

EN50131 Corner

4th November 2004

As has been fairly widely publicised, the end of the transition period for implementation has been finalised as 1st October 2005. This WILL BE the date from when all installations MUST follow the EN50131 – or rather, PD6662 route. Until then, BS4737 (and BS7042) may continue to be used according to preference (and availability of equipment).

To recap, the scheme to be used for the foreseeable future is based on PD6662:2004, which has been available for some time and which has the following roles:

- a) Identify the standards that will be used, which are:
 - prEN50131-1:2004 System requirements
 - DD CLC/TS50131-7:2003 Application guidelines
 - BS EN 50136 family Alarm transmission systems and equipment
 - BS4737 part 3.x Various detector standards
- b) Fill gaps that are necessary, eg:
 - Housings for control equipment
 - Warning devices
 - Service intervals
 - etc.
- c) Make adjustments to the basic standard to suit the UK implementation, eg
 - Duration of alternative power supplies
 - Access levels for restoring after fault conditions

This means that we are now able – at last – to start work on upgrading the Euro-MERiDIAN range to full compliance. Unfortunately we can only start – not finish!

Unfortunately, there are still a couple of requirements that are impossible to meet with current equipment and require the cooperation of manufacturers to interface signalling equipment to control equipment. We hope that this will have been resolved by the end of this month. When this is so, completion of the changes and testing the results will be a massive task, so please do not expect miracles!!!

Believe it or not, we have heard of “compliant” equipment being touted around the market already. Whilst this *may* meet the requirements of EN50131-1:1997, the problems mentioned above make it impossible currently to manufacture control equipment that meets the PD6662:2004 requirements – which will be mandatory in the UK - though detectors may start to appear earlier.

We are in the process of compiling a summary of simple checks to confirm true compliance in the face of such claims.

WHAT WILL CHANGE?

At this stage, we will provide no more than a broad outline. Over the coming months, we will examine some of them in some detail. We will also be prepared to arrange some training sessions according to demand.

The principal areas of change will be:

DEFINITIONS

A few items of terminology (and acronyms of course!) will change. The most significant will probably be:

ZONE: an assessed area where abnormal conditions may be detected.

Note: This is NOT our familiar use of the term 'zone' – more like an 'area' or 'partition' - but don't expect current usage to change, just remember it when reading the standards!

ALARM POINT: one or more detectors grouped together for the purpose of indication or processing

– this basically takes over our current "zone" usage.

NOTIFICATION: the passing of an alarm, tamper or fault condition to warning devices and/or alarm transmission systems.

Note that this packages warning devices and remote signalling into a single term.

GRADING / RISK ASSESSMENT

Premises will be graded according to risk (1 lowest, 4 highest) and the installation have to meet the requirements of that grade. This basically formalises the surveying and system design processes.

Considerable guidance is provided in TS50131-7.

Note that care will need to be taken that the conclusions meet with the approval of any relevant insurer.

ENVIRONMENTAL CLASSIFICATION

Equipment will be formally classified according to the internal / exterior environment in which they are designed to operate.

ACCESS LEVELS

Four levels are determined:

LEVEL 1 = "passer-by" to limit information that may be displayed

LEVEL 2 = user to operate the system

LEVEL 3 = service personnel (ie engineers)

LEVEL 4 = manufacturer (if system software is to be upgraded without access to equipment).

Note that the familiar "Manager" code is a sub-division of level 2.

The system owner is assigned absolute authority over the system, level 3 and 4 users must have level 2 authorisation to work on the system – though it is permitted for this to remain in force until manually reset.

INDICATIONS

The ONLY indication permitted to a "passer-by" is the "ALERT" – which may be visual and/or audible and means that some information is available to an authorised user if a valid code is entered. When this has been done, a "PENDING" indication will alert the user to the fact that additional information remains available.

RESTORING

Our familiar mandatory engineer reset of all alarms will be a thing of the past. For intruder alarms the reset may be at level 2 or 3. On the other hand, at grades 3 and 4 all tamper alarms will be level 3 restored (ie engineer reset) – as will all system faults (ie except mains fail) at grade 4!

NOTIFICATION

A table sets out minimum requirements for warning devices and alarm transmission systems (ATS). Note that the latter incorporate the entire transmission system right through to the ARC – not just the equipment at the supervised premises. Hence another table exists to identify the detailed requirements – in everyday terms, equipment manufacturers will have to identify just what systems their equipment is suitable for use with.

Beware too that the requirements in the standards are MINIMA – insurers can be expected to demand higher levels in most cases!!

SIGNALLING TO ARC

Separate “fault” and “tamper” signals are specified – mandatory at grade 3 and above.

EVENT RECORDING

In addition to specifying the minimum number of events, and the types of events, it is mandatory to have provision for making a permanent record of logs at grades 3 and 4 (ie connection for printer or to upload to a PC) – and deletion of logs (except for oldest event by a new one when full) is prohibited.

POWER SUPPLIES

- a) Battery back up must support the system for 12 hours (grades 1 and 2) and 24 hours (grades 3 and 4) – compared to the original requirement of 60 hours for grades 3 and 4!! There is provision for this to be halved (ie to 12 hours) at grades 3 and 4 if “Mains Fail” is signalled to the ARC. (Have you been totting up the number of signals required ...?)
- b) The basis for manufacturer’s rating of power supplies is changed so that they must have a much higher electrical capacity than their rated output – ie they will either look much the same as now, but with a much lower rating, or be very much bigger (physically) to maintain the same rating. To make it even more interesting, the rating is likely to vary according to the grade of the system it is being used in!

DETECTORS

At grades 3 and 4 there will be additional requirements for “Fault” (based on automatic self-testing) and “Masked” outputs – and for “Reduction of Range” at grade 4. Check the number of cores / biscuits carefully!!!

TAMPER DETECTION

Requirements vary according to grade.

MAINTENANCE

Service intervals will effectively remain as now, except that, at grades 2 and 3, one site visit per year may be replaced by a remote diagnostics check (as per “ARM”).