



**Australian Government**

# **Assessment Requirements for UEERA0064 Recover, pressure test, evacuate, charge and leak test refrigerants - split systems**

**Release: 1**

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## **Modification History**

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

## **Performance Evidence**

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
  - identifying hazards
  - risk control measures
  - using personal protective equipment (PPE)
- applying safe working practices and relevant legislation, industry standards, codes of practice and regulations
- completing required documentation, including reporting refrigerant recovery, pressure and leak tests, evacuations, charging refrigerant work and system operating conditions determining basic operating conditions, including:
  - ambient, evaporation and condensing temperatures
  - evaporator and condenser temperature differences
  - suction and discharge pressures
- recovering, pressure testing, evacuating, charging and leak testing refrigerant in newly installed split systems to requirements using appropriate equipment, tools and measurement devices
- starting up system and performing function checks
- selecting, obtaining and checking relevant equipment, materials, tools and testing devices required to carry out the work, including:
  - A1, A2 and A2L class refrigerants, lubricants and charging equipment
  - oxygen-free dry nitrogen cylinder and regulator
  - pressure and temperature measurement devices
  - pressure testing and refrigerant leak testing equipment and tools
  - refrigeration evacuation equipment and measuring equipment suitable for A1, A2 and A2L class refrigerants
  - refrigerant recovery/reclaim equipment suitable for A1, A2 and A2L class refrigerants
  - refrigeration hand and power tools
  - refrigeration service tools

- single head split air conditioning systems
- using lubricants and cleaning materials safely in accordance with safety data sheets (SDS)/material safety data sheets (MSDS).

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- equipment and procedures for working with refrigerants, including:
  - charging refrigerant into a newly installed split system detecting refrigerant leaks (electronic, bubbles and halide for R22)
  - contaminant detection and removal
  - evacuating newly installed split systems
  - pressure testing systems newly installed split systems using dry nitrogen
  - reclaiming/recovering refrigerants using recovery units and recovery cylinders
- heat and heat transfer
- leak detectors types, applications, operation and procedures
- manifold gauges types, applications, operation and procedures
- pressure temperature relationships and charts
- pressure, units and measurement
- refrigerant conditions, including saturation, superheat and sub-cooling
- relative humidity, unit and measurement
- relevant industry standards, codes of practice and regulations, including WHS/OHS legislated requirements
- relevant manufacturer specifications
- relevant risk mitigation processes, including risk control measures
- safe working practices, safe handling and SDS/MSDS
- sensible and latent heat
- split heat pump Class A1, A2 and A2L refrigerant types, properties and applications
- split heat pump refrigerant oil types, properties and applications
- sustainable energy principles and practices, including:
  - environment protection requirements
  - sustainable energy practices
  - sustainable resources
- system access fittings types, applications, operation and procedures
- temperature, units and measurement
- vapour compression cycle, basic operation and major system components.

## Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training

Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and PPE currently used in industry
- applicable documentation, including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

## Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>