



Australian Government

ICTDRE308 Install a cable broadband multi-dwelling unit system

Release: 1

ICTDRE308 Install a cable broadband multi-dwelling unit system

Modification History

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

Application

This unit describes the skills and knowledge required to install, test and commission a cable broadband system within a multi-dwelling unit (MDU).

It applies to technicians who conduct cable broadband installation and service assurance activities within commercial or MDU environments.

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

Unit Sector

Telecommunications – Digital Reception Technology

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. Plan installation of a broadband service to an end user within an MDU	1.1 Notify customer to arrange access to site and identify customer equipment 1.2 Assess existing design, infrastructure and constraints on installation according to enterprise requirements and customer specifications 1.3 Complete a job safety and environmental analysis (JSEA) by identifying work health and safety (WHS) issues 1.4 Prepare for installation according to relevant legislation, regulations, codes and standards
2. Assemble equipment and tools for installation	2.1 Select and obtain materials, tools and equipment for installation 2.2 Identify cable access and select suitable cable pathway

ELEMENT	PERFORMANCE CRITERIA
	2.3 Install cable according to enterprise design requirements 2.4 Install equipment and devices to operate according to design and manufacturer specifications 2.5 Terminate cables according to design and manufacturer specifications
3. Test and commission system	3.1 Conduct proof of performance testing at required specified locations according to commissioning documentation 3.2 Conduct radio frequency (RF) signal measurement using test equipment 3.3 Record and analyse initial test results for quality of service according to design specifications 3.4 Rectify identified faults and adjust system for optimal operation 3.5 Conduct final RF signal measurement using test equipment to optimise performance
4. Complete administrative tasks	4.1 Record final RF test results and settings according to enterprise requirements 4.2 Complete appropriate records and file according to enterprise policy and procedures 4.3 Inform customer of work 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	Interprets text from relevant sources to identify key information
Writing	Uses clear, specific and industry related terminology to complete workplace documentation
Oral Communication	Communicates clearly, using appropriate language for environment and uses listening techniques to confirm understanding
Numeracy	Obtains readings and measurements and interprets results
Navigate the world of work	Takes responsibility for adhering to safe, sustainable, appropriate and efficient workplace procedures

Interact with others	Communicates effectively with customers, stakeholders and -team members
Get the work done	- Plans, organises and implements tasks efficiently to meet customer requirements - Identifies and resolves problems

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>

Assessment Requirements for ICTDRE308 Install a cable broadband multi-dwelling unit system

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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:

- obtain relevant approvals for access to site and equipment
- plan, assemble and install equipment
- interpret results
- action test results to align with enterprise requirements
- perform handover with customer
- apply related work health and safety (WHS) requirements and work practices.

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:

- legislation, regulations and codes relevant to installation of broadband systems
- procedures and equipment required for measuring:
 - radio frequency (RF) signal power forward and return
 - insertion loss
 - distance to fault
 - modulation error rate (MER) and bit error rate (BER) for purpose of signal integrity
- features of instruments, test equipment and performance requirements
- RF testing of radio communications instruments and equipment
- typical issues and challenges that occur in telecommunications broadband installations
- safety issues regarding electromagnetic radiation (EMR).

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 where broadband multi-dwelling unit (MDU) system installation can be undertaken
- hybrid fibre coaxial (HFC) equipment and devices currently used in industry
- test equipment required for HFC broadband installation and testing.

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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