



Australian Government

**Assessment Requirements for AURLTX002
Diagnose and repair light vehicle automatic
transmissions**

Release: 1

Assessment Requirements for AURLTX002 Diagnose and repair light vehicle automatic transmissions

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:

- diagnose and repair a fault in two different light vehicles with different automatic transmissions, in which the faults must involve two of the following components:
 - torque converter
 - transmission oil pump
 - front pump seal
 - valve body
 - shift or pressure solenoid
 - clutch pack
 - brake band
 - brake band servo
 - one-way clutch
 - planetary gear set
 - continuously variable transmission (CVT) belt or pulley
 - internal bearings or thrust washers
- remove, refit or replace one of the above light vehicle automatic transmissions.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to diagnosing and repairing light vehicle automatic transmissions, including procedures for lifting, supporting and manual handling light vehicle automatic transmissions

- environmental requirements, including procedures for trapping, storing and disposing of fluids released from light vehicle automatic transmissions
- operating principles of light vehicle automatic transmissions and associated components, including:
 - fluid couplings
 - planetary gears, including:
 - single planetary gear operation
 - types of compound planetary gears, including Ravigneaux and Simpson planetary gear sets
 - gear ratios and torque reduction and multiplication
 - lubricant types and properties
- application, purpose and operation of light vehicle automatic transmissions and components, including:
 - torque converters, including:
 - impeller, stator, one-way clutch and turbine operation
 - lock-up torque converters
 - automatic transmission mechanical components, including brake bands, clutch packs, one-way clutches, and compound planetary gear sets
 - power flows, including:
 - longitudinal automatic transmissions
 - automatic transaxles
 - automatic transmission hydraulic components and hydraulic control components, including:
 - oil pumps
 - hydraulic valves, including pressure regulating valves, manual valves, shift valves, governor valves and throttle pressure valves
 - automatic transmission electronic components, including:
 - electronic control module
 - input sensors, including vehicle speed sensor, throttle position sensor, mass air flow (MAF) sensor, manifold absolute pressure (MAP) sensor, transmission range sensor, engine speed sensor and temperature sensor
 - electronic control module outputs, including indicator lamps, shift solenoids, pressure control solenoids and torque converter clutch solenoids
 - continuously variable transmissions, including operating principles of belts and pulleys
- diagnostic testing procedures for light vehicle automatic transmissions, including procedures for:
 - stall tests
 - pressure test
 - using scan tools when testing
- repair procedures for light vehicle automatic transmissions , including procedures for removing, replacing and adjusting them
- post-repair testing procedures for light vehicle automatic transmissions.

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 automatic transmissions 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 specifications
- two different light vehicles with faults in the automatic transmission components specified in the performance evidence
- diagnostic equipment for light vehicle automatic transmissions
- tools, equipment and materials appropriate for repairing light vehicle automatic transmissions.

Links

Companion Volume implementation guides are found in VETNet -

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

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