



Australian Government

Assessment Requirements for AURETR006 Solder electrical wiring and circuits

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:

- solder the wiring of six different electrical components, in which the work must involve:
 - different sized gauge wires
 - electrical terminals
 - resin core solder
 - heat shrink sleeving.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to soldering electrical wiring and circuits, including procedures for:
 - using safety data sheets (SDS)
 - selecting and using personal protective equipment (PPE)
 - safely handling materials during solder process
 - safely operating soldering equipment
 - identifying and using firefighting and first aid equipment
- environmental requirements, including procedures for trapping, storing and disposing of material released during soldering process
- location and content of workplace preparation and soldering procedures, SDS and manufacturer specifications
- procedures for preparing to solder electrical wiring and circuits, including:
 - preparing and cleaning components to be soldered, including selecting appropriate cleaning solutions

- methods of holding components to be soldered
- soldering fluxes and their application
- resin core solder types, diameter and application
- types and applications of soldering irons
- procedures for soldering electrical wiring and circuits, including:
 - applying heat and solder to the parts to be joined
 - allowing cooling without movement
- work completion procedures for soldering electrical wiring and circuits, including procedures for final visual inspection of soldered connections, including:
 - manufacturer and workplace specifications for acceptable soldering standard
 - post-soldering insulation, including heat shrink sleeving and application of electrical tape.

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 wiring and circuits that they have soldered, 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
- six different electrical components requiring soldering of their wiring
- tools, equipment and material appropriate for soldering electrical components, circuits and system wiring, including:
 - automotive wiring
 - range of electrical terminals
 - resin core solder
 - heat shrink sleeving
 - soldering iron.

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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