



**Australian Government**

**Assessment Requirements for AURETA004  
Analyse and evaluate electrical and  
electronic faults in convenience and  
entertainment systems**

# Assessment Requirements for AURETA004 Analyse and evaluate electrical and electronic faults in convenience and entertainment 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 convenience and entertainment systems of two different vehicles or machinery
- the above faults must involve two of the following:
  - convenience system (excluding convenience control module)
  - convenience control module
  - entertainment system (excluding entertainment control module)
  - entertainment control module.

## 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 convenience and entertainment 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 electrical and electronic faults in convenience and entertainment systems
- design and planning of diagnostic procedures of convenience and entertainment system faults, including procedures for diagnosing:
  - electrical faults
  - electronic faults

- procedures for analysing and evaluating electrical and electronic faults in convenience and entertainment systems, including:
  - system failure analysis
  - component failure analysis
- types, functions, operation and limitations of convenience and entertainment systems, including:
  - gateway network control module
  - bus network topography
  - body control module (BCM) functions
  - associated network convenience and entertainment system components
  - sensor and actuator control and monitoring systems
  - control signal circuits
- testing procedures for convenience and entertainment 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 convenience and entertainment 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 convenience and entertainment 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 convenience and entertainment 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 convenience and entertainment system specifications
- two different vehicles or machinery with convenience and entertainment system faults
- diagnostic equipment for convenience and entertainment system fault diagnosis, including:
  - digital multimeter
  - scan tool
  - oscilloscope
- tools, equipment and materials appropriate for analysing and evaluating convenience and entertainment 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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