



Australian Government

**Assessment Requirements for UEERA0049
Install and start up single head split air
conditioning and water heating heat pump
systems**

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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 using risk control measures
- applying safe working practices and relevant legislation, industry standards, codes of practice and regulations
- applying sustainable energy principles and practices
- assembling, installing and starting up split air conditioning and/or water heat pump system
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- decommissioning split air conditioning and/or water heat pump system
- determining job/work task requirements and applying workplace procedures, including making equipment/worksites safe
- documenting work activities
- giving notification to appropriate person/s for electrical connections to be completed
- implementing risk control measures
- inspecting and testing single head split air conditioning and/or water heat pump system and documenting performance to manufacturer specifications, including undertaking functional performance checks
- making equipment and worksites safe through leak testing and fitting of caps to refrigerant access ports to stop refrigerant escaping into the environment
- positioning and assembling system components to specifications
- installing and connecting refrigerant piping
- installing and connecting condensate drain piping
- preparing to assemble, install and start up a single head split air conditioning system and/or water heat pump system with a maximum cooling/heating capacity of less than 18 kilowatt (kW)
- pressure testing and evacuating system using manufacturer instructions.

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:

- condensate drain pipe work installation and connections
- refrigerant pipe work installation and connections
- relevant A1 and A2L class refrigerant, systems, piping, tools and equipment
- relevant codes of practice, industry standards, regulations and WHS/OHS legislated requirements, including:
 - AS/NZS 5141 Residential heating and cooling systems - Minimum applications and requirements for energy efficiency, performance and comfort criteria
 - AS/NZS 5149.3 Refrigerating systems and heat pumps - Safety and environmental requirements - Installation site
 - AS/NZS 5149.4 Refrigerating systems and heat pumps - Safety and environmental requirements - Operation, maintenance, repair and recovery
 - Australia and New Zealand Refrigerant Handling Code of Practice - Part 2 Systems other than self-contained low charge systems
 - Ozone Protection and Synthetic Greenhouse Gas Management Regulations
- relevant manufacturer specifications and instructions relevant risk mitigation processes, including safe working practices and risk control measures
- relevant workplace documentation
- relevant workplace policies and procedures
- role of licensed electrician/plumber
- split air conditioning and water heat pump (maximum plant capacity for each system is 18 kW), including:
 - decommissioning split system requirements and procedures installing split systems, including manufacturer instructions, location, mounting and connecting pipe work
 - single head split air conditioning system (up to 18 kW) types, applications, major components, controls, operation and operating conditions
 - split system start-up, including manufacturer instructions, pressure testing, evacuation, checking refrigerant charge, adding refrigerant, leak detection and checking function and performance.
 - split water heating heat pump system (up to 18 kW) types, applications, major components, controls, operation and operating conditions
- sustainable energy principles and practices.

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 personal protective equipment (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>