Australian Government

ICTBWN307 Use optical measuring instruments

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.

Application

This unit describes the skills and knowledge required to set up and use hand-held optical communications instruments to perform installations, upgrades and fault-finding on optical equipment.

It applies to telecommunications lines workers who **only** use hand-held optical measuring instruments.

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

Unit Sector

Telecommunications – Broadband and Wireless Networks

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Prepare to use optical measuring instruments	1.1 Obtain approval for site access with customer or site owner prior to site entry
	1.2 Identify purpose of test and type of optical measurement required
	1.3 Select appropriate tools and instruments according to required measurement
	1.4 Check test instruments to ensure calibration is within acceptable time frames
	1.5 Identify safety hazards, assess risks and implement risk control measures in consultation with appropriate personnel
2. Conduct optical	2.1 Set up test equipment according to manufacturer and enterprise

Elements	Performance Criteria
measurements	instructions, and safe industry practices
	2.2 Test optical patch cords are functional
	2.3 Inspect and clean optical connectors
	2.4 Use appropriate testing techniques to assess overall system performance
	2.5 Record and interpret test results, and compare with standard test specifications
3. Complete optical measurement process	3.1 Make recommendations, based on test result interpretations, to achieve optimum performance
	3.2 Notify customer of work completion
	3.3 Clean work area and make safe according to enterprise procedures

Foundation Skills

Skill	Description
Reading	• Reads and interprets plans, specifications, instructions and other documentation from a variety of sources and consolidates information to determine requirements • Interprets and consolidates test results and data from a range of sources, against defined requirements
Writing	• Accurately records and completes enterprise documents and correspondence using clear language and correct spelling, grammar and terminology
Oral Communication	• Participates in verbal exchanges with key personnel using appropriate, clear and detailed language to exchange information, ideas or solutions • Uses listening and questioning skills to confirm understanding of requirements
Numeracy	• Performs mathematical calculations to check, interpret and confirm results of system tests
Navigate the world of work	• Complies with explicit policies and procedures • Explores and implements where identified the implicit expectations of policies and procedures
Interact with others	• Uses a range of accepted practices for communicating in a work environment • Complies with work instructions and contributes effectively to work group discussions

Skill	Description
Get the work done	• Plans and implements routine tasks and workload, making decisions on sequencing, timing and collaboration, and seeks assistance in setting priorities • Makes decisions within familiar situations, based on a range of predefined or routine solutions, and evaluates the effectiveness of the outcome • Uses the main features and functions of digital tools to complete work tasks and access information

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. It is restricted to essential operating conditions and any other variables essential to the work environment.

Type of optical measurement must include:	• detecting the presence of an active optical network terminal (ONT) • determining absolute optical power (in dBm) • determining insertion loss (in dB) • determining relative optical power level (in dB)
Instruments must include:	• hand-held optical power meter • hand-held optical source • handheld optical fibre identifier (OFI-FTTx) • active optical network termination (ONT) detector • optical loss test set (OLTS) • passive optical network (PON) meter

Unit Mapping Information

No equivalent unit. New unit.

Links

Companion Volume Implementation Guides are available from VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2