



Hardfacts

Norwich Union Risk Services

Ref No 3012 (v2)

October 2005

European Intruder Alarm Standards

Introduction

To help ensure that alarms are designed, installed and maintained reliably, suppliers and installers make reference to a series of British Standards and Codes of Practice (CoP). Some of these have been withdrawn and replaced by the 'European Standards for Intruder and Hold up Alarm Systems' - usually referred to as the Euro Stds.

The Euro Stds only apply to new systems. Existing systems remain subject to the British Standards or CoP applying at the time of their installation; but exceptionally may need to comply with the Euro Stds if they require such extensive re-design/equipment replacement that they effectively become a 'new system'.

This Hardfacts outlines the main features of the new standards regime.

British Standards and CoP's

From 1st March 2004 documents entirely or partly withdrawn include:-

- BS4737
(Intruder alarms in buildings)
- BS7042 and BS DD242
(High security alarms in buildings)
- BS6799 and BS DD244
(Wire free alarms in buildings)

European Standards

The Euro Stds comprise a large suite of planned documents. The only parts currently published or available in mature draft form are:-

- EN 50131 pt 1
(General system requirements)
- EN 50131 pt 3
(Control equipment)
- EN 50131 pt 6
(Power supplies)
- EN 50131 pt 7
(Application guidelines)
- EN 50136 pts 1 and 2
(Signalling systems)

Means of Introduction

Because some of the Euro Stds relating to components are not yet published, and the Euro Stds do not cover some issues that alarms may be required to meet in the UK to satisfy the police or insurers, an enabling 'standard' has been prepared. This outlines retained/additional UK requirements that apply alongside the Euro Stds and was published in August 2004 titled "PD6662. 2004 - Scheme for the application of European Standards for Intruder and Hold up Alarm Systems".

Timescale for Introduction of PD6662

A transition period operated until 1st October 2005, during which new alarms could be installed to previous British Standards or the PD6662 scheme. Now PD6662 must be used.

Key Features of European Standards

Four 'Grades' of alarm system exist, based on increasing levels of resilience against attack by intruders with anticipated levels of alarm knowledge and tools as shown:-

Grade Intruders expected to have

- 1 Little knowledge and limited tools
- 2 Limited knowledge and some tools
- 3 Knowledge and full range of tools
- 4 Sophisticated knowledge and tools

Equipment suppliers will mark each piece of alarm equipment as being suitable for use at a particular Grade. Whilst installers will generally use equipment of the same Grade in each system, mixing equipment of differing Grades may sometimes be appropriate. In such cases the official Grade of the whole alarm system will follow that of the lowest graded piece of equipment used within it.

Within the UK Grade 1 systems are unlikely to be used, so no further mention is made of them within this document.

Detection and Control System - Grading

Apart from increasing control panel event memories and levels of recommended detection; the key difference between Grades 2, 3 and 4 is that movement sensors at Grade 3 must be able to detect 'masking', i.e. something has been placed over the sensor lens and at Grade 4 'range reduction', i.e. something has blocked part of the detectors field of view.

Signalling System - Grading

Each signalling Grade has a subset of 'Options' showing acceptable combinations of signalling, e.g. an audible siren and/or a link to an Alarm Receiving Centre (ARC).

Those likely to be used in the UK are:-

Grade	Option	Signalling Type
2	X	Siren at premises
	B	Siren + single link to ARC
	C	Two links to ARC
	D	Single link to ARC
3	B	Siren + single link to ARC
	C	Two links to ARC
	D	Single link to ARC
4	BCD	Options as Grade 3 above

The performance of the link to the ARC varies between the Grades. For example, Grade 2 B signalling must enable an ARC to be notified of signalling failure within 25 hours, Grade 3 B within 5 hours and Grade 4 B within 3 minutes.

Maintenance

Maintenance requirements are:-

Grade	Option	Maintenance
2	X	1 site visit per annum
2&3	BCD	2 site visits per annum OR 1 site and 1 remote check
4	BCD	2 site visits per annum

Who Decides the Grade of Alarm?

Installers

Installers are required to carry out a formal assessment of the theft risk to determine a suitable Grade of alarm.

To do so they will consider the items at risk, existing security arrangements and any previous thefts, etc. Before they proceed they will seek the customer's formal approval, and may also suggest that any interested insurer be consulted.

Insurers

Depending on the risk exposure, insurers may require an intruder alarm before providing certain insurance covers, e.g. theft. As the Grade of an alarm cannot be readily changed after installation, it makes sense to check a proposed alarm with any interested insurer before proceeding.

Insurer's may respond to a request to approve an alarm by visiting the premises, making a decision based on information already held by them, or by agreeing the outcome of the installer's risk assessment.

Insurers will make their own decisions, but as a general guide the following is likely:-

Detection and Control System

Grade 2 – Lower risk premises.

Grade 3 – Normal risk premises, i.e. all except those suitable for Grade 2 or 4

Grade 4 - Very high risk premises, e.g. cash handling centres, banks, museums.

Signalling System

Use of only site sirens may be stated as 'Audible Only' or 'Grade 2 Option X'.

Remote signalling is likely to be stated as a specific product [of known performance] rather than by general Grade and Option.

If police response requires a confirmation alarm system, Dual Path signalling, i.e. two links to the ARC, may be specified.

Police Response

The availability of police response is governed by police Security System Policy (SSP). Whilst the SSP requires new alarms to comply with the Euro Stds, where the police require a confirmed alarm activation before attending the alarm will also need to comply with another standard, DD243 2004 - CoP for 'Confirmation Systems'.

Key Action Steps

When having a new alarm installed :-

- Use a reputable installer, e.g. one inspected by the NSI or SSAIB
- Co-operate with the installers risk assessment procedures.
- Check any interested insurer agrees with the proposed alarm Grade, Detection, Signalling and Response.
- Where police response necessitates a 'Confirmation System' check that the installer designs a system that has:-
 - Dual Path Signalling
 - Confirmation from each 'at risk' area
 - A 'Means of Unsetting' that does not prevent the police being called should an intruder force open the designated alarm entry/exit door.

Sources of Further Information

Hardfacts 3008 Police Security System Policy National Security Inspectorate (NSI). Tel 0870 205 0000 or www.nsi.org.uk

Security Systems and Alarms Inspection Board (SSAIB). Tel 0191 296 3242 or www.ssaib.org

British Security Industry Association (BSIA). Tel 01905 21464 or www.bsia.co.uk

British Standards Institute (BSI). Tel 020 8996 9000 or www.bsi-global.com

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Norwich Union Risk Services operates a Risk Helpline during normal business hours for the cost of a local telephone call. The telephone number is:

0845 366 66 66

www.nu-riskservices.co.uk