



Australian Government

UEEEEC0018 Develop engineering solutions to audio electronic problems

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.

Application

This unit involves the skills and knowledge required to develop engineering solutions to audio electronic problems.

It includes developing engineering solutions to resolve problems with audio electronics. It also includes working safely, gathering and analysing data, applying problem-solving techniques, and developing and documenting solutions and alternatives.

Typical audio electronic problems are those encountered in meeting performance requirements and compliance standards, revising audio electronic operating parameters and dealing with audio electronic malfunctions.

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 volt (V) alternating current (a.c.) or 120 V direct current (d.c.).

Competency development activities in this unit are subject to regulations directly related to licensing. Where a licence or permit to practice is not held, skills and knowledge described in this unit require a relevant contract of training, such as an Australian Apprenticeship.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Permits may also be required for some work environments, such as confined spaces, working aloft, near live electrical apparatus and site rehabilitation.

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

Pre-requisite Unit

UEEEEC0067 Troubleshoot basic amplifier circuits

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Identify audio electronic problems

PERFORMANCE CRITERIA

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

- 1.1** WHS/OHS requirements and workplace procedures for a given work area are identified and applied
 - 1.2** WHS/OHS risk control measures and workplace procedures are followed in preparation for the work
 - 1.3** Extent of the audio electronic problem is determined from performance specifications, situation reports and in consultation with relevant person/s
 - 1.4** Activities are planned to meet scheduled timelines in consultation with others involved in the electronic work
 - 1.5** Effective strategies are formed to ensure solution development and implementation are in accordance with workplace procedures
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- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out the electronic work are followed
 - 2.2** Audio electronics circuit device/component operation, characteristics and their application are applied to resolve audio electronic problem
 - 2.3** Parameters, specifications and performance requirements in relation to each audio electronic problem are obtained in accordance with workplace procedures
 - 2.4** Approaches to resolving audio electronic problems are analysed to provide most effective solutions
 - 2.5** Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment

2 Develop engineering solution for audio electronic problems

	2.6	Quality of work is monitored against performance agreement and/or workplace procedures or professional industry standards
3 Test, document and implement engineering solution for audio electronic problems	3.1	Solutions to audio electronic problems are tested to determine their effectiveness and modified, as required
	3.2	Adopted solutions are documented and include instructions for their implementation that incorporates risk control measures to be followed
	3.3	Appropriately competent and qualified person/s required to implement solutions to audio electronic problems are coordinated in accordance with regulatory requirements and workplace policies
	3.4	Justification for solutions used to solve audio electronic problems is documented for inclusion in work/project development records in accordance with professional standards

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 UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Developing engineering solutions to audio electronic problems must include the following:

- at least four audio electronic problems

Unit Mapping Information

This unit replaces and is equivalent to UEENEEH149A Develop engineering solutions to audio electronic problems.

Links

Companion Volume implementation guides are found in VETNet - -

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