three or more mechanical, hydraulic, pneumatic, electrical or electronic sub-systems
- diagnostic procedures for complex systems, including stages within the diagnostic procedure
- methods of gathering information on complex system faults, including:
 - customer questioning techniques to provide a full overview of all faults and conditions under which they occur
- types and applications of diagnostic flow charts
- key features and limitations of diagnostic tools, including:
 - multimeters
 - scan tools, including:
 - diagnosis trouble codes (DTC) and the conditions that caused the code to be set
 - live data
 - snap shots
 - oscilloscopes
 - mechanical, hydraulic and pneumatic test equipment
- methods of differentiating between fault symptoms and fault cause.

Assessment Conditions

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the vehicle or machinery complex system faults that they have diagnosed, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- manufacturer system specifications
- three different vehicles, vessels or machinery that have the complex system faults specified in the performance evidence
- tools, equipment and materials appropriate for diagnosing complex system faults in vehicles, vessels or machinery.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>