



Australian Government

**Assessment Requirements for ICTTEN208
Use electrical skills when working with
telecommunications networks**

Release: 1

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Modification History

Release	Comments
Release 1	This version released with ICT Information and Communications Technology Training Package Version 5.0.

Performance Evidence

The candidate must demonstrate the ability to perform the tasks outlined in the elements, performance criteria, and foundation skills, and to:

- use fundamental electrical principles to solve basic AC and DC electrical problems
- connect and test an AC and a DC circuit
- respond to test results found to be out of expected specifications.

Note: Evidence must be provided at least once when a specific volume or frequency is not stated.

Knowledge Evidence

The candidate must demonstrate the knowledge required to perform the tasks outlined in the elements, performance criteria, and foundation skills, which includes knowledge about:

- legislative requirements and enterprise protocols, policies and procedures relevant to work activity
- principles of AC and DC electricity and how it impacts telecommunications work including:
 - AC and DC electrical SI units of measurement
 - work health and safety (WHS) issues including extra low voltage and high voltage precautions
 - principles of Ohm's law and other relevant calculations for single path circuits
 - circuit configuration
- common AC and DC faults, fault-finding techniques, and procedures for the use and care of testing equipment
- application of binary to decimal conversion and vice versa
- principles of analog and digital electronics and building blocks common to analog and digital circuits
- distinction between analog and digital signals and devices

- electrical current, electromotive force (EMF), AC and DC electrical current
- features and applications of cable types such as single sheathed cable, unshielded twisted pair (UTP), coaxial and fibre cables
- electronic devices, cable types and their applications
- basic characteristics found in AC waveforms
- techniques to convert analog to digital and digital to analog
- characteristics of signal transmission
- common telecommunications cables and their characteristics of use and application.

Assessment Conditions

Skills must be assessed in a workplace or simulated environment where conditions are typical of those in a telecommunications work environment or workplace.

Access is required to:

- appropriate AC and DC testing equipment commonly used in telecommunications work
- manufacturer documentation and equipment
- safety personal protective equipment (PPE).

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guides are available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>