



Australian Government

ICTCBL241 Terminate metallic conductor customer cable

Release: 1

ICTCBL241 Terminate metallic conductor customer cable

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 terminate metallic conductor cable or to join cable in a terminating block for a new cable installation or upgrade of cable capacity for an existing network or subsystem, or cabling infrastructure for convergence to next generation networks (NGNs).

It applies to individuals who work in technical roles carrying out indoor and outdoor, domestic, commercial or industrial installations for all communications applications, digital and analog, telephony, data, video, digital broadcasting, computer networks, local area networks (LANs), wide area networks (WANs) and multimedia.

Licensing, legislative, regulatory and certification requirements apply to telecommunications systems. 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 cable termination	1.1 Access site according to customer and worksite requirements 1.2 Prepare for cable terminating work according to regulatory environment, cabling environment, cable type, cable identification, termination systems, earthing and protection, and records 1.3 Select correct termination tools and materials for installation 1.4 Notify appropriate personnel of identified safety hazards at

ELEMENT	PERFORMANCE CRITERIA
	cabling worksite 1.5 Identify remote power feeding services that operate at above telecommunications network voltage (TNV) inside customer premises 1.6 Contact customer where risks with remote power feed are identified 1.7 Remove all contaminants from worksite that may adversely affect termination and prepare worksite to ensure adequate visibility to minimise errors and to reduce eye strain 1.8 Design cable and block location within frame, with capacity for expansion where possible 1.9 Segregate incoming and outgoing cables for ease of access and to minimise overlaying and backtracking of cable
2. Terminate cable	2.1 Remove cable sheath to allow for conductor length and installation requirements 2.2 Fan out cable pair groups to manufacturer coding system to ensure correct terminating sequence and unique identification as required 2.3 Install over-voltage protection devices to all cables with metallic component as required 2.4 Install terminating modules to frame according to manufacturer specifications 2.5 Fan cable pairs neatly to termination equipment to facilitate accurate termination 2.6 Terminate cable using correct tool, according to work health and safety (WHS) and environmental requirements, and manufacturer specifications 2.7 Earth cable shield to manufacturer specifications and industry standards
3. Test termination	3.1 Conduct visual inspection to confirm termination colour code sequence has been followed 3.2 Test termination to satisfy performance specifications and record results as required
4. Complete records and clean-up site	4.1 Label cable pairs clearly to provide an accurate identification according to manufacturer specifications, industry standards and customer requirements 4.2 Update records and plans with cabling details to provide accurate record according to industry codes of practice and current Australian

ELEMENT	PERFORMANCE CRITERIA
	Standards 4.3 Complete telecommunications cabling advice (TCA) forms 4.4 Remove installation waste and debris from worksite and dispose of according to environmental requirements to maintain safe worksite conditions

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 textual information from relevant sources to identify relevant and key information
Writing	Uses clear, specific and industry related terminology to complete workplace documentation
Numeracy	Takes readings and measurements and interprets results
Navigate the world of work	Complies with explicit policies, procedures and legislative requirements relevant to own role
Interact with others	Identifies and follows accepted communication practices and protocols when liaising with customers, colleagues or supervisors
Get the work done	- Determines job sequence and works logically and systematically to undertake clearly defined tasks - Analyses task requirements to decide on appropriate equipment and practices

Unit Mapping Information

ICTCBL241 Terminate metallic conductor customer cable supersedes and is equivalent to ICTCBL203 Terminate metallic conductor customer cable.

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 ICTCBL241 Terminate metallic conductor customer cable

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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:

- terminate systems at both distributor and outlet locations
- terminate one jumperable distributor (campus distributor or building distributor) with a capacity of 100 pair or greater and one non-jumperable distributor (local distributor) and a patch panel
- terminate at least one 50 pair, one 4 pair ethernet unshielded twisted pair (UTP) data cable and one ethernet shielded twisted pair (STP) data cable, and accurately complete installation records, drawing alterations and compliance forms
- comply with all related work health and safety (WHS) requirements and work practices
- use correct methods to terminate a range of cables
- conduct and interpret cable test results on a minimum of three different lead-in faults
- update records and plans to show cable locations according to industry standards.

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, codes, standards and rules that impact on work, in particular:
 - AS/NZS 3000:2018 Electrical installations known as the Australian/New Zealand Wiring Rules.
 - mandatory and voluntary technical standards
- specific WHS and environmental requirements relating to the activity and site conditions, including typical safety issues and challenges that occur on site
- purpose, construction, and characteristics of types of cable used in performance evidence
- recognition of colour

- basic telephony including operations
- strategies to manage cabling infrastructure when terminating cables
- features and operating requirements of testing
- operation of termination tools to manufacturer guidelines
- procedures for installing and maintaining cabling products in line with manufacturer guidelines
- termination methods and performance requirements.

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 metallic conductor cable can be terminated
- colour codes for visual inspections or wire-mappers for 4 pair cable tests
- relevant regulatory and cabling documentation that impacts on cable terminating activities.

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

Work functions in the occupational areas where this unit may be used are subject to regulatory requirements. Refer also to the *Requirements for assessors* in the ICT Information and Communications Technology Training Package Companion Volume Implementation Guide.

Links

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