Australian Government

Assessment Requirements for AURETR009 Install vehicle lighting and wiring systems

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:

- install two of the following low voltage (LV) lighting and wiring systems in non controller area network databus (CAN-bus) systems in two different vehicles, vessels or machinery:
  - trailer lights and wiring harness
  - driving lights and wiring harness
  - side clearance lamp
  - high-mount rear brake lamp
  - ascent strip light emitting diode (LED) lamp
  - filament lamp to LED lamp replacement.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to installing vehicle lighting and wiring systems, including procedures for:
  - using specialised tools and equipment
  - selecting and using personal protective equipment (PPE)
  - identifying hazards and controlling risks associated with wearing jewellery while working around high current wiring systems
- LV direct current (DC) lighting and wiring systems of the following:
  - trailer lights and wiring harnesses
  - driving lights and wiring harnesses
  - side clearance lamps

    - high-mount rear brake lamps
    - ascent strip LED lamps
- procedures for installing LV DC lighting and wiring systems, including:
    - filament lamp to LED lamp replacement
    - resistance and voltage drop
    - circuit performance checks
    - connecting system and components to existing electrical system without causing damage or problems, including:
        - selecting and soldering wires
        - selecting and crimping terminals
        - removing and replacing connectors
        - removing and replacing existing electrical components
- different cable types and sizes and their current carrying capacity
- types of wiring systems found in vehicles, vessels or machinery, including:
    - basic wiring
    - twisted pair
    - shielded wiring
- techniques for reading and interpreting technical information, fitting instructions, wiring diagrams and graphic symbols
- post-installation testing procedures, including:
    - confirming that electrical system is operating to manufacturer specifications following installation
    - confirming that no other problems are present as a result of installing LV DC lighting and wiring 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 lighting and wiring systems that they have installed, e.g. work 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
- two different vehicles, vessels or machinery requiring the installation of LV DC lighting and wiring systems

- materials appropriate for installing LV DC lighting and wiring systems
- equipment, and hand and power tools appropriate for installing LV lighting and wiring 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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