



Australian Government

UEEEEC0068 Troubleshoot communication systems

Release: 1

UEEEEC0068 Troubleshoot communication systems

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 troubleshoot communications systems.

It includes fault finding and repairing communications systems. It also includes working safely, interpreting circuit diagrams, applying logical fault-finding procedures, conducting repairs, safety and functional testing, and completing the necessary service documentation.

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

Pre-requisite Unit

UEECD0043 Solve problems in direct current circuits

UEEEEC0074 Troubleshoot resonance circuits in an electronic apparatus

UEEEEC0063 Solve fundamental electronic communications system problems

Competency Field

Electronics and Communications

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to find and repair communications system faults

PERFORMANCE CRITERIA

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

1.1 Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified obtained

- 1.2 WHS/OHS risk control measures and workplace procedures are followed in preparation for work
 - 1.3 Nature of the communications system fault is obtained from relevant documentation or from work supervisor to determine the scope of work to be undertaken
 - 1.4 Advice is sought from work supervisor to ensure the work is coordinated effectively with relevant person/s
 - 1.5 Sources of materials required for work are established in accordance with workplace procedures
 - 1.6 Tools, equipment and testing devices needed to carry out the work are obtained in accordance with workplace procedures and checked for correct operation and safety
- 2 **Find communications system faults**
 - 2.1 WHS/OHS risk control measures and workplace procedures for carrying out communications systems work are followed
 - 2.2 Need to test and measure live work is determined in accordance with WHS/OHS requirements and conducted within workplace safety procedures
 - 2.3 Communications system apparatus is checked and isolated in accordance with WHS/OHS requirements and workplace procedures
 - 2.4 Communications system fault finding is approached methodically using measured and calculated values of apparatus parameters
 - 2.5 Apparatus components are dismantled, as required, and parts stored to protect against loss or damage
 - 2.6 Faulty components are rechecked and their fault status confirmed
 - 2.7 Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
 - 2.8 Fault-finding activities are carried out efficiently without waste of materials or damage to apparatus, the surrounding environment or services using sustainable energy practices

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| 3 Repair communications system fault | 3.1 | WHS/OHS risk control measures and workplace procedures for carrying out work are followed |
| | 3.2 | Apparatus is checked and isolated in accordance with WHS/OHS requirements and workplace procedures |
| | 3.3 | Materials required for the repair work are sourced and obtained in accordance with workplace procedures |
| | 3.4 | Repairs are affected efficiently without damage to other components apparatus or circuits |
| | 3.5 | Effectiveness of the repair is inspected and tested in accordance with workplace procedures |
| | 3.6 | Apparatus is reassembled, inspected, finally tested and prepared for return to customer |
| 4 Complete and report repair activities | 4.1 | WHS/OHS work completion risk control measures and workplace procedures are followed |
| | 4.2 | Work area is cleaned and made safe in accordance with workplace procedures |
| | 4.3 | Written justification is documented for repairs to communications system apparatus |

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 UEENEEH172A Troubleshoot communication systems.

Links

Companion Volume implementation guides are found in VETNet - -

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