Australian Government

Assessment Requirements for AURETA002 Analyse and evaluate electrical and electronic faults in body management systems

Release: 1

Assessment Requirements for AURETA002 Analyse and evaluate electrical and electronic faults in body management systems

Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- analyse and evaluate an electrical or electronic fault in the embedded network body management systems of two different vehicles or machinery
- the above faults must involve two of the following systems:
  - vehicle or machinery access
  - safety restraint
  - vehicle or machinery infotainment
  - theft deterrent
  - monitoring and tracking
  - air conditioning and heating, ventilation and air conditioning (HVAC).

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to analysing and evaluating faults in body management systems, including procedures for identifying hazards and controlling risks associated with wearing jewellery while working around high current wiring systems
- principles and processes involved in planning and implementing analysis and evaluation of body management system faults
- design and planning of diagnostic procedures of body management system faults, including procedures for diagnosing:
  - hydraulic faults
  - mechanical faults

    - electrical faults
- procedures for analysing and evaluating body management system faults, including:
    - system failure analysis
    - component failure analysis
- types, functions, operation and limitations of body management systems, including:
    - gateway network control module
    - bus network topography
    - body control module (BCM) functions
    - sensor and actuator control and monitoring systems
    - control signal circuits
- testing procedures for body management systems, including the use of:
    - digital multimeter
    - scan tool
    - oscilloscope
- types, functions, operation and limitations of diagnostic testing equipment required to analyse and evaluate electrical and electronic faults in body management systems
- procedures for accessing and interpreting scan tool system data, including:
    - diagnostic trouble codes (DTCs), including:
        - conditions that set the DTCs
        - conditions for running DTCs
    - live data
    - freeze frame data
    - waveforms
- procedures for documenting and reporting the analysis and evaluation process
- requirements of Australian Design Rules (ADRs) relating to body management systems.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

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 body management systems that they have worked on, 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 body management system specifications
- two different vehicles or machinery with faults in the body management systems specified in the performance evidence
- diagnostic equipment for body management system fault diagnosis, including:
  - digital multimeter
  - scan tool
  - oscilloscope
- tools, equipment and materials appropriate for analysing and evaluating body management systems.

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1

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