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(ICS 13.310)

SINGAPORE STANDARD

Code of practice for construction, installation, operation and maintenance of intruder alarm systems

(Formerly CP 59)

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Foreword

This Singapore Standard was prepared by the Technical Committee on Intruder Alarm Systems under the purview of the Electrical and Electronic Standards Committee.

This standard is a revision of SS CP 59 : 1998 which was first published in 1992. CP 59 has been re-numbered as SS 558.

This Code was revised to update the guidelines and practices in the standard. The main changes include:

- improving the terminologies used;
- classifying the alarmed areas and signalling;
- introducing digital subscriber lines and internet protocol reporting;
- revising the testing methods on requirements for safety and electromagnetic compatibility;
- recommending licensing and competency of personnel for CAMS.

This standard is based on the following Australian and British Standards and the materials are reproduced with the permission of SAI Global and the British Standards Publishing Ltd respectively:

1. AS/NZS 2201: Intruder alarm systems
   - Part 1 : 1986 Systems installed in client's premises
   - Part 1 : 2007 Client's premises – Design, installation, commissioning and maintenance
   - Part 2 : 1992 Central stations and signalling links
   - Part 2 : 2004 Monitoring centres
   - Part 3 : 1991 Detection devices for internal use
   - Part 4 : 1990 Wire-free systems installed in client's premises
   - Part 5 : 1992 Alarm transmission systems
2. AS/NZS 3100: 1997 Approval and test specification – General requirements for electrical equipment

Australian Standards can be purchased at http://www.saiglobal.com

3. BS 4737: Intruder alarm systems in buildings
   - Part 4 : Codes of practice
   - Section 4.1 : 1987 Code of practice for planning and installation
   - Section 4.2 : 1986 Code of practice for maintenance and records
   - Section 4.3 : 1988 Code of practice for exterior alarm system

British Standards can be purchased at http://www.bsigroup.com

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NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions.*
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Code of practice for construction, installation, operation and maintenance of intruder alarm systems

1 General

1.1 Scope

This Code sets out requirements for the construction, installation, operation and maintenance of intruder alarm systems, including alarm equipment and outgoing signalling facilities. Operating and maintenance procedures including administration of records are also covered.

This Code provides the general specification and requirements for the construction, installation, operation and maintenance of intruder alarm systems. It does not specify the extent or degree of protection to be provided, and it does not necessarily cover all the requirements for a particular installation, for example the intruder alarm systems requirements for banks and standalone Automated Teller Machines (ATMs).

Definitions of high risk premises are based on the Singapore Police Force's Private Security Industry (CAMS Operator) Regulations 2009.

1.2 Application

Intruder alarm systems shall comply with the requirements of the Clauses 4 to 12, as appropriate:

2 Normative references

The following referenced documents are indispensable for the application of this Code. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 55024	Information technology equipment – Immunity characteristics – Limits and methods of measurement
IEC 60050-191	International electrotechnical vocabulary – Chapter 191: Dependability and quality of service
IEC 60060-1	High voltage test techniques – Part 1: General definitions and test requirements
IEC 60060-2	High voltage test techniques – Part 2: Measuring systems
IEC 60065	Audio, video and similar electronic apparatus – Safety requirements
IEC 60227-1	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V – Part 1: General requirements
IEC 60227-5	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V – Part 5: Flexible cables (cords)
IEC 60300-1	Dependability management – Part 1: Dependability management systems
IEC 60529	Degrees of protection provided by enclosures (IP Code)

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IEC 60839-1-3	Alarm systems – Part 1: General requirements – Section Three: Environmental testing
IEC 60950-1	Information technology equipment – Safety – Part 1: General requirements
IEC 61000-4-12	Electromagnetic compatibility (EMC) – Part 4-12: Testing and measurement techniques – Ring wave immunity test
IEC 61000-6-3	Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standard for residential, commercial and light-industrial environments.
IEC 61386-1	Conduit systems for cable management – Part 1: General requirements
IEC 61386-21	Conduit systems for cable management – Part 21: Particular requirements – Rigid conduit systems
IEC 61558-1	Safety of power transformers, power supplies, reactors and similar products –Part 1: General requirements and tests
IEC 61672-1	Electroacoustics : Sound level meters – Part 1: Specifications
IEC 62262	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK Code)
SS CP 5	Code of practice for electrical installations
SS CP 33	Code of practice for lightning protection[1]
SS 332	Specification for fire doors
SS 344	Guide to the selection and application of intruder alarm system
SS 358-1	Polyvinyl chlorine insulated cables of rated voltages up to and including 450/750 V – Part 1 : General requirements
SS 358-5	Polyvinyl chlorine insulated cables of rated voltages up to and including 450/750 V – Part 5 : Flexible cables (cords)
SS 504-1	Conduit systems for cable management – Part 1 : General requirements
SS 504–21	Conduit systems for cable management – Part 5 : Particular requirements for rigid conduit systems
SS 535	Code of practice for installation, operation, maintenance, performance and construction requirements of mains failure standby generating systems

Code of Practice for Fire Precautions in Buildings 2007 (Fire Code 2007)

Private Security Industry (CAMS Operator) Regulations 2009

[1] Under revision .

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