



Australian Government

Assessment Requirements for AURETR011 Install basic ancillary electrical systems and components

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 and performance criteria, range of conditions and foundation skills:

- install two of the following basic ancillary electrical systems and components to non CAN-bus embedded networked circuits in different vehicles or machinery, including:
 - driver interlocks, including alcohol interlock devices
 - remote keyless entry
 - security alarm system
 - audio system
 - mobile phone
 - speed alert system
 - navigation system
 - reverse parking aids, including sensors, audible alerts and cameras
 - driver gauges and instruments
 - electric trailer brake controller
 - trailer harness connector
 - driving lights or fog lights
 - dual battery system.

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 basic ancillary electrical systems and components, including procedures for:

- using specialised tools and equipment
- selecting and using appropriate personal protective equipment (PPE)
- identifying hazards and controlling risks associated with:
 - working on high voltage ignition systems
 - wearing jewellery while working around high current wiring systems
- types and basic operation of the common ancillary electrical systems and components, including:
 - driver interlocks, including alcohol interlock devices
 - remote keyless entry systems
 - security alarm systems
 - audio systems
 - mobile phones
 - speed alert systems
 - navigation systems
 - reverse parking aids, including sensors, audible alerts and cameras
 - driver gauges and instruments
 - electric trailer brake controllers
 - trailer harness connectors
 - driving lights and fog lights
 - dual battery systems
- procedures for installing basic ancillary electrical systems and components, including:
 - techniques for reading and interpreting technical information, wiring diagrams and graphic symbols
 - methods of determining wiring and connection type and size for system
 - methods of determining placement of components on vehicle or machinery
 - methods of 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
- post-installation testing procedures of basic ancillary electrical systems and components, including procedures for:
 - checking full operation of installed system
 - checking operation of existing electrical 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 be by direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the basic ancillary electrical systems and components that they have installed in vehicles or machinery, 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 service and repair workplace or simulated workplace
- workplace instructions
- vehicle and machinery wiring specifications relevant to systems and components being installed
- manufacturer ancillary electrical system specifications
- two different vehicles or machinery requiring installation of basic ancillary electrical systems and components
- tools, equipment and materials appropriate for installing basic ancillary electrical systems and components.

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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