



Australian Government

ICTCBL248 Install and terminate hard-line coaxial cable

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 install, splice and terminate hard-line coaxial cable in the customer access network (CAN) environment for emerging technologies.

It applies to technical staff who splice and terminate hard-line coaxial cable used in all telecommunications applications including convergence technologies of telephony, data, video and multimedia as part of next generation networks (NGNs).

Licensing, legislative, regulatory and certification requirements apply to telecommunications earthing systems. Refer to the ICT Information and Communications Technology Companion Volume Implementation Guide 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 splice hard-line coaxial cable	1.1 Confirm site access approval prior to site entry and comply with site security arrangements 1.2 Read and interpret installation specifications and physical conditions at site to determine job layout 1.3 Locate and identify adjoining other services according to industry guidelines, and work health and safety (WHS) practices 1.4 Test for and respond to presence of dangerous gases in underground enclosures according to industry guidelines 1.5 Test relevant aerial metallic fittings for live voltage and respond

ELEMENT	PERFORMANCE CRITERIA
	according to industry guidelines 1.6 Install equipotential bonding according to design 1.7 Undertake approved alterations to design, as required, according to industry guidelines 1.8 Select appropriate hard-line coaxial cable type according to installation requirements 1.9 Select and obtain all materials required for cable termination including passive and active devices and connectors
2. Verify placement and secure coaxial cable	2.1 Use safety equipment to protect self and public according to industry guidelines and WHS requirements 2.2 Protect integrity of coaxial cable (sheath, shield and centre conductor) to ensure no loss of performance 2.3 Form cable into position with sufficient lengths by using approved forming tools that allow termination and maintain minimum bend radius according to manufacturer specifications 2.4 Follow installation design to install cable safely without damage to cable and ensure cable flow in pits and manholes is according to carrier standards and work instructions 2.5 Maintain radio frequency (RF) signal strength by installing cable lengths within manufacturer or design specifications 2.6 Locate securing hardware to reduce cumulative effect on cable wave shape properties 2.7 Use correct lashing machine and techniques to attach aerial cable to catenary wire
3. Splice coaxial cable	3.1 Strip and core hard-line coaxial cable, according to specifications, to required length using appropriate tools 3.2 Select appropriate kit to match type of hard-line coaxial cable in use and splice according to manufacturer recommendations 3.3 Seal all splices according to industry specifications
4. Terminate coaxial cable	4.1 Prepare coaxial cable for termination, according to specifications, using appropriate tools 4.2 Select connectors to match type of coaxial cable in use and terminate according to industry standards 4.3 Install network device chassis/housing in correct orientation according to design 4.4 Prepare centre pins of cable and connector, and cut according to vendor specifications

ELEMENT	PERFORMANCE CRITERIA
	4.5 Terminate connectors to torque according to manufacturer recommendations to prevent RF leakage, and ensure seizure screws are tightened 4.6 Seal all terminations according to industry specifications
5. Complete installation operation	5.1 Place cables in pit and/or mount on aerial strand according to manufacturer instructions and industry guidelines, and check that no safety hazards are evident 5.2 Attach fitted off device aurally or underground according to manufacturer specifications or work instructions 5.3 Reinstate site, and remove waste and debris for disposal according to environmental requirements and maintain safe worksite conditions
6. Complete installation administration	6.1 Complete reports according to telecommunications carrier network policy 6.2 Update plans and records using appropriate symbols with details of installation

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	Reads familiar texts fluently, automatically recognising most everyday words and some specialised vocabulary
Writing	Sequences writing to produce cohesive text and uses layout consistent with text type
Oral Communication	Demonstrates awareness of choices for register, especially in situations that are familiar
Numeracy	- 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	- 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

Skill	Description
Get the work done	• Implements actions as per plan, makes slight adjustments if necessary, and addresses unexpected issues • Automatically implements standard procedures for routine decisions

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>