

EN50131 European Standards For Intruder Alarm Systems

The date for withdrawal of British Standards that conflict with the new European Standards is the 1st October 2005.

The current British Standards 4737, 7042 and BS 6799 Wireless Systems will be replaced by the new European Standards BSEN 50131 series on this date.

European Standards are not retrospective, therefore systems which are currently installed to British Standards will continue to be maintained and updated to that standard.

The European standards have been under development for some time, and not all of the standards are complete, but work on these standards continues. However, there are a suite of European Standards available to enable companies to install to. To enable this, the European Standards will include a document **PD 6662:2004**. This is a Published Document (PD) and is used to call up parts of the current British Standards where European Standards are still under development. As new parts of the European standards are completed they will eventually replace those parts of the PD6662, which will eventually be phased out.

Risk assessment

One of the most significant issues within the new EN standards will be evaluating the risk associated with the premises and determining a grade of system. This is because once the grade of a system is determined it will define the extent of the system, its signaling and tamper security requirements.

SECURITY GRADES

One of the most important aspects of the EN 50131 requirements is the concept of a security grade. For each installation the grade of system has to be chosen according to various factors. In the EN the grade is described in terms of the type of intruder and how much effort they would put into a burglary.

What are the Grades?

Grade 1 is for an installation with a low risk of theft. The property is not likely to attract intruders. It is assumed that a thief is likely to be opportunistic rather than bothering to plan things in advance. In the application guide (DD CLC/TS 50131-7) it assumes that an intruder is simply going to break open a door.

Grade 2 is for a slightly higher risk of theft. The property is likely to have something of interest to an experienced thief. In this case the intruder is expected to have some knowledge of how alarm systems work and possibly carry some tools to allow him to overcome a simple alarm system. The thief is likely to check the building for ease of access through doors, windows and other openings.

Grade 3 is for a reasonably substantial risk property. There is good reason to assume it may be broken into and might well contain objects of high value. An intruder is likely to gain access by penetrating doors, windows or other openings. The thief could be very experienced with intruder alarm systems and possess a number of tools and equipment to overcome the system

Grade 4 is for very high-risk properties. Intruders could be expected to plan a burglary in advance and have the knowledge and equipment to alter parts of the intruder alarm system to prevent detection. It is assumed that the intruder could gain access by penetration of floors, walls and ceilings. The intruder is unlikely to be working alone.

What Grade of System does my installation need?

This is difficult to say at the moment and opinion on this matter varies from country to country. The view in the UK tends to require grades that are higher than other countries (e.g. a shop in Belgium at grade 2 could be grade 3 in the UK). To a large degree the choice of grade would be guided by insurance companies. A typical view though could be:

- Grade 1 would only be of interest in domestic properties (without an insurance requirement for an alarm system).
- Grade 2 would be most domestic properties and low risk commercial (e.g. florists)
- Grade 3 would be for high-risk domestics and most commercial properties (e.g. Newsagent with cigarette sales)
- Grade 4 would be for extremely high-risk domestic and higher risk commercial properties (e.g. bullion stores)

Mixing Components of Different Grade

The EN standard says that it is not necessary to use the same grade of component throughout an intruder system.

If the installation is a grade 2 then there is no problem using, for example, a grade 3 power supply.

If however an installer fits a grade 2 component (such as a detector) in a system then that system is limited to grade 2 at best.

It is possible to have a defined part of a system at a higher grade so long as all associated parts are at the same (or higher) grade. For example a system combining intruder and hold-up (PA) functionality could have a grade 4 hold-up system whilst the intruder parts were limited to grade 3. But this example is only valid if the power supply, alarm transmission system and warning devices used by the hold-up (PA) parts are all grade 4. This would still allow intruder parts such as PIR's to be grade 3. The system as a whole is, of course, only grade 3.