



**Australian Government**

**Assessment Requirements for AURETK002  
Use and maintain electrical test equipment  
in an automotive workplace**

**Release: 1**

# Assessment Requirements for AURETK002 Use and maintain electrical test equipment in an automotive workplace

## 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:

- use a test lamp to check for continuity, voltage supply and earth return in a basic electrical circuit
- use a multimeter to measure:
  - voltage, current and resistance in a basic electrical circuit
  - continuity between a control unit and sensor
  - voltage drop across an electrical resistive load
- use an inductive clamp to measure current flowing in a vehicle starting system
- gain the oscilloscope waveforms of two of the following engine sensors or actuator:
  - camshaft
  - crankshaft
  - knock
  - fuel injector
- service, maintain and store three different pieces of electrical test equipment
- identify and tag one faulty piece of electrical test equipment.

## Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to using and maintaining electrical test equipment in an automotive workplace, including procedures for:
  - selecting and using 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, characteristics, uses, limitations and calibrating requirements of automotive electrical test equipment, including:
  - test lights, including resistive and light emitting diode (LED)
  - continuity testers
  - test probes, including those for testing voltage positive and negative status
  - voltmeters, ammeters and ohmmeters
  - digital multimeters
  - circuit load testers, including alternating current (AC) and direct current (DC) clamp testers
  - oscilloscopes
  - databus test instruments
- testing electrical systems, including procedures for:
  - accessing electrical terminals and using test probes without damaging connectors, fuse holders or wiring
  - selecting test equipment
  - checking resistance, current flow and voltage drop of system circuits
- location and content of workplace procedures and manufacturer specifications, including:
  - basic maintenance procedures for automotive electrical test equipment
  - procedures for checking, identifying and isolating faulty equipment.

## 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 test equipment that they have selected, used and maintained, 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
- manufacturer specifications and operator instructions for electrical test equipment
- materials and equipment appropriate for using and maintaining automotive electrical test equipment
- electrical test equipment specified in the performance evidence
- electrical components and circuits requiring the use of electrical test equipment, as specified in the performance evidence.

## **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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