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COMMUNICATIONS
INDUSTRY FORUM



AUSTRALIAN STANDARD

AS/ACIF S009:2006

Installation requirements for customer cabling
(Wiring rules)

**Adopted for
regulatory purposes**



Australian Standard – Installation requirements for customer cabling (Wiring Rules)

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FOREWORD

General

This Standard was prepared by the ACIF Working Committee CECRP/WC18 Cabling Standards. It is one of a series of Telecommunication Standards developed under the Memorandum of Understanding between the Australian Communications Authority (ACA) and the Australian Communications Industry Forum (ACIF).

Note: On 1 July 2005 the ACA became the Australian Communications and Media Authority (ACMA) and the Memorandum of Understanding continues in effect as if the reference to the ACA were a reference to ACMA.

This Standard is a revision of AS/ACIF S009:2001 *Installation requirements for customer cabling (Wiring Rules)*.

This Standard is the result of a consensus among representatives on the ACIF Working Committee to produce it as an Australian Standard.

Standards revision

Australian Standards developed by the Australian Communications Industry Forum (AS/ACIF Standards) are updated, according to the needs of the industry, by amendments or revision. Users of AS/ACIF Standards should make sure that they possess the latest amendments or editions. Representations concerning the need for a change to this AS/ACIF Standard should be addressed to:

The Project Manager
Customer Equipment and Cable Reference Panel
The Australian Communications Industry Forum
PO Box 444
Milsons Point NSW 1565

Regulatory notice

Attention is drawn to the fact that cabling work must be performed or supervised by a person with the appropriate cabling provider registration. This requirement is determined by legislation and subordinate regulatory instruments administered by the Australian Communications and Media Authority (ACMA).

This Standard comes into force as at 1 July 2006. Until that date AS/ACIF S009:2001 remains in force.

ACMA is a Commonwealth Authority with statutory powers to impose requirements on cabling providers concerning customer cabling.

Details on cabling regulations can be obtained from the ACMA website at www.acma.gov.au or by contacting ACMA at:

Australian Communications and Media Authority
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Law Courts PO
Melbourne VIC 8010
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Introduction

This introduction for the AS/ACIF S009:2006 **Installation requirements for customer cabling (Wiring Rules)** Standard is not an authoritative section of this Standard and is only provided as guidance for the user of the Standard to outline its objectives, the factors that have been taken into account in its development and to list the principle differences between the new and the previous edition.

The reader is directed to the Clauses of this Standard for the specific requirements and to the Australian Communications and Media Authority (ACMA) for the applicable Cabling Provider Rules arrangements.

Note: The Cabling Provider Rules can be obtained from the Australian Communications and Media Authority (ACMA) website at www.acma.gov.au.

The objective of this Standard is to set out minimal requirements that may ensure the safety and integrity of a cabling installation and of the telecommunications network to which it is, or will be, connected, and to provide additional guidance for compliance with these requirements.

The objective of this revision is to update requirements to accommodate regulatory and technological changes and feedback from industry.

The principle differences between this edition of AS/ACIF S009 and the previous edition are:

- (i) content restructured with extensive use of headings
- (ii) increased informative content
- (iii) voltage classifications redefined
- (iv) service classifications added
- (v) general principles and objectives added
- (vi) fire detection and fire alarm system cabling variations accommodated
- (vii) building control system cabling variations accommodated
- (viii) EPR and LFI requirements amended and informative content added
- (ix) damp area restricted zone requirements amended
- (x) cable support requirements amended
- (xi) conduit requirements amended
- (xii) service separation requirements amended
- (xiii) 'network boundary distributor' term removed and 'MDF' reinstated
- (xiv) NTDE concept abandoned and requirements deleted (NTD remains)
- (xv) telecommunications outlet information expanded
- (xvi) aerial cabling requirements amended
- (xvii) functional earthing requirements amended

- (xviii) protective earthing information amended
- (xix) TFE requirements added instead of cross-reference to AS/NZS 3000
- (xx) two new earthing diagrams added (Figure 5 and Figure 6)
- (xxi) Appendix D (formerly Appendix A) amended
- (xxii) Appendix F (formerly Appendix C) amended
- (xxiii) appendices renumbered and the following new appendices added:
 - A Restricted zones in damp locations (normative)
 - B Cable colour codes (informative)
 - C Telecommunications outlets (informative)
 - G LV telecommunications circuits (informative)
 - H Interference from HV power systems (informative)
 - I The IP Code (informative)
 - J The network boundary (informative)
 - K Cabling Provider Rules (informative)

Appendix A forms an integral part of this Standard. Appendices B to K are for information only.

WARNING

This Standard includes requirements intended to ensure the safety of customers, cabling providers, carrier staff, and the general public. However, cabling providers are reminded that metallic telecommunications conductors, earth connections, metallic parts, etc. may, at any given time, be at a voltage that exceeds the Telecommunications Network Voltage (TNV) rating of AS/NZS 60950.1. Examples of an overvoltage condition may include:

- **contact with AC mains power through customer equipment failure or cabling faults;**
- **power feeding;**
- **surge currents and induced voltages through power system faults.**

Accordingly, cabling providers working on customer cabling are warned to treat the metallic parts of a telecommunications installation as potentially harmful.

TABLE OF CONTENTS

1	SCOPE	1
	1.1 Application	1
	1.2 Date of effect	1
	1.3 Limitations	1
	1.4 Basic aims	1
	1.5 Topics	2
2	REFERENCES	3
	2.1 Normative references	3
	2.2 Informative references	4
3	DEFINITIONS AND ABBREVIATIONS	7
	3.1 Definitions	7
	3.1.1 AC mains supply	7
	3.1.2 aerial cabling	7
	3.1.3 building	7
	3.1.4 Building Code	7
	3.1.5 building entry point	7
	3.1.6 cable	7
	3.1.7 cabling	8
	3.1.8 cabling product	8
	3.1.9 cabling provider	8
	3.1.10 Cabling Provider Rules	8
	3.1.11 cabling work	8
	3.1.12 carriage service	8
	3.1.13 carriage service provider	8
	3.1.14 carrier	8
	3.1.15 catenary support system	9
	3.1.16 Certified Components List (CCL)	9
	3.1.17 Communications Earth System (CES)	9
	3.1.18 Communications Earth Terminal (CET)	9
	3.1.19 conductive pole or structure	9
	3.1.20 compliant	9
	3.1.21 conduit	9
	3.1.22 connected	10
	3.1.23 cord	10
	3.1.24 cordage	10
	3.1.25 cross-connection	10
	3.1.26 Customer Access Equipment (CAE)	10
	3.1.27 customer cabling	10

3.1.28	<i>customer equipment</i>	11
3.1.29	<i>damp location</i>	11
3.1.30	<i>designated distributor</i>	11
3.1.31	<i>differential earth clamp</i>	11
3.1.32	<i>distributor</i>	11
3.1.33	<i>duct</i>	12
3.1.34	<i>Earth Potential Rise (EPR)</i>	12
3.1.35	<i>electrically conductive element</i>	12
3.1.36	<i>enclosure</i>	12
3.1.37	<i>EPR hazard zone</i>	12
3.1.38	<i>equipotential bonding</i>	12
3.1.39	<i>Extra-Low Voltage (ELV)</i>	12
3.1.40	<i>facility</i>	13
3.1.41	<i>first socket</i>	13
3.1.42	<i>functional earth</i>	13
3.1.43	<i>hazardous area (explosive atmosphere)</i>	13
3.1.44	<i>hazardous service</i>	13
3.1.45	<i>hazardous voltage</i>	13
3.1.46	<i>High Voltage (HV)</i>	13
3.1.47	<i>HV site</i>	14
3.1.48	<i>indoor cabling</i>	14
3.1.49	<i>isolation device</i>	14
3.1.50	<i>jumper</i>	14
3.1.51	<i>lead-in cabling</i>	14
3.1.52	<i>limited current circuit</i>	14
3.1.53	<i>line</i>	14
3.1.54	<i>Low Frequency Induction (LFI)</i>	14
3.1.55	<i>Low Voltage (LV)</i>	14
3.1.56	<i>Main Distribution Frame (MDF)</i>	15
3.1.57	<i>network boundary</i>	15
3.1.58	<i>Network Termination Device (NTD)</i>	15
3.1.59	<i>outdoor cabling</i>	15
3.1.60	<i>patch cord</i>	15
3.1.61	<i>power feeding</i>	15
3.1.62	<i>premises</i>	16
3.1.63	<i>protective earth</i>	16
3.1.64	<i>protective earthing conductor</i>	16
3.1.65	<i>readily accessible</i>	16
3.1.66	<i>restricted access location</i>	16
3.1.67	<i>Safety Extra-Low Voltage (SELV) circuit</i>	16

	3.1.68	<i>sub-duct</i>	16
	3.1.69	<i>Telecommunications Functional Earth Electrode (TFEE)</i>	16
	3.1.70	<i>Telecommunications Labelling Notice</i>	17
	3.1.71	<i>telecommunications network</i>	17
	3.1.72	<i>Telecommunications Network Voltage (TNV) circuit</i>	17
	3.1.73	<i>Telecommunications Outlet (TO)</i>	17
	3.1.74	<i>Telecommunications Reference Conductor (TRC)</i>	17
	3.1.75	<i>terminal equipment</i>	17
	3.1.76	<i>trunking</i>	17
	3.1.77	<i>underground cabling</i>	18
	3.1.78	<i>voltage classifications</i>	18
	3.1.79	<i>service classifications</i>	19
	3.2	Abbreviations	21
4		GENERAL PRINCIPLES	23
	4.1	Objective	23
	4.2	Categories of requirements	23
	4.3	Units and symbols	23
	4.4	Health and safety	23
	4.4.1	<i>Safety of the installation</i>	23
	4.4.2	<i>Occupational Health and Safety (OH&S) requirements</i>	24
	4.5	Network integrity	24
	4.6	Cabling provider competency standards	25
5		GENERAL REQUIREMENTS	26
	5.1	Safe and sound practice	26
	5.2	Manufacturer's instructions	26
	5.3	Compliance labelling	26
	5.4	Protection against damage	26
	5.5	Proper use	26
	5.6	Cables used for LV telecommunications circuits	27
	5.7	Cable with red sheath	27
	5.8	Cable joints	27
	5.8.1	<i>Jointing method</i>	27
	5.8.2	<i>Physical protection of the joint</i>	27
	5.9	Cable terminations	27
	5.9.1	<i>Access to cable terminations</i>	27
	5.9.2	<i>Separation from other services</i>	27
	5.10	Hazardous voltages	28
	5.11	Interference to other circuits	28
	5.12	Alterations and additions	28

5.13	Tampering or interference with a carrier facility	28
5.14	Defective customer cabling or customer equipment not to be reconnected	28
6	HAZARDOUS CONDITIONS ASSOCIATED WITH HV POWER	29
6.1	Earth potential rise (EPR)	29
6.1.1	<i>General</i>	29
6.1.2	<i>HV sites of particular concern</i>	29
6.1.3	<i>Engineered installation</i>	29
6.1.4	<i>Carrier notification</i>	29
6.2	Low frequency induction (LFI)	30
6.2.1	<i>General</i>	30
6.2.2	<i>Engineered installation</i>	30
6.2.3	<i>Carrier notification</i>	30
7	HAZARDOUS AREAS AND DAMP LOCATIONS	31
7.1	Hazardous areas (explosive atmosphere)	31
7.2	Damp locations	31
7.2.1	<i>General</i>	31
7.2.2	<i>Restricted zones</i>	31
7.2.3	<i>Equipment installed in a restricted zone</i>	32
8	CABLE SUPPORTS AND ENCLOSURES	33
8.1	General	33
8.2	Improper support of cabling	33
8.2.1	<i>Attachment to other services</i>	33
8.2.2	<i>Suspended ceilings</i>	33
8.3	Conduit	33
8.3.1	<i>Prohibited conduit colours</i>	33
8.3.2	<i>Access to conduit of a prohibited colour</i>	35
8.3.3	<i>Sharing of conduit with a hazardous service</i>	35
8.4	Earthing of cable support systems and cable enclosures	36
8.5	Separation from other services	36
8.6	Removal of sharp edges	36
8.7	Fire detection and fire alarm system cables	36
9	SEPARATION OF SERVICES – GENERAL	37
9.1	Separation from LV power or HV circuits	37
9.1.1	<i>Separation from LV or HV cables</i>	37
9.1.2	<i>Separation from LV power terminations</i>	37
9.1.3	<i>Separation from HV circuit terminations</i>	38
9.2	Separation from services other than LV power or HV circuits	39
9.2.1	<i>General</i>	39

	9.2.2	<i>Separation from non-electrical hazardous services</i>	39
9.3		Separation of ELV, SELV, TNV, limited current and LV telecommunications circuits	39
	9.3.1	<i>Sharing of cable</i>	39
	9.3.2	<i>ELV circuit terminations</i>	39
	9.3.3	<i>LV telecommunications circuits</i>	40
9.4		Separation from lightning down-conductors	40
9.5		Steel wire armoured (SWA) cables	40
10		SURGE SUPPRESSION	41
	10.1	Assessment of the need for surge suppression	41
	10.2	Installation of surge suppression where required	41
	10.3	Surge suppression device	41
	10.4	Earthing of the surge suppression device	42
11		OPTICAL FIBRE AND COAXIAL CABLE SYSTEMS	43
	11.1	Optical fibre systems	43
	11.1.1	<i>General exemption from separation requirements</i>	43
	11.1.2	<i>System compliance</i>	43
	11.1.3	<i>Safety of the installation</i>	43
	11.2	Coaxial cable systems	43
12		DISTRIBUTORS	45
	12.1	General	45
	12.2	Cross-connections	45
	12.3	Records	45
	12.3.1	<i>General</i>	45
	12.3.2	<i>Cabling outside the boundaries of the premises</i>	45
	12.3.3	<i>Identification of power feeding circuits</i>	45
	12.4	Outdoor installation	46
	12.5	Enclosure construction	46
13		MAIN DISTRIBUTION FRAME (MDF)	47
	13.1	Application	47
	13.2	General	47
	13.3	Location	47
	13.4	Prohibited locations	47
	13.5	Security	48
	13.6	Access clearances	48
	13.7	Height	48
	13.7.1	<i>Highest terminal or socket</i>	48
	13.7.2	<i>Lowest terminal or socket</i>	49
	13.8	Exit from the MDF room	49

13.9	Illumination	49
13.10	Inbuilt MDF compartment	49
13.11	Carriers' terminations	50
13.12	Marking	50
13.13	Cross-connections	50
	<i>13.13.1 Connection on the carrier side of the MDF</i>	<i>50</i>
	<i>13.13.2 Connection on the customer side of the MDF</i>	<i>50</i>
	<i>13.13.3 Removal of 'dead' jumpers</i>	<i>51</i>
	<i>13.13.4 Miscellaneous</i>	<i>51</i>
14	NETWORK TERMINATION DEVICE (NTD)	52
14.1	Application	52
14.2	Connection on the customer side of the NTD	52
14.3	Connection on the carrier side of the NTD	52
14.4	Testing	52
15	TELECOMMUNICATIONS OUTLETS	53
15.1	Outlet types	53
15.2	Protection against contact with live parts of sockets	53
15.3	Damp locations	53
	<i>15.3.1 Restricted zones</i>	<i>53</i>
	<i>15.3.2 Outside restricted zones</i>	<i>53</i>
15.4	First telecommunications outlet ('first socket')	53
	<i>15.4.1 Application</i>	<i>53</i>
	<i>15.4.2 Connection of customer cabling</i>	<i>54</i>
16	INDOOR CABLING	55
16.1	Cable flammability	55
16.2	Fire stopping	55
16.3	Separation from LV power cables	55
	<i>16.3.1 General</i>	<i>55</i>
	<i>16.3.2 Cabling in building framework</i>	<i>56</i>
	<i>16.3.3 Cables in common trunking or a common duct or enclosure</i>	<i>56</i>
	<i>16.3.4 Undercarpet cabling</i>	<i>56</i>
16.4	Separation from HV circuits	57
	<i>16.4.1 Single-core cables</i>	<i>57</i>
	<i>16.4.2 Multi-core cables</i>	<i>57</i>
16.5	Prohibited use of flame-propagating conduit	57
16.6	Cabling in lift and hoist shafts	58
	<i>16.6.1 Permanently fixed cables</i>	<i>58</i>
	<i>16.6.2 Travelling cables</i>	<i>58</i>

16.7	Cabling over or under floor covering	58
	16.7.1 <i>Physical protection</i>	58
	16.7.2 <i>Separation from power cabling</i>	58
17	OUTDOOR CABLING – GENERAL	59
17.1	Protection rating	59
17.2	Cabling between premises	59
17.3	Cabling in a sheltered structure	59
17.4	Exposure to UV radiation (sunlight)	59
17.5	Outdoor surface cabling	60
18	UNDERGROUND CABLING	61
18.1	Pits and access holes	61
	18.1.1 <i>Identification and marking</i>	61
	18.1.2 <i>Driveways</i>	61
	18.1.3 <i>Heavy loads</i>	61
	18.1.4 <i>Building entry conduit</i>	61
	18.1.5 <i>Sharing with LV or HV power</i>	61
	18.1.6 <i>HV sites</i>	62
18.2	Pillars and cabinets	62
	18.2.1 <i>Locking in public areas</i>	62
	18.2.2 <i>HV sites</i>	62
18.3	Conduit and marking tape	62
	18.3.1 <i>Public footways and roadways</i>	62
	18.3.2 <i>Other locations</i>	63
	18.3.3 <i>Conduit compliance</i>	63
	18.3.4 <i>Sub-ducting of customer cable in envelope conduit or pipe</i>	63
18.4	Cable compliance	63
18.5	Blown fibre tube systems	64
18.6	Depth of cover	64
	18.6.1 <i>Public footways or roadways</i>	64
	18.6.2 <i>Places other than public footways or roadways</i>	64
18.7	Crossing another service	65
	18.7.1 <i>General</i>	65
	18.7.2 <i>Crossing with LV or HV power</i>	65
18.8	Separate trench ('exclusive trench')	66
	18.8.1 <i>General</i>	66
	18.8.2 <i>Parallel run with LV or HV power</i>	66
18.9	Shared trench with another service	66
	18.9.1 <i>General</i>	66

	18.9.2	<i>Shared trench with LV or HV power</i>	66
	18.10	Low frequency induction (LFI)	66
	18.11	Exclusion zones	67
19		AERIAL CABLING	69
	19.1	Poles and support structures	69
	19.1.1	<i>General</i>	69
	19.1.2	<i>Separation of poles and structures from aerial power lines</i>	69
	19.2	Ground clearance	69
	19.3	Cable compliance	70
	19.3.1	<i>UV resistance</i>	70
	19.3.2	<i>Integral bearer cable</i>	70
	19.4	Fastening of catenary supports or bearers	70
	19.5	Crossings and shared poles (joint use) with aerial power lines	70
	19.5.1	<i>General</i>	70
	19.5.2	<i>Permission of the owner of the poles</i>	70
	19.5.3	<i>Attachment to poles or structures carrying HV power lines exceeding 66 kV</i>	71
	19.5.4	<i>Attachment to poles or structures carrying HV power lines not exceeding 66 kV</i>	71
	19.5.5	<i>Attachment to a pole or structure carrying an HV power transformer</i>	71
	19.5.6	<i>Crossing aerial HV power lines exceeding 330 kV</i>	71
	19.5.7	<i>Relative position of aerial customer cabling and aerial power lines</i>	71
	19.5.8	<i>Cable</i>	73
	19.5.9	<i>Joints or terminations</i>	73
	19.5.10	<i>Power earthing conductors</i>	73
	19.6	Separation from other telecommunications cabling	73
	19.7	Cabling across watercourses	73
	19.8	Exclusion zones	73
20		TELECOMMUNICATIONS EARTHING AND POWER DISTRIBUTION	75
	20.1	Application	75
	20.2	Earthing systems, general description	75
	20.2.1	<i>Communications Earth System (CES)</i>	75
	20.2.2	<i>Telecommunications Reference Conductor (TRC)</i>	75
	20.2.3	<i>ELV DC power supply system</i>	75
	20.2.4	<i>DC earth return circuit</i>	75
	20.3	Compliance labelling	75
	20.4	Power distribution current limiting	76

20.5	EPR hazard zones	76
20.6	Functional earth requirement	76
20.7	Protective earth requirement	76
20.8	Earthing and bonding conductors	77
	20.8.1 Conductor type	77
	20.8.2 Multi-pair cable	77
	20.8.3 Conductor size	78
	20.8.4 Connection or jointing/coupling of conductors	78
20.9	Earthing or bonding bars and terminals	78
	20.9.1 Capacity	78
	20.9.2 Earthing or bonding conductor connection	78
	20.9.3 Access to earthing/bonding bars or terminals	79
20.10	Earthing and bonding conductor joints and couplings	79
	20.10.1 Jointing/Coupling method	79
	20.10.2 Insulation of the joint/coupling	79
20.11	Equipotential bonding	80
	20.11.1 General	80
	20.11.2 Communications bonding conductor	80
	20.11.3 Communications Earth Terminal (CET)	81
	20.11.4 Connection to the electrical earthing system	81
20.12	Communications Earth System (CES)	82
	20.12.1 Description of the CES	82
	20.12.2 CES conductors	82
	20.12.3 Equipotential bonding of the CES	82
	20.12.4 Resistance of the CES	83
20.13	Telecommunications Reference Conductor (TRC)	83
	20.13.1 Description of the TRC distribution system	83
	20.13.2 TRC system components	83
	20.13.3 TRC to be exclusive to telecommunications services	84
	20.13.4 Connection to an earth reference	84
	20.13.5 TRC system conductors	84
	20.13.6 Cabling method	84
	20.13.7 TRC link bars	85
	20.13.8 Telecommunications Functional Earth Electrode (TFEE)	85
	20.13.9 Equipotential bonding of the TRC system	86
	20.13.10 TRC in a separate building	87
	20.13.11 Resistance of the TRC system	88
20.14	Interconnection of CES and TRC systems	88
20.15	ELV DC power supply system	88

20.16	DC earth return circuit	88
	<i>20.16.1 Separation from other earthing systems</i>	88
	<i>20.16.2 Earth electrode</i>	89
	<i>20.16.3 Conductor colour, size and labelling</i>	89
20.17	Earthing of metallic barriers	89
	<i>20.17.1 Prohibition — connection to TRC</i>	89
	<i>20.17.2 Earthing connection</i>	89
	<i>20.17.3 Earthing conductor colour and size</i>	89
20.18	Earthing of cable shields and drain wires	90
	<i>20.18.1 General</i>	90
	<i>20.18.2 Prohibition — connection to TRC</i>	90
	<i>20.18.3 Allowable earthing points</i>	90
	<i>20.18.4 Cabling between separate buildings or structures</i>	90
20.19	Earthing of metallic supports, enclosures, frames, backmounts and steel wire armouring	91
	<i>20.19.1 General</i>	91
	<i>20.19.2 Prohibition – connection to TRC</i>	91
	<i>20.19.3 Earthing connection</i>	91
	<i>20.19.4 Earthing conductor colour and size</i>	91
20.20	Earthing of surge suppression devices	91
	<i>20.20.1 Surge suppression for the protection of end-users</i>	91
	<i>20.20.2 Surge suppression for the protection of customer equipment</i>	92
PARTICIPANTS		153

APPENDICES

A	Restricted zones in damp locations	100
B	Common cable colour codes	105
C	Telecommunications outlets	110
D	Recommended access clearances for MDFs and NTDs	114
E	Direct current in the communications bonding conductor	118
F	Current-limited power feeding in telecommunications networks	119
G	LV telecommunications circuits	121
H	Interference from HV power systems	124
I	The IP Code	135
J	The network boundary	137
K	Cabling Provider Rules	150

FIGURES

1	Typical CES for commercial premises with distributed cabling	94
2	Earthing options for a small distributor installation (e.g. domestic or small business premises)	95
3	Typical TRC system for commercial premises with distributed cabling	96
4	Equipotential bonding of TRC to the electrical earthing system via a differential earth clamp (where excessive noise or direct current)	97
5	Installation of a TFEE where the electrical earth electrode is located at another building or structure	98
6	Connection of a metallic cable shield (or moisture barrier) of an underground or aerial customer cable at a building or structure	99
A.1	Bath without a shower	101
A.2	Bath with a shower and fixed partition	101
A.3	Shower with a fixed partition	102
A.4	Shower without a fixed partition	102
A.5	Hand basin or fixed water container not exceeding 45 litres capacity per container	103
A.6	Laundry tub or fixed water container exceeding 45 litres capacity	104
C.1	8P modular socket contact numbering	111
C.2	6P modular socket contact numbering	112
C.3	600 series socket connections	113
D.1	Installation zone for a wall mounted MDF or NTD on the external wall of a dwelling	115
D.2	Access clearances for a wall mounted MDF or NTD	116
D.3	Access clearances for a wall mounted MDF or NTD	117
H.1	EPR caused by fault current at an HV transformer	125
H.2	HV isolating links within a power generating station or HV substation	130
I.1	Arrangement of the IP Code	135
J.1	Analysis of section 22 of the Telecommunications Act 1997	139
J.2	Network boundary where a line connects to an MDF	140
J.3	Network boundary where a line connects to a network termination device (NTD)	140
J.4	Network boundary where a line connects to the first TO	141
J.5	Network boundary where the line connects to two or more TOs in a 'bus' configuration	141
J.6	Network boundary where the line connects to two or more TOs in a 'star' configuration	142
J.7	Network boundary for optical fibre telecommunications network connecting to an MDF	143
J.8	Network boundary for optical fibre telecommunications network connecting directly to CAE	143

J.9	Network boundary for optical fibre telecommunications networks connecting to a NTD	144
J.10	Network boundary where a NTD precedes a distributor (e.g. home networking)	144
J.11	Network boundary where a MDF or NTD precedes a TO	145
J.12	Network boundary for service supplied to premises by terrestrial radio (e.g. rural/remote premises)	145
J.13	Network boundary for service supplied directly to building by terrestrial radio (e.g. wireless local loop)	146
J.14	Network boundary for service supplied to premises by satellite	146
J.15	Precise location of the network boundary at an MDF	147
J.16	Precise location of the network boundary at a network termination device	148
J.17	Precise location of the network boundary at the first telecommunications outlet	149

TABLES

1	Prohibited conduit colours for customer cabling	34
2	Underground customer cabling separation from power cabling	68
3	Minimum separation of aerial customer cabling, including joint or termination enclosures and telecommunications poles or structures, from aerial power lines and fittings	74
4	Resistance vs. length for standard copper earthing conductors	81
5	Minimum conductor sizes for earthing or bonding	93
B.1	2-pair (quad) and 3-pair telephone cable colour code	105
B.2	1-pair to 5-pair cable colour code	105
B.3	Colour code for 5-pair to 100-pair cables (20-pair units)	106
B.4	Colour code for 25-pair to 100-pair cables (25-pair units)	107
B.5	Colour code for 5-pair to 100-pair cables (10-pair units)	108
B.6	Colour code for 5-pair to 200-pair cables (10-pair units)	108
B.7	Optical fibre colour code	109
C.1	8P socket contact/pair assignments and cable colour code	111
C.2	6P socket contact/pair assignments and cable colour code	112
C.3	600 series socket contact/pair assignments and cable colour code	113
G.1	Minimum separation distances required between different types of telecommunications and power services for safety (indoor cabling)	123
H.1	Typical EPR hazard zones associated with HV power poles and towers	126
H.1	(continued)	127

H.2	Typical EPR hazard zones associated with power stations, substations and transformers	128
H.3	Minimum separation from parallel HV power line to avoid an electrostatic coupling hazard	134
I.1	Summary of the IP Code	136

1 SCOPE

1.1 Application

This Standard applies to the installation and maintenance of fixed or concealed cabling or equipment that is connected, or is intended to be connected, to a telecommunications network, including any cord or cordage, or that part of any cord or cordage, that is connected as fixed or concealed cabling.

This Standard does not apply to any electrical power cabling whose primary function is the distribution of AC mains supply, and which is connected to an AC mains supply, but which may also carry telecommunications signals as a secondary function as long as the telecommunications signals originate from the power network or are injected into the power cabling via a compliant interface device.

This edition of the Standard deals with cabling work that was previously exempt from ACMA technical regulation or that was not specifically addressed by previous editions. Refer to Appendix G for a description of the changes made to accommodate such cabling and an explanation of how such cabling is captured by the telecommunications legislation.

1.2 Date of effect

This Standard comes into force as at 1 July 2006. Until that date AS/ACIF S009:2001 remains in force.

1.3 Limitations

The requirements in this Standard are generally limited to—

- (a) protecting the health and safety of persons; and
- (b) protecting the integrity of a telecommunications network or a facility.

However, additional information is provided for guidance.

1.4 Basic aims

This Standard covers design and construction practice sufficient to ensure that—

- (a) the installation or normal use of the cabling does not expose carrier personnel, cabling providers, customers or other persons to any danger; and
- (b) the installation or normal use of the cabling does not adversely affect the integrity (proper end-to-end functioning) of a telecommunications network.



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