



Australian Government

ICTTEN318 Inspect, clean and handle optical fibre cable and connectors

Release: 1

ICTTEN318 Inspect, clean and handle optical fibre cable and connectors

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 inspect and clean optical fibre connectors and to follow handling and placement practices for optical fibre patch leads and cables. It relates to practices necessary in the installation and patching of fibre for new or replacement cables in switching, transmission and fixed and mobile radio networks.

It applies to lines workers, technicians or jointers working for carriers and/or service providers. It also applies to work performed under direction of the relevant authority.

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

Unit Sector

Telecommunications – Telecommunications Network Engineering

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 fibre patching	1.1 Obtain design schematics and cut over sequence for fibre patching 1.2 Discuss and record details of activities and work schedule with relevant authority 1.3 Ensure all tools and materials required for patching are available and in good condition 1.4 Undertake an impact risk assessment, including customer impact risk according to work health and safety (WHS) guidelines for fibre patching requirements, and prepare any necessary notifications

ELEMENT	PERFORMANCE CRITERIA
2. Prepare each connector and bulkhead for patching	2.1 Work safely and identify appropriate connector and lead type 2.2 Place fibre patch leads in support pathways avoiding pressure points, crushing and excess bending 2.3 Ensure connectors match bulkhead connectors 2.4 Remove connector dust cover and inspect connecting surface for dust or damage using the correct video adaptor optical microscope 2.5 Clean connector, as required, with recommended cleaning materials and re-inspect 2.6 Insert connector and label in accordance with customer practices 2.7 Secure cables according to manufacturer instructions and customer practices 2.8 Escalate hardware replacement problems with the relevant authority 2.9 Test replacement hardware to ensure satisfactory functionality
3. Clean-up worksite and complete administrative work	3.1 Remove waste and debris from worksite and dispose of according to environmental requirements 3.2 Recover faulty equipment and return to appropriate point for disposal or refurbishment 3.3 Complete documentation, update fault records and make recommendations according to customer practices 3.4 Notify appropriate person at the relevant authority of job completion and obtain sign-off

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance, but not explicit in the performance criteria.

Skill	Description
Reading	Recognises and interprets technical, regulatory and enterprise documentation
Writing	Uses clear, specific and industry related terminology to complete and update workplace documentation
Oral Communication	- Liaises with a range of personnel about technical and operational requirements using specific and relevant language - Uses listening and questioning techniques to confirm understanding

Skill	Description
Navigate the world of work	Complies with policies, procedures and legislative requirements relevant to own role
Interact with others	Uses appropriate practices and protocols to communicate effectively with a range of personnel
Get the work done	- Plans, sequences and carries out tasks to meet required outcomes - Implements actions according to a predetermined plan making adjustment where necessary - Analyses task requirements to make routine decisions, taking some situational factors into account - Anticipates potential problems and prepares contingency plans - Follows required procedures when responding to problems - Understands purpose and some specific functions of common digital tools used in work contexts

Unit Mapping Information

No equivalent unit. Supersedes and is not equivalent to ICTTEN311 Inspect, clean and handle optical fibre cable and connectors.

Links

Companion Volume Implementation Guides are available from VETNet -

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

Assessment Requirements for ICTTEN318 Inspect, clean and handle optical fibre cable and connectors

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Performance Evidence

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

- interpret, discuss and confirm required work
- obtain and check documentation, equipment and hardware for required work
- inspect fibre connectors using inspection scopes
- clean connectors using approved methods
- handle optical fibre cable and connectors to prevent damage
- complete patching according to patching schedule and under the direction of the relevant authority
- follow work health and safety (WHS) requirements and anti-static precautions
- follow required practices or contingency plan if hardware replacement is unsuccessful
- restore site to required condition
- liaise with appropriate personnel for information and reporting purposes.

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:

- relevant legislation, regulations, codes, standards and contracts that impact on the work activity, in particular:
 - relevant safety legislation and company work practices, hazards identification, laser safety, dangerous materials handling and personal protective equipment and safety requirements for working with optical fibre cable
 - International Electrotechnical Commission (IEC) Standards acceptance criteria
 - environmental requirements

- signal transmission in optical fibres and the impact of various contaminants on fibre connections
- relevant designs, plans and labelling conventions
- relevant equipment used for inspecting and cleaning cables and connectors
- process of inspecting and cleaning cable, connectors and equipment
- escalation processes for damaged hardware.

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:

- site/s suitable for inspecting and cleaning optical fibre connectors
- a range of hardware currently used in industry
- a range of general and test equipment required for testing telecommunications network hardware.

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

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