



Australian Government

Assessment Requirements for AURETR128 Diagnose and repair instruments and warning systems

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- diagnose and repair a fault in at least two of the following instruments and warning system components, each in a different vehicle, vessel or piece of machinery:
 - driver instrument warning gauge assembly
 - engine monitoring warning assembly
 - vehicle warning visual alert assembly
 - vehicle warning audible alert assembly
- remove, refit or replace an instrument panel in at least one vehicle, vessel or machinery
- carry out a diagnostic test in the course of the above for at least one of the following faults:
 - high resistance in an input system
 - loose connections
 - shorted system components.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to diagnose and repair instruments and warning systems, including:
 - information provided by customers and supervisors
 - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair instruments and warning systems, including:
 - establishing serviceability of tools and equipment
 - documentation procedures

- housekeeping procedures, including:
 - examination of tools and equipment
 - storage of equipment
 - identification, tagging and isolation of faulty equipment
 - disposal of excess materials
 - recycling procedures
- workplace health and safety (WHS) requirements relating to diagnosing and repairing instruments and warning systems, including procedures for working with high current wiring systems
- environmental requirements relating to diagnosing and repairing instruments and warning systems
- purpose and operation of instruments and warning systems and components, including:
 - instrument panel construction
 - panel illumination
 - magnetic and thermal gauges
 - voltage regulators
 - mechanical gauges
 - digital electronic gauges and systems
 - warning lights and indicators
- diagnostic testing procedures for instruments and warning systems, including:
 - accessing and interpreting scan tool system data, including:
 - diagnostic trouble codes (DTCs)
 - live data
 - waveforms
 - using diagnostic flow charts
 - testing electrical systems, including procedures for:
 - accessing electrical terminals and using test probes without damaging connectors, fuse holders or wiring
 - checking resistance, current flow and voltage instruments and warning systems
- repair procedures for instruments and warning systems, including:
 - tightening connections
 - replacing faulty or damaged cable connections
 - removing and replacing faulty or damaged components
- post-repair testing procedures for instruments and warning systems, including:
 - DTC clearing procedures
 - checking for electrical connector mating
 - static and dynamic performance tests of instruments and warning systems, including test-driving procedures.

Assessment Conditions

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 instruments and warning systems that they have worked on, 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
- manufacturer instrument and warning system specifications
- two different vehicles, vessels or machinery with instrument and warning system faults
- diagnostic equipment for instruments and warning systems, including multimeter
- tools, equipment and materials appropriate for repairing vehicle, vessel or machinery instruments and warning systems.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>