

BS 8591:2014



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Remote centres receiving signals from alarm systems – Code of practice

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 April 2014. It was prepared by Subcommittee GW/1/11, *Remote Centres*, under the authority of Technical Committee GW/1, *Electronic security systems*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

Together with BS EN 50518-1:2010, BS EN 50518-2:2010 and BS EN 50518-3:2011 ¹⁾, this British Standard supersedes BS 5979:2007, which is withdrawn.

Relationship with other publications

This British Standard has been produced following the publication of the BS EN 50518 series of standards, which apply to alarm signals generated from intruder and hold-up alarm systems (I&HAS) only. Alarm signals from other types of alarm systems, i.e. fire, social and closed circuit television systems (CCTV) are not within the scope of the BS EN 50518 series.

BS 5979, *Remote centres receiving signals from fire and security systems – Code of practice*, gives recommendations for the planning, construction and facilities of manned and unmanned remote centres, and for the operation of alarm receiving centres (ARCs) receiving signals from security systems including I&HAS. Consequently, as a result of the publication of the BS EN 50518 series, BS 5979 has been withdrawn.

The withdrawal of BS 5979 has led to the development of this British Standard, which does not include references to the monitoring of I&HAS and is intended to be used in conjunction with the BS EN 50518 series. However, BS 5979 will continue to be used in relation to ARCs that conform to BS 5979.

Information about this document

This British Standard covers the planning, construction and facilities of manned and unmanned centres, and for the operation of ARCs receiving signals from alarm systems other than I&HAS, e.g. fire, social, CCTV, lone worker devices and vehicle tracking.

This standard was written to ensure that any monitored alarm system which required a police response should conform to BS EN 50518 in anticipation that the scope of BS 50518 will be widened to encompass a greater range of systems requiring emergency police response. In order not to conflict with BS EN 50518, requirements for Category II ARCs are generally aligned with BS EN 50518. All ARCs monitoring systems not requiring emergency police response have been put into Category I, acknowledging the lesser requirements for integrity and security of construction, communications, operation and information. This has made it less onerous for non-emergency police response ARCs to meet the requirements of this standard.

The monitoring of fire detection and fire alarm systems has received substantial review from BS 5979. This has been predominately to recognise the changing environment of social fire alarm monitoring, the review of a number of fatal fires and the need to filter calls to avoid false alarms being passed to the Fire and Rescue Services.

¹⁾ The 2013 versions of all three parts of the BS EN 50518 series are currently in preparation.

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

The word "should" is used to express recommendations of this standard. The word "may" is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the Clause. The word "can" is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This British Standard gives recommendations for the planning, construction and facilities of manned and unmanned remote centres, and for the operation of alarm receiving centres (ARCs), receiving signals from alarm systems, e.g. fire, social, closed circuit television (CCTV), lone worker and vehicle tracking.

This British Standard excludes receiving signals from intruder and hold-up alarm systems (I&HAS).

NOTE See BS EN 50518 series for the monitoring of I&HAS.

2 Normative references

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

BS 476 (all parts), *Fire tests on building materials and structures*

BS 5306-3, *Fire extinguishing installations and equipment on premises – Part 3: Commissioning and maintenance of portable fire extinguishers – Code of practice*

BS 5306-8, *Fire extinguishing installations and equipment on premises – Part 8: Selection and positioning of portable fire extinguishers – Code of practice*

BS 5839-1:2013, *Fire detection and fire alarm systems for buildings – Part 1: Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises*

BS 6132, *Code of practice for safe operation of alkaline secondary cells and batteries*

BS 6133, *Code of practice for safe operation of lead-acid stationary batteries*

BS 7858, *Security screening of individuals employed in a security environment – Code of practice*

BS 8418, *Installation and remote monitoring of detector activated CCTV systems – Code of practice*

BS 8484:2011, *Provision of lone worker device (LWD) services - Code of practice*

BS EN 3-7:2004+A1:2007, *Portable fire extinguishers – Part 7: Characteristics, performance requirements and test methods*

BS EN 12845, *Fixed firefighting systems – Automatic sprinkler systems – Design, installation and maintenance*

BS EN 13501-2, *Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests*

BS EN 50131-1:2006+A1:2009, *Alarm systems - Intrusion and hold-up systems - Part 1: System requirements*

BS EN 50134-3:2012, *Alarm systems – Social alarm systems – Part 3: Local unit and controller*

BS EN 50272-1, *Safety requirements for secondary batteries and battery installations - Part 1: General safety information*

BS EN 50518-1:2010, *Monitoring and alarm receiving centre – Part 1: Location and construction requirements*

BS EN 50518-2, *Monitoring and alarm receiving centre – Part 2: Technical requirements*

BS EN 50518-3, *Monitoring and alarm receiving centre – Part 3: Procedures and requirements for operation*

DD CLC/TS 50134-7:2003, *Alarm systems – Social alarm systems – Part 7: Application guidelines*

PD 6662, *Scheme for the application of European standards for intrusion and hold-up alarm systems*

Other publications

[N1]THATCHAM RESEARCH. *Thatcham category 5 criteria for systems operating centres monitoring and tracking after market/OEM after theft systems with vehicle immobilisation for vehicle recovery.*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this British Standard, the terms and definitions given in BS EN 50131-1:2006+A1:2009 and the following apply.

3.1.1 alarm company

organization that provides services for alarm monitoring

3.1.2 alarm condition

condition of an alarm system, or part thereof, that results from the response of the system to the presence of a hazard

3.1.3 alarm filtering

procedure whereby signalled alarm conditions are intentionally delayed and their status reviewed for the purpose of preventing unnecessary calls to the relevant emergency service or nominated contact by cancelling certain alarm conditions, where such cancellation is authorized by the user

3.1.4 alarm message

message conveyed from an ARC to the relevant emergency service that indicates that an alarm condition has occurred at a protected premises, or which provides supplementary information concerning a previously reported alarm message

3.1.5 alarm receiving centre (ARC)

continuously manned remote centre to which information concerning the status of one or more alarm systems is reported

3.1.6 alarm signal

signal which, upon being received at an ARC or other remote location, identifies a signalled alarm condition

3.1.7 client

person or organization with whom the remote centre has entered into a contract to provide alarm monitoring services

3.1.8 customer

person or organization utilizing the services of an alarm company

3.1.9 detector

device designed to generate an alarm signal or message in response to the sensing of an abnormal condition indicating the presence of a hazard

[SOURCE: BS EN 50518-1:2010, 3.1.6]

3.1.10 domestic premises

dwellings (see 3.1.11) and buildings used as sheltered housing (see 3.1.27)

3.1.11 dwelling

unit of residential accommodation occupied (whether or not as a sole or main residence):

- a) by a single person or by people living together as a family;
- b) by not more than six residents living together as a single household, including a household where care is provided for residents;
- c) by persons who do not live together as a family, but who live in self-contained single-family flats, maisonettes or bedsits within the unit; or
- d) as a shared house

NOTE The definitions in c) and d) relate only to some types of house in multiple occupation and specifically exclude hostel type accommodation, for which BS 5839-1 is more appropriate. They can, however, include houses with long-term lodgers.

3.1.12 false alert

signalled alarm condition that (without having been extended to the relevant emergency service) is regarded by the ARC as cancelled, such cancellation having been authorized by the customer

NOTE 1 Such authorization can be either:

- a) on a case-by-case basis by use of suitable code words or numbers in accordance with a defined alarm filtering routine; or
- b) by prior written agreement.

NOTE 2 Communication whereby the customer/user causes (i) a mis-operation signal or (ii) an unset signal to be sent to the ARC affirming that the signalled alarm condition is to be filtered out and not extended to the relevant emergency service are examples of cancellation authorized by the customer [see NOTE 1a)].

NOTE 3 "False alerts" are not regarded as "false alarms". False alarms are events that have not been successfully identified and filtered out, and have therefore been notified to the relevant emergency service.

3.1.13 fire alarm filtering

agreed procedure between the ARC and responsible or authorised person (user) at the premises whereby signalled fire alarm conditions are confirmed or cancelled as fire signals

NOTE Such filtering is not applied to signals from fire alarm systems in residential care premises.

3.1.14 fire resistance

ability of an element of building construction, component or structure to fulfil, for a stated period of time, the required stability, fire integrity and/or thermal insulation and/or other expected duty in a standard fire resistance test

NOTE The designation "fire resisting" given to an element implies that this element fulfils the requirements of the relevant standard fire test.

3.1.15 fire signal

signal intended to indicate the occurrence of a fire

[SOURCE: BS 5839-1:2013, 3.25]

3.1.16 hold up device

device which, when manually operated, causes an alarm signal or message to be generated

[SOURCE: BS EN 50518-1:2010, 3.1.9]

3.1.17 mis-operation signal

signal that is definitely and unambiguously identifiable at the ARC as indicating to the ARC that the alarm system has mis-operated and therefore that the alarm signal is to be filtered out and not extended to the relevant emergency service

NOTE The designation of a particular type of signal as a mis-operation signal is therefore a matter for agreement between the alarm company and ARC, with the concurrence of the customer.

3.1.18 operations area

that part of an ARC concerned directly with the display of information from the alarm systems monitored by the ARC

3.1.19 police response

emergency police response as defined in the ACPO and Police Scotland policies dependent upon the type of alarm system installed

3.1.20 remote access

restricted facility to view/edit data and/or to create new records from outside the shell of the remote centre

3.1.21 remote centre

location remote from the supervised premises, in which the information concerned with the state of one or more alarm systems is collected either for reporting (i.e. an ARC or a satellite) or for onward transmission

NOTE For the avoidance of doubt, an ATS monitoring centre as defined in BS EN 50136-1 does not come within the definition of remote centre for the purpose of this British Standard.

3.1.22 residential care home

home which provides accommodation and includes nursing care, personal care or personal support, to vulnerable children or adults, but excluding hospitals, schools and sheltered housing

NOTE Such premises include homes for:

- *older people;*
- *children and young people;*
- *people with learning disabilities;*
- *people with drug and alcohol problems;*
- *people with mental health problems;*
- *people with physical and sensory impairment; and*
- *respite and short breaks.*

3.1.23 response agreement

set of instructions agreed between the remote centre and the client as to the actions to be taken in the event of an alarm signal being received

3.1.24 satellite

remote centre, normally unmanned, in which the information concerning the state of alarm and/or CCTV systems is collected and processed for onward transmission either direct or via a further satellite to an ARC

NOTE 1 The junction point of a number of alarm system signalling circuits is not regarded as a satellite.

NOTE 2 An ARC is classified as a satellite if, during periods without manning, alarms are transmitted through it to another ARC.

- 3.1.25 set**
status of an alarm system, or part thereof, in which an alarm condition can be notified
- 3.1.26 shell**
all parts of the boundary of a remote centre including walls, floors, roof or ceiling and including any openings therein
- 3.1.27 sheltered housing**
block or group of dwellings, with each dwelling incorporating its own cooking and sanitary facilities, designed specifically for persons who might require assistance (e.g. elderly people) and where some form of assistance is available at all times
- NOTE 1 This does not imply that assistance need be provided on the premises.*
- NOTE 2 Sheltered housing often includes amenities common to all occupiers, such as lounges and guest rooms.*
- 3.1.28 signalled alarm condition**
state of monitoring equipment at an ARC (or other remote location) that indicates that a hazard and/or event or unauthorized interference has occurred at the supervised premises, or is likely to occur
- NOTE Once signalled at the ARC as an alarm condition, the event is regarded as a signalled alarm condition even if subsequently filtered out by the ARC personnel as being a false alert not requiring relevant emergency service response.*
- 3.1.29 signalling**
initiation of the transmission of an alarm condition from the supervised premises to a remote location
- 3.1.30 social alarm system (Telecare)**
system providing 24 h facilities for alarm triggering, identification, signal transmission, alarm reception, two-way speech communication, reassurance and assistance, for use by persons considered to be at risk
- [SOURCE: BS EN 50134-3:2012, 3.1]
- 3.1.31 supervised premises**
part of a building to which protection is afforded by an alarm system
- 3.1.32 unset**
status of an alarm system, or part thereof, in which an alarm condition cannot be notified
- 3.1.33 user**
person authorized by the customer to operate an alarm system

3.2 Abbreviations

For the purposes of this British Standard, the following abbreviations apply.

ARC – Alarm receiving centre.

CCTV – Closed circuit television.

F&RS – Fire and rescue service.

IAS – Intruder alarm system.

RVRC – Remote video response centre.

4 Planning

4.1 Categorization

The planning for the construction and for the routing of communications services of a remote centre should be determined by the intended categorization of the remote centre, taking into account any foreseeable need for change.

Remote centres should be categorized according to the type(s) of alarm and CCTV signals handled and the consequent requirements for integrity and security of construction, communications, operation and information. The two types of category are:

- a) Category I: remote centre handling signals from the following:
 - fire alarm systems;
 - social alarm systems (Telecare);
 - CCTV systems not requiring police response;
 - lone worker systems not requiring police response;
 - vehicle tracking systems not requiring police response.
- b) Category II: remote centre handling signals from category I systems and the following:
 - CCTV systems that require police response;
 - lone worker systems that require police response;
 - vehicle tracking systems that require police response.

NOTE See BS EN 50518 series and BS 8243 for the monitoring of I&HAS.

4.2 Site selection

4.2.1 Remote centres

4.2.1.1 Category I

A remote centre should be located in a building with low risk of fire, explosion, flooding, vandalism and exposure hazards from other buildings.

The building housing the remote centre should be protected against the effects of lightning strike.

NOTE Appropriate recommendations for the protection of buildings and electronic equipment against lightning strike are contained in BS EN 62305. As an alternative, a remote centre can adopt the recommendations of 8.3 to sustain monitoring facilities at an alternative centre.

The possibility of gas seepage from or around cables or pipes below ground level should be risk assessed.

4.2.1.2 Category II

ARCs should conform to BS EN 50518.

4.2.2 Alarm receiving centres (ARC)

4.2.2.1 Category I

Displayed information should not be visible from outside the shell of the ARC.

4.2.2.2 Category II

ARCs should conform to BS EN 50518.

4.2.2.3 Satellites

A satellite should be located inside a permanent building. Access to the building (or part of the building) in which the satellite is located should be under the exclusive control of the company operating the ARC to which the satellite is associated.

NOTE For the avoidance of doubt, an ATS monitoring centre as defined in BS EN 50136-1 does not come within the definition of satellite for the purpose of this British Standard.

4.3 Consultation

4.3.1 General

Appropriate consultation should be undertaken with other relevant interested parties, e.g. planning authorities, emergency services, utilities and telecommunication providers.

4.3.2 Telecommunications service

4.3.2.1 General

The telecommunications service provider should be consulted and issues that could jeopardize communication between the telephone exchange(s) and the remote centre should be identified.

Where telecommunications services offering the required levels of availability and security cannot be provided, either an alternative location for the remote centre should be considered or alternative means of providing the required levels of availability and security should be implemented, e.g. diverse routing of services using common technologies such as cables or duplicated services using differing technologies such as cables and RF techniques.

4.3.2.2 Category II ARC

The telecommunications service provider should be consulted with regard to providing electronic detection and physical protection to equipment and access points to cables located in the immediate vicinity of an ARC which, if damaged, could interfere with ARC telecommunications.

4.3.3 Emergency services

The emergency services should be informed of the nature of the risks applicable to the building and its use.

NOTE Where applicable, a familiarization visit could be carried out by local fire crews under Section 7.2(d) of the Fire and Rescue Services Act 2004 [1], and equivalent legislation in Scotland [2] and Northern Ireland [3].

5 Construction and facilities

5.1 Alarm receiving centres

5.1.1 Shell

5.1.1.1 General

The shell and all supporting structures of the ARC should have a fire resistance conforming to BS EN 13501-2, but never less than 30 minutes.

NOTE 1 The application of metal reinforcement can reduce the fire resistance and structural integrity of some construction material.