



Australian Government

ICTCBL302 Install and terminate optical fibre cable on customer premises

Release: 1

ICTCBL302 Install and terminate optical fibre cable on customer premises

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to install and test optical fibre cable on a customer's premises for communications applications using a range of terminations that may include direct termination, fusion splicing and mechanical splicing.

It applies to technical staff who place, secure and terminate optical fibre cable in new installations and upgrades or maintain existing networks in domestic, commercial and industrial installations. Communications applications include digital and analog, telephony, data, video, digital broadcasting, computer networks, local area networks (LAN), wide area networks (WAN) and multimedia.

All customer cabling work in the telecommunications, fire, security and data industries must be performed by a registered cabler. All cablers are required to register with an Australian Communications and Media Authority (ACMA) accredited registrar.

Unit Sector

Telecommunications – cabling

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Prepare for installation of optical fibre cable	1.1 Prepare for given work according to relevant legislation, codes, regulations and standards 1.2 Arrange access to site according to required procedure 1.3 Inform appropriate personnel of identified hazards on worksite 1.4 Organise tools, cabling products, equipment and materials for

ELEMENT	PERFORMANCE CRITERIA
	given work 1.5 Match optical fibre cable type and connectors to installation environment and customer requirements 1.6 Check proposed route and bend ratios to meet manufacturer's specifications and industry standards 1.7 Test cable on drum for optical continuity if required
2 Install, terminate and test optical fibre cable	2.1 Install cable following work health and safety (WHS) and environmental requirements, and complying with manufacturer's specifications and industry standards 2.2 Join cable and perform type of termination specified in plan using safe work practices and according to manufacturer's specifications 2.3 Test joint for transmission loss and strength and re-terminate joint if transmission loss exceeds manufacturer's specifications 2.4 Record all measurements
3 Remove fibre hazards from work area	3.1 Clean work area thoroughly to minimise risk of injury from loose glass fibre 3.2 Dispose of waste safely according to relevant environmental requirements 3.3 Restore worksite to customer's satisfaction
4 Document installation	4.1 Update plans and records with details of installation and test results 4.2 Notify customer of work completion and obtain sign off

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.5, 1.6, 2.2, 2.3, 4.1, 4.2	Recognises the structures and distinguishing features of a range of familiar text types
Writing	1.2, 2.4, 4.1	Chooses appropriate text type to communicate relevant information and/or ideas effectively

Oral Communication	1.2, 1.3	Demonstrates awareness of choices in register, especially in situations that are familiar
Numeracy	1.6, 2.3, 2.4, 4.1	Interprets and comprehends whole numbers and familiar or routine fractions, decimals and percentages
Navigate the world of work	1.1-1.3, 2.1, 2.2, 3.2	Takes personal responsibility for adherence to legal and regulatory responsibilities relevant to own work context, and draws attention to any issues that may affect self or others
Get the work done	1.1, 1.2, 1.4-1.7, 2.1-2.3, 3.1, 3.3	- Implements actions as per plan, making slight adjustments if necessary, and addressing some unexpected issues - Automatically implements standard procedures for routine decisions in response to familiar problems - Understands when to take responsibility and when to notify others

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTCBL302 Install and terminate optical fibre cable on customer premises	ICTCBL3010B Install and terminate optical fibre cable on customer premises	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTCBL302 Install and terminate optical fibre cable on customer premises

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Performance Evidence

Evidence of the ability to:

- install, terminate and test optical fibre cable, applying safety precautions when working with laser based systems
- install a mechanical splice connector and fusion splice a pigtail to cable fibre
- complete relevant documentation to manufacturer's and design requirements
- provide report documenting the installation and test results to the customer
- comply with all related work health and safety (WHS) requirements and work practices.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify and describe the application of relevant legislation, codes of practice and standards for optical fibre
- describe the various types of optical fibre cable and associated connectors, enclosures and required equipment
- describe the features and operating requirements of test equipment for optical fibre cable
- describe the information required to operate equipment according to a test specification
- identify the manufacturer's requirements for safe operation of optical fibre equipment
- describe safety precautions when working with laser based systems
- identify specific WHS requirements relating to the activity and site conditions
- describe the hazards associated with working with optical cable:
 - bare fibres
 - hazardous laser light
- describe test methods and performance requirements
- identify issues relating to environmental work practices and the disposal of waste

- discuss techniques for types of termination, including:
 - direct termination
 - fusion splicing.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances should be typical of those experienced in the telecommunications – cabling field of work and include access to special purpose tools, equipment and materials.

These include access to:

- sites where installation and termination of optical fibre cable may be conducted
- optical fibre testing equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on optical fibre cable installation activities.

Note: All client cabling work in the telecommunications, fire, security and data industries must be performed by a registered cabler. All cablers are required to register with an Australian Communications and Media (ACMA) accredited registrar. Assessment by a Telecommunications Industry Training Advisory Board (TITAB) registered assessor is recommended for this unit.

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

Links

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