



**Australian Government**

**Assessment Requirements for AURLTQ003  
Analyse and evaluate faults in light vehicle  
transmission and driveline systems**

**Release: 1**

# Assessment Requirements for AURLTQ003 Analyse and evaluate faults in light vehicle transmission and driveline 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 a fault in the:
  - transmission system of a light vehicle
  - driveline system of a different light vehicle
  - transmission or driveline system of a third light vehicle.

## 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 light vehicle transmission and driveline systems, including procedures for:
  - lifting, supporting and manually handling light vehicle transmission and driveline systems
  - working with rotating shafts
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from transmission and driveline systems
- principles and processes involved in planning and implementing analysis and evaluation of light vehicle transmission and final drive system faults
- design and planning of diagnostic procedures of light vehicle transmission and driveline system faults, including procedures for diagnosing:
  - hydraulic faults
  - mechanical faults
  - electrical faults

- procedures for analysing and evaluating light vehicle transmission and driveline system faults, including:
  - system failure analysis
  - component failure analysis
- types, functions, operation and limitations of light vehicle transmission and driveline systems and components, including:
  - clutches
  - manual transmissions
  - automatic transmissions
  - torque converters
  - drive shafts
  - final drives
- types, functions, operation and limitations of four-wheel drive system components, including:
  - transfer cases
  - differentials
  - free wheel hubs
- testing procedures for light vehicle transmission and driveline systems, including:
  - transmission shift quality
  - drive shaft run-out
  - driveline operating angles
  - clutch performance under load
  - transmission fluid quality
- types, functions, operation and limitations of diagnostic testing equipment required to analyse and evaluate faults in light vehicle transmission and driveline systems
- procedures for documenting and reporting the analysis and evaluation process
- requirements of Australian Design Rules (ADRs) relating to light vehicle transmission and driveline 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 light vehicle transmission and driveline 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 light vehicle transmission and driveline system specifications
- three different light vehicles with transmission and driveline system faults
- diagnostic equipment for light vehicle transmission and driveline systems
- tools, equipment and materials appropriate for analysing and evaluating light vehicle transmission and driveline 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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