

BASIC GUIDE FOR INSTALLERS TO BS 8418 SYSTEMS

BS 8418 is the code of practice for the installation and remote monitoring of detector activated CCTV Systems

The purpose of this guide is to provide a check list of the main elements of British Standard BS 8418:2003. This guide does not replace the requirements in the standard. Where applicable the relevant clauses in BS 8418:2003 are indicated by the square brackets e.g. [4.1.a].

Only systems that are installed to BS 8418 can qualify for a Unique Reference Number (URN) which is issued by the local police authority to guarantee police response.

This guide is only an aide-memoire and does not replace any of the requirements of the standard.

Safety Features

- Observe all aspects of Health and Safety when designing the system layout, e.g. emergency exits and fire regulations.

CCTV System Design Considerations

- Design the system specification to address the perceived risks, understand overall customers' needs.
- Select products to meet the system features that the customer has requested.
- Ensure that all components of the system comply with the relevant national standards.

Detector Positioning and Configuration [4.1]

- Detectors, should be installed to BS 7992, BS 4737 or BS EN 50131-1, and should only trigger on areas within the field of view of a camera and the area of activation should be confined to within the view of the specified camera [4.1a/b].
- Video motion detection should be installed to manufacturer's installation instructions [4.1a].
- Ensure detectors do not overspill outside the site boundaries e.g. onto public paths or roadways [4.1c].
- Ensure PIRs facing east or west are not affected by the sun or from reflection and shadows [4.1d].
- Ensure detectors are uniquely identifiable to the system. Note: Multiple detectors should not be identified as a single entity but each individual detector must have its own ID [4.1e].
- Don't use low quality PIRs that can easily be subject to false triggering e.g. lighting control PIRs [4.1f].
- All cabling and detection devices should incorporate tamper protection [4.4.5].

Camera positioning and Configuration [4.2]

- Ensure the cameras' fields of view cover all areas of the associated detectors [4.2.1b].
- To 'verify' an event, set the field of view so that a 1.6m high human target fills at least 10% of picture height [4.2.1c].
- To 'recognise' an intruder the target should fill a minimum of 50% of picture height [4.2.1d].
- Fixed cameras are the recommended option for vulnerable areas (e.g. the entry/exit route) or a PTZ camera with its park position viewing the vulnerable area [4.2.1e].
- Cameras should not face directly into sun or light. However, there should be sufficient light (night and day) to illuminate the cameras' fields of view [4.2.2a].
- If PTZ cameras are used in isolation, use should be made of presets so that the operator will observe each incident as though it were viewed by a static camera [4.2.1f].
- As a general rule, cameras should not overlook public areas [4.2.1g].

Audio challenge [4.3]

- An audio challenge facility is recommended. Care should be taken to avoid noise pollution beyond the site boundary [4.3].
- Where sites are so equipped, the audio challenge should be audible in all areas of detection [4.3].

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CCTV System Performance and Integrity [4.4]

- Provide sufficient training to enable the customer to use the CCTV system effectively in order to achieve the desired level of security.
- Ensure the customer is provided with well defined written system management procedures.
- Inform the customer of the probable need for compliance with the Data Protection Act (1998).
- Power supplies are a major consideration. Give further consideration to the installation of a back-up UPS [4.4.11].
- The system should have the ability to monitor and indicate video loss to the RVRC [4.4.4].
- Check that tamper indications operate locally or to the RVRC depending on the unset / set state of the system [4.4.5a].
- Ensure that the system has an alternative signalling path to indicate failure of the main signalling path to the RVRC [4.4.8].
- The system should have a full connection and retry protocol [4.4.10/4.4.9].
- Plan to ensure that the fully detailed event log-system history is retained and held at the protected site [4.4.7].

Commissioning [5]

- The following tests should be carried out by the installing engineer, in conjunction with the user and the RVRC [5.2]: -
 - * Appropriate testing of detectors, cameras and fields of view (day and night) [5.2 a/b].
 - * The accuracy of recorded data, notably labels used to describe the CCTV system [5.2d].
 - * Reference images to be taken to compare against live operation (day and night) [5.3/5.4].
 - * Soak test the installed system for 7 days and carry out any corrective action before live alarms are transmitted [5.5].
- Acceptance certificate to be issued by the RVRC at commencement of monitoring [5.7].
- The installer should have provided the owner with a detailed system specification incorporating equipment inventory [10.1 b/c/gh].

Setting/Unsetting procedures [6]

- The setting/unsetting device should be installed. Operation of the device during setting or unsetting should not create an incident [6.1].
- Ensure that the owner's attention is drawn to their responsibilities [7].
- Ensure that a monitoring action agreement exists with the owner as to the agreed course of action to an activation [7.2].

Maintenance

- Inform the user of any inspection and servicing routines essential to maintain the serviceability of the CCTV system and assist the customer to formulate a satisfactory maintenance agreement [13.1].

Unique Reference Numbers [URNs]

- To obtain a URN, Installers of remotely monitored detector activated CCTV systems will need to comply with all of the following: -
 - * ACPO Security Systems Policy
 - * BS 8418 Installation and remote monitoring of detector activated CCTV systems – Code of Practice.
 - * BS EN 50132-7: CCTV Application guidelines.
- In order for the Police to allocate a URN to the system, the system must have the capability of audio challenge. Note that systems without a URN will not be given level 1 Police response.

The Standard is available from BSI, 389 Chiswick High Road, London W4 4AL. www.bsi-global.com.

If a BSIA member then Standards can also be obtained, at a discounted price, from:

BSIA, Security House, Barbourne Road, Worcester, WR1 1RS. www.bsia.co.uk