



Australian Government

Assessment Requirements for AURETU003 Service air conditioning and HVAC 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:

- service the air conditioning and HVAC systems of two different vehicles or machinery, in which the work must involve:
 - one air conditioning system
 - one heating, ventilation and air conditioning (HVAC) system
- complete Australian Refrigeration Council accredited (ARCTick) service decal stickers for the above jobs.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to servicing air conditioning and HVAC systems, including procedures for:
 - working with refrigerants at boiling point given risk of frostbite
 - working with system lubricants, including carcinogenic oils
 - identifying flammable refrigerants
 - selecting and using personal protective equipment (PPE)
 - identifying firefighting equipment
- environmental requirements, including procedures for:
 - preventing loss of refrigerant to the atmosphere
 - handling materials and refrigerant recovery equipment.
- key requirements of Australian automotive code of practice: Control of refrigerant gases during manufacture, installation, servicing or de-commissioning of motor vehicle air conditioners

- identification and function of major air conditioning and HVAC system components, including:
 - compressor
 - condenser
 - receiver-dryer
 - expansion valve
 - evaporator
 - blower fan
- principles of operation of air conditioning and HVAC systems, including transferring heat from cabin to exterior using refrigerant gas
- types of air conditioning and HVAC systems, including:
 - single zone and multi-zone
 - climate control
- inspection procedures for air conditioning and HVAC systems, including:
 - conducting visual, aural and functional assessments for:
 - component damage and wear
 - component corrosion
 - vacuum and leaks
 - system performance testing, including:
 - using manifold gauges and thermometers to check system pressures and vent temperatures
 - checking blower fan output
 - checking engine fan output
 - checking filters
 - using manifold gauges and thermometers to check pressure and temperatures
- service and adjustment procedures of air conditioning and HVAC systems, including:
 - checking and adjusting compressor drive belts
 - changing filters
 - clearing evaporator water outlet
 - cleaning condenser
- post-service testing procedures of air conditioning and HVAC systems, including system performance testing and using thermometers to check vent temperatures
- procedures for completing workplace documentation, including ARCTick service decal sticker.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements and hold an Australian Refrigerant Council (ARC) Refrigerant Handling licence.

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 air conditioning and HVAC systems that they have serviced, 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 service repair workplace or simulated workplace
- workplace instructions
- air conditioning and HVAC system manufacturer specifications
- Australian automotive code of practice: Control of refrigerant gases during manufacture, installation, servicing or de-commissioning of motor vehicle air conditioners
- two different vehicles or machinery with air conditioning and HVAC systems requiring servicing
- tools, equipment and materials appropriate for servicing air conditioning and HVAC systems, including:
 - thermometer
 - manifold and gauge set.

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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