



Australian Government

ICTCBL209 Joint and terminate coaxial cable

Release: 1

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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, joint and terminate coaxial cable in the customer access network (CAN) environment for emerging technologies using high speed broadband and the delivery of cable television services on a client's premises for domestic, commercial or industrial installations.

It applies to technical staff whose work involves jointing and terminating coaxial cable used in all telecommunications applications, including convergence technologies of telephony, data, video and multimedia as part of next generation networks (NGN).

Work functions in the occupational areas where this unit may be used are subject to regulatory requirements. Refer to the ICT Implementation Guide Companion Volume or the relevant regulator for details of licensing, legislative or certification requirements.

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 to install and joint coaxial cable	1.1 Confirm approval for site access with client prior to site entry and comply with site security arrangements and relevant legislation, codes, regulations and standards 1.2 Read and interpret client's installation specifications and physical conditions at site to determine layout of job 1.3 Locate and identify adjoining other services according to enterprise guidelines and work health and safety (WHS) practices 1.4 Test for and respond to presence of dangerous gases in

ELEMENT	PERFORMANCE CRITERIA
	underground enclosures according to enterprise guidelines 1.5 Undertake approved alterations to design according to enterprise guidelines
2. Verify placement and secure coaxial cable	2.1 Use safety equipment to protect self and public according to enterprise guidelines and WHS 2.2 Maintain coaxial cable segregation to industry standard requirements 2.3 Protect integrity of coaxial shield cable to ensure no loss of performance 2.4 Place cable in position with sufficient slack to allow termination and maintain minimum bend radius according to manufacturer's specifications 2.5 Follow installation designs to install cable safely without damage to cable or client's premises 2.6 Maintain radio frequency (RF) signal strength by installing cable lengths within manufacturer's or design specifications 2.7 Locate securing hardware to reduce cumulative effect on cable wave shape properties and attach cable ties to minimise cable damage
3. Joint coaxial cable	3.1 Strip coaxial cable according to specifications to required length using appropriate tools 3.2 Select appropriate kit to match type of coaxial cable in use and jointing method according to manufacturer's recommendations 3.3 Joint cable and ensure jointing fitting retains segregation of conductor and shield 3.4 Seal all joints according to manufacturer's specifications
4. Terminate coaxial cable	4.1 Prepare coaxial cable for termination according to specifications using appropriate tool 4.2 Select connectors to match type of coaxial cable in use and use terminating method recommended by manufacturer 4.3 Verify connector fitting retains segregation of conductor and shield 4.4 Terminate connectors to torque as recommended by manufacturer to prevent RF leakage 4.5 Test connectors to mating specifications using gauge tester 4.6 Maintain continuous ground on terminations and waterproof seal to preserve cable integrity

ELEMENT	PERFORMANCE CRITERIA
5. Complete installation operation	5.1 Place cables in enclosure and lay up according to manufacturer's instructions and enterprise guidelines, and check that no safety hazards are evident 5.2 Place other services according to enterprise guidelines 5.3 Reinstall site and remove waste and debris for disposal according to environmental requirements and to maintain safe worksite conditions
6. Complete installation administration	6.1 Complete reports according to enterprise policy 6.2 Note alterations to plans using appropriate symbols

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	1.2-1.5, 2.5, 2.6, 3.2, 3.4, 4.2, 4.4, 6.1, 6.2	Reads familiar texts fluently, automatically recognising most everyday words and some specialised vocabulary
Writing	1.5, 6.1, 6.2	Sequences writing to produce cohesive text and uses layout consistent with text type
Oral Communication	1.1	Demonstrates awareness of choices for register, especially in situations that are familiar
Numeracy	1.5, 2.4, 2.5, 3.1, 4.4, 4.5	- Interprets and comprehends whole numbers and familiar or routine fractions, decimals and percentages - Selects and uses appropriate tools, hand-held devices, computers and technological processes
Navigate the world of work	1.1, 1.3-1.5, 2.1, 2.2, 2.4, 2.7, 4.5, 5.1, 5.3, 6.1	- Takes responsibility for decisions regarding when and how to complete tasks, and coordinate with or delegate to others - 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	1.3-1.5, 2.2-2.6,	Implements actions as per plan, makes slight

	3.1-3.4, 4.1, 4.2, 4.4, 4.6, 5.2	adjustments if necessary, and addresses unexpected issues • Automatically implements standard procedures for routine decisions
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTCBL209 Joint and terminate coaxial cable	ICTCBL2066A Joint and terminate coaxial cable	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 ICTCBL209 Joint and terminate coaxial cable

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Performance Evidence

Evidence of the ability to:

- determine installation requirements, and check and prepare the site ready for coaxial cable installation
- demonstrate joint and termination of coaxial cable using specialised hand or power tools and equipment
- apply related work health and safety (WHS) requirements and work practices
- conduct signal strength tests and interpret results
- finalise cable activities and reinstate the site
- document work according to enterprise requirements.

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:

- describe the range of coaxial cables and connectors and their application
- identify information required to operate equipment according to a test specification
- describe the features and operating requirements of test equipment
- identify the manufacturer's requirements for safe operation of equipment
- discuss test methods and performance requirements
- describe typical issues and challenges that occur on site
- identify specific WHS requirements relating to the activity and site conditions, including site security
- describe the impact that other services may have on the installation work
- identify and describe the operation of tools relevant to working with coaxial cable
- identify relevant legislation, codes of practice and other formal agreements and contracts that impact on the work activity.

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 jointing coaxial broadband cable may be conducted
- joint testing equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on cable jointing and testing activities.

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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