



**Australian Government**

# **UEEEEC0063 Solve fundamental electronic communications system problems**

**Release: 1**

# UEEEEC0063 Solve fundamental electronic communications system problems

## 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 solve fundamental electronic communications system problems.

It includes ascertaining correct operation of communications system and solving fundamental system problems as met in engineering support work functions. It also includes working safely, applying problem-solving techniques, using a range of measuring devices, and providing solutions derived from measurements to predictable problems in an electronic communications system.

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

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

## Pre-requisite Unit

UEEEEC0066 Troubleshoot amplifiers in an electronic apparatus

## Competency Field

Electronics and Communications

## Unit Sector

Electrotechnology

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

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

**1 Prepare to solve fundamental problems in electronic communications system**

- 1.1** Work health and safety (WHS)/occupational health and safety (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 electronic communications system work
- 1.3** Safety hazards not previously identified are risk assessed, noted on job safety assessments and established risk control measures implemented
- 1.4** Nature of the communications system problem is obtained from documentation or from work supervisor to determine the scope of work to be undertaken
- 1.5** Advice is sought from work supervisor to ensure the work is coordinated effectively with others
- 1.6** Tools, testing devices and materials needed to carry out the electronic work are obtained and checked for correct operation and safety

**2 Solve fundamental problems in electronic communications system**

- 2.1** WHS/OHS risk control measures and workplace procedures for carrying out the electronic work are followed
- 2.2** Need to test and measure live work is determined in accordance with WHS/OHS requirements and workplace safety procedures
- 2.3** Circuits/machines/plant are checked and isolated in accordance with WHS/OHS requirements and workplace procedures
- 2.4** Fundamental of communication system characteristics, components and transmission media is applied to resolving system problem/s
- 2.5** Logical approaches are used to solve system problems from measured and calculated values as they apply to communication system configuration
- 2.6** Unplanned situations are dealt with safely and with the approval of authorised person/s in accordance with workplace procedures in a manner that minimises risk to personnel and equipment

- 2.7** Electronic problems are resolved without unnecessary damage to apparatus, circuits, the surrounding environment or services using sustainable energy practices
- 3 Complete electronic work and document problem-solving activities**
- 3.1** WHS/OHS risk control work completion measures and workplace procedures are followed
- 3.2** Worksite is cleaned and made safe in accordance with workplace procedures
- 3.3** Reports are written outlining electronic system problem and justifying solutions used

## 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.

## Unit Mapping Information

This unit replaces and is equivalent to UEENEEH146A Solve fundamental electronic communications system problems.

## Links

Companion Volume implementation guides are found in VETNet - -

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