Title	**Install electronic security access control systems**		
Level	**3**	**Credits**	**7**

Purpose	This unit standard is intended for the training and assessment of people working in or intending to work in the electronic security industry and covers the installation of security access control systems. People credited with this unit are able to: – demonstrate knowledge of installation of access control components; – install components in simple access control systems; – program simple access control systems to prove installation is performing to manufacturer specifications and client requirements; and – test and handover a security door system and record the results.

Classification	Electronic Engineering > Electronic Security

Available grade	Achieved

Prerequisites	Unit 26841, *Demonstrate knowledge of electronic security systems and equipment,* or demonstrate equivalent knowledge and skills.

Guidance Information

1 This unit standard has been developed for learning and assessment on-job at client premises.

2 Persons working or intending to work in private security need either a Company Licence, an Individual Licence (for Sole Traders) or a Certificate of Approval (for employees of companies). These licences are issued by the Private Security Personnel Licensing Authority available through: www.justice.govt.nz/tribunals/licences-certificates/pspla/.

3 Definitions
Door hardware – electric locks, reed switch, emergency break glass, request to exit, key switch override, sounders.
Door monitoring – door position, bond sense, latch position, key switch override, request to exit, emergency break glass.
EOL – End of Line.

Industry practice – those practices that competent practitioners within the industry recognise as current industry best practice.
Lock hardware – magnetic lock, mortise lock, V-lock, power bolt.
Safe and sound practice – as it relates to the installation of electrical equipment is defined in AS/NZS 3000:2007, *Electrical Installations (known as the Australian/New Zealand Wiring Rules).*

4 References – Specific to Electronic Security Industry.
Code of Practice for Electro-Mechanical Controlled Locking Devices on Egress Doors (2018);
FPANZ Code of Practice for the Integration of Building Fire Safety Systems with Other Services (2022);
Industry Code of Practice for Access Controlled Doors and Compliance: Schedule Reference Guide (2021);
New Zealand Security Association (Inc), Code of Practice - Security Systems: Electronic and Physical (2022);
Codes of Practice available from: Guidelines, Codes of Practice and Standards | NZ Security Association.

AS/NZS 2201.1:2007, *Intruder alarm systems – Client's premises – Design, installation, commissioning and maintenance;*
AS/NZS 2201.5:2008, *Intruder alarm systems – Alarm transmission systems;*
AS/NZS 62767.1.1:2020 – Video Surveillance Systems for use in Security Applications – Part 1-1: System Requirements – General;
AS/NZS IEC 60839.11.1:2019 – Alarm and Electronic Security Systems, Part 11.1: Electrical;
AS/NZS IEC 60839.11.2:2019 – Alarm and Electronic Security Systems, Part 11.2: Electrical Access Control Systems – Application Guidelines;
AS/NZS IEC 60839.11.31:2020 – Alarm and Electronic Security Systems, Part 11.3: Electronic Access Control Systems – Core interoperability Protocol;
AS/NZS IEC 62676.2.2:2020 – Video Surveillance Systems for use in Security Applications – Part 2-2: Video Transmission Protocols – IP Interoperability Implementation based on HTTP and REST Services;
NZS-4512-2021- Fire Detection and Alarm Systems in Buildings;
NZS-4514-2021- Interconnected Smoke Alarms for Houses;
and all subsequent amendments and replacements.

References – General to Electronic Security Industry
Building Act 2004;
Electricity (Safety) Regulations 2010;
Health and Safety at Work Act 2015;
Private Security Personnel and Private Investigators Act 2010;
Privacy Act 2020;
AS/NZS 3000:2007, *Electrical installations (known as the Australian/New Zealand Wiring Rules);*
AS/NZS ISO 31000:2009 – Risk Management Principles and Guidelines;
AS/NZS 3016:2002 – Electrical Installations – Electrical Security Fences;
Telecommunications Act 2001;
Local territorial authority requirements;
and all subsequent amendments and replacements.
Standards available from Standards New Zealand.

5 Guidelines for connection of intruder alarm systems to telephone lines are contained in *Access Standards Newsletters* issued periodically by Spark NZ Ltd, available from www.telepermit.co.nz.

6 Where not stated, evidence for the number and type of equipment chosen is left to the discretion of the assessor, but must be sufficient to assess competence in all outcomes of the unit standard.

7 Range
- a Candidates must refer to current legislation and Standards during assessment.
- b Demonstration of safe working practices in accordance with *safe and sound practice* are essential components of assessment of this unit standard.
- c All activities and evidence presented for all outcomes and performance criteria in this unit standard must be in accordance with:
  - i legislation;
  - ii policies and procedures;
  - iii ethical codes;
  - iv Standards;
  - v applicable site, enterprise, and industry practice; and,
  - vi where appropriate, manufacturer instructions, specifications, and data sheets.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of installation of access control components.

Range door hardware connection to door controller, door controller connection to system controller, interface to system controller, power supply, emergency egress override and fire release, locking types.

Performance criteria

1.1 Describe components of an access control system and identify their features in terms of functionality and installation requirements of locking.

1.2 Explain the purpose of each component with respect to the complete system.

1.3 Use specifications to identify variations of performance and operation of equivalent components from two manufacturers.

Outcome 2

Install components in simple access control systems.

Range single door hardware, door monitoring, single door controller, system controller, system software, power supply and emergency egress;
evidence of five installations is required;
evidence of three different lock types is required.

Performance criteria

2.1 Complete installation and confirm connections.

2.2 Install door monitoring and test with EOL.

Range evidence of three tests per door is required.

2.3 Install lock hardware in accordance with Standards and codes of practice.

2.4 Install power supplies in accordance with AS/NZS 3000.

Outcome 3

Program simple access control systems to prove installation is performing to manufacturer specifications and client requirements.

Range evidence of five installations is required.

Performance criteria

3.1 Program the inputs and outputs of a single door to ensure it operates to manufacturer specifications.

3.2 Program a system so that the door can be operated over a seven-day period with automatic locking and opening at set times.

3.3 Program a card so that the door can be unlocked based on card holder's access rights.

Outcome 4

Test and hand over a security door system and record the results.

Range door operation, user functions, emergency egress;
evidence for five installations is required.

Performance criteria

4.1 Test door not locked, request to exit, door opening on valid card, forced door, and door open too long and record results.

4.2 Test emergency break glass operation, fire alarm operation, and power fail and record results.

Range four tests for each door, five tests for each system.

4.3 Test card holder access against card holder access rights in terms of authorised hours and unauthorised hours and record results.

4.4 Communicate equipment operation, warranty, and service options to the customer in accordance with the equipment documentation.

4.5 Describe the operational relationships between installation, alarm monitoring, and alarm activation and response to alarms.

4.6 Complete the handover documentation in the agreed format in accordance with customer requirements.

4.7 Brief client on system operation.

Planned review date	31 December 2029

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	18 November 1997	31 December 2011
Revision	2	3 April 2001	31 December 2011
Revision	3	11 March 2004	31 December 2012
Rollover	4	21 November 2008	31 December 2012
Review	5	19 November 2010	31 December 2022
Revision	6	17 June 2011	31 December 2022
Review	7	14 December 2017	31 December 2026
Rollover and Revision	8	27 October 2022	31 December 2026
Review	9	26 September 2024	N/A

Consent and Moderation Requirements (CMR) reference	0003

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Waihanga Ara Rau Construction and Infrastructure Workforce Development Council qualifications@waihangaararau.nz if you wish to suggest changes to the content of this unit standard.