



Castle Care-Tech *Technical Bulletin* 17

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Contents

- ① Product News
- ① FAQs
- ③ DD243 Corner

Welcome to our February bulletin.

If you are new to our products we hope that this bulletin will give you a little insight into the workings of our panels, their flexibility, and capabilities. If you are familiar with our Euro-MERiDIAN range then we hope you will find a few hints and tips to help your installations.

To help you keep up-to-date with Castle developments, we produce a monthly newsletter. If you would like to receive a personal copy of this newsletter regularly, please send an e-mail to j.harrington@castle-caretech.com.

NewProductNews

The Euro-10 (10 zone ID only) control panel is currently in prototype stage and will be entering production shortly. This will be available in two versions:

- Euro-1012 1.2 A PSU in polycarbonate housing
- Euro-1015 1.5 A PSU in steel housing

This panel has the same basic facilities as the existing Euro-12, further information, see the Point-of-Sales page in the Downloads section.

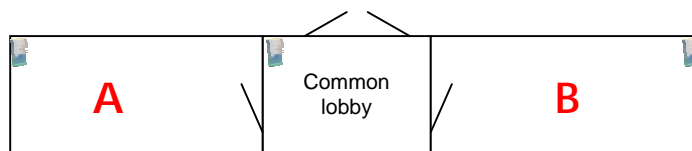
Watch this space for further information concerning availability.

FAQsfromTechnicalSupport

If you have any questions for our technical support team, please ring **01344 886767**.

“How do I set up a Common Lobby?”

An extension of area setting is the concept of the common lobby. On entering the common lobby, **user A** can present himself to a keypad which will unset both the lobby and also **Area A**. When **user B** arrives, the common lobby is already unset for him, but he will have to present himself to a keypad at the door to unset his area (**B**). Then, as each user leaves, he will set his own area, but it will be the last user to leave who will be able to set the common lobby. The common lobby is actually set automatically by the last user.



For the example above to work correctly, all the zones in the common lobby must be programmed as being **IN A and B**, and also set up as **All**.

'All' tells the panel that the zones will become live when *all* the areas relevant to the common lobby are set. These options are programmed through the Engineering Menu >> 'Change Zones?' option.



Zone Areas
[AB]

Use the ABCD keys to select which areas the common lobby zones are valid for.

Zone Areas
All [1]

Use the D key to select the option 'All'.

A common lobby keypad would also have to be programmed to be able to **Set and Unset A and B**, and be **IN** areas **A and B**.

Set Point Sets
Areas [AB]

Set Point Unsets
Areas [AB]

Set Point In
[AB]

"2-KEY PAs"

If you wish to signal a 2-key PA to an ARC, the output type selected in Change Outputs option must be either type 0008 DURESS or 0002 HOLD UP ANY. Type 0009 ZONE PA will **not** signal a 2-KEY PA to an ARC.

"How do I address components?"

In order for the control panel to communicate with all the devices connected to it via the RS-485 line, each device must be addressed. For all devices except keypads (see box below), this is done via jumper switches on the PCB. Each component will not work until they have been addressed, assigned (enabled) and the **data saved to the NVM by exiting the Engineering Menu**.

The jumper switches work in a binary style, the open switches must add up to the address required, as in table below:

Address	Switch 1	Switch 2	Switch 4	Address	Switch 1	Switch 2	Switch 4
00	Closed	Closed	Closed	04	Closed	Closed	OPEN
01	OPEN	Closed	Closed	05	OPEN	Closed	OPEN
02	Closed	OPEN	Closed	06	Closed	OPEN	OPEN
03	OPEN	OPEN	Closed	07	OPEN	OPEN	OPEN

Set Points

Keypads, Tag Readers, TMZs, Access Door Stations and Guard Tour Points share a single number sequence, of which address 00 is normally reserved for the primary keypad, which must be present in order to commence programming the system.

Zone Expanders


These have their own number sequence starting from 00.

Output Modules

These too have their own number sequence from 00 upwards.

Keypads

- ◆ Rather than jumper switches, these are addressed by holding down the D key on the keypad in question.
- ◆ Key in code 2 0 0 0 .
- ◆ Use the D key to select the address number.
- ◆ When addressed to correct number, press the A key to exit.



Before they will become operational, they must be assigned (enabled) in the relevant option within 'Engineering Menu'.

- ◆ To enable a ZEM go to "Install ZEMs"
- ◆ To assign a Keypad, Tag reader, or TMZ go to "Assign Keypads/Readers". A TMZ should be assigned as a Tag Reader
- ◆ To install Output Modules, go to "Change Outputs".

If any device fails, a message will appear on the panel giving a three-digit number. The last two numbers are the address of the component. The first number specifies which type of device it is that has failed. '2' represents a Keypad, a '3' represents a Tag reader, TMZ, Door station and a Guard Tour Point.

Eg 'Device Fail 204' means Keypad device 04
'Device Fail 401' means Zone Expander, device 01
'Device Fail 503' means Output Module, device 03
'Device Fail 100' means Panel, Endstation

DD243Corner

Setting Using Tags

The most common query up to now has concerned the use of keypads when "Completion of unsetting is achieved using portable ACE" - ie clause 6.4.5.

The controversy surrounds the basic requirement:

"Under this option, completion of unsetting should be achieved at CIE (or ACE) located within the protected premises *by means of portable ACE.*"

Note of course that in "standards-speak" the word "should" actually means "must."

However, note that there is NO specified restriction on the type of ACE that the portable ACE may be used at - hence the document cannot be said to require that this is not a keypad. Equally, there is no specific requirement that if a keypad is used, the keys must be disabled to make it impossible to unset using a PIN code - it merely requires that a PIN code is not used.

There is in fact a significant difference. DD243 makes it clear in the scope that it does NOT have any relevance to PA-related alarms. Hence, the provisions of DD243 should not be applied in such a way that it prevents the use of a "Duress Code" as a means of creating an alarm whilst unsetting - ie there should be no objection to a system installed to DD243:2002 and using this means of unsetting having a live keypad available at which a Duress Code can be entered.

When installing current (ie version 3.1 or later) Euro-MERIDIAN systems to comply with this clause, please note the following:

Use of prox tags is a standard feature.

All Keypads have tag reading capability, and also have keys live and able to accept a PIN code.
Tag Readers (no keys) are also available.


"What if the End User loses his/her Tag?"

Under these circumstances, the user will be unable to unset the system in the normal way. The concept of having a backup code that can be used interchangeably with the tag has **not** been agreed as acceptable to the industry. But an alternative **does** exist for the Euro-22 and above!

A GUARD code (or codes) may be programmed by the engineer and given to the user(s). This code will **ONLY** unset the system if entered **AFTER** an alarm has been generated. The "Guard Code Timer" stipulates how long the alarm must have been present before the code is accepted. This is fixed at 'instant' (0 mins) for the Euro-22 and 28, but is programmable on the Euro-44 and above (default 3 mins).

We are planning to add this facility to future issue f the Euro-12 also.





A Site option is available "PREVENT PIN CODES." If selected, it will be impossible for any PIN codes to be programmed from the Manager menu - forcing the exclusive use of portable ACE by Users / Managers. It will NOT delete any PIN codes previously programmed, or prevent them from being used. It will remain possible for the Engineer to programme PIN codes for Engineer, Master Manager, Duress and Guard Codes.

Note that it is NOT now possible to set / unset the system with the Master Manager code.

Entry Shock Zone

Confusion exists as to the purpose of this zone type available on the Euro-MERIDIAN, as well as how it actually works.

It is designed specifically for use with "completion of unsetting by means of a portable ACE" - clause 6.4.5 and has no other application.

If the initial entry door is subject to gross attack and forced open, then after the *expiry* of entry time only one further intruder zone needs to be tripped to signal a sequentially confirmed alarm - counting the 'Entry Shock' zone as the first to alarm - rather than the two *normally* required.

Triggering the Entry Shock zone in isolation will NOT generate an alarm of any kind. The Final Exit door contact must be opened within 10 seconds of the shock detector triggering, and entry time must expire without the system being unset, for the Entry Shock response to apply.

This zone type is always used in conjunction with a 'Final Exit' zone. The 'FX' zone is a door contact on the initial entry door, and the 'Entry Shock' zone is a *non-latching* shock sensor fitted to the door frame in the vicinity of the lock.

This configuration thus provides enhanced protection for forced entry via the entry route as an alternative to the 'shunt lock' option.

How far is "Some Distance?"

So, how long is a piece of string?

"Some distance apart" and "far enough apart" are pretty vague requirements for what is nominally a standard to be followed. To find out why - and how to interpret them - we need to examine the usage within DD243:2002.

The expressions occur in clause 5.4.2 "Configuration of Movement detectors that may offer a sequentially confirmed alarm condition." Paragraph 3 of this clause states:

"Just as individual movement detectors should be located so as to minimise the possibility of false alarms, so careful consideration should be given to locating any overlapping areas of coverage of movement detectors so as to minimise the possibility of false alarms. Therefore, movement detectors should be located some distance apart."

Paragraph 4 adds:

"Even where there is no overlapping area of coverage, care should be taken to locate movement detectors far enough apart so as to minimise the possibility of sequentially confirmed alarms being false alarms (e.g. due to an environmental effect near to the movement detectors)."



Hence the two basic requirements are:

(a) mount the detectors so that any overlap is in the area that the detector sensitivity is reduced,
(b) mount the detectors so that no single environmental effect can trigger both - clearly if a PIR could be sited so that a draft of warm air hitting the detector could cause a false trigger, then it could be expected to do so for two detectors mounted close together (including making one half of a dual-tech unstable!)

But how far is that?

Specifying an actual distance would not be reasonable - in a large area with long-range detectors, 25 metres might be practical, whereas a more typical site could well struggle to separate by one tenth of that! The installer (or more correctly the surveyor!) needs to weigh this up at the system design stage as to what is reasonable.

NSI, in their "Commentary on DD243:2002" have provided what may be a helpful hint:

"Where two movement detectors are located less than 2.5 metres apart, and they are configured to produce sequentially confirmed alarms, installers should monitor false alarms and, in the event of one false alarm occurring due to both detectors reporting alarm conditions to the CIE, take effective corrective action to remove the cause of the false alarm."

Note: This does allow for scope for some discussion regarding each individual site.

On the other hand, a group of detector manufacturers discussing this question recently concluded that the recommendations should be for movement detectors to be separated by 20% of their maximum specified range – a sensible approach that automatically takes into account the detectors usage within the particular premises.

What about the new devices, with two separately reporting detectors in the same housing?
At least two variations have appeared:

Pyronix "VERITEC" - this contains a conventional PIR with a pressure wave detector. Only one of these is a movement detector so there is no infringement of DD243:2002.

Twin PIRs within the same housing - this concept would appear to fall foul of the requirement of 5.4.2 paragraph 4, and we will be very interested to see the industry response.

If you have any further DD243 queries, please let us have them.

We have been asked about the possibility of running some seminars on the subject. We did in fact do so back in the summer. Whilst we had not planned on doing any more, we will certainly consider doing so if the demand is present. Let us know.

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