Australian Government

ICTCBL238 Install, maintain and modify customer premises communications cabling: ACMA Lift Rule

Release: 2

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Modification History

Release	Comments
Release 2	This version released with ICT Information and Communications Technology Training Package Version 5.0. Minor updates to Foundation Skills and Assessment Requirements.
Release 1	This version released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to safely install, maintain and modify communications cabling required on a customer's premises, according to Australian Communications and Media Authority (ACMA) Lift Cabling Provider Rule.

It applies to individuals who are qualified licensed electricians working in technical roles for lift installations on new or upgrade installations for an existing network or subsystem for convergence to next generation network (NGN) applications.

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 ACMA accredited registrar.

To undertake aerial and underground cabling, individuals must attain the specialist competencies as indicated in ACMA cabling provider rules Pathways to cabling registration.

Unit Sector

Telecommunications – cabling

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Work within constraints imposed by customer premises and	1.1 Prepare for lift cabling work according to regulatory environment, cabling environment, cable type, cable identification, termination systems, earthing and protection, records and relevant

ELEMENT	PERFORMANCE CRITERIA
ACMA regulatory environment	legislation, codes, regulations and standards 1.2 Identify building infrastructure that places critical constraints on cabling when undertaking typical lift cabling installation from local distributor (LD) to lift car socket 1.3 Develop strategies to manage other infrastructure in relation to cabling 1.4 Notify appropriate personnel of identified safety hazards at cabling worksite
2. Manage remote power feed	2.1 Identify and avoid risks posed by contact with remote power feeding services when performing cabling activity 2.2 Make site safe by identifying remote power feeding services that operate at above telecommunications network voltage (TNV) inside customer premises
3. Install and modify cable support, earthing and termination infrastructure	3.1 Install fixings and cable support structures of adequate strength safely and align with environment according to manufacturer's and customer's specifications 3.2 Secure catenary supports to building structure and tension where necessary to ensure cable weight can be carried in operating conditions with interference and safety segregation maintained, including adherence to current Australian Standards 3.3 Install protective earthing of metal work to industry standards where required 3.4 Inspect installed support structure to ensure cable will not be exposed to damage during installation and general operation 3.5 Position terminating equipment and fixing to accepted industry codes of practice, current Australian Standards and customer requirements 3.6 Inspect control cubicles, travelling cable supports, junction boxes, line isolator units, backmount and outlet layout, to ensure compliance with manufacturer's specifications, allow adequate work space for ease of access and avoid overlaying 3.7 Segregate incoming and outgoing cables to ensure ease of access, and avoid overlaying
4. Install cables and earth wires	4.1 Install lift communications cable from LD to lift car socket 4.2 Install cables according to manufacturer's application specifications, including tension and bending stress requirements 4.3 Identify and avoid sources of possible damage to cable, including hot pipes, sharp edges, cable burn, kinks and stretching

ELEMENT	PERFORMANCE CRITERIA
	4.4 Allow sufficient excess at cable ends to facilitate termination 4.5 Place and secure cable to maintain safety and interference segregation according to legislative and industry standards 4.6 Install cable fasteners with correct tension to prevent cable sheath damage or transmission impairment, and trim flush to prevent risk of personal damage 4.7 Install aerial cables supported by catenaries in external environment to meet minimum above ground clearances and clearances from hazardous electrical services according to current Australian Standards 4.8 Install and secure travelling cables to maintain safety and according to relevant legislative, industry and manufacturer's standards 4.9 Install local isolation units (LIU) as required according to current Australian Standards 4.10 Install over-voltage protection devices to all cable pairs, where required, to suppress voltage surges, with devices protectively earthed and according to current Australian Standards 4.11 Protect earth wire insulation against damage with protective earths segregated according to relevant industry and legislative standards
5. Terminate and test cables and earth wires	5.1 Remove cable sheath to allow for correct termination length and without damage to underlying conductors and their insulation 5.2 Install terminating modules according to manufacturer's specifications, ensuring cable pairs are neatly and sequentially fanned for termination 5.3 Terminate conductors according to recommended colour code sequence using appropriate termination tools in manufacturer's specified manner 5.4 Earth cable shield, if applicable, to manufacturer's specifications and relevant industry codes of practice, including current Australian Standards 5.5 Undertake visual inspection to confirm termination colour code sequence has been followed, prior to end to end testing of wire and pair termination integrity 5.6 Terminate earth wires with connectors recommended by manufacturer according to relevant industry codes of practice, including current Australian Standards 5.7 Maintain earth wire continuity throughout to meet interface

ELEMENT	PERFORMANCE CRITERIA
	requirements with electrical systems 5.8 Test earthing installation for continuity, insulation resistance and conductive resistance according to relevant industry standards, including current Australian Standards 5.9 Confirm compatibility of alterations with existing systems and test new work both in isolation and when integrated with existing systems
6. Inspect cable route to ensure correct separations	6.1 Inspect separations along entire cable route and rectify separations that do not comply with regulations 6.2 Install barriers to achieve separations where sufficient spatial separation cannot be met
7. Evaluate earthing needs for cable systems on customer premises	7.1 Locate existing customer earthing systems and analyse earthing needs of cable systems 7.2 Calculate upper and lower limits of resistance for variety of cable system earths using relevant cable characteristics
8. Label earthing systems	8.1 Identify label requirements for all types of earthing systems 8.2 Attach label to earthing systems according to industry regulations
9. Create or update cable plans and records	9.1 Document installation details on record sheets and plans, and store according to customer requirements 9.2 Label cable pairs clearly to provide accurate identification according to manufacturer's, industry and customer standards 9.3 Record cabling details in cable pair record books to provide accurate record according to industry codes of practice and current Australian Standards 9.4 Complete Telecommunications Cabling Advice (TCA) form
10. Monitor work activity	10.1 Maintain close supervision of cablers not holding appropriate registration for task to ensure installation and maintenance activity is strictly according to legislative requirements and industry standards for safety and network integrity, including all current Australian Standards

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Description
Reading	• Interprets complex technical information, legislation, codes, regulations and standards to identify key requirements
Writing	• Completes required documentation to meet customer, organisational and legislative requirements using industry relevant terminology
Oral communication	• Delivers clear and specific instructions and confirms understanding using questioning and active listening
Numeracy	• Takes measurements and interprets results
Navigate the world of work	• Takes responsibility for adherence to legal, regulatory and organisational requirements relevant to own work context, including supervising the work of others
Interact with others	• Identifies and follows accepted communication practices and protocols when liaising with customers, internal and external personnel on technical and operational matters
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 • Implements actions as per plan, making adjustments if necessary, and addressing some unexpected issues • Automatically implements standard procedures for routine decisions in response to familiar problems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTCBL238 Install, maintain and modify customer premises communications cabling: ACMA Lift Rule (Release 2)	ICTCBL238 Install, maintain and modify customer premises communications cabling: ACMA Lift Rule (Release 1)	Updates to application, knowledge evidence, and foundation skills	Equivalent unit

Links

Companion Volume Implementation Guides are available from VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2