



**Australian Government**

# **Assessment Requirements for AURLTX104**

## **Diagnose complex faults in light vehicle automatic transmission and driveline systems**

# Assessment Requirements for AURLTX104 Diagnose complex faults in light vehicle automatic transmission and driveline systems

## 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 a complex fault in each of the following:
  - automatic transmission of a light vehicle
  - driveline system of a different light vehicle
  - electronically controlled automatic transmission or driveline system of a third light vehicle
- the above diagnosis must involve at least two of the following types of complex faults, each in a different vehicle:
  - an intermittent fault
  - a fault that affects more than one system
  - a fault introduced as a result of a system repair
  - an indirect fault caused by the influence of external systems.

## 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 in light vehicle automatic transmission and driveline systems, including:
  - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose complex faults in light vehicle automatic transmission and driveline systems, including:
  - establishing serviceability of tools and equipment
  - documentation procedures including:
    - recommendations for necessary repairs

- housekeeping procedures, including:
  - examination of tools and equipment
  - storage of equipment
  - identification, tagging and isolation of faulty equipment
  - disposal of excess materials
  - recycling procedures
- work health and safety (WHS) requirements relating to diagnosing complex faults in light vehicle automatic transmission and driveline systems, including procedures for lifting, supporting and manually handling light vehicle automatic transmission and driveline systems
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from transmission and driveline systems
- types of complex faults relating to light vehicle automatic transmission and driveline systems, including:
  - intermittent
  - multi-system
  - introduced as a result of system repair
  - indirect, caused by the influence of external systems
- types, function and operation of light vehicle automatic transmission and driveline systems, including:
  - electronically controlled automatic transmissions
  - continuously variable transmissions (CVTs)
  - constant velocity joints
  - Hooke's-type joints
  - rear wheel drive shafts
  - rear wheel drive final drives
  - front wheel drive final drives
- testing procedures for light vehicle automatic transmission and driveline systems, including:
  - test drive procedures
  - abnormal noise analysis
  - transmission oil pressure tests
  - sources of fluid leaks
  - driveline angle measurement
- types and key features of diagnostic testing equipment required to diagnose complex faults in light vehicle automatic transmission and driveline 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

- waveforms
- vehicle continuous and non-continuous monitored systems
- methods and processes for documenting and reporting diagnostic findings and recommendations.

## 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 light vehicle automatic 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 automatic transmission and driveline system specifications
- three different light vehicles with complex faults in their automatic transmission or driveline systems, including one vehicle with an electronically controlled automatic transmission
- automatic transmission and driveline system diagnostic equipment, including:
  - oil pressure gauge
  - scan tool
- tools, equipment and materials appropriate for diagnosing complex faults in the automatic transmission and driveline systems of light vehicles.

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>