



Australian Government

UEPMNT355 Install complex electronic instrumentation equipment

Release: 2

UEPMNT355 Install complex electronic instrumentation equipment

Modification History

Release 2. Minor release to update superseded pre-requisite units.

Release 1. This is the first release of this unit of competency in the UEP Generation Training Package.

Application

This unit involves the skills and knowledge required to undertake the installation of complex electronic instrumentation equipment used in multi-loop configurations including, but not limited to, totaliser units, laboratory and field analysers and signal characterising, microprocessor control, interface, ultrasonic and nucleonic equipment.

Installation of complex electronic instrumentation equipment in a power generation facility is typically performed in conjunction with manufacturers' specifications to ensure serviceability and reliability.

Competency in this unit requires the ability to plan work, install complex electronic instrumentation equipment and to report on all completed work tasks. Individuals will, in general, work under supervision in an electrical, electronic and/or mechanical equipment repair workshop or on site.

Power generation maintenance personnel are typically trained and authorised to receive permits to work.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Note: Workplace practice

The application of the skills and knowledge described in this unit of competency may require a licence or training permit to practice in the workplace, where work is carried out on gas and electrical installations. Additional and/or other conditions may apply under state and territory legislative and regulatory licensing requirements.

Pre-requisite Unit

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEIC0022 Install instrumentation and control apparatus and associated equipment

Competency Field

Maintenance

Unit Sector

Electricity generation

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan and prepare for work

2 Install complex electronic instrumentation

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Requirements including scope of work and assigned roles are identified and confirmed with appropriate personnel or by site inspection, in accordance with workplace procedures
- 1.2** Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) regulations, legislative requirements, industry standards, codes of practice, manufacturers' specifications, environmental obligations and workplace procedures are reviewed in preparation for work
- 1.3** Resources are obtained and inspected for compliance with job specification
- 1.4** Relevant plans, drawings and manuals are selected and used, in accordance with workplace procedures
- 1.5** Correct materials and components for work are obtained and inspected, in accordance with workplace procedures, for compliance with job specification
- 1.6** Work is planned, sequenced and prioritised, in accordance with workplace procedures and
- 1.7** Potential hazards are identified and risk control measures are selected and implemented, in accordance with workplace procedures
- 1.8** Work area is prepared, in accordance with workplace and site procedures

- 2.1** Isolations are confirmed, in accordance with workplace

equipment	procedures
	2.2 Electronic instrumentation equipment is assembled, positioned and secured, in accordance with workplace procedures, plans, drawings and manuals
	2.3 Conductors are run, secured, glanded and terminated to job specifications, in accordance with workplace procedures
	2.4 Final inspection is carried out, in accordance with workplace procedures
3 Complete work	3.1 Work is completed and appropriate personnel are notified, in accordance with workplace procedures
	3.2 Work area is cleared of waste, cleaned, restored and secured, in accordance with workplace procedures
	3.3 Tools and equipment are cleaned, maintained and stored, in accordance with workplace procedures
	3.4 Work completion details are finalised, in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEPMT355B Install complex electronic instrumentation equipment.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c9c825a8>

Assessment Requirements for UEPMNT355 Install complex electronic instrumentation equipment

Modification History

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Performance Evidence

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

- applying Work, Health and Safety (WHS)/Occupational Health and Safety (OHS) requirements including:
 - emergency procedures
 - hazard identification
 - risk control measures
 - safe working practices
- communicating with personnel
- completing work as per scheduled requirements
- determining permit to work requirements
- identifying and selecting materials
- implementing legislation, codes of practice, regulations and industry standards
- installing electronic instrumentation equipment using installing techniques and procedures
- interpreting technical drawings and manufacturers' manuals
- planning for installing complex electronic instrumentation equipment work
- undertaking termination procedures
- using tools and equipment
- utilising test and measurement instruments

Knowledge Evidence

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

- equipment and materials
- installation requirements
- installing electronic instrumentation equipment
- isolations

- legislation, industry standards, codes of practice and regulations
- manufacturers' specifications and manuals
- permit to work system
- plant and equipment and its location
- test and measurement instruments
- typical arrangements of power production plant
- WHS/OHS legislated requirements including:
 - emergency procedures
 - hazard identification
 - risk control measures
 - safe working practices
- workplace documentation
- workplace policies and procedures

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions. 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 currently used in industry
- applicable documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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