Australian Government

Assessment Requirements for AURETR008 Remove and replace electrical 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 and replace two of the following systems on the non controller area network databus (CAN-bus) circuits of two different vehicles or machinery:
  - headlight or tail-light assembly
  - windscreen washer and wiper motor assembly
  - door and window motor assembly
  - central door locking system
  - electric mirror assembly
  - electric brake controllers.

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 and replacing electrical units and assemblies, including procedures for identifying hazards and controlling risks associated with:
  - working with vehicle ignition systems with injector high voltages
  - wearing jewellery while working around high current wiring systems
- procedures for removing, replacing, and testing electrical units and assemblies, including procedures for adjusting and calibrating systems and components
- key features of basic non CAN-bus networked electrical units and assemblies, including:
  - headlight assemblies
  - tail-light assemblies
  - side and rear vision mirrors

  - windscreen washer and wiper motor assemblies
  - door and window motor assemblies
  - central door locking systems
  - electric brake controllers
- types of wiring systems found in vehicles, including:
  - basic wiring
  - twisted pair
  - shielded wiring
  - CAN-bus wiring
- options for diagnosing faults, including:
  - continuity testing
  - insulation testing
  - isolating possible faults
  - replacing blown fuses or circuit breakers
  - replacing damaged connectors or terminals
  - visually inspecting and evaluating components
- location and content of technical information, wiring diagrams and graphic symbols relating to electrical units and assemblies
- procedures for testing electrical systems, including:
  - accessing electrical terminals and using test probes without damaging connectors, fuse holders and wiring
  - checking resistance, current flow and voltage drop of system circuits.

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 having removed and replace electrical units and assemblies in vehicles or machinery, 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 workshop or simulated workplace
- workplace instructions
- manufacturer specifications relating to removing and replacing electrical units and assemblies
- two different vehicles or machinery with faults in their electrical systems

- tools and electrical test equipment appropriate for diagnosing electrical units and assemblies.

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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