

CASTLE CARE-TECH LTD

Installing Castle Products to the latest ACPO Standard DD243:2002

Including a plain-English guide to understanding
DD243 and its consequences

The Engineer's reference guide to installing
and programming the Euro-MERiDIAN to
comply with DD243:2002

Following the release of DD243:2002, we have updated our entire *Euro-MERiDIAN* range to comply with by release of Version 3 software (we are currently running at version 3.12). In order to facilitate your installations of our products we have outlined within this guide the changes that have been made and how the various options can be programmed to make the installation DD243:2002 compliant.

If you wish to upgrade existing installed Euro-22, 28 or 44 systems, you can purchase an 'Upgrade Software Module'. This consists of a snap-in card, similar to an MSX card, which fits into the MSX slot to upgrade the system software. Euro-134 and 256 systems may be upgraded by the use of a replacement MSX card. Upgrading from software 2.XX to 3.XX will require re-programming the panel.

Only the *Euro-MERiDIAN* family of control panels can be upgraded to comply with DD243:2002.

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Contained within the boxes are the options that need to be programmed into the panel to make sure the installation complies with DD243. For example,

ENGINEER MENU >> CHANGE TIMERS? >> Pre-Alarm [030]
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means you should select engineer menu, select change timers, and set the pre-alarm timer to 30.

1. Sequential Confirmation:

When designing an alarm system, it is important to understand just what it is that counts towards a confirmed alarm. Sequential confirmation applies to all zone types that generate an intruder response when the system is set, ie:

INTRUDER

TAMPER (does not include code guessing)

ENTRY ROUTE (other than final exit, if tripped without entry time started)

ENTRY SHOCK (if entry time expires)

DAY ALARM

and to any tamper alarm from these zone types.

Tamper responses of zone types that do not form part of the intruder system (such as 'fire') do not generate an intruder response or count towards confirmation.

NOTE: Whilst an 'intruder' alarm signal will be generated in the event of entry time expiring after a final exit zone is tripped, this is not permitted to count towards a confirmed alarm. A sequentially confirmed alarm can **only** be signalled for triggers of

two (your panel will default to two) zones of the types listed above. Note that zones triggered during entry-time do NOT count towards confirmation. Normal operation of a sequentially system requires the following signals to be sent to the ARC:

Intruder (0003)	at first alarm.
Confirmation (0006)	at second valid alarm.
Zone omit at rearm (0017)	in the event of a zone being in fault condition at reinstated of the system at the end of confirmation time.
Set/Unset (0004)	when system sets/unsets.
OR	
Misoperation (0005)	when system manually unset following an alarm.

These output configurations are programmable as required:

ENGINEER MENU >> CHANGE OUTPUTS? >> End Station Outputs >>
 ENGINEER MENU >> ALARM RESPONSES? >> Zones to Confirm After Entry [2]
 - This option should not be changed

2. Timers:

Pre-Alarm Time

This should be set to 30 seconds (or equal to entry time if shorter) for correct operation.

Timer Option: ENGINEER MENU >> CHANGE TIMERS? >> Pre-Alarm [030]

Confirmation Time

DD243:2002 specifies that this should be set to a time between 30 to 60 minutes. By default, your *Euro-MERiDIAN* will be set to 30 minutes.

Timer Option: ENGINEER MENU >> CHANGE TIMERS? >> Confirm Time [30]

3. Means of Completion of Setting:

All permitted options under DD 243:2002 for 'completion of setting' can be used on the *Euro-MERiDIAN* range.

6.3(a) Key Operated Shunt Lock fitted to Final Exit Door

Wire a suitable lock as a zone programmed as Final Exit. The door contact fitted to door should be programmed as an 'Entry Route' zone type.

Lock zone: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Final Exit [07]
 Contact zone: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Entry Route [08]
 Exit Mode: ENGINEER MENU >> EXIT MODES? >> Exit Mode Final Door [1]

6.3(b) Push Button Switch mounted outside the protected premises

Wire a suitable button as zone programmed as 'PTS'. Note that this type of zone is of the type 'normally closed' by default.

Zone: ENGINEER MENU >> CHANGE ZONES? >> Zone Type PTS [11]
Exit Mode: ENGINEER MENU >> EXIT MODES? >> Exit Mode PTS [3]

6.3(c) Protective Switch fitted to the Final Exit Door

Wire the door contact as a zone programmed as Final Exit.

Zone: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Final Exit [07]
Exit Mode: ENGINEER MENU >> EXIT MODES? >> Exit Mode Final Door [1]

6.3(d) Use of Portable ACE

This requires the use of a Tag or equivalent whilst outside the premises to perform the PTS operation. A suitable device may be wired as a PTS zone (although none currently exist within our Euro-MERiDIAN range).

Zone: ENGINEER MENU >> CHANGE ZONES? >> Zone Type PTS [11]
Option: ENGINEER MENU >> EXIT MODES? >> Exit Mode PTS [3]

6.3(e) In Conjunction with ARC

This may be carried out using downloading features of the system by an ARC running Euro-InSite software.

6.3(f) Other Methods if installed to requirements of EN50131.

Other possible methods include use of key operated or electronic lock wired to system as a 'Keyswitch' or 'Blockschloss' zone.

Either:

Blockschloss Zone: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Blockschloss [14]

Or:

Keyswitch Zone: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Keyswitch Zone [20]

4. Means of Unsetting:

All permitted options under DD 243:2002 for 'means of unsetting' can be used on the Euro-MERiDIAN range.

6.4.2 Unlocking Initial Entry Door unsets the IAS

This is a combined door lock and built-in keyswitch, which should be wired as an 'Unset' zone. There will be no entry door or entry route. [Note: this cannot be combined with "completion of setting by key operated shunt lock on final exit door" using the *same* switch contacts.]

Programme Zone: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Unset Zone [19]

6.4.3 Unlocking initial entry door disables all means of confirmation

Wire lock contacts as a 'Final Exit' one with programming option "Disable confirmation on Entry" selected. [Note: this can be readily combined with "completion of setting by means of key operated shunt lock on final exit door.]

Unlocking the entry door will start the entry timer. The system is unset by the user presenting his Tag or code at the keypad. The entry route detectors are programmed as

'Entry Route Zones', thus allowing the user to walk through them without generating an alarm during entry time. If the system is in a set state, a confirmed alarm can be obtained, but if the door is unlocked, the system will **never** reach a confirmed state, no matter how many zones are triggered after the entry timer has expired.

Lock Contact: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Final Exit [07]
Option: ENGINEER MENU >> ALARM RESPONSES? >> Disable Confirm On Entry Yes[1]

6.4.4 Opening initial entry door disables all means of confirmation

Contact on door wired as a 'Final Exit' zone with programming option "Disable confirmation on Entry" selected. If the initial-entry door is opened at any point before a confirmed alarm has occurred, the alarm will **never** reach the confirmed state. There are of course obvious security risks with this type of unsetting mode, and most insurance companies will not accept it.

Door Contact: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Final Exit [07]
Option: ENGINEER MENU >> ALARM RESPONSES? >> Disable Confirm On Entry Yes[1]

6.4.5 Completion of Entry using Portable ACE

Entry time must be started by a 'final exit' contact on initial entry door and unsetting carried out by use of Tag at a keypad or Tag Reader. We are proud to announce that *Euro-MERiDIAN* proximity Tags used with a keypad or reader meet all of the requirements for a portable ACE as defined in DD243:2002. The use of a PIN code at a keypad is now unacceptable.

Door Contact: ENGINEER MENU >> CHANGE ZONES? >> Zone Type Final Exit [07]
Disable PIN codes: ENGINEER MENU >> SITE OPTIONS? >> Prevent PIN Codes Yes [1]
Note: prevent PIN codes prevents you from being able to programme up new PIN codes from the Manager Menu. Any pre-programmed codes, including the default 1234 must be manually deleted. Duress codes can still be programmed from the Engineer menu.

6.4.6 Unsetting in Conjunction with an ARC

An ARC running Euro-InSite software may carry this out using 'downloading' features of the system.

5. Indications to the User

DD243:2002 requires a time limited indication to the user that the system is set/unset. This is made available by the cessation of exit/entry tones as appropriate. Additionally, a visual unset indication is provided at the keypad/Tag reader used to unset the system, live during exit time and for a short period when the system is unset. These settings are programmed into the panel as a default and do not require any programming.

6. Other Options

Entry Shock

[Patent Applied For] 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. If the initial entry door is subject to gross attack and forced open, then at 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.

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 for the Entry Shock response to apply.

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

CAUTION:

The 'Entry Shock' function should only be used after careful risk assessment. It is essential that the shock detector is properly adjusted, and that the door construction / fittings are adequate for the purpose.

'Confirm Group' zone attribute

Applying this attribute to any zone will prevent a zone from confirming an alarm triggered by another zone within the same group.

Thus if a number of detectors are in use that could respond to the same stimulus (eg multiple shock or pressure wave detectors), these may be wired individually to the control to avoid the need for complex 'series' wiring.

NOTE: Default allocation "00" means that zone is NOT allocated to a group.

Zones allocated to Group "99" will trigger a first (unconfirmed) alarm in the normal way, but will NEVER trigger a 'confirmed' signal, regardless of which group the 'first alarm' zone is allocated to.

7. Engineer Reset

An engineer reset is required if the system is installed to BS4737/7042, if a sequentially confirmed signal has been generated, and unsetting method 6.4.4 or 6.4.5 is in use. Select Engineer reset at confirm if required.

Option: ENGINEER MENU >> ENGINEER RESET OPTIONS? >> Eng Reset Conf Yes[1]

8. Check List

Have you adjusted your pre-alarm time to 30 seconds (or equal to entry time if shorter)?	Section 2
Have you set the confirmation timer to between 30-60 minutes (defaults to 30)?	Section 2
Have you prevented the use of PIN codes in unsetting the system?	Section 4, ¶6.4.5
Have you disabled the ability to have a confirmed alarm on entry or unlocking of the entry door (if required)?	Section 4, ¶6.4.3/4

If you have any queries regarding DD243 compliant installations of Castle control panels, please feel free to ring Technical Support on 01344 886767.

Should you wish to upgrade an existing system with a USM card, or purchase one of our *Euro-MERiDIAN* panels, do not hesitate to get in touch with our sales team on 01344 887788.

Understanding DD243 and its Consequences

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 (therefore will not contravene DD243). 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).

Option: ENGINEER MENU >> CHANGE TIMERS? >> Guard Code Alarm [00]
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Entry Shock Zone

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.

Castle Care-Tech Ltd

North Street, Winkfield, Windsor, Berkshire, SL4 4SY

t Sales: 01344 887788 Technical Support 01344 886767

f 01344 890024 **e** sales@castle-caretech.com

www.castle-caretech.com