



Australian Government

Assessment Requirements for AURETR026 Remove, replace and program electrical and electronic units and assemblies

Release: 1

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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 standard defined in the unit's elements, performance criteria, range of conditions and foundation skills:

- remove, replace, program and retest two of the following systems on controller area network databus (CAN-bus) circuits in different vehicles or machinery, including:
 - supplementary restraint system (SRS) module
 - body control module (BCM)
 - engine control module (ECM)
 - powertrain control module (PCM)
 - electric brake control (EBC), antilock braking system (ABS) or vehicle stability control (VSC) module
 - collision avoidance control (CAC) module
 - adaptive cruise control (ACC) 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 removing, replacing and programming electrical and electronic units and assemblies, including procedures for identifying hazards and controlling risks associated with wearing jewellery while working around high current wiring systems
- key features of electrical and electronic units and assemblies integral to vehicle CAN-bus networks, including:
 - supplementary restraint system modules
 - body control modules
 - engine control modules

- powertrain control modules
- electric brake control, antilock braking system, and vehicle stability control modules
- collision avoidance control modules
- adaptive cruise control modules
- various types of wiring systems found in vehicles, including:
 - basic wiring
 - twisted pair
 - shielded wiring
 - CAN-bus wiring
- procedures for removing and replacing electrical and electronic units and assemblies, including:
 - identifying unit position using wiring schematics and drawings
 - identifying unit model and configuration
 - identifying visual indications of unit damage, including:
 - physical damage and wear
 - water and moisture ingress
 - avoiding static electricity discharge when handling units
 - disconnecting and reconnecting electrical connectors
- procedures for programming electrical or electronic units, including:
 - service programming system (SPS)
 - original equipment manufacturer (OEM) programming code
 - flash code or program
 - vehicle configuration index (VCI) code or password
- post-replacement testing procedures, including checking unit system operation

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 electrical and electronic units and assemblies they have removed, replaced and programmed, 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 electrical and electronic unit and assembly specifications

- two different vehicles or machinery requiring removal, replacement and programming of electrical and electronic units and assemblies
- tools, equipment and materials appropriate for removing, replacing and programming electrical and electronic units and assemblies, including scan tool.

Links

Companion Volume implementation guides are found in VETNet -

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